Solar Central Inverter

SIW750

User Manual

User Manual

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Version	Revision	Description
2.3X	00	First Edition

Contents

1 QUICK PARAMETER REFERENCE

Param.	Description	Adjustable range	Factory setting	Read Only
P0000	RMS Voltage Vab	0.0 to 1000.0 V	-	ro
P0002	RMS Voltage Vbc	0.0 to 1000.0 V	-	ro
P0004	RMS Voltage Vca	0.0 to 1000.0 V	-	ro
P0006	AVG Voltage Vab	-1000.0 to 1000.0 V	-	ro
P0008	AVG Voltage Vbc	-1000.0 to 1000.0 V	-	ro
P0010	AVG Voltage Vca	-1000.0 to 1000.0 V	-	ro
P0012	RMS Unbalanced Voltage Vab	-1000.0 to 1000.0 V	-	ro
P0014	RMS Unbalanced Voltage Vbc	-1000.0 to 1000.0 V	-	ro
P0016	RMS Unbalanced Voltage Vca	-1000.0 to 1000.0 V	-	ro
P0018	Power Grid RMS AVG Voltage	0.0 to 1000.0 V	-	ro
P0020	Power Grid Peak Voltage	-1500.0 to 1500.0 V	-	ro
P0022	Phase R RMS Current	0.0 to 6000.0 A	-	ro
P0024	Phase S RMS Current	0.0 to 6000.0 A	-	ro
P0026	Phase T RMS Current	0.0 to 6000.0 A	-	ro
P0028	Phase R AVG Current	-6000.0 to 6000.0 A	-	ro
P0030	Phase S AVG Current	-6000.0 to 6000.0 A	-	ro
P0032	Phase T AVG Current	-6000.0 to 6000.0 A	-	ro
P0034	Unbalanced Phase R AVG Current	-6000.0 to 6000.0 A	-	ro
P0036	Unbalanced Phase S AVG Current	-6000.0 to 6000.0 A	-	ro
P0038	Unbalanced Phase T AVG Current	-6000.0 to 6000.0 A	-	ro
P0040	Unbalanced Phase R RMS Current	0.0 to 6000.0 A	-	ro
P0042	Balanced Phase S RMS Current	0.0 to 6000.0 A	-	ro
P0044	Balanced Phase T RMS Current	0.0 to 6000.0 A	-	ro
P0046	Power Grid RMS AVG Current	0.0 to 6000.0 A	-	ro
P0048	Power Grid Peak Current	0.0 to 10000.0 A	-	ro
P0050	IMPS1 - Phase U RMS Current	0.0 to 6000.0 A	-	ro
P0052	IMPS1 - Phase V RMS Current	0.0 to 6000.0 A	-	ro
P0052	Unbalanced Phase T RMS Current	0.0 to 5000.0 A	-	ro
P0054	IMPS1 - Phase W RMS Current	0.0 to 6000.0 A	-	ro
P0056	IMPS1 - Phase U AVG Current	-6000.0 to 6000.0 A	-	ro
P0058	IMPS1 - Phase V AVG Current	-6000.0 to 6000.0 A	-	ro
P0060	IMPS1 - Phase W AVG Current	-6000.0 to 6000.0 A	-	ro
P0062	IMPS1 - Max. AVG Current Unbalance	-6000.0 to 6000.0 A	-	ro
P0064	IMPS1 - Max. RMS Current Unbalance	-6000.0 to 6000.0 A	-	ro
P0066	IMPS1 - Active Current	-200.0 to 200.0 %	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0068	IMPS1 - Reactive Current	-200.0 to 200.0 %	-	ro
P0070	IMPS2 - Phase U RMS Current	0.0 to 6000.0 A	-	ro
P0072	IMPS2 - Phase V RMS Current	0.0 to 6000.0 A	-	ro
P0074	IMPS2 - Phase W RMS Current	0.0 to 6000.0 A	-	ro
P0076	IMPS2 - Phase U AVG Current	-6000.0 to 6000.0 A	-	ro
P0078	IMPS2 - Phase V AVG Current	-6000.0 to 6000.0 A	-	ro
P0080	IMPS2 - Phase W AVG Current	-6000.0 to 6000.0 A	-	ro
P0082	IMPS2 - Max. AVG Current Unbalanced	-6000.0 to 6000.0 A	-	ro
P0084	IMPS2 - Max. RMS Current Unbalanced	-6000.0 to 6000.0 A	-	ro
P0086	IMPS2 - Active Current	-200.0 to 200.0 %	-	ro
P0088	IMPS2 - Reactive Current	-200.0 to 200.0 %	-	ro
P0090	AC Active Power	-12000.0 to 12000.0 kW	-	ro
P0092	AC Reactive Power	-12000.0 to 12000.0 kVAr	-	ro
P0094	AC Apparent Power	-12000.0 to 12000.0 kVA	-	ro
P0096	Power Arrangement of PV	-12000.0 to 12000.0 kW	-	ro
P0098	Inverter PF	-1.00 to 1.00	-	ro
P0100	Inverter Active Power (pu)	-200.0 to 200.0 %Pn	-	ro
P0102	Inverter Reactive Power (pu)	-200.0 to 200.0 %Pn	-	ro
P0104	Inverter Apparent Power (pu)	-200.0 to 200.0 %Pn	-	ro
P0106	Daily Energy	0.0 to 1000000000.0 kWh	-	ro
P0108	Total Energy	0.0 to 1000000000.0 MWh	-	ro
P0110	Frequency	0.0 to 100.0 Hz	-	ro
P0112	Power Grid Connection Sequence	0 = PLL Off 1 = Positive 2 = Negative	-	ro
P0114	Efficiency	0.00 to 100.00 %	-	ro
P0116	Books AVG RMS Current	0.0 to 1000.0 A	-	ro
P0120	IMPS1 - DC Bus Positive Voltage	-1000.0 to 1000.0 V	-	ro
P0122	IMPS1 - DC Bus Negative Voltage	-1000.0 to 1000.0 V	-	ro
P0124	IMPS1 - DC Bus Total Voltage	-2000.0 to 2000.0 V	-	ro
P0126	IMPS1 - DC Bus Differential Voltage	-1000.0 to 1000.0 V	-	ro
P0128	IMPS1 - Solar Panels Voltage	-2000.0 to 2000.0 V	-	ro
P0130	IMPS1 - DC Bus Current	-5000.0 to 6000.0 A	-	ro
P0132	IMPS1 - Power Arrangement of PV	0.0 to 6000.0 kW	-	ro
P0134	IMPS1 - Neutral RMS Current	0.0 to 1000.0 A	-	ro
P0140	IMPS2 - DC Bus Positive Voltage	-1000.0 to 1000.0 V	-	ro
P0142	IMPS2 - DC Bus Negative Voltage	-1000.0 to 1000.0 V	-	ro
P0144	IMPS2 - DC Bus Total Voltage	-2000.0 to 2000.0 V	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0146	IMPS2 - DC Bus Differetial Voltage	-1000.0 to 1000.0 V	-	ro
P0148	IMPS2 - Solar Panels Voltage	-2000.0 to 2000.0 V	-	ro
P0150	IMPS2 - DC Bus Current	-5000.0 to 6000.0 A	-	ro
P0152	IMPS2 - Power Arrangement of PV	0.0 to 6000.0 kW	-	ro
P0154	IMPS2 - Neutral RMS Current	0.0 to 1000.0 A	-	ro
P0200	IMPS1 - Phase U RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0202	IMPS1 - Phase U RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0204	IMPS1 - Phase U RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0206	IMPS1 - Phase U RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0208	IMPS1 - Phase U RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0210	IMPS1 - Phase U RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0220	IMPS1 - Phase V RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0222	IMPS1 - Phase V RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0224	IMPS1 - Phase V RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0226	IMPS1 - Phase V RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0228	IMPS1 - Phase V RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0230	IMPS1 - Phase V RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0240	IMPS1 - Phase W RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0242	IMPS1 - Phase W RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0244	IMPS1 - Phase W RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0246	IMPS1 - Phase W RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0248	IMPS1 - Phase W RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0250	IMPS1 - Phase W RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0260	IMPS1 - DC Link Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0262	IMPS1 - DC Link Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0264	IMPS1 - DC Link Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0266	IMPS1 - DC Link Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0268	IMPS1 - DC Link Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0270	IMPS1 - DC Link Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0280	IMPS1 - Operation Time - Book 1	0 to 100000000 min	-	ro
P0282	IMPS1 - Operation Time - Book 2	0 to 100000000 min	-	ro
P0284	IMPS1 - Operation Time - Book 3	0 to 100000000 min	-	ro
P0286	IMPS1 - Operation Time - Book 4	0 to 100000000 min	-	ro
P0288	IMPS1 - Operation Time - Book 5	0 to 100000000 min	-	ro
P0290	IMPS1 - Operation Time - Book 6	0 to 100000000 min	-	ro
P0300	IMPS2 - Phase U RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0302	IMPS2 - Phase U RMS Current - Book 2	0.0 to 1000.0 A	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0304	IMPS2 - Phase U RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0306	IMPS2 - Phase U RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0308	IMPS2 - Phase U RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0310	IMPS2 - Phase U RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0320	IMPS2 - Phase V RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0322	IMPS2 - Phase V RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0324	IMPS2 - Phase V RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0326	IMPS2 - Phase V RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0328	IMPS2 - Phase V RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0330	IMPS2 - Phase V RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0340	IMPS2 - Phase W RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0342	IMPS2 - Phase W RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0344	IMPS2 - Phase W RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0346	IMPS2 - Phase W RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0348	IMPS2 - Phase W RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0350	IMPS2 - Phase W RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0360	IMPS2 - DC Link Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0362	IMPS2 - DC Link Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0364	IMPS2 - DC Link Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0366	IMPS2 - DC Link Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0368	IMPS2 - DC Link Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0370	IMPS2 - DC Link Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0380	IMPS2 - Operation Time - Book 1	0 to 100000000 min	-	ro
P0382	IMPS2 - Operation Time - Book 2	0 to 100000000 min	-	ro
P0384	IMPS2 - Operation Time - Book 3	0 to 100000000 min	-	ro
P0386	IMPS2 - Operation Time - Book 4	0 to 100000000 min	-	ro
P0388	IMPS2 - Operation Time - Book 5	0 to 100000000 min	-	ro
P0390	IMPS2 - Operation Time - Book 6	0 to 100000000 min	-	ro
P0400	IMPS1 - Phase U Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0402	IMPS1 - Phase U Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0404	IMPS1 - Phase U Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0406	IMPS1 - Phase U Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0408	IMPS1 - Phase U Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0410	IMPS1 - Phase U Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0420	IMPS1 - Phase V Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0422	IMPS1 - Phase V Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0424	IMPS1 - Phase V Temperature - Book 3	-30.0 to 300.0 °C	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0426	IMPS1 - Phase V Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0428	IMPS1 - Phase V Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0430	IMPS1 - Phase V Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0440	IMPS1 - Phase W Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0442	IMPS1 - Phase W Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0444	IMPS1 - Phase W Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0446	IMPS1 - Phase W Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0448	IMPS1 - Phase W Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0450	IMPS1 - Phase W Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0460	IMPS1 - Inductor Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0462	IMPS1 - Inductor Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0464	IMPS1 - Inductor Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0466	IMPS1 - Inductor Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0468	IMPS1 - Inductor Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0470	IMPS1 - Inductor Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0480	IMPS1 - CMPS Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0482	IMPS1 - CMPS Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0484	IMPS1 - CMPS Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0486	IMPS1 - CMPS Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0488	IMPS1 - CMPS Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0490	IMPS1 - CMPS Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0500	IMPS2 - Phase U Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0502	IMPS2 - Phase U Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0504	IMPS2 - Phase U Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0506	IMPS2 - Phase U Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0508	IMPS2 - Phase U Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0510	IMPS2 - Phase U Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0520	IMPS2 - Phase V Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0522	IMPS2 - Phase V Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0524	IMPS2 - Phase V Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0526	IMPS2 - Phase V Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0528	IMPS2 - Phase V Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0530	IMPS2 - Phase V Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0540	IMPS2 - Phase W Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0542	IMPS2 - Phase W Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0544	IMPS2 - Phase W Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0546	IMPS2 - Phase W Temperature - Book 4	-30.0 to 300.0 °C	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0548	IMPS2 - Phase W Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0550	IMPS2 - Phase W Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0560	IMPS2 - Inductor Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0562	IMPS2 - Inductor Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0564	IMPS2 - Inductor Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0566	IMPS2 - Inductor Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0568	IMPS2 - Inductor Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0570	IMPS2 - Inductor Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0580	IMPS2 - CMPS Temperature - Book 1	-30.0 to 300.0 °C	-	ro
P0582	IMPS2 - CMPS Temperature - Book 2	-30.0 to 300.0 °C	-	ro
P0584	IMPS2 - CMPS Temperature - Book 3	-30.0 to 300.0 °C	-	ro
P0586	IMPS2 - CMPS Temperature - Book 4	-30.0 to 300.0 °C	-	ro
P0588	IMPS2 - CMPS Temperature - Book 5	-30.0 to 300.0 °C	-	ro
P0590	IMPS2 - CMPS Temperature - Book 6	-30.0 to 300.0 °C	-	ro
P0600	IMPS1 - Max. Temperature Phase U	-30.0 to 300.0 °C	-	ro
P0602	IMPS1 - Max. Temperature Phase V	-30.0 to 300.0 °C	-	ro
P0604	IMPS1 - Max. Temperature Phase W	-30.0 to 300.0 °C	-	ro
P0606	IMPS1 - Max. Inductor Temperature	-30.0 to 300.0 °C	-	ro
P0608	IMPS1 - Max. CMPS Temperature	-30.0 to 300.0 °C	-	ro
P0610	IMPS2 - Max. Temperature Phase U	-30.0 to 300.0 °C	-	ro
P0612	IMPS2 - Max. Temperature Phase V	-30.0 to 300.0 °C	-	ro
P0614	IMPS2 - Max. Temperature Phase W	-30.0 to 300.0 °C	-	ro
P0616	IMPS2 - Max. Inductor Temperature	-30.0 to 300.0 °C	-	ro
P0618	IMPS2 - Max. CMPS Temperature	-30.0 to 300.0 °C	-	ro
P0620	Water Pressure	-1000.00 to 1000.00 bar	-	ro
P0622	Water Temperature	-1000.0 to 1000.0 °C	-	ro
P0624	Cooling System Fan Speed Control	0.0 to 100.0 %	-	ro
P0626	IMPS1 - Source +15V	-30.0 to 30.0	-	ro
P0628	IMPS1 - Source -15V	-30.0 to 30.0	-	ro
P0630	IMPS2 - Source +15V	-30.0 to 30.0	-	ro
P0632	IMPS2 - Source -15V	-30.0 to 30.0	-	ro
P0634	Analog Input Value AI1	-100000.00 to 100000.00	-	ro
P0636	Analog Input Value AI2	-100000.00 to 100000.00	-	ro
P0650	IMPS1 - Solar Reference Voltage	0.0 to 2000.0 V	-	ro
P0652	IMPS1 - Active Current Upper Limit Set-point	-200.0 to 200.0 %In	-	ro
P0654	IMPS1 - Active Current Lower Limit Set-point	-200.0 to 200.0 %In	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0656	IMPS1 - Active Current Setpoint	-200.0 to 200.0 %In	-	ro
P0658	IMPS1 - Reactive Current Limit Setpoint	-200.0 to 200.0 %In	-	ro
P0660	IMPS1 - Reactive Current Limit	-200.0 to 200.0 %In	-	ro
P0662	IMPS2 - Solar Reference Voltage	-200.0 to 200.0	-	ro
P0664	IMPS2 - Active Current Upper Limit Set-point	-200.0 to 200.0	-	ro
P0666	IMPS2 - Active Current Lower Limit Set-point	-200.0 to 200.0	-	ro
P0668	IMPS2 - Active Current Setpoint	-200.0 to 200.0	-	ro
P0670	IMPS2 - Reactive Current Limit Setpoint	-200.0 to 200.0	-	ro
P0672	IMPS2 - Reactive Current Setpoint	-200.0 to 200.0	-	ro
P0674	Anti-Islanding Reactive Current Setpoint	-200.0 to 200.0 %In	-	ro
P0676	Reactive Current kVAR Control Setpoint	-200.0 to 200.0 %In	-	ro
P0678	Reactive Current PF Control Setpoint	-200.0 to 200.0 %In	-	ro
P0680	IMPS1 - Active Current Control Action	-200.00 to 200.00 %	-	ro
P0682	IMPS1 - Reactive Current Control Action	-200.00 to 200.00 %	-	ro
P0684	IMPS2 - Active Current Control Action	-200.00 to 200.00 %	-	ro
P0686	IMPS2 - Active Current Control Action	-200.00 to 200.00 %	-	ro
P0688	PLL Control Action	-200.00 to 200.00 %	-	ro
P0700	Digital Inputs	Bitmap: bit0 : DI 1 - CCE03 bit1 : DI 2 - CCE03 bit2 : DI 3 - CCE03 bit3 : DI 4 - CCE03 bit4 : DI 5 - IGS1500 bit5 : DI 6 - IGS1500 bit6 : DI 7 - IGS1500 bit7 : DI 8 - IGS1500	-	ro
P0701	Digital Outputs	Bitmap: bit0 : DO 1 (CCE03) bit1 : DO 2 (CCE03) bit2 : DO 1 (IGS1500) bit3 : DO 2 (IGS1500) bit4 : DO 3 (IGS1500) bit5 : DO 4 (IGS1500)	0	
P0702	Forcing Digital Outputs	Bitmap: bit0 : Force DO1 (CCE03) bit1 : Force DO2 (CCE03) bit2 : Force DO1 (IGS1500) bit3 : Force DO2 (IGS1500) bit4 : Force DO3 (IGS1500) bit5 : Force DO4 (IGS1500)	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P0704	Digital Input Accessory	Bitmap: bit0 : DI1 (Accessory 4) bit1 : DI2 (Accessory 1) bit2 : DI3 (Accessory 1) bit3 : DI4 (Accessory 1) bit4 : DI1 (Accessory 2) bit5 : DI2 (Accessory 2) bit6 : DI3 (Accessory 2) bit7 : DI4 (Accessory 2) bit8 : DI1 (Accessory 3) bit9 : DI2 (Accessory 3) bit10 : DI3 (Accessory 3) bit11 : DI4 (Accessory 3) bit12 : DI1 (Accessory 4) bit13 : DI2 (Accessory 4) bit14 : DI3 (Accessory 4) bit15 : DI4 (Accessory 4)	-	ro
P0706	Digital Output Accessorys	Bitmap: bit0 : DO1 (Accessory 1) bit1 : DO2 (Accessory 1) bit2 : DO3 (Accessory 1) bit3 : DO4 (Accessory 1) bit4 : DO5 (Accessory 1) bit5 : DO6 (Accessory 1) bit6 : DO7 (Accessory 1) bit7 : DO8 (Accessory 1) bit8 : DO1 (Accessory 2) bit9 : DO2 (Accessory 2) bit10 : DO3 (Accessory 2) bit11 : DO4 (Accessory 2) bit12 : DO5 (Accessory 2) bit13 : DO6 (Accessory 2) bit14 : DO7 (Accessory 2) bit15 : DO8 (Accessory 2) bit16 : DO1 (Accessory 3) bit17 : DO2 (Accessory 3) bit18 : DO3 (Accessory 3) bit19 : DO4 (Accessory 3) bit20 : DO5 (Accessory 3) bit21 : DO6 (Accessory 3) bit22 : DO7 (Accessory 3) bit23 : DO8 (Accessory 3) bit24 : DO1 (Accessory 4) bit25 : DO2 (Accessory 4) bit26 : DO3 (Accessory 4) bit27 : DO4 (Accessory 4) bit28 : DO5 (Accessory 4) bit29 : DO6 (Accessory 4) bit30 : DO7 (Accessory 4) bit31 : DO8 (Accessory 4)	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P0708	Forcing Digital Outputs Acessorys	Bitmap: bit0 : Force DO1 (Accessory 1) bit1 : Force DO2 (Accessory 1) bit2 : Force DO3 (Accessory 1) bit3 : Force DO4 (Accessory 1) bit4 : Force DO5 (Accessory 1) bit5 : Force DO6 (Accessory 1) bit6 : Force DO7 (Accessory 1) bit7 : Force DO8 (Accessory 1) bit8 : Force DO1 (Accessory 2) bit9 : Force DO2 (Accessory 2) bit10 : Force DO3 (Accessory 2) bit11 : Force DO4 (Accessory 2) bit12 : Force DO5 (Accessory 2) bit13 : Force DO6 (Accessory 2) bit14 : Force DO7 (Accessory 2) bit15 : Force DO8 (Accessory 2) bit16 : Force DO1 (Accessory 3) bit17 : Force DO2 (Accessory 3) bit18 : Force DO3 (Accessory 3) bit19 : Force DO4 (Accessory 3) bit20 : Force DO5 (Accessory 3) bit21 : Force DO6 (Accessory 3) bit22 : Force DO7 (Accessory 3) bit23 : Force DO8 (Accessory 3) bit24 : Force DO1 (Accessory 4) bit25 : Force DO2 (Accessory 4) bit26 : Force DO3 (Accessory 4) bit27 : Force DO4 (Accessory 4) bit28 : Force DO5 (Accessory 4) bit29 : Force DO6 (Accessory 4) bit30 : Force DO7 (Accessory 4) bit31 : Force DO8 (Accessory 4)	0	
P0710	IMPS1 - Digital Inputs and Outputs - Book 1	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0711	IMPS1 - Digital Inputs and Outputs - Book 2	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0712	IMPS1 - Digital Inputs and Outputs - Book 3	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0713	IMPS1 - Digital Inputs and Outputs - Book 4	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P0714	IMPS1 - Digital Inputs and Outputs - Book 5	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0715	IMPS1 - Digital Inputs and Outputs - Book 6	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0719	IMPS1 - Forcing Digital Outputs	Bitmap: bit0 : Force DO1 (CMPS1) bit1 : Force DO2 (CMPS1) bit2 : Force DO1 (CMPS2) bit3 : Force DO2 (CMPS2) bit4 : Force DO1 (CMPS3) bit5 : Force DO2 (CMPS3) bit6 : Force DO1 (CMPS4) bit7 : Force DO2 (CMPS4) bit8 : Force DO1 (CMPS5) bit9 : Force DO2 (CMPS5) bit10 : Force DO1 (CMPS6) bit11 : Force DO2 (CMPS6)	0	
P0720	IMPS2 - Digital Inputs and Outputs - Book 1	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0721	IMPS2 - Digital Inputs and Outputs - Book 2	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0722	IMPS2 - Digital Inputs and Outputs - Book 3	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0723	IMPS2 - Digital Inputs and Outputs - Book 4	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P0724	IMPS2 - Digital Inputs and Outputs - Book 5	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0725	IMPS2 - Digital Inputs and Outputs - Book 6	Bitmap: bit0 : DO1 (Pre Charge) bit1 : DO2 (Main) bit2 : Fault bit3 : Status bit4 : Overcurrent bit5 : Phase W Desaturation bit6 : Phase V Desaturation bit7 : Phase U Desaturation	0	
P0729	IMPS2 - Forcing Digital Outputs	Bitmap: bit0 : Force DO1 (CMPS1) bit1 : Force DO2 (CMPS1) bit2 : Force DO1 (CMPS2) bit3 : Force DO2 (CMPS2) bit4 : Force DO1 (CMPS3) bit5 : Force DO2 (CMPS3) bit6 : Force DO1 (CMPS4) bit7 : Force DO2 (CMPS4) bit8 : Force DO1 (CMPS5) bit9 : Force DO2 (CMPS5) bit10 : Force DO1 (CMPS6) bit11 : Force DO2 (CMPS6)	0	
P0730	Power Grid Quality	0 = No Grid 1 = Weak Grid 2 = Reasonable Grid 3 = Stable Grid	-	ro
P0731	Power Grid Condition	Bitmap: bit0 : High Voltage bit1 : Low Voltage bit2 : High Frequency bit3 : Low Frequency bit4 : Unsynchronized PLL	-	ro
P0732	Stable Power Grid Time	0 to 100000000 s	-	ro
P0800	IMPS1 - Phase U AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0802	IMPS1 - Phase U AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0804	IMPS1 - Phase U AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0806	IMPS1 - Phase U AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0808	IMPS1 - Phase U AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0810	IMPS1 - Phase U AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0820	IMPS1 - Phase V AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0822	IMPS1 - Phase V AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0824	IMPS1 - Phase V AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0826	IMPS1 - Phase V AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0828	IMPS1 - Phase V AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0830	IMPS1 - Phase V AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0840	IMPS1 - Phase W AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0842	IMPS1 - Phase W AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0844	IMPS1 - Phase W AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0846	IMPS1 - Phase W AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0848	IMPS1 - Phase W AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0850	IMPS1 - Phase W AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0860	IMPS1 - Netral RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0862	IMPS1 - Netral RMS Current - Book 2	0.0 to 1000.0 A	-	ro
P0864	IMPS1 - Netral RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0866	IMPS1 - Netral RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0868	IMPS1 - Netral RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0870	IMPS1 - Netral RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0880	IMPS1 - Main Contactor Time - Book 1	0 to 1000 ms	-	ro
P0881	IMPS1 - Main Contactor Time - Book 2	0 to 1000 ms	-	ro
P0882	IMPS1 - Main Contactor Time - Book 3	0 to 1000 ms	-	ro
P0883	IMPS1 - Main Contactor Time - Book 4	0 to 1000 ms	-	ro
P0884	IMPS1 - Main Contactor Time - Book 5	0 to 1000 ms	-	ro
P0885	IMPS1 - Main Contactor Time - Book 6	0 to 1000 ms	-	ro
P0900	IMPS2 - Phase U AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0902	IMPS2 - Phase U AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0904	IMPS2 - Phase U AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0906	IMPS2 - Phase U AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0908	IMPS2 - Phase U AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0910	IMPS2 - Phase U AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0920	IMPS2 - Phase V AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0922	IMPS2 - Phase V AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0924	IMPS2 - Phase V AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0926	IMPS2 - Phase V AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0928	IMPS2 - Phase V AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0930	IMPS2 - Phase V AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0940	IMPS2 - Phase W AVG Current - Book 1	-1000.0 to 1000.0 A	-	ro
P0942	IMPS2 - Phase W AVG Current - Book 2	-1000.0 to 1000.0 A	-	ro
P0944	IMPS2 - Phase W AVG Current - Book 3	-1000.0 to 1000.0 A	-	ro
P0946	IMPS2 - Phase W AVG Current - Book 4	-1000.0 to 1000.0 A	-	ro
P0948	IMPS2 - Phase W AVG Current - Book 5	-1000.0 to 1000.0 A	-	ro
P0950	IMPS2 - Phase W AVG Current - Book 6	-1000.0 to 1000.0 A	-	ro
P0960	IMPS2 - Netral RMS Current - Book 1	0.0 to 1000.0 A	-	ro
P0962	IMPS2 - Netral RMS Current - Book 2	0.0 to 1000.0 A	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P0964	IMPS2 - Netral RMS Current - Book 3	0.0 to 1000.0 A	-	ro
P0966	IMPS2 - Netral RMS Current - Book 4	0.0 to 1000.0 A	-	ro
P0968	IMPS2 - Netral RMS Current - Book 5	0.0 to 1000.0 A	-	ro
P0970	IMPS2 - Netral RMS Current - Book 6	0.0 to 1000.0 A	-	ro
P0980	IMPS2 - Main Contactor Time - Book 1	0 to 1000 ms	-	ro
P0981	IMPS2 - Main Contactor Time - Book 2	0 to 1000 ms	-	ro
P0982	IMPS2 - Main Contactor Time - Book 3	0 to 1000 ms	-	ro
P0983	IMPS2 - Main Contactor Time - Book 4	0 to 1000 ms	-	ro
P0984	IMPS2 - Main Contactor Time - Book 5	0 to 1000 ms	-	ro
P0985	IMPS2 - Main Contactor Time - Book 6	0 to 1000 ms	-	ro
P0990	RMS Nominal Voltage	1 to 1000 V	600 V	
P0992	Nominal Current RMS per book	1 to 5000 A	545 A	
P0994	Nominal Power	1 to 10000 kVA	-	ro
P1000	Inverter Logic State	Bitmap: bit0 : Enable Inverter bit1 : Inverter Working bit2 : Alarm bit3 : Fault bit4 : Event	-	ro
P1001	Inverter Logic Command	Bitmap: bit0 : Remote Mode bit1 : Enable Inverter bit2 : Run bit3 : Stop bit4 : Fault Clean	0	
P1002	Inverter Operation Mode	0 = Solar 1 = Reactive Control 2 = B2B Rectifier 3 = B2B Inverter 4 = Open Loop 5 = WCW Inverter	0	
P1003	Inverter Actual State	0 = Off 1 = Fault 2 = Ready 3 = Wait Sun 4 = DC Pre Charge 5 = Synchronism 6 = MPPT 7 = Reactive Control 8 = LC Filter Pre Charge 9 = Shutdown 10 = B2B rectifier 11 = B2B Inverter 12 = Open-Loop 13 = LVFRT 14 = WCW Inverter	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P1004	Control State	Bitmap: bit0 : IMPS1 - Enable Current Control bit1 : IMPS2 - Enable Current Control bit2 : IMPS1 - Enable DC Voltage Control bit3 : IMPS2 - Enable DC Voltage Control bit4 : IMPS1 - Enable MPPT bit5 : IMPS2 - Enable MPPT bit6 : Enable Synchronism bit7 : Force Id Reference bit8 : Force Iq Reference bit9 : Force Vdc Reference bit10 : Force Open Loop bit11 : Enable Reactive Control bit12 : Active LVFRT bit13 : Active Soft-start	-	ro
P1006	Inverter Control Commands	Bitmap: bit0 : Enable Constant Current Feed-forward bit1 : Enable Notch Filter in Current bit2 : Enable Harmonics Compensator bit3 : Enable Boxcar Filter Vdc bit4 : Enable DC Feed-forward only in Start bit5 : DC Feed-forward DC by Reference bit6 : Enable Negative-sequence Contoler bit7 : Enable Zero-sequence Compensator bit8 : Enable Active Damping bit9 : Disable Voltage Calibration bit10 : Disable Current Calibration bit11 : Enable Current Reference Interlock bit12 : Enable Auto Run	0	
P1007	Current Control Mode	0 = Alpha-Beta Control 1 = DQ Control	1	
P1008	IMPS1 - Connected Books (PWM Active)	Bitmap: bit0 : Book 1 Connected bit1 : Book 2 Connected bit2 : Book 3 Connected bit3 : Book 4 Connected bit4 : Book 5 Connected bit5 : Book 6 Connected	-	ro
P1009	IMPS2 - Connected Books (PWM Active)	Bitmap: bit0 : Book 1 Connected bit1 : Book 2 Connected bit2 : Book 3 Connected bit3 : Book 4 Connected bit4 : Book 5 Connected bit5 : Book 6 Connected	-	ro
P1010	IMPS1 - Enable Books	Bitmap: bit0 : Enable Book 1 bit1 : Enable Book 2 bit2 : Enable Book 3 bit3 : Enable Book 4 bit4 : Enable Book 5 bit5 : Enable Book 6	1	
P1011	IMPS2 - Enable Books	Bitmap: bit0 : Enable Book 1 bit1 : Enable Book 2 bit2 : Enable Book 3 bit3 : Enable Book 4 bit4 : Enable Book 5 bit5 : Enable Book 6	1	
P1012	IMPS1 - Active Current Limitation	0 = No Limitation 1 = Limitation by I limit 2 = Limitation by IGBT Temperature 3 = Limitation by Inductor Temperature 4 = Limitation by x Plim Frequency 5 = Limitation by P limit 6 = Limitation by Idq limit	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P1013	IMPS1 - Reactive Current Limitation	0 = No Limitation 1 = Limitation by I limit 2 = Limitation by IGBT Temperature 3 = Limitation by Inductor Temperature 4 = Limitation by x Plim Frequency 5 = Limitation by P limit 6 = Limitation by Idq limit	-	ro
P1014	IMPS2 - Active Current Limitation	0 = No Limitation 1 = Limitation by I limit 2 = Limitation by IGBT Temperature 3 = Limitation by Inductor Temperature 4 = Limitation by x Plim Frequency 5 = Limitation by P limit 6 = Limitation by Idq limit	-	ro
P1015	IMPS2 - Reactive Current Limitation	0 = No Limitation 1 = Limitation by I limit 2 = Limitation by IGBT Temperature 3 = Limitation by Inductor Temperature 4 = Limitation by x Plim Frequency 5 = Limitation by P limit 6 = Limitation by Idq limit	-	ro
P1016	Reactives Control Mode	0 = Unitary FP 1 = Fixed FP 2 = Variable FP 3 = kVAr Control	0	
P1020	IMPS1 - State - Book 1	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1021	IMPS1 - State - Book 2	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1022	IMPS1 - State - Book 3	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1023	IMPS1 - State - Book 4	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1024	IMPS1 - State - Book 5	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1025	IMPS1 - State - Book 6	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1030	IMPS2 - State - Book 1	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P1031	IMPS2 - State - Book 2	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1032	IMPS2 - State - Book 3	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1033	IMPS2 - State - Book 4	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1034	IMPS2 - State - Book 5	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1035	IMPS2 - State - Book 6	0 = Desable 1 = Disconnected from the Grid 2 = AC Pre Charge 3 = AC Discharge 4 = Connected to Grid	-	ro
P1040	Auto Reset Time for Faults	1.0 to 1000.0 s	300.0 s	
P1042	Time to Start the Converter Automatically	1.0 to 1000.0 s	5.0 s	
P1044	Startup Time (Off)	1.0 to 100.0 s	1.0 s	
P1050	IMPS1 - Hability Control Time - Book 1	0 to 500 ms	120 ms	
P1051	IMPS1 - Hability Control Time - Book 2	0 to 500 ms	120 ms	
P1052	IMPS1 - Hability Control Time - Book 3	0 to 500 ms	120 ms	
P1053	IMPS1 - Hability Control Time - Book 4	0 to 500 ms	120 ms	
P1054	IMPS1 - Hability Control Time - Book 5	0 to 500 ms	120 ms	
P1055	IMPS1 - Hability Control Time - Book 6	0 to 500 ms	120 ms	
P1060	IMPS2 - Hability Control Time - Book 1	0 to 500 ms	120 ms	
P1061	IMPS2 - Hability Control Time - Book 2	0 to 500 ms	120 ms	
P1062	IMPS2 - Hability Control Time - Book 3	0 to 500 ms	120 ms	
P1063	IMPS2 - Hability Control Time - Book 4	0 to 500 ms	120 ms	
P1064	IMPS2 - Hability Control Time - Book 5	0 to 500 ms	120 ms	
P1065	IMPS2 - Hability Control Time - Book 6	0 to 500 ms	120 ms	
P1070	Min. PV Voltage - Wait Sun	300.0 to 1600.0 V	1200.0 V	
P1072	Min. PV Voltage Time - Wait Sun	0.0 to 100.0 s	10.0 s	
P1074	Waiting Time (after 3 shutdowns)	0.0 to 10000.0 s	300.0 s	
P1076	Min. Time of Power Grid Stability	0.0 to 100.0 s	5.0 s	
P1078	Synchronism Validation Time	0.0 to 100.0 s	5.0 s	
P1080	Time to Realize AC Voltage Calibration	0.0 to 100.0 s	5.0 s	
P1082	Shutdown Time	0.0 to 10000.0 s	10.0 s	

Param.	Description	Adjustable range	Factory setting	Read Only
P1084	Min. PV Power to Shutdown	0.1 to 100.0 %Pn	2.0 %Pn	
P1086	DC Link Pre-Charge Time	0.5 to 100.0 s	5.0 s	
P1088	Min. Voltage after DC Pre-Charge	0.00 to 100.00 %Vnp	95.00 %Vnp	
P1090	Filter LC Pre-Charge Time	0.00 to 100.00 s	0.30 s	
P1092	Filter LC Discharge Time	0.00 to 100.00 s	0.20 s	
P1100	Min. Grid Voltage - Instant Fault	0.0 to 200.0 %Vn	20.0 %Vn	
P1102	Max. Grid Voltage - Instant Fault	0.0 to 200.0 %Vn	120.0 %Vn	
P1104	Min. Grid frequency - Instant Fault	0.0 to 100.0 Hz	56.0 Hz	
P1106	Max. Grid frequency - Instant Fault	0.0 to 100.0 Hz	63.0 Hz	
P1108	OVP Start Time - Timed Fault	100 to 145 %Vn	110 %Vn	
P1110	OVP Time - Timed Fault	0.1 to 100.0 s	2.5 s	
P1112	UVP0 Start Voltage - Timed Fault	1.0 to 95.0 %Vn	90.0 %Vn	
P1114	UVP0 Time - Timed Fault	0.1 to 100.0 s	5.0 s	
P1116	UVP1 Start Voltage - Timed Fault	1.0 to 95.0 %Vn	85.0 %Vn	
P1118	UVP1 0 Time - Timed Fault	0.1 to 100.0 s	0.5 s	
P1120	UVP1 1 Time - Timed Fault	0.1 to 100.0 s	1.0 s	
P1122	OFP Start Frequency - Timed Fault	45.0 to 80.0 Hz	62.5 Hz	
P1124	OFP Time - Timed Fault	1.0 to 100.0 s	10.0 s	
P1126	UFP Start Frequency - Timed Fault	45.0 to 80.0 Hz	58.5 Hz	
P1128	UFP Time - Timed Fault	1.0 to 100.0 s	20.0 s	
P1130	LVFRT Action	0 = Disable 1 = P=Q=0 2 = P=0 and Q(V)	1	
P1132	Rate P Return (LVFRT)	0.0 to 3000.0 Hz	0.4 Hz	
P1134	Rate Q Return (LVFRT)	0.0 to 3000.0 Hz	0.4 Hz	
P1136	Power Grid verification time in LVFRT	0 to 100000 ms	500 ms	
P1138	Max. number of LVFRT resets per minute	0 to 100	5	
P1140	Gain for LV reactive injection	0.00 to 100.00	2.86	
P1142	Gain for OV reactive injection	0.00 to 100.00	2.86	
P1200	DC Bus Voltage Upper Limit	0.0 to 1700.0 V	1500.0 V	
P1202	DC Bus Voltage Lower Limit	0.0 to 1700.0 V	800.0 V	
P1204	DC Bus Disbalance Voltage Upper Limit - Fault	0.0 to 1700.0 V	80.0 V	
P1206	DC Bus Disbalance Voltage Upper Limit - Alert	0.0 to 1700.0 V	50.0 V	
P1208	DC Voltage per Capacitor for DC Short Circuit Protection	0.0 to 2000.0	200.0	
P1210	DC Current for DC Short Circuit Protection	0.0 to 32000.0	50.0	
P1212	Min. Time for DC Short Circuit Protection	0.0 to 1000.0 ms	100.0 ms	

Param.	Description	Adjustable range	Factory setting	Read Only
P1214	DC Short Circuit Protection Startup Time	5.0 to 30000.0 ms	1000.0 ms	
P1216	Reverse Current Upper Limit	-200.0 to 0.0 A	-50.0 A	
P1218	Min. Time for Reverse Current Protection	0.0 to 1000.0 ms	100.0 ms	
P1220	PV Voltage Upper Limit	0.0 to 1800.0 V	1550.0 V	
P1222	PV Negative Voltage Upper Limit	-200.0 to 0.0 V	-50.0 V	
P1230	IGBT Current Upper Limit for Failure (peak)	0.0 to 1200.0 A	800.0 A	
P1232	IGBT Current Desbalance Upper Limit for Alert	0.0 to 200.0 %In	15.0 %In	
P1234	IGBT Current Desbalance Upper Limit for Fault	0.0 to 200.0 %In	20.0 %In	
P1236	IGBT AVG Current Desbalance Upper Limit for Alert	0.0 to 200.0 %In	15.0 %In	
P1238	IGBT AVG Current Desbalance Upper Limit for Fault	0.0 to 200.0 %In	20.0 %In	
P1240	Grid RMS Overcurrent Upper Limit - Alert	0.0 to 200.0 %In	110.0 %In	
P1242	Grid RMS Overcurrent Upper Limit - Fault	0.0 to 200.0 %In	120.0 %In	
P1244	Grid AVG Overcurrent Upper Limit - Alert	0.0 to 200.0 %In	15.0 %In	
P1246	Grid AVG Overcurrent Upper Limit - Fault	0.0 to 200.0 %In	20.0 %In	
P1248	Grid Disbalance RMS Overcurrent Upper Limit - Alert	0.0 to 200.0 %In	15.0 %In	
P1250	Grid Disbalance RMS Overcurrent Upper Limit - Fault	0.0 to 200.0 %In	20.0 %In	
P1252	Inductor Temperature Upper Limit - Alert	0.0 to 150.0 °C	130.0 °C	
P1256	Inductor Temperature Upper Limit - Fault	0.0 to 150.0 °C	135.0 °C	
P1258	CMPS Temperature Upper Limit - Alert	0.0 to 100.0 °C	60.0 °C	
P1260	CMPS Temperature Upper Limit - Fault	0.0 to 100.0 °C	70.0 °C	
P1262	IGBT Temperature Upper Limit - Alert	0.0 to 100.0 °C	82.0 °C	
P1264	IGBT Temperature Upper Limit - Fault	0.0 to 100.0 °C	85.0 °C	
P1266	Communication Errors Upper Limit for Fault	0 to 65535	10	
P1268	Voltage Offset Upper Limit	0.0 to 100.0 V	50.0 V	
P1270	Current Offset Upper Limit	0.0 to 100.0 A	50.0 A	
P1272	Neutral RMS Current Upper Limit - Alert	0.0 to 1000.0	50.0	
P1274	Neutral RMS Current Upper Limit - Fault	0.0 to 1000.0	75.0	
P1276	Book RMS Current Upper Limit - Fault	0.0 to 1000.0 A	570.0 A	
P1278	RMS Current Setpoint Limit per Book	0.0 to 1000.0 A	555.0 A	
P1300	Min. DC Voltage Output MMPT	0.0 to 1500.0	500.0	
P1302	Max. DC Voltage Output MPPT	0.0 to 1500.0	1000.0	
P1304	Step Gain MPPT	0.00 to 1000.00	1.00	
P1306	Max. Step MPPT	0.00 to 1000.00 V	10.00 V	

Param.	Description	Adjustable range	Factory setting	Read Only
P1308	Min. Step MPPT	0.00 to 1000.00 V	1.00 V	
P1310	Max. Voltage Difference between MPPTs	0.0 to 1000.0	150.0	
P1312	MPPT Method	0 = Disturb and Watch 1 = Incremental Conductance 2 = Fixed DC Voltage	0	
P1330	Nominal Frequency	0 = 60 Hz 1 = 50 Hz	0 Hz	
P1332	PLL Angle Delay	0.00 to 100.00 rad	0.00 rad	
P1334	Power Setpoint Limit	0.0 to 110.0 %Pn	100.0 %Pn	
P1336	Total Current Setpoint Limit	0.0 to 110.0 %In	100.0 %In	
P1338	Power Limit Ramp Rate	0.00 to 10.00 Hz	1.00 Hz	
P1340	Active Current Upper Setpoint Limit	-10.0 to 110.0 %In	100.0 %In	
P1342	Active Current Lower Setpoint Limit	-110.0 to 10.0 %In	-100.0 %In	
P1344	Reactive Current Setpoint Limit	0.0 to 100.0 %In	100.0 %In	
P1346	Current Reference Limit Ramp Rate	0.00 to 10.00 Hz	1.00 Hz	
P1348	DC Voltage Control Mode	0 = PI Controler 1 = Table Id x Vdc	0	
P1350	DQ Decoupling Reactance	-100 to 100	0	
P1352	Transition Rate between Gains (Startup/Regime)	0.00 to 3000.00 Hz	10.00 Hz	
P1354	Startup Current Integral Gain	0.000 to 100000.000	350.000	
P1356	Startup Current Proportional Gain	0.000 to 100000.000	5.000	
P1358	Current Integral Gain - Regime	0.000 to 100000.000	250.000	
P1360	Current Proportional Gain - Regime	0.000 to 100000.000	5.000	
P1362	Synchronous Filter Time Constant PR Current	0.000 to 100.000 s	0.200 s	
P1364	Integral Current Gain for 6th Harmonic	0.000 to 100000.000	150.000	
P1366	Proportional Current Gain for 6th Harmonic	0.000 to 100000.000	0.000	
P1368	Negative Sequence Integral Gain	0.000 to 100000.000	50.000	
P1370	Negative Sequece Proportional Gain	0.000 to 100000.000	1.000	
P1374	Proportional Gain - Reactive Power Control	0.00 to 10.00	0.05	
P1376	Integral Gain - Reactive Power Control	0.00 to 10.00	1.00	
P1380	DC Link r+PI Proportional Gain	0.00 to 100.00	1.50	
P1382	DC Link e-PI Proportional Gain	0.00 to 100.00	1.50	
P1384	DC Link PI Integral Gain	0.00 to 100.00	15.00	
P1386	Reactives Injection Start Voltage - Variable FP Control	0.0 to 150.0 %Vn	103.0 %Vn	
P1388	Reactives Injection Final Voltage - Variable FP Control	0.0 to 150.0 %Vn	100.0 %Vn	
P1390	Power Factor Setpoint - FP Control	-1.00 to 1.00	1.00	

Param.	Description	Adjustable range	Factory setting	Read Only
P1392	Reactive Power Setpoint - kVAR Control	-100.0 to 100.0 %Pn	0.0 %Pn	
P1394	Min. Apparent Power - kVAR Control	0.0 to 100.0 %Pn	0.0 %Pn	
P1396	Differential Voltage Control Mode	0 = Geometric Control (SVM) 1 = Current Offset Control	0	
P1398	Differential Voltage PI Porportional Gain	0.000 to 100.000	0.100	
P1400	Differential Voltage PI Integral Gain	0.000 to 100.000	0.000	
P1402	Differential Voltage Unbalance Setpoint	-100.000 to 100.000	0.000	
P1404	Differential Voltage Control Hysteresis - High Level	0.0000 to 1.0000 %Vn	0.0100 %Vn	
P1406	Differential Voltage Control Hysteresis - Low Level	0.0000 to 1.0000 %Vn	0.0010 %Vn	
P1408	Value for Fixed Feed-Forward	0.000 to 1.000	1.000	
P1410	IMPS1 - Modulation Index on Open Loop Mode	0.000 to 100.000 %	0.000 %	
P1412	IMPS2 - Modulation Index on Open Loop Mode	0.000 to 100.000 %	0.000 %	
P1414	Modulation Index Ramp Rate on Open Loop Mode	0.00 to 3000.00 Hz	0.10 Hz	
P1416	Reactives at Night	0 = Off 1 = On	0	
P1418	DC Link Voltage Setpoint (Reactives at Night)	103.00 to 200.00 %Vn	115.00 %Vn	
P1420	Anti-Island Reactive Current Lower Limit	-200.0 to 200.0 %In	-50.0 %In	
P1422	Anti-Island Reactive Current Upper Limit	-200.0 to 200.0 %In	50.0 %In	
P1424	Anti-Islanding Proportional Gain	0.000 to 100.000	0.025	
P1426	Current priority	0 = Id Priority 1 = Iq Priority 2 = Id/Iq Priority	0	
P1430	Software Pre Charge	0 = Active 1 = Inactive	0	
P1431	Software Discharge	0 = Active 1 = Inactive	0	
P1432	IMPS1 - AC Pre Charge Contactor Feedback	Bitmap: bit0 : Disbable FeedBack - Book 1 bit1 : Disbable FeedBack - Book 2 bit2 : Disbable FeedBack - Book 3 bit3 : Disbable FeedBack - Book 4 bit4 : Disbable FeedBack - Book 5 bit5 : Disbable FeedBack - Book 6	0	
P1433	IMPS2 - AC Pre Charge Contactor Feedback	Bitmap: bit0 : Disbable FeedBack - Book 1 bit1 : Disbable FeedBack - Book 2 bit2 : Disbable FeedBack - Book 3 bit3 : Disbable FeedBack - Book 4 bit4 : Disbable FeedBack - Book 5 bit5 : Disbable FeedBack - Book 6	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P1434	IMPS1 - Main Contator Feedback	Bitmap: bit0 : Disbable FeedBack - Book 1 bit1 : Disbable FeedBack - Book 2 bit2 : Disbable FeedBack - Book 3 bit3 : Disbable FeedBack - Book 4 bit4 : Disbable FeedBack - Book 5 bit5 : Disbable FeedBack - Book 6	0	
P1435	IMPS2 - Main Contator Feedback	Bitmap: bit0 : Disbable FeedBack - Book 1 bit1 : Disbable FeedBack - Book 2 bit2 : Disbable FeedBack - Book 3 bit3 : Disbable FeedBack - Book 4 bit4 : Disbable FeedBack - Book 5 bit5 : Disbable FeedBack - Book 6	0	
P1436	AC Pre Charge Contactor Timeout	0 to 5000	100	
P1437	Main Contactor Timeout	0 to 5000	200	
P1450	DC Disconnection Time (Reactives at Night)	0 to 10000 s	1800 s	
P1452	Reverse Current for DC Disconnection (Reactives at Night)	-200 to 0 A	-25 A	
P1460	Id Limitation with Min. DC Voltage: Gain for Reference Id	0.00 to 1.00	0.50	
P1462	Id Limitation with Min. DC Voltage: Min. DC Voltage	100.0 to 200.0 %Vnp	110.0 %Vnp	
P1500	PLL Proportional Gain	0.00 to 10000.00	266.00	
P1502	PLL Integral Gain	0.00 to 10000.00	35.50	
P1510	IMPS1 - Active Current Setpoint	0.0 to 100.0 %In	0.0 %In	
P1512	IMPS1 - Reactive Current Setpoint	-100.0 to 100.0 %In	0.0 %In	
P1514	IMPS1 - DC Link Voltage Setpoint	0.0 to 1500.0 V	1000.0 V	
P1516	IMPS2 - Active Current Setpoint	0.0 to 100.0 %In	0.0 %In	
P1518	IMPS2 - Reactive Current Setpoint	-100.0 to 100.0 %In	0.0 %In	
P1520	IMPS2 - DC Link Voltage Setpoint	0.0 to 1500.0 V	1000.0 V	
P1522	Active Current Reference Ramp Rate	0.00 to 3000.00 Hz	0.10 Hz	
P1524	Reactive Current Reference Ramp Rate	0.00 to 3000.00 Hz	0.10 Hz	
P1526	DC Link Voltage Reference Ramp Rate	0.00 to 3000.00 Hz	0.50 Hz	
P1620	Books Operation Mode	0 = Sequential 1 = Parallel	0	
P1622	Current for Timed Connection of Next Book	0.0 to 110.0 %In	50.0 %In	
P1624	Current for Instant Connection of Next Book	0.0 to 110.0 %In	70.0 %In	
P1626	Time for Book Input Sequential Mode	0.0 to 3600.0 s	5.0 s	
P1628	Time for Output of Book on Sequential Mode	0.0 to 3600.0 s	10.0 s	
P1630	Current Hysteresis for Output of Book on Sequential Mode	0.0 to 110.0 %In	10.0 %In	
P1632	IMPS1 - Trigger for Input of Next Book	0.0 to 110.0 %In	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P1634	IMPS1 - Trigger for Immediate Input of Next Book	0.0 to 110.0 %In	-	ro
P1636	IMPS1 - Trigger for Output of Next Book	0.0 to 110.0 %In	-	ro
P1638	IMPS2 - Trigger for Input of Next Book	0.0 to 110.0 %In	-	ro
P1640	IMPS2 - Trigger for Immediate Input of Next Book	0.0 to 110.0 %In	-	ro
P1642	IMPS2 - Trigger for Output of Next Book	0.0 to 110.0 %In	-	ro
P1650	Active Damping - Active Control Action Utilization	0.0 to 100.0 %	100.0 %	
P1652	Active Damping - Reactive Control Action Utilization	0.0 to 100.0 %	100.0 %	
P1654	Active Damping - Upper Limit	0.0 to 50.0 %	20.0 %	
P1656	Active Damping - Lower Limit	-50.0 to 0.0 %	-20.0 %	
P1660	Active Damping - Gain for 1 book	0.000 to 10.000	0.000	
P1662	Active Damping - Gain for 2 book	0.000 to 10.000	0.000	
P1664	Active Damping - Gain for 3 book	0.000 to 10.000	0.000	
P1666	Active Damping - Gain for 4 book	0.000 to 10.000	0.000	
P1668	Active Damping - Gain for 5 book	0.000 to 10.000	0.000	
P1670	Active Damping - Gain for 6 book	0.000 to 10.000	0.000	
P1672	Active Damping - Gain for 7 book	0.000 to 10.000	0.000	
P1674	Active Damping - Gain for 8 book	0.000 to 10.000	0.000	
P2400	Firmware Version - CCE-03 - MCU	0.00 to 65535.00	-	ro
P2401	Firmware Version - CCE-03 - FPGA	0.00 to 65535.00	-	ro
P2402	Firmware Version - IMPS1 - FPGA1	0.00 to 65535.00	-	ro
P2403	Firmware Version - IMPS1 - FPGA2	0.00 to 65535.00	-	ro
P2404	Firmware Version - IMPS1 - CMPS1	0.00 to 65535.00	-	ro
P2405	Firmware Version - IMPS1 - CMPS2	0.00 to 65535.00	-	ro
P2406	Firmware Version - IMPS1 - CMPS3	0.00 to 65535.00	-	ro
P2407	Firmware Version - IMPS1 - CMPS4	0.00 to 65535.00	-	ro
P2408	Firmware Version - IMPS1 - CMPS5	0.00 to 65535.00	-	ro
P2409	Firmware Version - IMPS1 - CMPS6	0.00 to 65535.00	-	ro
P2414	Hardware Version - IMPS1 - CMPS1	0.00 to 65535.00	-	ro
P2415	Hardware Version - IMPS1 - CMPS2	0.00 to 65535.00	-	ro
P2416	Hardware Version - IMPS1 - CMPS3	0.00 to 65535.00	-	ro
P2417	Hardware Version - IMPS1 - CMPS4	0.00 to 65535.00	-	ro
P2418	Hardware Version - IMPS1 - CMPS5	0.00 to 65535.00	-	ro
P2419	Hardware Version - IMPS1 - CMPS6	0.00 to 65535.00	-	ro
P2450	Firmware Version - IMPS2 - FPGA1	0.00 to 65535.00	-	ro
P2451	Firmware Version - IMPS2 - FPGA2	0.00 to 65535.00	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P2452	Firmware Version - IMPS2 - CMPS1	0.00 to 65535.00	-	ro
P2453	Firmware Version - IMPS2 - CMPS2	0.00 to 65535.00	-	ro
P2454	Firmware Version - IMPS2 - CMPS3	0.00 to 65535.00	-	ro
P2455	Firmware Version - IMPS2 - CMPS4	0.00 to 65535.00	-	ro
P2456	Firmware Version - IMPS2 - CMPS5	0.00 to 65535.00	-	ro
P2457	Firmware Version - IMPS2 - CMPS6	0.00 to 65535.00	-	ro
P2462	Hardware Version - IMPS2 - CMPS1	0.00 to 65535.00	-	ro
P2463	Hardware Version - IMPS2 - CMPS2	0.00 to 65535.00	-	ro
P2464	Hardware Version - IMPS2 - CMPS3	0.00 to 65535.00	-	ro
P2465	Hardware Version - IMPS2 - CMPS4	0.00 to 65535.00	-	ro
P2466	Hardware Version - IMPS2 - CMPS5	0.00 to 65535.00	-	ro
P2467	Hardware Version - IMPS2 - CMPS6	0.00 to 65535.00	-	ro
P2500	Analog Output Function AO1	0 to 151	0	
P2501	Analog Output Function AO2	0 to 151	0	
P2502	Analog Output Function AO3	0 to 151	0	
P2503	Analog Output Function AO4	0 to 151	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2510	Analog Output Function DO1 - CCE-03	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2511	Analog Output Function DO2 - CCE-03	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2512	Analog Output Function DO1 - IGS1500	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2513	Analog Output Function DO1 - IGS1500	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2514	Analog Output Function DO3 - IGS1500	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2515	Analog Output Function DO4 - IGS1500	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2516	Digital Output Function DO1 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2517	Digital Output Function DO2 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2518	Digital Output Function DO3 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2519	Digital Output Function DO4 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2520	Digital Output Function DO5 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2521	Digital Output Function DO6 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2522	Digital Output Function DO7 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2523	Digital Output Function DO8 - Acessory 1	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2524	Digital Output Function DO1 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2525	Digital Output Function DO2 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2526	Digital Output Function DO3 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2527	Digital Output Function DO4 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2528	Digital Output Function DO5 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2529	Digital Output Function DO6 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2530	Digital Output Function DO7 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2531	Digital Output Function DO8 - Acessory 2	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2532	Digital Output Function DO1 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2533	Digital Output Function DO2 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2534	Digital Output Function DO3 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2535	Digital Output Function DO4 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2536	Digital Output Function DO5 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2537	Digital Output Function DO6 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2538	Digital Output Function DO7 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2539	Digital Output Function DO8 - Acessory 3	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2540	Digital Output Function DO1 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2541	Digital Output Function DO2 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2542	Digital Output Function DO3 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2543	Digital Output Function DO4 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2544	Digital Output Function DO5 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2545	Digital Output Function DO6 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2546	Digital Output Function DO7 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2547	Digital Output Function DO8 - Acessory 4	0 = Not Used 1 = Enable Inverter 2 = No Faults 3 = No Alarm 4 = DC Disconnector (Minimum Inductance Coil) 5 = Open DC Disconnector 1 6 = Close DC Disconnector 1 7 = Open DC Disconnector 2 8 = Close DC Disconnector 1 9 = DC Link Pre Charge Contactor 10 = Synchronism Switch 11 = IMPS1 - Pre Charge - Book 1 12 = IMPS1 - Pre Charge - Book 2 13 = IMPS1 - Pre Charge - Book 3 14 = IMPS1 - Pre Charge - Book 4 15 = IMPS1 - Pre Charge - Book 5 16 = IMPS1 - Pre Charge - Book 6 17 = IMPS1 - Pre Charge - Book 7 18 = IMPS1 - Pre Charge - Book 8 19 = IMPS1 - Pre Charge - Book 9 20 = IMPS2 - Pre Charge - Book 1 21 = IMPS2 - Pre Charge - Book 2 22 = IMPS2 - Pre Charge - Book 3 23 = IMPS2 - Pre Charge - Book 4 24 = IMPS2 - Pre Charge - Book 5 25 = IMPS2 - Pre Charge - Book 6 26 = IMPS2 - Pre Charge - Book 7 27 = IMPS2 - Pre Charge - Book 8 28 = IMPS2 - Pre Charge - Book 9 29 = IMPS1 - Main - Book 1 30 = IMPS1 - Main - Book 2 31 = IMPS1 - Main - Book 3 32 = IMPS1 - Main - Book 4 33 = IMPS1 - Main - Book 5 34 = IMPS1 - Main - Book 6 35 = IMPS1 - Main - Book 7 36 = IMPS1 - Main - Book 8 37 = IMPS1 - Main - Book 9 38 = IMPS2 - Main - Book 1 39 = IMPS2 - Main - Book 2 40 = IMPS2 - Main - Book 3 41 = IMPS2 - Main - Book 4 42 = IMPS2 - Main - Book 5 43 = IMPS2 - Main - Book 6 44 = IMPS2 - Main - Book 7 45 = IMPS2 - Main - Book 8 46 = IMPS2 - Main - Book 9 47 = Enable Ventilator 48 = Ventilator Reverse 49 = Enable Water Pump 50 = Enable Heat Exchanger 51 = DC Link Pre Charge Bypass Contactor 52 = Open AC Circuit Breaker 53 = Close AC Circuit Breaker 54 = AC Circuit Breaker (Minimum Inductance Coil) 55 = DC GFDI Contactor 1 56 = DC GFDI Contactor 2 57 = PV Isolation Measuring Control 58 = DC Isolation Measuring Control	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2550	Digital Input Function DI1 - CCE-03	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2551	Digital Input Function DI2 - CCE-03	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2552	Digital Input Function DI3 - CCE-03	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2553	Digital Input Function DI4 - CCE-03	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2554	Digital Input Function DI5 - IGS1500	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2555	Digital Input Function DI6 - IGS1500	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2556	Digital Input Function DI7 - IGS1500	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2557	Digital Input Function DI8 - IGS1500	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2558	Digital Input Function DI1 - Acessory 1	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2559	Digital Input Function DI2 - Acessory 1	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2560	Digital Input Function DI3 - Acessory 1	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2561	Digital Input Function DI4 - Acessory 1	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2562	Digital Input Function DI1 - Acessory 2	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2563	Digital Input Function DI2 - Acessory 2	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2564	Digital Input Function DI3 - Acessory 2	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2565	Digital Input Function DI4 - Acessory 2	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2566	Digital Input Function DI1 - Acessory 3	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2567	Digital Input Function DI2 - Acessory 3	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2568	Digital Input Function DI3 - Acessory 3	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2569	Digital Input Function DI4 - Acessory 3	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2570	Digital Input Function DI1 - Acessory 4	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2571	Digital Input Function DI2 - Acessory 4	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2572	Digital Input Function DI3 - Acessory 4	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2573	Digital Input Function DI4 - Acessory 4	0 = No Used 1 = Enable General 2 = Cooling Alarm 3 = Cooling Fault 4 = Insulat Fault 5 = Status DPS 6 = Run 7 = Stop 8 = IMPS1 - Pre Charge Return - Book 1 9 = IMPS1 - Pre Charge Return - Book 2 10 = IMPS1 - Pre Charge Return - Book 3 11 = IMPS1 - Pre Charge Return - Book 4 12 = IMPS1 - Pre Charge Return - Book 5 13 = IMPS1 - Pre Charge Return - Book 6 14 = IMPS1 - Pre Charge Return - Book 7 15 = IMPS1 - Pre Charge Return - Book 8 16 = IMPS1 - Pre Charge Return - Book 9 17 = IMPS2 - Pre Charge Return - Book 1 18 = IMPS2 - Pre Charge Return - Book 2 19 = IMPS2 - Pre Charge Return - Book 3 20 = IMPS2 - Pre Charge Return - Book 4 21 = IMPS2 - Pre Charge Return - Book 5 22 = IMPS2 - Pre Charge Return - Book 6 23 = IMPS2 - Pre Charge Return - Book 7 24 = IMPS2 - Pre Charge Return - Book 8 25 = IMPS2 - Pre Charge Return - Book 9 26 = IMPS1 - Main Return - Book 1 27 = IMPS1 - Main Return - Book 2 28 = IMPS1 - Main Return - Book 3 29 = IMPS1 - Main Return - Book 4 30 = IMPS1 - Main Return - Book 5 31 = IMPS1 - Main Return - Book 6 32 = IMPS1 - Main Return - Book 7 33 = IMPS1 - Main Return - Book 8 34 = IMPS1 - Main Return - Book 9 35 = IMPS2 - Main Return - Book 1 36 = IMPS2 - Main Return - Book 2 37 = IMPS2 - Main Return - Book 3 38 = IMPS2 - Main Return - Book 4 39 = IMPS2 - Main Return - Book 5 40 = IMPS2 - Main Return - Book 6 41 = IMPS2 - Main Return - Book 7 42 = IMPS2 - Main Return - Book 8 43 = IMPS2 - Main Return - Book 9 44 = Ventilator Inverter Fault 45 = Water Pump Inverter Fault 46 = Water Leak Fault 47 = External Fault 48 = Open Door 49 = Internal Overtemperature 50 = Ventilators Overload 51 = Water Flow 52 = Water Pressure 53 = AC Circuit Breker Return 54 = DC Disconnect switch Return A 55 = DC Disconnect switch Return B 56 = Status GFDI 1 57 = Status GFDI 2 58 = Cooling Operation Mode	0	
P2600	Accessorys Automatic Recognition	0 = Active 1 = Inactive	0	
P2601	Accessory conected to Slot 1	0 = No Connected Accessory 1 = ACCE_IO1_00 2 = ACCE_IO1_01	0	
P2602	Accessory conected to Slot 2	0 = No Connected Accessory 1 = ACCE_IO1_00 2 = ACCE_IO1_01	0	
P2603	Accessory conected to Slot 3	0 = No Connected Accessory 1 = ACCE_IO1_00 2 = ACCE_IO1_01	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P2604	Accessory conected to Slot 4	0 = No Connected Accessory 1 = ACCE_IO1_00 2 = ACCE_IO1_01	0	
P2610	GFDI Function	0 = Inactive 1 = Active DC Link 1 2 = Active DC Link 2 3 = Active DC Link 1 and 2	3	
P2611	Debounce to Enable Isolation Detection	0 to 10000 ms	1000 ms	
P2612	Isolation Detection Time	0.0 to 100.0 s	2.0 s	
P2614	Max. GFDI Current - Alert	0.00 to 100.00 A	4.00 A	
P2616	Max. GFDI Current - Fault	0.00 to 100.00 A	5.00 A	
P2618	Open Fuse Detection Min. Current - GFDI	0.00 to 6000.00 A	0.00 A	
P2620	Open Fuse Alert Debouce - GFDI	0.0 to 1000.0 s	60.0 s	
P3000	Protection Filter TC - DC Current	0.000333 to 100.000000 s	0.001000 s	
P3002	Protection Filter TC - DC Bus Total Voltage	0.002000 to 100.000000 s	0.002000 s	
P3004	Protection Filter TC - DC Bus Differential Voltage	0.002000 to 100.000000 s	0.002000 s	
P3006	Protection Filter TC - PV Voltage	0.002000 to 100.000000 s	0.002000 s	
P3008	Protection Filter TC - AC AVG Current	0.016000 to 100.000000 s	0.500000 s	
P3010	Protection Filter TC - AC RMS Current	0.016000 to 100.000000 s	0.500000 s	
P3012	Protection Filter TC - AC RMS Unbalance Current	0.016000 to 100.000000 s	0.500000 s	
P3014	Protection Filter TC - Instantaneous Currents in Modules	0.000333 to 100.000000 s	0.002000 s	
P3016	Protection Filter TC - RMS Currents Unbalance in Modules	0.166000 to 100.000000 s	0.500000 s	
P3018	Protection Filter TC - AVG Currents Unbalance in Modules	0.166000 to 100.000000 s	0.500000 s	
P3020	Protection Filter TC - Neutral Currents in Modules	0.166000 to 100.000000 s	0.500000 s	
P3022	Protection Filter TC - Temperatures	0.100000 to 100.000000 s	0.500000 s	
P3024	Protection Filter TC - Grid Frequency	0.002000 to 100.000000 s	0.020000 s	
P3026	Protection Filter TC - Ground Fault	0.000333 to 100.000000 s	0.001000 s	
P3028	Protection Filter TC - Neutral Current	0.016000 to 100.000000 s	0.030000 s	
P3030	Filter TC - DC Current	0.000333 to 100.000000 s	0.004000 s	
P3032	Filter TC - DC Voltage	0.000333 to 100.000000 s	0.004000 s	
P3034	Filter TC - VAC Voltage	0.000333 to 100.000000 s	0.050000 s	
P3036	Filter TC - IAC Current	0.000333 to 100.000000 s	0.050000 s	
P3038	Filter TC - Vac Voltage - Grid Quality	0.000333 to 100.000000 s	0.020000 s	
P3040	Filter TC - Frequency - Grid Quality	0.000333 to 100.000000 s	0.020000 s	
P3042	Filter TC - Upper Frequency - Anti-Islanding	0.000333 to 100.000000 s	0.015900 s	

Param.	Description	Adjustable range	Factory setting	Read Only
P3044	Filter TC - Lower Frequency - Anti-Islanding	0.000333 to 100.000000 s	0.159000 s	
P3046	Filter TC - DC Voltage MPPT	0.000333 to 100.000000 s	0.040000 s	
P3048	Filter TC - DC Current MPPT	0.000333 to 100.000000 s	0.040000 s	
P3050	Filter TC - PLL Voltage	0.000333 to 1.000000	0.125000	
P3052	Filter TC - PLL Frequency	0.000333 to 1.000000	0.020900	
P3100	IMPS1 - Current Full Scale Iu - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3102	IMPS1 - Current Full Scale Iu - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3104	IMPS1 - Current Full Scale Iu - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3106	IMPS1 - Current Full Scale Iu - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3108	IMPS1 - Current Full Scale Iu - Book 5	-1500.00 to 1500.00 A	926.31 A	
P3110	IMPS1 - Current Full Scale Iu - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3118	IMPS1 - Current Full Scale Iv - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3120	IMPS1 - Current Full Scale Iv - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3122	IMPS1 - Current Full Scale Iv - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3124	IMPS1 - Current Full Scale Iv - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3126	IMPS1 - Current Full Scale Iv - Book 5	-1500.00 to 1500.00 A	926.31 A	
P3128	IMPS1 - Current Full Scale Iv - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3136	IMPS1 - Current Full Scale Iw - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3138	IMPS1 - Current Full Scale Iw - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3140	IMPS1 - Current Full Scale Iw - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3142	IMPS1 - Current Full Scale Iw - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3144	IMPS1 - Current Full Scale Iw - Book 5	-1500.00 to 1500.00 A	926.31 A	
P3146	IMPS1 - Current Full Scale Iw - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3154	IMPS1 - Current Full Scale Icc - Book 1	-1500.00 to 1500.00 A	1074.80 A	
P3156	IMPS1 - Current Full Scale Icc - Book 2	-1500.00 to 1500.00 A	1074.80 A	
P3158	IMPS1 - Current Full Scale Icc - Book 3	-1500.00 to 1500.00 A	1074.80 A	
P3160	IMPS1 - Current Full Scale Icc - Book 4	-1500.00 to 1500.00 A	1074.80 A	
P3162	IMPS1 - Current Full Scale Icc - Book 5	-1500.00 to 1500.00 A	1074.80 A	
P3164	IMPS1 - Current Full Scale Icc - Book 6	-1500.00 to 1500.00 A	1074.80 A	
P3172	IMPS1 - Voltage Full Scale Vcc+	-1500.00 to 1500.00 V	800.00 V	
P3174	IMPS1 - Voltage Full Scale Vcc-	-1500.00 to 1500.00 V	800.00 V	
P3176	IMPS1 - Voltage Full Scale Vpv	-1800.00 to 1800.00 V	1600.00 V	
P3178	IMPS1 - Water Pressure Full Scale	-1000.00 to 1000.00 bar	20.00 bar	
P3180	IMPS1 - Water Temperature Full Scale	-1000.00 to 1000.00 °C	200.00 °C	
P3182	IMPS1 - Inductor Temperature Gain - Book 1	0.00 to 2.00	1.00	

Param.	Description	Adjustable range	Factory setting	Read Only
P3184	IMPS1 - Inductor Temperature Gain - Book 2	0.00 to 2.00	1.00	
P3186	IMPS1 - Inductor Temperature Gain - Book 3	0.00 to 2.00	1.00	
P3188	IMPS1 - Inductor Temperature Gain - Book 4	0.00 to 2.00	1.00	
P3190	IMPS1 - Inductor Temperature Gain - Book 5	0.00 to 2.00	1.00	
P3192	IMPS1 - Inductor Temperature Gain - Book 6	0.00 to 2.00	1.00	
P3200	IMPS2 - Current Full Scale Iu - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3202	IMPS2 - Current Full Scale Iu - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3204	IMPS2 - Current Full Scale Iu - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3206	IMPS2 - Current Full Scale Iu - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3208	IMPS2 - Current Full Scale Iu - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3210	IMPS2 - Current Full Scale Iu - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3218	IMPS2 - Current Full Scale Iv - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3220	IMPS2 - Current Full Scale Iv - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3222	IMPS2 - Current Full Scale Iv - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3224	IMPS2 - Current Full Scale Iv - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3226	IMPS2 - Current Full Scale Iv - Book 5	-1500.00 to 1500.00 A	926.31 A	
P3228	IMPS2 - Current Full Scale Iv - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3236	IMPS2 - Current Full Scale Iw - Book 1	-1500.00 to 1500.00 A	926.31 A	
P3238	IMPS2 - Current Full Scale Iw - Book 2	-1500.00 to 1500.00 A	926.31 A	
P3240	IMPS2 - Current Full Scale Iw - Book 3	-1500.00 to 1500.00 A	926.31 A	
P3242	IMPS2 - Current Full Scale Iw - Book 4	-1500.00 to 1500.00 A	926.31 A	
P3244	IMPS2 - Current Full Scale Iw - Book 5	-1500.00 to 1500.00 A	926.31 A	
P3246	IMPS2 - Current Full Scale Iw - Book 6	-1500.00 to 1500.00 A	926.31 A	
P3254	IMPS2 - Current Full Scale Icc - Book 1	-1500.00 to 1500.00 A	1074.80 A	
P3256	IMPS2 - Current Full Scale Icc - Book 2	-1500.00 to 1500.00 A	1074.80 A	
P3258	IMPS2 - Current Full Scale Icc - Book 3	-1500.00 to 1500.00 A	1074.80 A	
P3260	IMPS2 - Current Full Scale Icc - Book 4	-1500.00 to 1500.00 A	1074.80 A	
P3262	IMPS2 - Current Full Scale Icc - Book 5	-1500.00 to 1500.00 A	1074.80 A	
P3264	IMPS2 - Current Full Scale Icc - Book 6	-1500.00 to 1500.00 A	1074.80 A	
P3272	IMPS2 - Voltage Full Scale Vcc+	-1500.00 to 1500.00 V	800.00 V	
P3274	IMPS2 - Voltage Full Scale Vcc-	-1500.00 to 1500.00 V	800.00 V	
P3276	IMPS2 - Voltage Full Scale Vpv	-2500.00 to 2500.00 V	1600.00 V	
P3278	IMPS2 - Water Pressure Full Scale	-1000.00 to 1000.00 bar	20.00 bar	
P3280	IMPS2 - Water Temperature Full Scale	-1000.00 to 1000.00 °C	200.00 °C	

Param.	Description	Adjustable range	Factory setting	Read Only
P3282	IMPS2 - Indctor Temperature Gain - Book 1	0.00 to 2.00	1.00	
P3284	IMPS2 - Indctor Temperature Gain - Book 2	0.00 to 2.00	1.00	
P3286	IMPS2 - Indctor Temperature Gain - Book 3	0.00 to 2.00	1.00	
P3288	IMPS2 - Indctor Temperature Gain - Book 4	0.00 to 2.00	1.00	
P3290	IMPS2 - Indctor Temperature Gain - Book 5	0.00 to 2.00	1.00	
P3292	IMPS2 - Indctor Temperature Gain - Book 6	0.00 to 2.00	1.00	
P3300	IMPS1 - Current Full Scale Ir	-15000.00 to 15000.00 A	8000.00 A	
P3302	IMPS1 - Current Full Scale Is	-15000.00 to 15000.00 A	8000.00 A	
P3304	IMPS1 - Current Full Scale It	-15000.00 to 15000.00 A	8000.00 A	
P3306	IMPS1 - Grid Currents Configuration	0 = Use measurement for Iabc 1 = Calculate Ia from Ib and Ic 2 = Calculate Ib from Ia and Ic 3 = Calculate Ic from Ia and Ib	0	
P3310	IMPS2 - Current Full Scale Ir	-15000.00 to 15000.00 A	8000.00 A	
P3312	IMPS2 - Current Full Scale Is	-15000.00 to 15000.00 A	8000.00 A	
P3314	IMPS2 - Current Full Scale It	-15000.00 to 15000.00 A	8000.00 A	
P3316	IMPS2 - Grid Currents Configuration	0 = Use measurement for Iabc 1 = Calculate Ia from Ib and Ic 2 = Calculate Ib from Ia and Ic 3 = Calculate Ic from Ia and Ib	0	
P3320	IMPS1 - Voltage Full Scale Vab	-2000.00 to 2000.00 V	1103.00 V	
P3322	IMPS1 - Voltage Full Scale Vbc	-2000.00 to 2000.00 V	1103.00 V	
P3324	IMPS1 - Voltage Full Scale Vca	-2000.00 to 2000.00 V	1103.00 V	
P3330	IMPS2 - Voltage Full Scale Vab	-2000.00 to 2000.00 V	1103.00 V	
P3332	IMPS2 - Voltage Full Scale Vbc	-2000.00 to 2000.00 V	1103.00 V	
P3334	IMPS2 - Voltage Full Scale Vca	-2000.00 to 2000.00 V	1103.00 V	
P3340	CCE03 - Voltage Full Scale Vab	-2000.00 to 2000.00 V	1103.00 V	
P3342	CCE03 - Voltage Full Scale Vbc	-2000.00 to 2000.00 V	1103.00 V	
P3344	CCE03 - Voltage Full Scale Vca	-2000.00 to 2000.00 V	1103.00 V	
P3346	CCE03 - AI1 Full Scale	-100000.00 to 100000.00	12.50	
P3348	CCE03 - AI2 Full Scale	-100000.00 to 100000.00	12.50	
P3350	IMPS1 - Source Full-Scale +15V	-100.00 to 100.00 V	20.00 V	
P3352	IMPS1 - Source Full-Scale -15V	-100.00 to 100.00 V	20.00 V	
P3354	IMPS2 - Source Full-Scale +15V	-100.00 to 100.00 V	20.00 V	
P3356	IMPS2 - Source Full-Scale -15V	-100.00 to 100.00 V	20.00 V	
P3360	Grid Currents Configuration	0 = Acquisition via CCE 1 = Acquisition via IMPS1 2 = Acquisition via IMPS 2	1	

Param.	Description	Adjustable range	Factory setting	Read Only
P3361	Grid Voltages Configuration	0 = Acquisition via CCE 1 = Acquisition via IMPS1 2 = Acquisition via IMPS 2	0	
P3362	Water Temperature Configuration	0 = Acquisition via CCE 1 = Acquisition via IMPS1 2 = Acquisition via IMPS 2	1	
P3363	Water Pressure Configuration	0 = Acquisition via CCE 1 = Acquisition via IMPS1 2 = Acquisition via IMPS 2	1	
P3500	IMPS1 - Current Offset Iu - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3502	IMPS1 - Current Offset Iu - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3504	IMPS1 - Current Offset Iu - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3506	IMPS1 - Current Offset Iu - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3508	IMPS1 - Current Offset Iu - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3510	IMPS1 - Current Offset Iu - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3518	IMPS1 - Current Offset Iv - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3520	IMPS1 - Current Offset Iv - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3522	IMPS1 - Current Offset Iv - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3524	IMPS1 - Current Offset Iv - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3526	IMPS1 - Current Offset Iv - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3528	IMPS1 - Current Offset Iv - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3536	IMPS1 - Current Offset Iw - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3538	IMPS1 - Current Offset Iw - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3540	IMPS1 - Current Offset Iw - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3542	IMPS1 - Current Offset Iw - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3544	IMPS1 - Current Offset Iw - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3546	IMPS1 - Current Offset Iw - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3554	IMPS1 - Current Offset Icc - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3556	IMPS1 - Current Offset Icc - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3558	IMPS1 - Current Offset Icc - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3560	IMPS1 - Current Offset Icc - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3562	IMPS1 - Current Offset Icc - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3564	IMPS1 - Current Offset Icc - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3572	IMPS1 - Voltage Offset Vcc+	-1000.00 to 1000.00 V	0.00 V	
P3574	IMPS1 - Voltage Offset Vcc-	-1000.00 to 1000.00 V	0.00 V	
P3576	IMPS1 - Voltage Offset Vpv	-1000.00 to 1000.00 V	0.00 V	
P3578	IMPS1 - Water Pressure Offset	-1000.00 to 1000.00 bar	-4.00 bar	
P3580	IMPS1 - Water Temperature Offset	-1000.00 to 1000.00 °C	-50.00 °C	
P3582	IMPS1 - Inductor Temperature Offset - Book 1	-100.00 to 100.00 °C	0.00 °C	

Param.	Description	Adjustable range	Factory setting	Read Only
P3584	IMPS1 - Inductor Temperature Offset - Book 2	-100.00 to 100.00 °C	0.00 °C	
P3586	IMPS1 - Inductor Temperature Offset - Book 3	-100.00 to 100.00 °C	0.00 °C	
P3588	IMPS1 - Inductor Temperature Offset - Book 4	-100.00 to 100.00 °C	0.00 °C	
P3590	IMPS1 - Inductor Temperature Offset - Book 5	-100.00 to 100.00 °C	0.00 °C	
P3592	IMPS1 - Inductor Temperature Offset - Book 6	-100.00 to 100.00 °C	0.00 °C	
P3600	IMPS2 - Current Offset Iu - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3602	IMPS2 - Current Offset Iu - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3604	IMPS2 - Current Offset Iu - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3606	IMPS2 - Current Offset Iu - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3608	IMPS2 - Current Offset Iu - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3610	IMPS2 - Current Offset Iu - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3618	IMPS2 - Current Offset Iv - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3620	IMPS2 - Current Offset Iv - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3622	IMPS2 - Current Offset Iv - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3624	IMPS2 - Current Offset Iv - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3626	IMPS2 - Current Offset Iv - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3628	IMPS2 - Current Offset Iv - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3636	IMPS2 - Current Offset Iw - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3638	IMPS2 - Current Offset Iw - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3640	IMPS2 - Current Offset Iw - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3642	IMPS2 - Current Offset Iw - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3644	IMPS2 - Current Offset Iw - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3646	IMPS2 - Current Offset Iw - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3654	IMPS2 - Current Offset Icc - Book 1	-1000.00 to 1000.00 A	0.00 A	
P3656	IMPS2 - Current Offset Icc - Book 2	-1000.00 to 1000.00 A	0.00 A	
P3658	IMPS2 - Current Offset Icc - Book 3	-1000.00 to 1000.00 A	0.00 A	
P3660	IMPS2 - Current Offset Icc - Book 4	-1000.00 to 1000.00 A	0.00 A	
P3662	IMPS2 - Current Offset Icc - Book 5	-1000.00 to 1000.00 A	0.00 A	
P3664	IMPS2 - Current Offset Icc - Book 6	-1000.00 to 1000.00 A	0.00 A	
P3672	IMPS2 - Voltage Offset Vcc+	-1000.00 to 1000.00 V	0.00 V	
P3674	IMPS2 - Voltage Offset Vcc-	-1000.00 to 1000.00 V	0.00 V	
P3676	IMPS2 - Voltage Offset Vpn	-1000.00 to 1000.00 V	0.00 V	
P3678	IMPS2 - Water Pressure Offset	-1000.00 to 1000.00 bar	-4.00 bar	
P3680	IMPS2 - Water Temperature Offset	-1000.00 to 1000.00 °C	-50.00 °C	

Param.	Description	Adjustable range	Factory setting	Read Only
P3682	IMPS2 - Inductor Temperature Offset - Book 1	-100.00 to 100.00 °C	0.00 °C	
P3684	IMPS2 - Inductor Temperature Offset - Book 2	-100.00 to 100.00 °C	0.00 °C	
P3686	IMPS2 - Inductor Temperature Offset - Book 3	-100.00 to 100.00 °C	0.00 °C	
P3688	IMPS2 - Inductor Temperature Offset - Book 4	-100.00 to 100.00 °C	0.00 °C	
P3690	IMPS2 - Inductor Temperature Offset - Book 5	-100.00 to 100.00 °C	0.00 °C	
P3692	IMPS2 - Inductor Temperature Offset - Book 6	-100.00 to 100.00 °C	0.00 °C	
P3700	IMPS1 - Current Offset Ir	-1000.00 to 1000.00 A	0.00 A	
P3702	IMPS1 - Current Offset Is	-1000.00 to 1000.00 A	0.00 A	
P3704	IMPS1 - Current Offset It	-1000.00 to 1000.00 A	0.00 A	
P3710	IMPS2 - Current Offset Ir	-1000.00 to 1000.00 A	0.00 A	
P3712	IMPS2 - Current Offset Is	-1000.00 to 1000.00 A	0.00 A	
P3714	IMPS2 - Current Offset It	-1000.00 to 1000.00 A	0.00 A	
P3740	CCE03 - Voltage Offset Vab	-1000.00 to 1000.00 V	0.00 V	
P3742	CCE03 - Voltage Offset Vbc	-1000.00 to 1000.00 V	0.00 V	
P3744	CCE03 - Voltage Offset Vca	-1000.00 to 1000.00 V	0.00 V	
P3746	CCE03 - Offset AI1	-100000.00 to 100000.00	-1.25	
P3748	CCE03 - Offset AI2	-100000.00 to 100000.00	-1.25	
P3750	IMPS1 - Source Offset +15V	-100.00 to 100.00	0.00	
P3752	IMPS1 - Source Offset -15V	-100.00 to 100.00	0.00	
P3754	IMPS2 - Source Offset +15V	-100.00 to 100.00	0.00	
P3756	IMPS2 - Source Offset -15V	-100.00 to 100.00	0.00	
P4000	Serial Address	0 to 247	1	
P4001	Serial Comunication Rate	0 = 9600 bits/s 1 = 19200 bits/s 2 = 38400 bits/s 3 = 57600 bits/s 4 = 115200 bits/s	1	
P4002	Serial Bytes Configuration	0 = 8 bits, sem, 1 1 = 8 bits, par, 1 2 = 8 bits, ímp, 1 3 = 8 bits, sem, 2 4 = 8 bits, par, 2 5 = 8 bits, ímp, 2	-	ro
P4003	Serial Protocol	0 = Modbus RTU Slave	0	
P4004	Serial Communication Timeout	100 to 10000 ms	5000 ms	
P4006	Action in Serial Communication Timeout Case	0 = Communication Reset 1 = Fault	0	
P4007	Enable Serial Communication	0 = Desable Communication 1 = Active Communication	1	

Param.	Description	Adjustable range	Factory setting	Read Only
P4010	Modbus TCP - Comunication Gate	0 to 65535	502	
P4011	Modbus TCP - Device Address	0 to 255	1	
P4012	Ethernet Link Velocity (Gate 1)	0 = No Link 1 = 10 Mb/s Half Duplex 2 = 10 Mb/s Full Duplex 3 = 100 Mb/s Half Duplex 4 = 100 Mb/s Full Duplex	-	ro
P4013	Ethernet Link Velocity (Gate 2)	0 = No Link 1 = 10 Mb/s Half Duplex 2 = 10 Mb/s Full Duplex 3 = 100 Mb/s Half Duplex 4 = 100 Mb/s Full Duplex	-	ro
P4014	Modbus TCP - Comunication Timeout	0 to 65535 ms	5000 ms	
P4015	DHCP	0 = Off 1 = On	0	
P4016	Ethernet - IP Address	0.0.0.0 a 255.255.255.255	192.168.0.100	
P4018	Ethernet - Netmask	0.0.0.0 a 255.255.255.255	255.255.255.0	
P4020	Ethernet - Gateway	0.0.0.0 a 255.255.255.255	0.0.0.0	
P4022	Ethernet - Assigned IP Address	0.0.0.0 a 255.255.255.255	-	ro
P4024	Ethernet - Assigned Netmask	0.0.0.0 a 255.255.255.255	-	ro
P4026	Ethernet - Assigned Gateway	0.0.0.0 a 255.255.255.255	-	ro
P4028	Mac Address	56:49:172:0:0:0 a 56:49:172:255:255:255	56:49:172:255:255:255	
P4032	Modbus TCP - Active Conections	0 to 65535	-	ro
P4033	Modbus TCP - Conection with Timeouts	0 to 65535	-	ro
P4034	Modbus TCP - Denied Conections	0 to 65535	-	ro
P4035	Modbus TCP - Received Packets	0 to 65535	-	ro
P4036	Modbus TCP - Transmitted Packets	0 to 65535	-	ro
P4037	Modbus TCP - Lost Packets	0 to 65535	-	ro
P4100	Update Firmaware via SD Card	0 = Inactive Update 1 = Load firmware package 2 = Update MCY CCE03 3 = Update FPGA CCE03 4 = Update FPGA 1 IMPS 1 5 = Update FPGA 2 IMPS 1 6 = Update FPGA 1 IMPS 2 7 = Update FPGA 2 IMPS 2	0	
P4101	Update Status	0 = No Packages Loaded 1 = Loading firmware package 2 = Firmware Package Loaded 3 = Backing Up 4 = Verifying Backup 5 = Updating Firmware 6 = Verifying Firmware 7 = Fault - Corrupted/Nonexistent Firmware 8 = Fault - SC Card not Detected 9 = Fault - CRC 10 = Backup Failed 11 = Critical Fault 12 = Firmware updated successfully	-	ro
P4102	SD Firmware Version - MCU CCE03	0.00 to 65535.00	-	ro
P4103	SD Firmware Version - FPGA CCE03	0.00 to 65535.00	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P4104	SD Firmware Version - FPGA IMPS1500	0.00 to 65535.00	-	ro
P4105	SD SVN Version - MCU CCE03	0 to 65535	-	ro
P4106	SD SVN Version - FPGA CCE03	0 to 65535	-	ro
P4107	SD SVN Version - FPGA IMPS1500	0 to 65535	-	ro
P4200	Refrigeration Operation Mode	0 = Disable 1 = Manual 2 = Automatic	0	
P4201	Type of Heat Exchanger	0 = Exchanger Heat - Gunter or Jartec 1MW 1 = Exchanger Heat - Jartec 3/6MW	1	
P4202	Ventilator without Inverter	0 = No Inverter 1 = With Inverter	1	
P4203	Manual Ventilator	0 = Ventilator Off 1 = Ventilator On 2 =	-	ro
P4204	Force Fan Cleaning	0 = Off 1 = On	0	
P4205	Manual Pump	0 = Pump Off 1 = Pump On 2 = Pump with Undefined State	-	ro
P4206	Ventilator Cleaning State	0 = Stopped Cleaning 1 = Waiting Time for Cleaning 2 = Reverse Ventilator - 20% 3 = Ventilator - 20% 4 = Reverse Ventilator - 50% 5 = Ventilator - 50% 6 = Reverse Ventilator - 80% 7 = Ventilator - 80% 8 = Desable Cleaning - no Inverter 9 = Desable Cleaning - Inverter Fault	-	ro
P4207	Measure for Ventilators Control (Automatic Mode)	0 = Water Temperature 1 = IGBTs Max. Temperature	0	
P4208	Ventilator Velocity (Manual Mode)	0.0 to 100.0 %	100.0 %	
P4210	Ventilator Velocity Gain (Automatic Mode)	0.0 to 100.0	1.0	
P4212	Wait Time for Cleaning (Automatic Mode)	120.0 to 7200.0 s	120.0 s	
P4214	Ventilators Start Temperature (Automatic Mode)	0.0 to 100.0 °C	35.0 °C	
P4216	Time between Steps for Cleaning (Automatic Mode)	10.0 to 600.0 s	60.0 s	
P4218	Debounce for Flow Measurement	0.0 to 100.0 s	0.5 s	
P4220	Debounce for Pressure Measurement	0.0 to 100.0 s	0.5 s	
P4222	Fault Limit - Very Low Water Presssure	0.00 to 100.00 bar	0.50 bar	
P4224	Alarm Limit - Low Water Presssure	0.00 to 100.00 bar	1.50 bar	
P4226	Fault Limit - High Water Presssure	0.00 to 100.00 bar	7.00 bar	
P4228	Alarm Limit - High Water Temperature	0.00 to 100.00	50.00	
P4230	Alarm Limit - Very High Water Temperature	0.00 to 100.00	55.00	
P4232	Time to Turn Off Cooling after Generation	0.0 to 3600.0 s	300.0 s	
P4234	Not Allowed Velocity - Upper Limit	0.0 to 100.0	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P4236	Not Allowed Velocity - Lower Limit	0.0 to 100.0	-	ro
P5000	Address Trace 0	0 to 15000	11928	
P5001	Address Trace 1	0 to 15000	11932	
P5002	Address Trace 2	0 to 15000	11940	
P5003	Address Trace 3	0 to 15000	7044	
P5004	Address Trace 4	0 to 15000	9000	
P5005	Address Trace 5	0 to 15000	524	
P5006	Address Trace 6	0 to 15000	4580	
P5007	Address Trace 7	0 to 15000	4584	
P5008	Address Trace 8	0 to 15000	68	
P5009	Address Trace 9	0 to 15000	1540	
P5010	Address Trace 10	0 to 15000	1544	
P5011	Address Trace 11	0 to 15000	908	
P5012	Address Trace 12	0 to 15000	912	
P5013	Address Trace 13	0 to 15000	1008	
P5014	Address Trace 14	0 to 15000	1012	
P5015	Address Trace 15	0 to 15000	452	
P5016	Address Trace 16	0 to 15000	456	
P5017	Address Trace 17	0 to 15000	7004	
P5018	Address Trace 18	0 to 15000	7008	
P5019	Address Trace 19	0 to 15000	4880	
P5020	Address Trace 20	0 to 15000	4884	
P5021	Address Trace 21	0 to 15000	4844	
P5022	Address Trace 22	0 to 15000	4848	
P5023	Address Trace 23	0 to 15000	10976	
P5024	Address Trace 24	0 to 15000	10992	
P5025	Address Trace 25	0 to 15000	11008	
P5026	Address Trace 26	0 to 15000	11024	
P5027	Address Trace 27	0 to 15000	11040	
P5028	Address Trace 28	0 to 15000	11056	
P5029	Address Trace 29	0 to 15000	4792	
P5030	Address Trace 30	0 to 15000	4796	
P5031	Address Trace 31	0 to 15000	4800	
P5032	Address Trace 32	0 to 15000	4804	
P5033	Address Trace 33	0 to 15000	1024	
P5034	Address Trace 34	0 to 15000	1028	
P5035	Address Trace 35	0 to 15000	7020	

Param.	Description	Adjustable range	Factory setting	Read Only
P5036	Address Trace 36	0 to 15000	7024	
P5037	Address Trace 37	0 to 15000	7260	
P5038	Address Trace 38	0 to 15000	7264	
P5039	Address Trace 39	0 to 15000	7268	
P5040	Address Trace 40	0 to 15000	7272	
P5041	Address Trace 41	0 to 15000	940	
P5042	Address Trace 42	0 to 15000	9216	
P5043	Address Trace 43	0 to 15000	9220	
P5044	Address Trace 44	0 to 15000	9224	
P5045	Address Trace 45	0 to 15000	9228	
P5046	Address Trace 46	0 to 15000	6936	
P5047	Address Trace 47	0 to 15000	6740	
P5048	Address Trace 48	0 to 15000	6744	
P5049	Address Trace 49	0 to 15000	6748	
P5050	Address Trace 50	0 to 15000	2888	
P5051	Address Trace 51	0 to 15000	2892	
P5052	Address Trace 52	0 to 15000	2896	
P5053	Address Trace 53	0 to 15000	7300	
P5054	Address Trace 54	0 to 15000	7328	
P5055	Address Trace 55	0 to 15000	7344	
P5056	Address Trace 56	0 to 15000	7360	
P5057	Address Trace 57	0 to 15000	7376	
P5058	Address Trace 58	0 to 15000	7488	
P5059	Address Trace 59	0 to 15000	7516	
P5060	Address Trace 60	0 to 15000	7532	
P5061	Address Trace 61	0 to 15000	7548	
P5062	Address Trace 62	0 to 15000	7564	
P5063	Address Trace 63	0 to 15000	7676	
P5064	Address Trace 64	0 to 15000	7704	
P5065	Address Trace 65	0 to 15000	7720	
P5066	Address Trace 66	0 to 15000	7736	
P5067	Address Trace 67	0 to 15000	7752	
P5068	Address Trace 68	0 to 15000	7864	
P5069	Address Trace 69	0 to 15000	7892	
P5070	Address Trace 70	0 to 15000	7908	
P5071	Address Trace 71	0 to 15000	7924	
P5072	Address Trace 72	0 to 15000	7940	

Param.	Description	Adjustable range	Factory setting	Read Only
P5073	Address Trace 73	0 to 15000	8052	
P5074	Address Trace 74	0 to 15000	8080	
P5075	Address Trace 75	0 to 15000	8096	
P5076	Address Trace 76	0 to 15000	8112	
P5077	Address Trace 77	0 to 15000	8128	
P5078	Address Trace 78	0 to 15000	8240	
P5079	Address Trace 79	0 to 15000	8268	
P5080	Address Trace 80	0 to 15000	8284	
P5081	Address Trace 81	0 to 15000	8300	
P5082	Address Trace 82	0 to 15000	8316	
P5083	Address Trace 83	0 to 15000	9256	
P5084	Address Trace 84	0 to 15000	9284	
P5085	Address Trace 85	0 to 15000	9300	
P5086	Address Trace 86	0 to 15000	9316	
P5087	Address Trace 87	0 to 15000	9332	
P5088	Address Trace 88	0 to 15000	9444	
P5089	Address Trace 89	0 to 15000	9472	
P5090	Address Trace 90	0 to 15000	9488	
P5091	Address Trace 91	0 to 15000	9504	
P5092	Address Trace 92	0 to 15000	9520	
P5093	Address Trace 93	0 to 15000	9632	
P5094	Address Trace 94	0 to 15000	9660	
P5095	Address Trace 95	0 to 15000	9676	
P5096	Address Trace 96	0 to 15000	9692	
P5097	Address Trace 97	0 to 15000	9708	
P5098	Address Trace 98	0 to 15000	9820	
P5099	Address Trace 99	0 to 15000	9848	
P5100	Address Trace 100	0 to 15000	9864	
P5101	Address Trace 101	0 to 15000	9880	
P5102	Address Trace 102	0 to 15000	9896	
P5103	Address Trace 103	0 to 15000	10008	
P5104	Address Trace 104	0 to 15000	10036	
P5105	Address Trace 105	0 to 15000	10052	
P5106	Address Trace 106	0 to 15000	10068	
P5107	Address Trace 107	0 to 15000	10084	
P5108	Address Trace 108	0 to 15000	10196	
P5109	Address Trace 109	0 to 15000	10224	

Param.	Description	Adjustable range	Factory setting	Read Only
P5110	Address Trace 110	0 to 15000	10240	
P5111	Address Trace 111	0 to 15000	10256	
P5112	Address Trace 112	0 to 15000	10272	
P5113	Address Trace 113	0 to 15000	0	
P5114	Address Trace 114	0 to 15000	0	
P5115	Address Trace 115	0 to 15000	0	
P5116	Address Trace 116	0 to 15000	0	
P5117	Address Trace 117	0 to 15000	0	
P5118	Address Trace 118	0 to 15000	0	
P5119	Address Trace 119	0 to 15000	0	
P5200	Variable Type Trace 0	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5201	Variable Type Trace 1	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5202	Variable Type Trace 2	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5203	Variable Type Trace 3	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	

Param.	Description	Adjustable range	Factory setting	Read Only
P5204	Variable Type Trace 4	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5205	Variable Type Trace 5	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5206	Variable Type Trace 6	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5207	Variable Type Trace 7	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5208	Variable Type Trace 8	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5209	Variable Type Trace 9	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5210	Variable Type Trace 10	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5211	Variable Type Trace 11	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5212	Variable Type Trace 12	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5213	Variable Type Trace 13	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5214	Variable Type Trace 14	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5215	Variable Type Trace 15	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5216	Variable Type Trace 16	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5217	Variable Type Trace 17	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5218	Variable Type Trace 18	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5219	Variable Type Trace 19	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5220	Variable Type Trace 20	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5221	Variable Type Trace 21	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5222	Variable Type Trace 22	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5223	Variable Type Trace 23	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5224	Variable Type Trace 24	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5225	Variable Type Trace 25	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5226	Variable Type Trace 26	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5227	Variable Type Trace 27	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5228	Variable Type Trace 28	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5229	Variable Type Trace 29	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5230	Variable Type Trace 30	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5231	Variable Type Trace 31	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5232	Variable Type Trace 32	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5233	Variable Type Trace 33	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5234	Variable Type Trace 34	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5235	Variable Type Trace 35	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5236	Variable Type Trace 36	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5237	Variable Type Trace 37	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5238	Variable Type Trace 38	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5239	Variable Type Trace 39	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5240	Variable Type Trace 40	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5241	Variable Type Trace 41	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5242	Variable Type Trace 42	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5243	Variable Type Trace 43	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5244	Variable Type Trace 44	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5245	Variable Type Trace 45	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5246	Variable Type Trace 46	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5247	Variable Type Trace 47	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5248	Variable Type Trace 48	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5249	Variable Type Trace 49	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5250	Variable Type Trace 50	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5251	Variable Type Trace 51	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5252	Variable Type Trace 52	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5253	Variable Type Trace 53	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5254	Variable Type Trace 54	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5255	Variable Type Trace 55	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5256	Variable Type Trace 56	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5257	Variable Type Trace 57	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5258	Variable Type Trace 58	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5259	Variable Type Trace 59	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5260	Variable Type Trace 60	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5261	Variable Type Trace 61	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5262	Variable Type Trace 62	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5263	Variable Type Trace 63	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	

Param.	Description	Adjustable range	Factory setting	Read Only
P5264	Variable Type Trace 64	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5265	Variable Type Trace 65	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5266	Variable Type Trace 66	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5267	Variable Type Trace 67	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5268	Variable Type Trace 68	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5269	Variable Type Trace 69	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5270	Variable Type Trace 70	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5271	Variable Type Trace 71	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5272	Variable Type Trace 72	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5273	Variable Type Trace 73	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5274	Variable Type Trace 74	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5275	Variable Type Trace 75	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5276	Variable Type Trace 76	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5277	Variable Type Trace 77	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5278	Variable Type Trace 78	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5279	Variable Type Trace 79	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5280	Variable Type Trace 80	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5281	Variable Type Trace 81	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5282	Variable Type Trace 82	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5283	Variable Type Trace 83	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5284	Variable Type Trace 84	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5285	Variable Type Trace 85	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5286	Variable Type Trace 86	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5287	Variable Type Trace 87	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5288	Variable Type Trace 88	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5289	Variable Type Trace 89	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5290	Variable Type Trace 90	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5291	Variable Type Trace 91	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5292	Variable Type Trace 92	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5293	Variable Type Trace 93	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	

Param.	Description	Adjustable range	Factory setting	Read Only
P5294	Variable Type Trace 94	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5295	Variable Type Trace 95	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5296	Variable Type Trace 96	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5297	Variable Type Trace 97	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5298	Variable Type Trace 98	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5299	Variable Type Trace 99	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5300	Variable Type Trace 100	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5301	Variable Type Trace 101	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5302	Variable Type Trace 102	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5303	Variable Type Trace 103	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5304	Variable Type Trace 104	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5305	Variable Type Trace 105	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5306	Variable Type Trace 106	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5307	Variable Type Trace 107	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5308	Variable Type Trace 108	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	6	
P5309	Variable Type Trace 109	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5310	Variable Type Trace 110	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5311	Variable Type Trace 111	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	

Param.	Description	Adjustable range	Factory setting	Read Only
P5312	Variable Type Trace 112	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	10	
P5313	Variable Type Trace 113	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5314	Variable Type Trace 114	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5315	Variable Type Trace 115	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5316	Variable Type Trace 116	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5317	Variable Type Trace 117	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P5318	Variable Type Trace 118	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5319	Variable Type Trace 119	0 = DT_BOOL 1 = DT_ENUM 2 = DT_UINT8 3 = DT_INT8 4 = DT_UINT16 5 = DT_INT16 6 = DT_UINT32 7 = DT_INT32 8 = DT_REAL32 9 = DT_BITFIELD 10 = DT_BITFIELD_32	0	
P5400	Sample Trigger	1 to 1024	1024	
P5401	Sample number after trigger	0 to 1024	512	
P5402	Signals Quantity	0 to 120	113	
P5403	Trace State	0 = Stopped Trace 1 = Loading Settings 2 = Waiting Trigger 3 = Saving Data Internally 4 = Saving File to SD Card	-	ro
P5404	Trigger	0 = Fault Trigger 1 = Signal Comparation Trigger	0	
P5405	Trigger Signal	0 to 119	0	
P5406	Signal Trigger Direction	0 = Less than 1 = Bigger then	0	
P5408	Comparator Signal Value	-100000.00 to 100000.00	0.00	
P5410	Force Trigger	0 = Stopped Trace 1 = Acquiring data 2 = Force Trigger	0	
P5411	Acquisition Frequency Decimation	0 to 10000	0	
P5412	Rescue Progress	0.0 to 1000.0 %	-	ro
P7000	Last Fault Code	0 to 1000	-	ro
P7001	Last Alarm Code	0 to 1000	-	ro
P7002	Last Event Code	0 to 1000	-	ro
P7003	Fault/Alarm/Event Code 1	0 to 1000	-	ro
P7004	Fault/Alarm/Event Code 2	0 to 1000	-	ro
P7005	Fault/Alarm/Event Code 3	0 to 1000	-	ro
P7006	Fault/Alarm/Event Code 4	0 to 1000	-	ro
P7007	Fault/Alarm/Event Code 5	0 to 1000	-	ro
P7008	Fault/Alarm/Event Code 6	0 to 1000	-	ro
P7009	Fault/Alarm/Event Code 7	0 to 1000	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P7010	Fault/Alarm/Event Code 8	0 to 1000	-	ro
P7011	Fault/Alarm/Event Code 9	0 to 1000	-	ro
P7012	Fault/Alarm/Event Code 10	0 to 1000	-	ro
P7013	Fault/Alarm/Event Code 11	0 to 1000	-	ro
P7014	Fault/Alarm/Event Code 12	0 to 1000	-	ro
P7015	Fault/Alarm/Event Code 13	0 to 1000	-	ro
P7016	Fault/Alarm/Event Code 14	0 to 1000	-	ro
P7017	Fault/Alarm/Event Code 15	0 to 1000	-	ro
P7018	Fault/Alarm/Event Code 16	0 to 1000	-	ro
P7019	Fault/Alarm/Event Code 17	0 to 1000	-	ro
P7020	Fault/Alarm/Event Code 18	0 to 1000	-	ro
P7021	Fault/Alarm/Event Code 19	0 to 1000	-	ro
P7022	Fault/Alarm/Event Code 20	0 to 1000	-	ro
P7023	Fault/Alarm/Event Code 21	0 to 1000	-	ro
P7024	Fault/Alarm/Event Code 22	0 to 1000	-	ro
P7025	Fault/Alarm/Event Code 23	0 to 1000	-	ro
P7026	Fault/Alarm/Event Code 24	0 to 1000	-	ro
P7027	Fault/Alarm/Event Code 25	0 to 1000	-	ro
P7028	Fault/Alarm/Event Code 26	0 to 1000	-	ro
P7029	Fault/Alarm/Event Code 27	0 to 1000	-	ro
P7030	Fault/Alarm/Event Code 28	0 to 1000	-	ro
P7031	Fault/Alarm/Event Code 29	0 to 1000	-	ro
P7032	Fault/Alarm/Event Code 30	0 to 1000	-	ro
P7050	Last Fault Date and Time	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7054	Last Alarm Date and Time	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7058	Last Event Date and Time	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7062	Fault/Alarm/Event Date and Time 1	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7066	Fault/Alarm/Event Date and Time 2	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7070	Fault/Alarm/Event Date and Time 3	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7074	Fault/Alarm/Event Date and Time 4	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7078	Fault/Alarm/Event Date and Time 5	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7082	Fault/Alarm/Event Date and Time 6	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7086	Fault/Alarm/Event Date and Time 7	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7090	Fault/Alarm/Event Date and Time 8	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7094	Fault/Alarm/Event Date and Time 9	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7098	Fault/Alarm/Event Date and Time 10	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7102	Fault/Alarm/Event Date and Time 11	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P7106	Fault/Alarm/Event Date and Time 12	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7110	Fault/Alarm/Event Date and Time 13	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7114	Fault/Alarm/Event Date and Time 14	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7118	Fault/Alarm/Event Date and Time 15	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7122	Fault/Alarm/Event Date and Time 16	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7126	Fault/Alarm/Event Date and Time 17	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7130	Fault/Alarm/Event Date and Time 18	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7134	Fault/Alarm/Event Date and Time 19	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7138	Fault/Alarm/Event Date and Time 20	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7142	Fault/Alarm/Event Date and Time 21	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7146	Fault/Alarm/Event Date and Time 22	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7150	Fault/Alarm/Event Date and Time 23	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7154	Fault/Alarm/Event Date and Time 24	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7158	Fault/Alarm/Event Date and Time 25	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7162	Fault/Alarm/Event Date and Time 26	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7166	Fault/Alarm/Event Date and Time 27	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7170	Fault/Alarm/Event Date and Time 28	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7174	Fault/Alarm/Event Date and Time 29	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7178	Fault/Alarm/Event Date and Time 30	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7180	Inverter Data and Time	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	-	ro
P7184	Inverter Data and Time Setting	0:0:0 – 0/0/0 a 23:59:59 – 31/12/2999	0:0:0 – 0/0/0	
P7200	Last Fault Value	-100000.00 to 100000.00	-	ro
P7202	Last Alarm Value	-100000.00 to 100000.00	-	ro
P7204	Last Event Value	-100000.00 to 100000.00	-	ro
P7206	Fault/Alarm/Event Value 1	-100000.00 to 100000.00	-	ro
P7208	Fault/Alarm/Event Value 2	-100000.00 to 100000.00	-	ro
P7210	Fault/Alarm/Event Value 3	-100000.00 to 100000.00	-	ro
P7212	Fault/Alarm/Event Value 4	-100000.00 to 100000.00	-	ro
P7214	Fault/Alarm/Event Value 5	-100000.00 to 100000.00	-	ro
P7216	Fault/Alarm/Event Value 6	-100000.00 to 100000.00	-	ro
P7218	Fault/Alarm/Event Value 7	-100000.00 to 100000.00	-	ro
P7220	Fault/Alarm/Event Value 8	-100000.00 to 100000.00	-	ro
P7222	Fault/Alarm/Event Value 9	-100000.00 to 100000.00	-	ro
P7224	Fault/Alarm/Event Value 10	-100000.00 to 100000.00	-	ro
P7226	Fault/Alarm/Event Value 11	-100000.00 to 100000.00	-	ro
P7228	Fault/Alarm/Event Value 12	-100000.00 to 100000.00	-	ro
P7230	Fault/Alarm/Event Value 13	-100000.00 to 100000.00	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P7232	Fault/Alarm/Event Value 14	-100000.00 to 100000.00	-	ro
P7234	Fault/Alarm/Event Value 15	-100000.00 to 100000.00	-	ro
P7236	Fault/Alarm/Event Value 16	-100000.00 to 100000.00	-	ro
P7238	Fault/Alarm/Event Value 17	-100000.00 to 100000.00	-	ro
P7240	Fault/Alarm/Event Value 18	-100000.00 to 100000.00	-	ro
P7242	Fault/Alarm/Event Value 19	-100000.00 to 100000.00	-	ro
P7244	Fault/Alarm/Event Value 20	-100000.00 to 100000.00	-	ro
P7246	Fault/Alarm/Event Value 21,	-100000.00 to 100000.00	-	ro
P7248	Fault/Alarm/Event Value 22	-100000.00 to 100000.00	-	ro
P7250	Fault/Alarm/Event Value 23	-100000.00 to 100000.00	-	ro
P7252	Fault/Alarm/Event Value 24	-100000.00 to 100000.00	-	ro
P7254	Fault/Alarm/Event Value 25	-100000.00 to 100000.00	-	ro
P7256	Fault/Alarm/Event Value 26	-100000.00 to 100000.00	-	ro
P7258	Fault/Alarm/Event Value 27	-100000.00 to 100000.00	-	ro
P7260	Fault/Alarm/Event Value 28	-100000.00 to 100000.00	-	ro
P7262	Fault/Alarm/Event Value 29	-100000.00 to 100000.00	-	ro
P7264	Fault/Alarm/Event Value 30	-100000.00 to 100000.00	-	ro
P7300	IMPS1 - Energized Time - Book 1	0 to 65535	-	ro
P7301	IMPS1 - Energized Time - Book 2	0 to 65535	-	ro
P7302	IMPS1 - Energized Time - Book 3	0 to 65535	-	ro
P7303	IMPS1 - Energized Time - Book 4	0 to 65535	-	ro
P7304	IMPS1 - Energized Time - Book 5	0 to 65535	-	ro
P7305	IMPS1 - Energized Time - Book 6	0 to 65535	-	ro
P7306	IMPS1 - Energized Time - Book 7	0 to 65535	-	ro
P7307	IMPS1 - Energized Time - Book 8	0 to 65535	-	ro
P7308	IMPS1 - Energized Time - Book 9	0 to 65535	-	ro
P7310	IMPS2 - Energized Time - Book 1	0 to 65535	-	ro
P7311	IMPS2 - Energized Time - Book 2	0 to 65535	-	ro
P7312	IMPS2 - Energized Time - Book 3	0 to 65535	-	ro
P7313	IMPS2 - Energized Time - Book 4	0 to 65535	-	ro
P7314	IMPS2 - Energized Time - Book 5	0 to 65535	-	ro
P7315	IMPS2 - Energized Time - Book 6	0 to 65535	-	ro
P7316	IMPS2 - Energized Time - Book 7	0 to 65535	-	ro
P7317	IMPS2 - Energized Time - Book 8	0 to 65535	-	ro
P7318	IMPS2 - Energized Time - Book 9	0 to 65535	-	ro
P7320	IMPS1 - CRC Error - Book 1	0 to 65535	-	ro
P7321	IMPS1 - CRC Error - Book 2	0 to 65535	-	ro

Param.	Description	Adjustable range	Factory setting	Read Only
P7322	IMPS1 - CRC Error - Book 3	0 to 65535	-	ro
P7323	IMPS1 - CRC Error - Book 4	0 to 65535	-	ro
P7324	IMPS1 - CRC Error - Book 5	0 to 65535	-	ro
P7325	IMPS1 - CRC Error - Book 6	0 to 65535	-	ro
P7330	IMPS2 - CRC Error - Book 1	0 to 65535	-	ro
P7331	IMPS2 - CRC Error - Book 2	0 to 65535	-	ro
P7332	IMPS2 - CRC Error - Book 3	0 to 65535	-	ro
P7333	IMPS2 - CRC Error - Book 4	0 to 65535	-	ro
P7334	IMPS2 - CRC Error - Book 5	0 to 65535	-	ro
P7335	IMPS2 - CRC Error - Book 6	0 to 65535	-	ro
P7340	IMPS1 - Timeout Error - Book 1	0 to 65535	-	ro
P7341	IMPS1 - Timeout Error - Book 2	0 to 65535	-	ro
P7342	IMPS1 - Timeout Error - Book 3	0 to 65535	-	ro
P7343	IMPS1 - Timeout Error - Book 4	0 to 65535	-	ro
P7344	IMPS1 - Timeout Error - Book 5	0 to 65535	-	ro
P7345	IMPS1 - Timeout Error - Book 6	0 to 65535	-	ro
P7350	IMPS2 - Timeout Error - Book 1	0 to 65535	-	ro
P7351	IMPS2 - Timeout Error - Book 2	0 to 65535	-	ro
P7352	IMPS2 - Timeout Error - Book 3	0 to 65535	-	ro
P7353	IMPS2 - Timeout Error - Book 4	0 to 65535	-	ro
P7354	IMPS2 - Timeout Error - Book 5	0 to 65535	-	ro
P7355	IMPS2 - Timeout Error - Book 6	0 to 65535	-	ro
P7420	IMPS1 - CRC Error - FPGA1	0 to 65535	-	ro
P7421	IMPS1 - CRC Error - FPGA2	0 to 65535	-	ro
P7431	IMPS2 - CRC Error - FPGA1	0 to 65535	-	ro
P7432	IMPS2 - CRC Error - FPGA2	0 to 65535	-	ro
P7450	Disable Grid Voltages Faults	Bitmap: bit0 : AC Overvoltage Fault bit1 : AC Undervoltage Fault bit2 : AC Overfrequency Fault bit3 : AC Underfrequency Fault	0	

Param.	Description	Adjustable range	Factory setting	Read Only
P7452	Disable Grid Currents Faults	Bitmap: bit0 : High IA Current Alarm bit1 : High IA Current Fault bit2 : High IB Current Alarm bit3 : High IB Current Fault bit4 : High IC Current Alarm bit5 : High IC Current Fault bit6 : High AVG IA Current Alarm bit7 : High AVG IA Current Fault bit8 : High AVG IB Current Alarm bit9 : High AVG IB Current Fault bit10 : High AVG IC Current Alarm bit11 : High AVG IC Current Fault bit12 : High IA Current Unbal. Alarm bit13 : High IA Current Unbal. Fault bit14 : High IB Current Unbal. Alarm bit15 : High IB Current Unbal. Fault bit16 : High IC Current Unbal. Alarm bit17 : High IC Current Unbal. Fault	0	
P7454	Disable DC Bus Fault	Bitmap: bit0 : Low DC Voltage Fault bit1 : High DC Voltage Fault bit2 : High AVG DC Voltage Alarm bit3 : High AVG DC Voltage Fault bit4 : Low AVG DC Voltage Alarm bit5 : Low AVG DC Voltage Fault bit6 : High DC Voltage Unbal. Alarm	0	
P7456	Disable Temperature Faults	Bitmap: bit0 : Inductor Temperature Broken Wire Alarm bit1 : IGBTs Temperature Broken Wire Fault bit2 : Water Temperature Broken Wire Alarm	0	
P7500	Table IGBT Temperature by Limit Current - x0	0.0 to 200.0 °C	78.0 °C	
P7502	Table IGBT Temperature by Limit Current - x1	0.0 to 200.0 °C	82.0 °C	
P7504	Table IGBT Temperature by Limit Current - x2	0.0 to 200.0 °C	82.5 °C	
P7506	Table IGBT Temperature by Limit Current - x3	0.0 to 200.0 °C	83.0 °C	
P7508	Table IGBT Temperature by Limit Current - x4	0.0 to 200.0 °C	83.5 °C	
P7510	Table IGBT Temperature by Limit Current - x5	0.0 to 200.0 °C	84.0 °C	
P7512	Table IGBT Temperature by Limit Current - x6	0.0 to 200.0 °C	84.5 °C	
P7514	Table IGBT Temperature by Limit Current - x7	0.0 to 200.0 °C	85.0 °C	
P7516	Table IGBT Temperature by Limit Current - y0	0.0 to 110.0 %In	102.0 %In	
P7518	Table IGBT Temperature by Limit Current - y1	0.0 to 110.0 %In	100.0 %In	
P7520	Table IGBT Temperature by Limit Current - y2	0.0 to 110.0 %In	98.0 %In	
P7522	Table IGBT Temperature by Limit Current - y3	0.0 to 110.0 %In	95.0 %In	

Param.	Description	Adjustable range	Factory setting	Read Only
P7524	Table IGBT Temperature by Limit Current - y4	0.0 to 110.0 %In	90.0 %In	
P7526	Table IGBT Temperature by Limit Current - y5	0.0 to 110.0 %In	85.0 %In	
P7528	Table IGBT Temperature by Limit Current - y6	0.0 to 110.0 %In	80.0 %In	
P7530	Table IGBT Temperature by Limit Current - y7	0.0 to 110.0 %In	70.0 %In	
P7532	Table IGBT Temperature by Limit Current - N	0 to 8	8	
P7534	Table Power by Power Factor - x0	0.0 to 100.0 %Pn	20.0 %Pn	
P7536	Table Power by Power Factor - x1	0.0 to 100.0 %Pn	50.0 %Pn	
P7538	Table Power by Power Factor - x2	0.0 to 100.0 %Pn	100.0 %Pn	
P7540	Table Power by Power Factor - x3	0.0 to 100.0 %Pn	0.0 %Pn	
P7542	Table Power by Power Factor - x4	0.0 to 100.0 %Pn	0.0 %Pn	
P7544	Table Power by Power Factor - x5	0.0 to 100.0 %Pn	0.0 %Pn	
P7546	Table Power by Power Factor - y6	0.0 to 100.0 %Pn	0.0 %Pn	
P7548	Table Power by Power Factor - x7	0.0 to 100.0 %Pn	0.0 %Pn	
P7550	Table Power by Power Factor - y0	-1.0 to 1.0	1.0	
P7552	Table Power by Power Factor - y1	-1.0 to 1.0	1.0	
P7554	Table Power by Power Factor - y2	-1.0 to 1.0	0.9	
P7556	Table Power by Power Factor - y3	-1.0 to 1.0	0.0	
P7558	Table Power by Power Factor - y4	-1.0 to 1.0	0.0	
P7560	Table Power by Power Factor - y5	-1.0 to 1.0	0.0	
P7562	Table Power by Power Factor - y6	-1.0 to 1.0	0.0	
P7564	Table Power by Power Factor - y7	-1.0 to 1.0	0.0	
P7566	Table Power by Power Factor - N	0 to 8	3	
P7568	Table Frequency by limit P - x0	0.0 to 100.0 Hz	58.0 Hz	
P7570	Table Frequency by limit P - x1	0.0 to 100.0 Hz	58.5 Hz	
P7572	Table Frequency by limit P - x2	0.0 to 100.0 Hz	59.0 Hz	
P7574	Table Frequency by limit P - x3	0.0 to 100.0 Hz	60.0 Hz	
P7576	Table Frequency by limit P - x4	0.0 to 100.0 Hz	61.0 Hz	
P7578	Table Frequency by limit P - x5	0.0 to 100.0 Hz	61.5 Hz	
P7580	Table Frequency by limit P - x6	0.0 to 100.0 Hz	62.0 Hz	
P7582	Table Frequency by limit P - x7	0.0 to 100.0 Hz	0.0 Hz	
P7584	Table Frequency by limit P - y0	0.0 to 130.0 %Pn	90.0 %Pn	
P7586	Table Frequency by limit P - y1	0.0 to 130.0 %Pn	100.0 %Pn	
P7588	Table Frequency by limit P - y2	0.0 to 130.0 %Pn	105.0 %Pn	
P7590	Table Frequency by limit P - y3	0.0 to 130.0 %Pn	110.0 %Pn	

Param.	Description	Adjustable range	Factory setting	Read Only
P7592	Table Frequency by limit P - y4	0.0 to 130.0 %Pn	105.0 %Pn	
P7594	Table Frequency by limit P - y5	0.0 to 130.0 %Pn	100.0 %Pn	
P7596	Table Frequency by limit P - y6	0.0 to 130.0 %Pn	90.0 %Pn	
P7598	Table Frequency by limit P - y7	0.0 to 130.0 %Pn	0.0 %Pn	
P7600	Table Frequency by limit P - N	0 to 8	7	
P7602	Table Id by Vdc - x0	0.0 to 1700.0 V	0.0 V	
P7604	Table Id by Vdc - x1	0.0 to 1700.0 V	0.0 V	
P7608	Table Id by Vdc - x2	0.0 to 1700.0 V	0.0 V	
P7610	Table Id by Vdc - x3	0.0 to 1700.0 V	0.0 V	
P7612	Table Id by Vdc - x4	0.0 to 1700.0 V	0.0 V	
P7614	Table Id by Vdc - x5	0.0 to 1700.0 V	0.0 V	
P7616	Table Id by Vdc - x6	0.0 to 1700.0 V	0.0 V	
P7618	Table Id by Vdc - x7	0.0 to 1700.0 V	0.0 V	
P7620	Table Id by Vdc - y0	-110.0 to 110.0 A	0.0 A	
P7622	Table Id by Vdc - y1	-110.0 to 110.0 A	0.0 A	
P7624	Table Id by Vdc - y2	-110.0 to 110.0 A	0.0 A	
P7626	Table Id by Vdc - y3	-110.0 to 110.0 A	0.0 A	
P7628	Table Id by Vdc - y4	-110.0 to 110.0 A	0.0 A	
P7630	Table Id by Vdc - y5	-110.0 to 110.0 A	0.0 A	
P7632	Table Id by Vdc - y6	-110.0 to 110.0 A	0.0 A	
P7634	Table Id by Vdc - y7	-110.0 to 110.0 A	0.0 A	
P7636	Table Id by Vdc - N	0 to 8	0	
P7638	Table Inductor Temperature by limit current - x0	0.0 to 200.0 °C	120.0 °C	
P7640	Table Inductor Temperature by limit current - x1	0.0 to 200.0 °C	125.0 °C	
P7642	Table Inductor Temperature by limit current - x2	0.0 to 200.0 °C	130.0 °C	
P7644	Table Inductor Temperature by limit current - x3	0.0 to 200.0 °C	131.0 °C	
P7646	Table Inductor Temperature by limit current - x4	0.0 to 200.0 °C	132.0 °C	
P7648	Table Inductor Temperature by limit current - x5	0.0 to 200.0 °C	133.0 °C	
P7650	Table Inductor Temperature by limit current - x6	0.0 to 200.0 °C	134.0 °C	
P7652	Table Inductor Temperature by limit current - x7	0.0 to 200.0 °C	135.0 °C	
P7654	Table Inductor Temperature by limit current - y0	0.0 to 110.0 %In	110.0 %In	
P7656	Table Inductor Temperature by limit current - y1	0.0 to 110.0 %In	103.0 %In	

Param.	Description	Adjustable range	Factory setting	Read Only
P7658	Table Inductor Temperature by limit current - y2	0.0 to 110.0 %In	100.0 %In	
P7660	Table Inductor Temperature by limit current - y3	0.0 to 110.0 %In	95.0 %In	
P7662	Table Inductor Temperature by limit current - y4	0.0 to 110.0 %In	90.0 %In	
P7664	Table Inductor Temperature by limit current - y5	0.0 to 110.0 %In	85.0 %In	
P7666	Table Inductor Temperature by limit current - y6	0.0 to 110.0 %In	80.0 %In	
P7668	Table Inductor Temperature by limit current - y7	0.0 to 110.0 %In	70.0 %In	
P7670	Table Inductor Temperature by limit current - N	0 to 8	8	
P7800	Emulation Setting	Bitmap: bit0 : Enable Emulation bit1 : Force Book Status by Enable Parameter bit2 : Force Iuvw Balanced bit3 : Emulate Books Feedbacks bit4 : Execute Current Ramp at Pwm Enable	0	
P7802	Grid Emulated Voltage	0.0 to 100.0 %	77.0 %	
P7804	IMPS1 - Emulated Voltage Vpv	0.0 to 100.0 %	0.0 %	
P7806	IMPS1 - Emulated Voltage Vdc	0.0 to 100.0 %	0.0 %	
P7808	IMPS1 - Emulated Current Iu per Book	0.0 to 100.0 %	83.0 %	
P7810	IMPS1 - Emulated Current Iv per Book	0.0 to 100.0 %	83.0 %	
P7812	IMPS1 - Emulated Current Iw per Book	0.0 to 100.0 %	83.0 %	
P7814	IMPS1 - Emulated Temperature - IGBT	0.0 to 100.0 %	30.0 %	
P7816	IMPS1 - Emulated Temperature - Inductor	0.0 to 100.0 %	30.0 %	
P7818	IMPS1 - Emulated Temperature - CMPS	0.0 to 100.0 %	30.0 %	
P7820	IMPS1 - Emulated Temperature - Water	0.0 to 100.0 %	0.0 %	
P7822	IMPS1 - Emulated Pressure - Water	0.0 to 100.0 %	0.0 %	
P7830	IMPS2 - Emulated Voltage - Vpv	0.0 to 100.0 %	0.0 %	
P7832	IMPS2 - Emulated Voltage - Vdc	0.0 to 100.0 %	0.0 %	
P7834	IMPS2 - Emulated Current Iu per Book	0.0 to 100.0 %	83.0 %	
P7836	IMPS2 - Emulated Current Iv per Book	0.0 to 100.0 %	83.0 %	
P7838	IMPS2 - Emulated Current Iw per Book	0.0 to 100.0 %	83.0 %	
P7840	IMPS2 - Emulated Temperature - IGBT	0.0 to 100.0 %	30.0 %	
P7842	IMPS2 - Inductor Emulated Temperature	0.0 to 100.0 %	30.0 %	
P7844	IMPS2 - CMPS Emulated Temperature	0.0 to 100.0 %	30.0 %	
P7846	IMPS2 - Water Emulated Temperature	0.0 to 100.0 %	0.0 %	
P7848	IMPS2 - Water Emulated Pressure	0.0 to 100.0 %	0.0 %	

Param.	Description	Adjustable range	Factory setting	Read Only
P7900	Reset	Bitmap: bit0 : Reset control bit1 : Factory reset bit2 : Enable Special Parameters Writing bit3 : Reset Fault Historic	0	
P7902	Password	0 to 4294967295	0	
P7904	Acess Level	0 = Basic Acess 1 = User Access 2 = Service Acess 3 = Engineering Acess	-	ro
P7906	New Daily Energy Value	0.0 to 1000000000.0	0.0	
P7908	New Total Energy Value	0.0 to 1000000000.0	0.0	
P7910	IMPS1 - New Operation Time Value - Book 1	0 to 100000000 min	0 min	
P7912	IMPS1 - New Operation Time Value - Book 2	0 to 100000000 min	0 min	
P7914	IMPS1 - New Operation Time Value - Book 3	0 to 100000000 min	0 min	
P7916	IMPS1 - New Operation Time Value - Book 4	0 to 100000000 min	0 min	
P7918	IMPS1 - New Operation Time Value - Book 5	0 to 100000000 min	0 min	
P7920	IMPS1 - New Operation Time Value - Book 6	0 to 100000000 min	0 min	
P7930	IMPS2 - New Operation Time Value - Book 1	0 to 100000000 min	0 min	
P7932	IMPS2 - New Operation Time Value - Book 2	0 to 100000000 min	0 min	
P7934	IMPS2 - New Operation Time Value - Book 3	0 to 100000000 min	0 min	
P7936	IMPS2 - New Operation Time Value - Book 4	0 to 100000000 min	0 min	
P7938	IMPS2 - New Operation Time Value - Book 5	0 to 100000000 min	0 min	
P7940	IMPS2 - New Operation Time Value - Book 6	0 to 100000000 min	0 min	

2 FAULTS, ALARMS AND EVENTS

This chapter presents information about faults, alarms and events, which are three distinct categories to describe relevant incidents which may occur during operation of the inverter.

For specific information about communication with the SIW750 and how to use the WEG Programming Suite, please refer to the documentation listed below:

- WEG SIW750 Central Solar Inverter Start-up and OM Guide;
- WPS user manual.

For a complete list of faults, alarms and events with corresponding descriptions and possible causes, please refer to section 2.4.

The occurrence of faults, alarms and events is stored in memory. The last 30 occurrences can also be visualized with the help of parameters listed in WPS, as described below:

- P07003 to P07032 specify the faults, alarms or events IDs;
- P07062 to P7178 register date and time of each incident;
- P07206 to P07264 display values, e.g., voltage, current, temperature etc., related to the incidents, when applicable.

In WPS, it is also possible to generate an event log with a detailed record of all faults, alarms and events notifications.

2.1 FAULTS

A fault is defined as a situation that could eventually give rise to a catastrophic failure. Therefore, the SIW750 will automatically halt and disconnect from the grid when a fault is recognized by the system to avoid hazardous situations and equipment damage.

When a fault occurs, the SIW750 is automatically disabled and not allowed to restart until the cause of the fault is fully resolved. The inverter may gradually reduce its current before disconnecting from the grid or immediately disconnect depending on the gravity of the fault, as indicated in section 2.4.

The SIW750 performs the following procedures when a fault occurs:

- Power modules and contactors are switched off, disconnecting the inverter from the grid;
- The inverter status changes to “Fault” in WPS;
- The fault description is indicated in parameter P7000 in WPS;
- Digital output “No Fault” goes LOW.

Given a fault condition, it is necessary to understand and fix any abnormal situation which is preventing the SIW750 to operate properly. Once this is done, the inverter can be restarted in one of the following ways:

- Waiting for the auto reset timer to count down to zero. The auto reset time can be configured with the P01010 parameter;
- By the system operator, by sending the command “Clear Faults” through parameter P01001 in WPS.

2.2 ALARMS

Unlike a system fault, an alarm indicates an abnormal situation which will not immediately prevent the SIW750 from working correctly. Nevertheless, alarms should not be neglected as they could eventually escalate to faults. The alarm description is indicated in parameter P7001 in WPS.

Alarms are automatically cleared once the abnormal situations are resolved.

2.3 EVENTS

An event describes a situation that is relevant, but expected to happen during normal operation of the inverter, e.g., receiving or transmitting commands, transition states between modes of operation etc.

2.4 LIST OF ALARMS AND FAULTS

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0001 : Undervoltage Protection	Immediate	It acts when the line voltage drops below a value specified in P1200.	- The distribution network has a voltage value below the nominal.
F0002 : Undervoltage Protection - LVRT0 (timed)	Immediate	It acts when the line voltage reaches a value higher than that specified in P1202.	- The power distribution network has a voltage value above the nominal.
F0003 : Undervoltage Protection - LVRT1 (timed)	Immediate	Timed undervoltage in the power grid.	- Power grid event.
F0004 : Overvoltage Protection	Immediate	It operates when the grid frequency rises above the value configured in P1206.	- Power grid frequency above the nominal condition.
F0005 : Overvoltage Protection (Timed)	Immediate	High average voltage between phases A and B. The voltage value for alarm activation can be configured in P1208.	- Power grid voltage between phases A and B above nominal condition .
F0006 : Underfreqeuncy Protection	Immediate	Timed sub-frequency in the power grid.	- Power grid event.
F0007 : Underfrequency Protection (Timed)	Immediate	Timed sub-frequency in the power grid.	- Power grid event.
F0008 : Overfrequency Protection	Immediate	It operates when the grid frequency rises above the value configured in P1106.	- Power grid frequency above the nominal condition.
F0009 : Overfrequency Protection (Timed)	Immediate	Timed over-frequency on the power grid.	- Power grid event.
E0010 : LVRFT Event	-	Overcurrent event from variation the grid voltage.	- Power grid event.
F0020 : DC Link Undervoltage 1	Immediate	It occurs when the voltage on the DC bus falls below the value specified in P1202.	- DC under voltage - Low solar radiation in the morning or late afternoon - DC voltage reading failure
F0021 : DC Link Overvoltage 1	Immediate	It acts when the voltage on the DC bus 1 rises above the value configured in P1200.	- Over DC voltage. - Connection of photovoltaic panels - Dimensioning of the photovoltaic system - DC voltage reading fault
A0022 : DC Link Unbal. 1	Immediate	It acts when the voltage unbalance on the DC bus 1 is greater than the value configured in P1206.	- DC voltage reading failure.
F0023 : DC Link Unbal. 1	Immediate	It acts when the voltage unbalance on the DC bus 1 is greater than the value configured in P1204.	- DC voltage reading failure.
F0024 : Overvoltage in Photovoltaic Modules 1	Immediate	High voltage of the photovoltaic panels 1.	- Failure to read the voltage of the photovoltaic panels. - Poor sizing of the photovoltaic plant.
F0025 : Negative PV Voltage 1 - Inverted Polarity	Immediate	DC input 1 voltage with inverted polarity.	- Installation error. - Medição da tensão CC de entrada com conectores invertidos.
F0026 : DC Link Short Circuit 1	Immediate	Short circuit fault in the DC bus 1.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0030 : DC Link Undervoltage 2	Immediate	It occurs when the voltage on the DC bus 2 falls below the value specified in P1202.	- DC under voltage - Low solar radiation in the morning or late afternoon - DC voltage reading failure
F0031 : DC Link Overvoltage 2	Immediate	It acts when the voltage on the DC bus 2 rises above the value configured in P1200.	- Over DC voltage. - Connection of photovoltaic panels - Dimensioning of the photovoltaic system - DC voltage reading fault
A0032 : DC Link Unbal. Alarm 2	Immediate	It acts when the voltage unbalance on the DC bus 2 is greater than the value configured in P1206.	- DC voltage reading failure.
F0033 : DC Link Unbal. Fault 2	Immediate	It acts when the voltage unbalance on the DC bus 2 is greater than the value configured in P1204.	- DC voltage reading failure.
F0034 : Overvoltage in Photovoltaic Modules 2	Immediate	High voltage of the photovoltaic panels 2.	- Failure to read the voltage of the photovoltaic panels. - Poor sizing of the photovoltaic plant.
F0035 : Negative PV Voltage 2 - Inverted Polarity	Immediate	DC input 2 voltage with inverted polarity.	- Installation error. - Medição da tensão CC de entrada com conectores invertidos.
F0036 : DC Link Short Circuit 2	Immediate	Short circuit fault in the DC bus 2.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0040 : CPU Error (Watchdog)	Immediate	Atuação do temporizador de watchdog do microcontrolador.	- Ruído elétrico. - Conversor não aterrado.
F0041 : EEPROM Access Fault	Immediate	Failed to read the EEPROM Memory parameter list.	- Defect in the EEPROM memory.
F0042 : IMPS: Wrong Book Number	Immediate	Parameter List corrupted in EEPROM memory.	- Problem with the firmware version. Perform factory reset.
F0043 : Serial Communication Fault	Ramp	Modbus RS485 communication failure.	- Power grid cable disconnected. - Incorrect power grid configuration.
A0044 : Invalid clock value	-	Indicates that the HMI clock has an invalid date or time.	- HMI battery discharged, defective or not installed. - Necessary to set date and time.
F0045 : Book Initialization Fault - No Book Enable	Immediate	Communication between the MPS750 and the control failed.	Communication between the MPS750 and the control failed. - CMPS card not energized or defective.
F0046 : Open Loop Mode not allowed	Immediate	Open-Loop operating mode is not allowed.	- Electricity power grid present.
A0047 : Broken Wire in Temperature Sensor	-	Problem in measuring the MPS750 inductor temperature sensor.	- Temperature sensor cable not properly connected to the CMPS card. - Faulty temperature sensor.
F0048 : Broken Wire in Temperature Sensor	Ramp	Problem in measuring the temperature sensor of the MPS750 semiconductor switches.	- Temperature sensor cable not properly connected to the CMPS card. - Faulty temperature sensor.
A0049 : Broken Wire in Water Temperature Sensor	-	Problem in the water temperature sensor.	- Temperature sensor cable not properly connected to the IGS1500 card. - Temperature sensor damage.
F0050 : Phase U Current Calibration Fault	Immediate	Current measurement circuit of the U phase has a value outside the range specified in P1270.	- Defect in internal circuits.
F0051 : Phase V Calibration Current Fault	Immediate	Current measurement circuit of the V phase has a value outside the range specified in P1270.	- Defect in internal circuits.
F0052 : Phase W Current Calibration Fault	Immediate	Current measurement circuit of the W phase has a value outside the range specified in P1270.	- Defect in internal circuits.
F0053 : Voltage Calibration Fault Vab	Immediate	Voltage measurement circuit Vab has value out of range. The range of values can be configured in P1268.	- Defect in internal circuits
F0054 : Voltage Calibration Fault Vbc	Immediate	Voltage measurement circuit Vbc has value out of range. The range of values can be configured in P1268.	- Defect in internal circuits
F0055 : Voltage Calibration Fault Vca	Immediate	Voltage measurement circuit Vca has value out of range. The range of values can be configured in P1268.	- Defect in internal circuits
A0056 : Misconfig in Points ABC	-	ABC Conection in negative conection	- Two phase can be inverted

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0060 : DC Contactor Opening Fault 1	Immediate	It occurs when there is a failure to open the DC contactor 1.	- Defect in the DC contactor.
F0061 : DC Contactor Closing Fault 1	Immediate	It occurs when the DC contactor 1 fails to close.	- Defect in the synchronism contactor.
F0062 : DC Contactor Opening Fault 2	Immediate	It occurs when there is a failure to open the DC contactor 2.	- Defect in the DC contactor.
F0063 : DC Contactor Closiing Fault 2	Immediate	It occurs when there is a failure to open the DC contactor 2.	- Defect in the DC contactor.
A0064 : Synchronization with the Grid was not Possible	-	It occurs when the grid measures are out of the operating range during synchronism.	- AC Switch oppened. - AC voltage measure circuit damage.
F0065 : DC Pre Charge Contactor Closing Fault	Immediate	It occurs when there is a failure to close the DC pre-charge contactor.	- Defect in the DC pre-charge contactor.
F0066 : AC Circuit Breaker Opening Fault	Immediate	Failure to open the AC circuit breaker.	- Broken wire or digital input function not defined for the return of the AC Circuit Breaker. - AC Circuit Breaker defect.
F0067 : AC Circuit Breaker Closing Fault	Immediate	Failure to close the AC circuit breaker.	- Broken wire or digital input function not defined for the return of the AC Circuit Breaker. - AC Circuit Breaker defect.
F0068 : AC Circuit Breaker Feedback not Configured	Immediate	It occurs when the AC switch feedback is not configured in WCW operating mode.	- Feedback parameter needs to be configurated.
F0070 : Door Panel Opened	Ramp	Operates when the electrical panel door opens.	- Electrical panel door open - Bad contact in the door sensor connection
F0071 : External Fault	Immediate	Fault information sent by a component external to the SIW750 control.	- According to the functionality of the external component.
F0072 : Rectifier Fault	Immediate	WCW rectifier Fault	- External WCW rectifier fault signal identified
A0073 : Memory Card not Found or Corrupted	-	Memory card not found or corrupted.	- Memory card not connected or damaged.
A0074 : Trace Store Error	-	Error when performing access/writing on the memory card.	- Memory card corrupted/damaged.
F0075 : UPS Short Fault	Immediate	Short-UPS Fault detected.	- Verify fault in the Short-UPS inverter.
A0076 : Ground Current Alarm - GFDI	-	Ground current Alarm.	- Ground fault present.
F0077 : Ground Current Fault - GFDI	Immediate	Ground current Fault.	- Ground fault present.
A0078 : Open Fuse in Ground Fault Circuit - GFDI1	-	Open fuse alarm in GFDI of DC link 1.	- Open fuse.
A0079 : Open Fuse in Ground Fault Circuit - GFDI2	-	Open fuse alarm in GFDI of DC link 2.	- Open fuse.
A0080 : Cooling Alarm	-	Occurs when the coolant pressure drops below the set alarm value.	- Water pump with insufficient pressure. - Leak in the hydraulic circuit.
F0081 : Cooling Fault	Ramp	Occurs when the coolant pressure drops below the set fault value.	- Water pump with insufficient pressure. - Leak in the hydraulic circuit.
A0082 : Surge Protection Device Alarm	-	Surge protection detected.	- Short circuit in a String.
F0083 : Insulat. Res. DI Fault	Immediate	It acts when the measurement of the insulation resistance of the photovoltaic panels is below the specified value.	- Insulation resistance reading failure. - Short circuit in a string
F0085 : Ventilator Inverter Fault	Ramp	Cooling system fan inverter failure.	- Check the fan inverter.
F0086 : Ventilator Overload Fault	Ramp	Overload failure in the cooling system fan.	- Broken wire or digital input function not defined for overload return. - Defect in the overload relay.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0087 : Water Pump Inverter Fault	Ramp	Cooling system water pump inverter failure.	- Check the water pump inverter.
F0088 : Water Leak Fault	Ramp	Water leak detected.	- Poor connection of the water leak sensor. - Damaged cooling system piping.
F0089 : Cooling Water Flow Fault	Ramp	Water flow fault detected.	- Water Pump OFF.
A0090 : High Water Pump Pressure	-	High pressure in the cooling system.	- Broken wire or digital input function not defined for pressure return. - Excess water and system pressure.
F0091 : High Water Pressure	Ramp	High water pressure in the cooling system.	- Water pressure measurement failure. - Excessive water and pressure in the system.
A0092 : Low Water Pressure	-	Low water pressure in the cooling system.	- Water pressure measurement failure. - Little water and pressure in the system.
F0093 : Very Low Water Pressure	Ramp	Extremely low water pressure in the cooling system.	- Water pressure measurement failure.
F0094 : Contactor Closing/Opening Fault GFDI2	Immediate	DC link 1 ground switch closing or oppening fault.	GFDI Switch damage.
F0095 : Contactor Closing/Opening Fault GFDI2	Immediate	DC link 2 ground switch closing or oppening fault.	GFDI Switch damage.
F0100 : HW Overcurrent or Desat.	Immediate	HW Overcurrent or HW Deactivation	- IGBT modules shorted or deactivated.
F0101 : IMPS1 - Power Supply Fall - IMPS or IGS	Immediate	The power supply to IMPS1 or IGS1 electronic cards has been interrupted.	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
F0102 : IMPS1 - Source Fault +15V	Immediate	IMSP1 Power supply below (+15V) the minimum limit.	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
F0103 : IMPS1 - Source Fault -15V	Immediate	The IMSP1 Power supply (-15V) below the minimum limit.	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
F0104 : IMPS2 - Power Supply Fall - IMPS or IGS	Immediate	The IMPS2 ou IGS2 power supply has been interrupted	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
F0105 : IMPS2 - Source Fault +15V	Immediate	The IMSP2 Power supply (+15V) below the minimum limit.	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
F0106 : IMPS2 - Source Fault -15V	Immediate	The IMSP2 Power supply (-15V) below the minimum limit.	- Power grid Fault, responsible for power supplying the auxiliary circuits - Fault in the 24V IMPS power supply - 220V AC fault(short UPS) responsible for power the 24V power supply of the IMPS and IGS cards.
A0110 : Phase A High Grid Current	-	It occurs when the mains current in phase A exceeds the limit stipulated in P1240.	- Damaged IGBTs or Sinusoidal Filter components.
F0111 : Phase A Grid Overcurrent	Immediate	Power Grid Overcurrent in the Phase A.	- Damaged IGBTs or Sinusoidal Filter components.
A0112 : Phase B High Grid Current	-	It occurs when the mains current in phase B exceeds the limit stipulated in P1240.	- Damaged IGBTs or Sinusoidal Filter components.
F0113 : Phase B Grid Overcurrent	Immediate	Power Grid overcurrent in the Phase B.	- Damaged IGBTs or Sinusoidal Filter components.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0114 : Phase C High Grid Current	-	It occurs when the mains current in phase C exceeds the limit stipulated in P1240.	- Damaged IGBTs or Sinusoidal Filter components.
F0115 : Phase C Grid Overcurrent	Immediate	Power Grid overcurrent in the Phase C.	- Damaged IGBTs or Sinusoidal Filter components.
A0120 : Phase A High AVG Grid Current	-	It occurs when the mains current in phase A exceeds the limit stipulated in P1244.	- Damaged IGBTs or Sinusoidal Filter components.
F0121 : Phase A AVG Grid Overcurrent	Immediate	Power Grid AVG overcurrent in the Phase A.	- Damaged IGBTs or Sinusoidal Filter components.
A0122 : Phase B High AVG Grid Current	-	It occurs when the mains current in phase B exceeds the limit stipulated in P1244.	- Damaged IGBTs or Sinusoidal Filter components.
F0123 : Phase B AVG Grid Overcurrent	Immediate	Power Grid AVG overcurrent in the Phase B.	- Damaged IGBTs or Sinusoidal Filter components.
A0124 : Phase C High AVG Grid Current	-	It occurs when the mains current in phase C exceeds the limit stipulated in P1244.	- Damaged IGBTs or Sinusoidal Filter components.
F0125 : Phase C AVG Grid Overcurrent	Immediate	Power grid AVG overcurrent in the Phase C.	- Damaged IGBTs or Sinusoidal Filter components.
A0130 : Phase A Grid Current Unbal.	-	Power Grid Current unbalance in the phase A.	- Defect in the current measurement sensor. - Defect in internal circuits that generate pulses for IGBTs.
F0131 : Phase A Grid Current Unbal.	Immediate	Power Grid current unbalance in the Phase A.	- Unbalanced three-phase load
A0132 : Phase B Grid Current Unbal.	-	Power Grid Current unbalance in the phase B.	- Defect in the current measurement sensor. - Defect in internal circuits that generate pulses for IGBTs.
F0133 : Phase B Grid Current Unbal.	Immediate	Power Grid Current unbalance in the phase B.	- Defect in the current measurement sensor. - Defect in internal circuits that generate pulses for IGBTs.
A0134 : Phase C Grid Current Unbal.	-	Power Grid Current unbalance in the phase C.	- Defect in the current measurement sensor. - Defect in internal circuits that generate pulses for IGBTs.
F0135 : Phase C Grid Current Unbal.	Immediate	Power Grid Current unbalance in the Phase C.	- Unbalanced three-phase load
A0150 : IMPS1 - High RMS Neutral Current - Book 1	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 1 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0151 : IMPS1 - High RMS Neutral Current - Book 2	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 2 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0152 : IMPS1 - High RMS Neutral Current - Book 3	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 3 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0153 : IMPS1 - High RMS Neutral Current - Book 4	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 4 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0154 : IMPS1 - High RMS Neutral Current - Book 5	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 5 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0155 : IMPS1 - High RMS Neutral Current - Book 6	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 6 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0156 : IMPS1 - High RMS Neutral Current - Book 7	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 7 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0157 : IMPS1 - High RMS Neutral Current - Book 8	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 8 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0158 : IMPS1 - High RMS Neutral Current - Book 9	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 9 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0160 : IMPS1 - High RMS Neutral Current - Book 1	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 1 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0161 : IMPS1 - High RMS Neutral Current - Book 2	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 2 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0162 : IMPS1 - High RMS Neutral Current - Book 3	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 3 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0163 : IMPS1 - High RMS Neutral Current - Book 4	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 4 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0164 : IMPS1 - High RMS Neutral Current - Book 5	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 5 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0165 : IMPS1 - High RMS Neutral Current - Book 6	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 6 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0166 : IMPS1 - High RMS Neutral Current - Book 7	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 7 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0167 : IMPS1 - High RMS Neutral Current - Book 8	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 8 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0168 : IMPS1 - High RMS Neutral Current - Book 9	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 9 of IMPS1.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0170 : IMPS2 - High RMS Neutral Current - Book 1	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 1 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0171 : IMPS2 - High RMS Neutral Current - Book 2	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 2 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0172 : IMPS2 - High RMS Neutral Current - Book 3	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 3 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0173 : IMPS2 - High RMS Neutral Current - Book 4	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 4 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0174 : IMPS2 - High RMS Neutral Current - Book 5	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 5 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0175 : IMPS2 - High RMS Neutral Current - Book 6	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 6 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0176 : IMPS2 - High RMS Neutral Current - Book 7	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 7 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0177 : IMPS2 - High RMS Neutral Current - Book 8	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 8 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0178 : IMPS2 - High RMS Neutral Current - Book 9	-	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01232 for book 9 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0180 : IMPS2 - High RMS Neutral Current - Book 1	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 1 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0181 : IMPS2 - High RMS Neutral Current - Book 2	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 2 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0182 : IMPS2 - High RMS Neutral Current - Book 3	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 3 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0183 : IMPS2 - High RMS Neutral Current - Book 4	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 4 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0184 : IMPS2 - High RMS Neutral Current - Book 5	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 5 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0185 : IMPS2 - High RMS Neutral Current - Book 6	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 6 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0186 : IMPS2 - High RMS Neutral Current - Book 7	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 7 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0186 : IMPS2 - High RMS Neutral Current - Book 8	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 8 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0188 : IMPS2 - High RMS Neutral Current - Book 9	Immediate	The neutral current (instantaneous sum of the currents of phases U, V and W) exceeded the limit defined in P01234 for book 9 of IMPS2.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0190 : IMPS1 - Neutral RMS Overcurrent Alarm	-		
F0191 : IMPS1 - Neutral RMS Overcurrent Fault	Immediate		

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0195 : IMPS2 - Neutral RMS Overcurrent Alarm	-		
F0196 : IMPS2 - Neutral RMS Overcurrent Fault	Immediate		
F0200 : IMPS1 - Communication Fault - Book 1	Ramp	IMPS1: Communication failure with the Book 1 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0201 : IMPS1 - Communication Fault - Book 2	Ramp	IMPS1: Communication failure with the Book 2 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0202 : IMPS1 - Communication Fault - Book 3	Ramp	IMPS1: Communication failure with the Book 3 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0203 : IMPS1 - Communication Fault - Book 4	Ramp	IMPS1: Communication failure with the Book 4 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0204 : IMPS1 - Communication Fault - Book 5	Ramp	IMPS1: Communication failure with the Book 5 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0205 : IMPS1 - Communication Fault - Book 6	Ramp	IMPS1: Communication failure with the Book 6 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0206 : IMPS1 - Communication Fault - Book 7	Ramp	IMPS1: Communication failure with the Book 7 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0207 : IMPS1 - Communication Fault - Book 8	Ramp	IMPS1: Communication failure with the Book 8 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0208 : IMPS1 - Communication Fault - Book 9	Ramp	IMPS1: Communication failure with the Book 9 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0210 : IMPS1 - Phase U IGBT Overcurrent - Book 1	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 1.	- IGBT modules shorted.
F0211 : IMPS1 - Phase U IGBT Overcurrent - Book 2	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 2.	- IGBT modules shorted.
F0212 : IMPS1 - Phase U IGBT Overcurrent - Book 3	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 3.	- IGBT modules shorted.
F0213 : IMPS1 - Phase U IGBT Overcurrent - Book 4	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 4.	- IGBT modules shorted.
F0214 : IMPS1 - Phase U IGBT Overcurrent - Book 5	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 5.	- IGBT modules shorted.
F0215 : IMPS1 - Phase U IGBT Overcurrent - Book 6	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 6.	- IGBT modules shorted.
F0216 : IMPS1 - Phase U IGBT Overcurrent - Book 7	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 7.	- IGBT modules shorted.
F0217 : IMPS1 - Phase U IGBT Overcurrent - Book 8	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 8.	- IGBT modules shorted.
F0218 : IMPS1 - Phase U IGBT Overcurrent - Book 9	Immediate	IMPS1: Overcurrent in IGBT of phase U of Book 9.	- IGBT modules shorted.
F0220 : IMPS1 - Phase V IGBT Overcurrent - Book 1	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 1.	- IGBT modules shorted.
F0221 : IMPS1 - Phase V IGBT Overcurrent - Book 2	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 2.	- IGBT modules shorted.
F0222 : IMPS1 - Phase V IGBT Overcurrent - Book 3	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 3.	- IGBT modules shorted.
F0223 : IMPS1 - Phase V IGBT Overcurrent - Book 4	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 4.	- IGBT modules shorted.
F0224 : IMPS1 - Phase V IGBT Overcurrent - Book 5	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 5.	- IGBT modules shorted.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0225 : IMPS1 - Phase V IGBT Overcurrent - Book 6	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 6.	- IGBT modules shorted.
F0226 : IMPS1 - Phase V IGBT Overcurrent - Book 7	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 7.	- IGBT modules shorted.
F0227 : IMPS1 - Phase V IGBT Overcurrent - Book 8	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 8.	- IGBT modules shorted.
F0228 : IMPS1 - Phase V IGBT Overcurrent - Book 9	Immediate	IMPS1: Overcurrent in IGBT of phase V of Book 9.	- IGBT modules shorted.
F0230 : IMPS1 - Phase W IGBT Overcurrent - Book 1	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 1.	- IGBT modules shorted.
F0231 : IMPS1 - Phase W IGBT Overcurrent - Book 2	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 2.	- IGBT modules shorted.
F0232 : IMPS1 - Phase W IGBT Overcurrent - Book 3	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 3.	- IGBT modules shorted.
F0233 : IMPS1 - Phase W IGBT Overcurrent - Book 4	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 4.	- IGBT modules shorted.
F0234 : IMPS1 - Phase W IGBT Overcurrent - Book 5	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 5.	- IGBT modules shorted.
F0235 : IMPS1 - Phase W IGBT Overcurrent - Book 6	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 6.	- IGBT modules shorted.
F0236 : IMPS1 - Phase W IGBT Overcurrent - Book 7	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 7.	- IGBT modules shorted.
F0237 : IMPS1 - Phase W IGBT Overcurrent - Book 8	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 8.	- IGBT modules shorted.
F0238 : IMPS1 - Phase W IGBT Overcurrent - Book 9	Immediate	IMPS1: Overcurrent in IGBT of phase W of Book 9.	- IGBT modules shorted.
F0240 : IMPS1 - Max. DC Reverse Current - Book 1	Immediate	IMPS1: Maximum reverse DC current in Book 1 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0241 : IMPS1 - Max. DC Reverse Current - Book 2	Immediate	IMPS1: Maximum reverse DC current in Book 2 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0242 : IMPS1 - Max. DC Reverse Current - Book 3	Immediate	IMPS1: Maximum reverse DC current in Book 3 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0243 : IMPS1 - Max. DC Reverse Current - Book 4	Immediate	IMPS1: Maximum reverse DC current in Book 4 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0244 : IMPS1 - Max. DC Reverse Current - Book 5	Immediate	IMPS1: Maximum reverse DC current in Book 5 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0245 : IMPS1 - Max. DC Reverse Current - Book 6	Immediate	IMPS1: Maximum reverse DC current in Book 6 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0246 : IMPS1 - Max. DC Reverse Current - Book 7	Immediate	IMPS1: Maximum reverse DC current in Book 7 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0247 : IMPS1 - Max. DC Reverse Current - Book 8	Immediate	IMPS1: Maximum reverse DC current in Book 8 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0248 : IMPS1 - Max. DC Reverse Current - Book 9	Immediate	IMPS1: Maximum reverse DC current in Book 9 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0250 : IMPS1 - DC Short Circuit - Book 1	Immediate	IMPS1: Short circuit fault in the DC bus of Book 1 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0251 : IMPS1 - DC Short Circuit - Book 2	Immediate	IMPS1: Short circuit fault in the DC bus of Book 2 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0252 : IMPS1 - DC Short Circuit - Book 3	Immediate	IMPS1: Short circuit fault in the DC bus of Book 3 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0253 : IMPS1 - DC Short Circuit - Book 4	Immediate	IMPS1: Short circuit fault in the DC bus of Book 4 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0254 : IMPS1 - DC Short Circuit - Book 5	Immediate	IMPS1: Short circuit fault in the DC bus of Book 5 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0255 : IMPS1 - DC Short Circuit - Book 6	Immediate	IMPS1: Short circuit fault in the DC bus of Book 6 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0256 : IMPS1 - DC Short Circuit - Book 7	Immediate	IMPS1: Short circuit fault in the DC bus of Book 7 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0257 : IMPS1 - DC Short Circuit - Book 8	Immediate	IMPS1: Short circuit fault in the DC bus of Book 8 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0258 : IMPS1 - DC Short Circuit - Book 9	Immediate	IMPS1: Short circuit fault in the DC bus of Book 9 identified.	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0260 : IMPS1 - Phase U Pulses Feedback Fault - Book 1	Immediate	IMPS1: Book 1 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0261 : IMPS1 - Phase U Pulses Feedback Fault - Book 2	Immediate	IMPS1: Book 2 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0262 : IMPS1 - Phase U Pulses Feedback Fault - Book 3	Immediate	IMPS1: Book 3 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0263 : IMPS1 - Phase U Pulses Feedback Fault - Book 4	Immediate	IMPS1: Book 4 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0264 : IMPS1 - Phase U Pulses Feedback Fault - Book 5	Immediate	IMPS1: Book 5 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0265 : IMPS1 - Phase U Pulses Feedback Fault - Book 6	Immediate	IMPS1: Book 6 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0266 : IMPS1 - Phase U Pulses Feedback Fault - Book 7	Immediate	IMPS1: Book 7 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0267 : IMPS1 - Phase U Pulses Feedback Fault - Book 8	Immediate	IMPS1: Book 8 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0268 : IMPS1 - Phase U Pulses Feedback Fault - Book 9	Immediate	IMPS1: Book 9 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0270 : IMPS1 - Phase V Pulses Feedback Fault - Book 1	Immediate	IMPS1: Book 1 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0271 : IMPS1 - Phase V Pulses Feedback Fault - Book 2	Immediate	IMPS1: Book 2 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0272 : IMPS1 - Phase V Pulses Feedback Fault - Book 3	Immediate	IMPS1: Book 3 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0273 : IMPS1 - Phase V Pulses Feedback Fault - Book 4	Immediate	IMPS1: Book 4 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0274 : IMPS1 - Phase V Pulses Feedback Fault - Book 5	Immediate	IMPS1: Book 5 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0275 : IMPS1 - Phase V Pulses Feedback Fault - Book 6	Immediate	IMPS1: Book 6 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0276 : IMPS1 - Phase V Pulses Feedback Fault - Book 7	Immediate	IMPS1: Book 7 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0277 : IMPS1 - Phase V Pulses Feedback Fault - Book 8	Immediate	IMPS1: Book 8 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0278 : IMPS1 - Phase V Pulses Feedback Fault - Book 9	Immediate	IMPS1: Book 9 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0280 : IMPS1 - Phase W Pulses Feedback Fault - Book 1	Immediate	IMPS1: Book 1 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0281 : IMPS1 - Phase W Pulses Feedback Fault - Book 2	Immediate	IMPS1: Book 2 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0282 : IMPS1 - Phase W Pulses Feedback Fault - Book 3	Immediate	IMPS1: Book 3 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0283 : IMPS1 - Phase W Pulses Feedback Fault - Book 4	Immediate	IMPS1: Book 4 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0284 : IMPS1 - Phase W Pulses Feedback Fault - Book 5	Immediate	IMPS1: Book 5 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0285 : IMPS1 - Phase W Pulses Feedback Fault - Book 6	Immediate	IMPS1: Book 6 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0286 : IMPS1 - Phase W Pulses Feedback Fault - Book 7	Immediate	IMPS1: Book 7 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0287 : IMPS1 - Phase W Pulses Feedback Fault - Book 8	Immediate	IMPS1: Book 8 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0288 : IMPS1 - Phase W Pulses Feedback Fault - Book 9	Immediate	IMPS1: Book 9] phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0290 : IMPS1 - Communication Fault with FPGA1	Immediate	IMPS1: Occurs when the IMPS card fails to communicate with the FPGA 1.	- Electrical noise. - Defect in internal circuits.
F0291 : IMPS1 - Communication Fault with FPGA2	Immediate	IMPS1: Occurs when the IMPS card fails to communicate with the FPGA 2.	- Electrical noise. - Defect in internal circuits.
F0300 : IMPS1 - HW Overcurrent - Book 1	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0301 : IMPS1 - HW Overcurrent - Book 2	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0302 : IMPS1 - HW Overcurrent - Book 3	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0303 : IMPS1 - HW Overcurrent - Book 4	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0304 : IMPS1 - HW Overcurrent - Book 5	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0305 : IMPS1 - HW Overcurrent - Book 6	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0306 : IMPS1 - HW Overcurrent - Book 7	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0307 : IMPS1 - HW Overcurrent - Book 8	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0308 : IMPS1 - HW Overcurrent - Book 9	Immediate	IMPS1: IGBT module (s) shorted.	- IGBT module (s) shorted.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0310 : IMPS1 - Phase U Desat. Fault - Book 1	Immediate	IMPS1: Book 1 U arm desaturation failure.	- Short circuit between the phases at the output.
F0311 : IMPS1 - Phase U Desat. Fault - Book 2	Immediate	IMPS1: Book 2 U arm desaturation failure.	- Short circuit between the phases at the output.
F0312 : IMPS1 - Phase U Desat. Fault - Book 3	Immediate	IMPS1: Book 3 U arm desaturation failure.	- Short circuit between the phases at the output.
F0313 : IMPS1 - Phase U Desat. Fault - Book 4	Immediate	IMPS1: Book 4 U arm desaturation failure.	- Short circuit between the phases at the output.
F0314 : IMPS1 - Phase U Desat. Fault - Book 5	Immediate	IMPS1: Book 5 U arm desaturation failure.	- Short circuit between the phases at the output.
F0315 : IMPS1 - Phase U Desat. Fault - Book 6	Immediate	IMPS1: Book 6 U arm desaturation failure.	- Short circuit between the phases at the output.
F0316 : IMPS1 - Phase U Desat. Fault - Book 7	Immediate	IMPS1: Book 7 U arm desaturation failure.	- Short circuit between the phases at the output.
F0317 : IMPS1 - Phase U Desat. Fault - Book 8	Immediate	IMPS1: Book 8 U arm desaturation failure.	- Short circuit between the phases at the output.
F0318 : IMPS1 - Phase U Desat. Fault - Book 9	Immediate	IMPS1: Book 9 U arm desaturation failure.	- Short circuit between the phases at the output.
F0320 : IMPS1 - Phase V Desat. Fault - Book 1	Immediate	IMPS1: Book 1 V arm desaturation failure.	- Short circuit between the phases at the output.
F0321 : IMPS1 - Phase V Desat. Fault - Book 2	Immediate	IMPS1: Book 2 V arm desaturation failure.	- Short circuit between the phases at the output.
F0322 : IMPS1 - Phase V Desat. Fault - Book 3	Immediate	IMPS1: Book 3 V arm desaturation failure.	- Short circuit between the phases at the output.
F0323 : IMPS1 - Phase V Desat. Fault - Book 4	Immediate	IMPS1: Book 4 V arm desaturation failure.	- Short circuit between the phases at the output.
F0324 : IMPS1 - Phase V Desat. Fault - Book 5	Immediate	IMPS1: Book 5 V arm desaturation failure.	- Short circuit between the phases at the output.
F0325 : IMPS1 - Phase V Desat. Fault - Book 6	Immediate	IMPS1: Book 6 V arm desaturation failure.	- Short circuit between the phases at the output.
F0326 : IMPS1 - Phase V Desat. Fault - Book 7	Immediate	IMPS1: Book 7 V arm desaturation failure.	- Short circuit between the phases at the output.
F0327 : IMPS1 - Phase V Desat. Fault - Book 8	Immediate	IMPS1: Book 8 V arm desaturation failure.	- Short circuit between the phases at the output.
F0328 : IMPS1 - Phase V Desat. Fault - Book 9	Immediate	IMPS1: Book 9 V arm desaturation failure.	- Short circuit between the phases at the output.
F0330 : IMPS1 - Phase W Desat. Fault - Book 1	Immediate	IMPS1: Book 1 W arm desaturation failure.	- Short circuit between the phases at the output.
F0331 : IMPS1 - Phase W Desat. Fault - Book 2	Immediate	IMPS1: Book 1 W arm desaturation failure.	- Short circuit between the phases at the output.
F0332 : IMPS1 - Phase W Desat. Fault - Book 3	Immediate	IMPS1: Book 3 W arm desaturation failure.	- Short circuit between the phases at the output.
F0333 : IMPS1 - Phase W Desat. Fault - Book 4	Immediate	IMPS1: Book 4 W arm desaturation failure.	- Short circuit between the phases at the output.
F0334 : IMPS1 - Phase W Desat. Fault - Book 5	Immediate	IMPS1: Book 5 W arm desaturation failure.	- Short circuit between the phases at the output.
F0335 : IMPS1 - Phase W Desat. Fault - Book 6	Immediate	IMPS1: Book 6 W arm desaturation failure.	- Short circuit between the phases at the output.
F0336 : IMPS1 - Phase W Desat. Fault - Book 7	Immediate	IMPS1: Book 7 W arm desaturation failure.	- Short circuit between the phases at the output.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0337 : IMPS1 - Phase W Desat. Fault - Book 8	Immediate	IMPS1: Book 8 W arm desaturation failure.	- Short circuit between the phases at the output.
F0338 : IMPS1 - Phase W Desat. Fault - Book 9	Immediate	IMPS1: Book 9 W arm desaturation failure.	- Short circuit between the phases at the output.
A0340 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 1	-	The current of phase U IMPS1 book 1 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0341 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 2	-	The current of phase U IMPS1 book 2 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0342 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 3	-	The current of phase U IMPS1 book 3 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0343 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 4	-	The current of phase U IMPS1 book 4 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0344 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 5	-	The current of phase U IMPS1 book 5 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0345 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 6	-	The current of phase U IMPS1 book 6 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0346 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 7	-	The current of phase U IMPS1 book 7 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0347 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 8	-	The current of phase U IMPS1 book 8 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0348 : IMPS1 - Phase U RMS Current Unbalanced Alarm - Book 9	-	The current of phase U IMPS1 book 9 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0350 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase U IMPS1 book 1 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0351 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 2	Ramp	The current of phase U IMPS1 book 2 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0352 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase U IMPS1 book 3 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0353 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase U IMPS1 book 4 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0354 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase V IMPS1 book 5 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0355 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 6	Ramp	The current of phase V IMPS1 book 6 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0356 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase V IMPS1 book 7 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0357 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase V IMPS1 book 8 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0358 : IMPS1 - Phase U RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase V IMPS1 book 9 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0360 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 1	Ramp	The current of phase V IMPS1 book 8 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0361 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 2	-	The current of phase V IMPS1 book 2 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0362 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 3	-	The current of phase V IMPS1 book 3 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0363 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 4	-	The current of phase V IMPS1 book 4 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0364 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 5	-	The current of phase V IMPS1 book 5 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0365 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 6	-	The current of phase V IMPS1 book 6 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0366 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 7	-	The current of phase V IMPS1 book 7 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0367 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 8	-	The current of phase V IMPS1 book 8 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0368 : IMPS1 - Phase V RMS Current Unbalanced Alarm - Book 9	-	The current of phase V IMPS1 book 9 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0370 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase V IMPS1 book 8 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0371 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 2	Ramp	The current of phase V IMPS1 book 2 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0372 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase V IMPS1 book 3 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0373 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase V IMPS1 book 4 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0374 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase V IMPS1 book 5 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0375 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 6	Ramp	The current of phase V IMPS1 book 6 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0376 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase V IMPS1 book 7 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0377 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase V IMPS1 book 8 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0378 : IMPS1 - Phase V RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase V IMPS1 book 9 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0380 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 1	-	The current of phase W IMPS1 book 1 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0381 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 2	-	The current of phase W IMPS1 book 2 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0382 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 3	-	The current of phase W IMPS1 book 3 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0383 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 4	-	The current of phase W IMPS1 book 4 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0384 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 5	-	The current of phase W IMPS1 book 5 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0385 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 6	-	The current of phase W IMPS1 book 6 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0386 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 7	-	The current of phase W IMPS1 book 7 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0387 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 8	-	The current of phase W IMPS1 book 8 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0388 : IMPS1 - Phase W RMS Current Unbalanced Alarm - Book 9	-	The current of phase W IMPS1 book 9 exceeded the percentage limit defined by P01248, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0390 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase W IMPS1 book 1 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0391 : IMPS1 - Phase W RMS Cuurrent Unbalanced Fault - Book 2	Ramp	The current of phase W IMPS1 book 2 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0392 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase W IMPS1 book 3 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0393 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase W IMPS1 book 4 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0394 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase W IMPS1 book 5 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0395 : IMPS1 - Phase W RMS Cuurrent Unbalanced Fault - Book 6	Ramp	The current of phase W IMPS1 book 6 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0396 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase W IMPS1 book 7 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0397 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase W IMPS1 book 8 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0398 : IMPS1 - Phase W RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase W IMPS1 book 9 exceeded the percentage limit defined by P01250, in relation to the average current RMS of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0400 : IMPS1 - Phase U IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0401 : IMPS1 - Phase U IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0402 : IMPS1 - Phase U IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0403 : IMPS1 - Phase U IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0404 : IMPS1 - Phase U IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0405 : IMPS1 - Phase U IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0406 : IMPS1 - Phase U IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0407 : IMPS1 - Phase U IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0408 : IMPS1 - Phase U IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase U, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0410 : IMPS1 - Phase U IGBT Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0411 : IMPS1 - Phase U IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0412 : IMPS1 - Phase U IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0413 : Overtemper. IGBT U B4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0414 : IMPS1 - Phase U IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0415 : IMPS1 - Phase U IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0416 : IMPS1 - Phase U IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0417 : IMPS1 - Phase U IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0418 : IMPS1 - Phase U IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0420 : IMPS1 - Phase V IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0421 : IMPS1 - Phase V IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0422 : IMPS1 - Phase V IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0423 : IMPS1 - Phase V IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0424 : IMPS1 - Phase V IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0425 : IMPS1 - Phase V IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0426 : IMPS1 - Phase V IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0427 : IMPS1 - Phase V IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0428 : IMPS1 - Phase V IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase V, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0430 : IMPS1 - Phase V IGBT Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0431 : IMPS1 - Phase V IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0432 : IMPS1 - Phase V IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0433 : IMPS1 - Phase V IGBT Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0434 : IMPS1 - Phase V IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0435 : IMPS1 - Phase V IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0436 : IMPS1 - Phase V IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0437 : IMPS1 - Phase V IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0438 : IMPS1 - Phase V IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0440 : IMPS1 - Phase W IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0441 : IMPS1 - Phase W IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0442 : IMPS1 - Phase W IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0443 : IMPS1 - Phase W IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0444 : IMPS1 - Phase W IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0445 : IMPS1 - Phase W IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0446 : IMPS1 - Phase W IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0447 : IMPS1 - Phase W IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0448 : IMPS1 - Phase W IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the IGBT of phase W, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0450 : IMPS1 - Phase W IGBT Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0451 : IMPS1 - Phase W IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0452 : IMPS1 - Phase W IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0453 : IMPS1 - Phase W IGBT Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0454 : IMPS1 - Phase W IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0455 : IMPS1 - Phase W IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0456 : IMPS1 - Phase W IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0457 : IMPS1 - Phase W IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0458 : IMPS1 - Phase W IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0460 : IMPS1 - Inductor Temperature Alarm - Book 1	-	IMPS1: High temperature alarm in Book 1 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0461 : IMPS1 - Inductor Temperature Alarm - Book 2	-	IMPS1: High temperature alarm in Book 2 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0462 : IMPS1 - Inductor Temperature Alarm - Book 3	-	IMPS1: High temperature alarm in Book 3 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0463 : IMPS1 - Inductor Temperature Alarm - Book 4	-	IMPS1: High temperature alarm in Book 4 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0464 : IMPS1 - Inductor Temperature Alarm - Book 5	-	IMPS1: High temperature alarm in Book 5 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0465 : IMPS1 - Inductor Temperature Alarm - Book 6	-	IMPS1: High temperature alarm in Book 6 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0466 : IMPS1 - Inductor Temperature Alarm - Book 7	-	IMPS1: High temperature alarm in Book 7 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0467 : IMPS1 - Inductor Temperature Alarm - Book 8	-	IMPS1: High temperature alarm in Book 8 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0468 : IMPS1 - Inductor Temperature Alarm - Book 9	-	IMPS1: High temperature alarm in Book 9 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0470 : IMPS1 - Inductor Temperature Fault - Book 1	Ramp	IMPS1: High temperature Fault in Book 1 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0471 : IMPS1 - Inductor Temperature Fault - Book 2	Ramp	IMPS1: High temperature Fault in Book 2 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0472 : IMPS1 - Inductor Temperature Fault - Book 3	Ramp	IMPS1: High temperature Fault in Book 1 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0473 : IMPS1 - Inductor Temperature Fault - Book 4	Ramp	IMPS1: High temperature Fault in Book 4 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0474 : IMPS1 - Inductor Temperature Fault - Book 5	Ramp	IMPS1: High temperature Fault in Book 5 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0475 : IMPS1 - Inductor Temperature Fault - Book 6	Ramp	IMPS1: High temperature Fault in Book 6 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0476 : IMPS1 - Inductor Temperature Fault - Book 7	Ramp	IMPS1: High temperature Fault in Book 7 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0477 : IMPS1 - Inductor Temperature Fault - Book 8	Ramp	IMPS1: High temperature Fault in Book 8 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0478 : IMPS1 - Inductor Temperature Fault - Book 9	Ramp	IMPS1: High temperature Fault in Book 9 inductor	- High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0480 : IMPS1 - CMPS Temperature Alarm - Book 1	-	IMPS1: High temperature alarm in Book 1 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0481 : IMPS1 - CMPS Temperature Alarm - Book 2	-	IMPS1: High temperature alarm in Book 2 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0482 : IMPS1 - CMPS Temperature Alarm - Book 3	-	IMPS1: High temperature alarm in Book 3 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0483 : IMPS1 - CMPS Temperature Alarm - Book 4	-	IMPS1: High temperature alarm in Book 4 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0484 : IMPS1 - CMPS Temperature Alarm - Book 5	-	IMPS1: High temperature alarm in Book 5 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0485 : IMPS1 - CMPS Temperature Alarm - Book 6	-	IMPS1: High temperature alarm in Book 6 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0486 : IMPS1 - CMPS Temperature Alarm - Book 7	-	IMPS1: High temperature alarm in Book 7 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0487 : IMPS1 - CMPS Temperature Alarm - Book 8	-	IMPS1: High temperature alarm in Book 8 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
A0488 : IMPS1 - CMPS Temperature Alarm - Book 9	-	IMPS1: High temperature alarm in Book 9 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0490 : IMPS1 - CMPS Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault in Book 1 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0491 : IMPS1 - CMPS Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault in Book 2 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0492 : IMPS1 - CMPS Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault in Book 3 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0493 : IMPS1 - CMPS Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault in Book 4 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0494 : IMPS1 - CMPS Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault in Book 5 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0495 : IMPS1 - CMPS Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault in Book 6 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0496 : IMPS1 - CMPS Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault in Book 7 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0497 : IMPS1 - CMPS Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault in Book 8 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0498 : IMPS1 - CMPS Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault in Book 9 power.	- Book heatsink fins very dirty, impairing the air flow in these. - High ambient temperature (> 45 °C) and high output current. Fan blocked or defective.
F0500 : IMPS1 - AC Open Fault - Book 1	Immediate	IMPS1: Failed to open the CA Book 1 contactor.	- Defect in Contactor CA.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0501 : IMPS1 - AC Open Fault - Book 2	Immediate	IMPS1: Failed to open the CA Book 2 contactor.	- Defect in Contactor CA.
F0502 : IMPS1 - AC Open Fault - Book 3	Immediate	IMPS1: Failed to open the CA Book 3 contactor.	- Defect in Contactor CA.
F0503 : IMPS1 - AC Open Fault - Book 4	Immediate	IMPS1: Failed to open the CA Book 4 contactor.	- Defect in Contactor CA.
F0504 : IMPS1 - AC Open Fault - Book 5	Immediate	IMPS1: Failed to open the CA Book 5 contactor.	- Defect in Contactor CA.
F0505 : IMPS1 - AC Open Fault - Book 6	Immediate	Failed to open the CA Book 6 contactor.	- Defect in Contactor CA.
F0506 : IMPS1 - AC Open Fault - Book 7	Immediate	IMPS1: Failed to open the CA Book 7 contactor.	- Defect in Contactor CA.
F0507 : IMPS1 - AC Open Fault - Book 8	Immediate	IMPS1: Failed to open the CA Book 1 contactor.	- Defect in Contactor CA.
F0508 : IMPS1 - AC Open Fault - Book 9	Immediate	IMPS1: Failed to open the CA Book 9 contactor.	- Defect in Contactor CA.
F0510 : IMPS1 - AC Close Fault - Book 1	Immediate	IMPS1: Failure to close the CA Book 1 contactor.	- Defect in Contactor CA.
F0511 : IMPS1 - AC Close Fault - Book 2	Immediate	IMPS1: Failure to close the CA Book 2 contactor.	- Defect in Contactor CA.
F0512 : IMPS1 - AC Close Fault - Book 3	Immediate	IMPS1: Failure to close the CA Book 3 contactor.	- Defect in Contactor CA.
F0513 : IMPS1 - AC Close Fault - Book 4	Immediate	IMPS1: Failure to close the CA Book 4 contactor.	- Defect in Contactor CA.
F0514 : IMPS1 - AC Close Fault - Book 5	Immediate	IMPS1: Failure to close the CA Book 5 contactor.	- Defect in Contactor CA.
F0515 : IMPS1 - AC Close Fault - Book 6	Immediate	IMPS1: Failure to close the CA Book 6 contactor.	- Defect in Contactor CA.
F0516 : IMPS1 - AC Close Fault - Book 7	Immediate	IMPS1: Failure to close the CA Book 7 contactor.	- Defect in Contactor CA.
F0517 : IMPS1 - AC Close Fault - Book 8	Immediate	IMPS1: Failure to close the CA Book 8 contactor.	- Defect in Contactor CA.
F0518 : IMPS1 - AC Close Fault - Book 9	Immediate	IMPS1: Failure to close the CA Book 9 contactor.	- Defect in Contactor CA.
F0520 : IMPS1 - Pre Charge Open Fault - Book 1	Immediate	IMPS1: Book 1 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0521 : IMPS1 - Pre Charge Open Fault - Book 2	Immediate	IMPS1: Book 2 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0522 : IMPS1 - Pre Charge Open Fault - Book 3	Immediate	IMPS1: Book 3 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0523 : IMPS1 - Pre Charge Open Fault - Book 4	Immediate	IMPS1: Book 4 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0524 : IMPS1 - Pre Charge Open Fault - Book 5	Immediate	IMPS1: Book 5 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0525 : IMPS1 - Pre Charge Open Fault - Book 6	Immediate	IMPS1: Book 6 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0526 : IMPS1 - Pre Charge Open Fault - Book 7	Immediate	IMPS1: Book 7 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0527 : IMPS1 - Pre Charge Open Fault - Book 8	Immediate	IMPS1: Book 8 pre-charge contactor failed to open.	- Pre-charge contactor defect.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0528 : IMPS1 - Pre Charge Open Fault - Book 9	Immediate	IMPS1: Book 9 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0530 : IMPS1 - Pre Charge Close Fault - Book 1	Immediate	IMPS1: Failure to close the Book 1 pre-charge contactor.	- Pre-charge contactor defect.
F0531 : IMPS1 - Pre Charge Close Fault - Book 2	Immediate	IMPS1: Failure to close the Book 2 pre-charge contactor.	- Pre-charge contactor defect.
F0532 : IMPS1 - Pre Charge Close Fault - Book 3	Immediate	IMPS1: Failure to close the Book 3 pre-charge contactor.	- Pre-charge contactor defect.
F0533 : IMPS1 - Pre Charge Close Fault - Book 4	Immediate	IMPS1: Failure to close the Book 4 pre-charge contactor.	- Pre-charge contactor defect.
F0534 : IMPS1 - Pre Charge Close Fault - Book 5	Immediate	IMPS1: Failure to close the Book 5 pre-charge contactor.	- Pre-charge contactor defect.
F0535 : IMPS1 - Pre Charge Close Fault - Book 6	Immediate	IMPS1: Failure to close the Book 6 pre-charge contactor.	- Pre-charge contactor defect.
F0536 : IMPS1 - Pre Charge Close Fault - Book 7	Immediate	IMPS1: Failure to close the Book 7 pre-charge contactor.	- Pre-charge contactor defect.
F0537 : IMPS1 - Pre Charge Close Fault - Book 8	Immediate	IMPS1: Failure to close the Book 8 pre-charge contactor.	- Pre-charge contactor defect.
F0538 : IMPS1 - Pre Charge Close Fault - Book 9	Immediate	IMPS1: Failure to close the Book 9 pre-charge contactor.	- Pre-charge contactor defect.
F0539 : IMPS2 - DC Disconnector Closing Fault	Immediate	The closing of the IMPS1 DC disconnector has been commanded but there is no return of the closing.	- Connection problem or broken wire in the return signal of the respective DC disconnector.
A0540 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 1	-	The current of phase U of IMPS1 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0541 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 2	-	The current of phase U of IMPS1 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0542 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 3	-	The current of phase U of IMPS1 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0543 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 4	-	The current of phase U of IMPS1 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0544 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 5	-	The current of phase U of IMPS1 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0545 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 6	-	The current of phase U of IMPS1 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0546 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 7	-	The current of phase U of IMPS1 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0547 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 8	-	The current of phase U of IMPS1 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0548 : IMPS1 - Phase U AVG Current Unbalanced Alarm - Book 9	-	The current of phase U of IMPS1 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0550 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase U of IMPS1 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0551 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase U of IMPS1 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0552 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase U of IMPS1 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0553 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase U of IMPS1 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0554 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase U of IMPS1 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0555 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase U of IMPS1 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0556 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase U of IMPS1 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0557 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase U of IMPS1 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0558 : IMPS1 - Phase U AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase U of IMPS1 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0560 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 1	-	The current of phase V of IMPS1 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0561 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 2	-	The current of phase V of IMPS1 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0562 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 3	-	The current of phase V of IMPS1 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0563 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 4	-	The current of phase V of IMPS1 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0564 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 5	-	The current of phase V of IMPS1 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0565 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 6	-	The current of phase V of IMPS1 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0566 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 7	-	The current of phase V of IMPS1 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0567 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 8	-	The current of phase V of IMPS1 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0568 : IMPS1 - Phase V AVG Current Unbalanced Alarm - Book 9	-	The current of phase V of IMPS1 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0570 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase V of IMPS1 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0571 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase V of IMPS1 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0572 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase V of IMPS1 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0573 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase V of IMPS1 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0574 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase V of IMPS1 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0575 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase V of IMPS1 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0576 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase V of IMPS1 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0577 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase V of IMPS1 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0578 : IMPS1 - Phase V AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase V of IMPS1 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0580 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 2	-	The current of phase W of IMPS1 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0581 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 1	-	The current of phase W of IMPS1 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0582 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 3	-	The current of phase W of IMPS1 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0583 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 4	-	The current of phase W of IMPS1 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0584 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 5	-	The current of phase W of IMPS1 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0585 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 6	-	The current of phase W of IMPS1 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0586 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 7	-	The current of phase W of IMPS1 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0587 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 8	-	The current of phase W of IMPS1 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
A0588 : IMPS1 - Phase W AVG Current Unbalanced Alarm - Book 9	-	The current of phase W of IMPS1 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0590 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase W of IMPS1 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0591 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase W of IMPS1 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0592 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase W of IMPS1 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0593 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase W of IMPS1 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0594 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase W of IMPS1 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0595 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase W of IMPS1 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0596 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase W of IMPS1 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0597 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase W of IMPS1 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0598 : IMPS1 - Phase W AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase W of IMPS1 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation.	- Variation in impedance between the phases of the harmonic filter internal inductor. - Problem with the ribbon cable that interconnects the book's CMPS card with the IMPS card. Problem in the PWM signal circuit of the respective book on the IMPS card.
F0600 : IMPS2 - Communication Fault - Book 1	Ramp	IMPS2: Communication failure with the Book 1 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0601 : IMPS2 - Communication Fault - Book 2	Ramp	IMPS2: Communication failure with the Book 2 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0602 : IMPS2 - Communication Fault - Book 3	Ramp	IMPS2: Communication failure with the Book 3 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0603 : IMPS2 - Communication Fault - Book	Ramp	IMPS2: Communication failure with the Book 4 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0604 : IMPS2 - Communication Fault - Book 5	Ramp	IMPS2: Communication failure with the Book 5 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0605 : IMPS2 - Communication Fault - Book 6	Ramp	IMPS2: Communication failure with the Book 6 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0606 : IMPS2 - Communication Fault - Book 7	Ramp	IMPS2: Communication failure with the Book 7 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0607 : IMPS2 - Communication Fault - Book 8	Ramp	IMPS2: Communication failure with the Book 8 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0608 : IMPS2 - Communication Fault - Book 9	Ramp	IMPS2: Communication failure with the Book 9 card.	- Bad contact on the cable. - Electrical noise in the installation.
F0610 : IMPS2 - Phase U IGBT Overcurrent - Book 1	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 1.	- IGBT modules shorted.
F0611 : IMPS2 - Phase U IGBT Overcurrent - Book 2	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 2.	- IGBT modules shorted.
F0612 : IMPS2 - Phase U IGBT Overcurrent - Book 3	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 3.	- IGBT modules shorted.
F0613 : IMPS2 - Phase U IGBT Overcurrent - Book 4	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 4.	- IGBT modules shorted.
F0614 : IMPS2 - Phase U IGBT Overcurrent - Book 5	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 5.	- IGBT modules shorted.
F0615 : IMPS2 - Phase U IGBT Overcurrent - Book 6	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 6.	- IGBT modules shorted.
F0616 : IMPS2 - Phase U IGBT Overcurrent - Book 7	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 7.	- IGBT modules shorted.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0617 : IMPS2 - Phase U IGBT Overcurrent - Book 8	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 8.	- IGBT modules shorted.
F0618 : IMPS2 - Phase U IGBT Overcurrent - Book 9	Ramp	IMPS2: Overcurrent in IGBT of phase U of Book 9.	- IGBT modules shorted.
F0620 : IMPS2 - Phase V IGBT Overcurrent - Book 1	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 1.	- IGBT modules shorted.
F0621 : IMPS2 - Phase V IGBT Overcurrent - Book 2	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 2.	- IGBT modules shorted.
F0622 : IMPS2 - Phase V IGBT Overcurrent - Book 3	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 3.	- IGBT modules shorted.
F0623 : IMPS2 - Phase V IGBT Overcurrent - Book 4	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 4.	- IGBT modules shorted.
F0624 : IMPS2 - Phase V IGBT Overcurrent - Book 5	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 5.	- IGBT modules shorted.
F0625 : IMPS2 - Phase V IGBT Overcurrent - Book 6	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 6.	- IGBT modules shorted.
F0626 : IMPS2 - Phase V IGBT Overcurrent - Book 7	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 7.	- IGBT modules shorted.
F0627 : IMPS2 - Phase V IGBT Overcurrent - Book 8	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 8.	- IGBT modules shorted.
F0628 : IMPS2 - Phase V IGBT Overcurrent - Book 9	Ramp	IMPS2: Overcurrent in IGBT of phase V of Book 9.	- IGBT modules shorted.
F0630 : IMPS2 - Phase W IGBT Overcurrent - Book 1	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 1.	- IGBT modules shorted.
F0631 : IMPS2 - Phase W IGBT Overcurrent - Book 2	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 2.	- IGBT modules shorted.
F0632 : IMPS2 - Phase W IGBT Overcurrent - Book 3	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 3.	- IGBT modules shorted.
F0633 : IMPS2 - Phase W IGBT Overcurrent - Book 4	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 4.	- IGBT modules shorted.
F0634 : IMPS2 - Phase W IGBT Overcurrent - Book 5	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 5.	- IGBT modules shorted.
F0635 : IMPS2 - Phase W IGBT Overcurrent - Book 6	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 6.	- IGBT modules shorted.
F0636 : IMPS2 - Phase W IGBT Overcurrent - Book 7	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 7.	- IGBT modules shorted.
F0637 : IMPS2 - Phase W IGBT Overcurrent - Book 8	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 8.	- IGBT modules shorted.
F0638 : IMPS2 - Phase W IGBT Overcurrent - Book 9	Ramp	IMPS2: Overcurrent in IGBT of phase W of Book 9.	- IGBT modules shorted.
F0640 : IMPS2 - Max. Reverse DC Current - Book 1	Immediate	IMPS2: Maximum reverse DC current in Book 1 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0641 : IMPS2 - Max. Reverse DC Current - Book 2	Immediate	IMPS2: Maximum reverse DC current in Book 2 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0642 : IMPS2 - Max. Reverse DC Current - Book 3	Immediate	IMPS2: Maximum reverse DC current in Book 3 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0643 : IMPS2 - Max. Reverse DC Current - Book 4	Immediate	IMPS2: Maximum reverse DC current in Book 4 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0644 : IMPS2 - Max. Reverse DC Current - Book 5	Immediate	IMPS2: Maximum reverse DC current in Book 5 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0645 : IMPS2 - Max. Reverse DC Current - Book 6	Immediate	IMPS2: Maximum reverse DC current in Book 6 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0646 : IMPS2 - Max. Reverse DC Current - Book 7	Immediate	IMPS2: Maximum reverse DC current in Book 7 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0647 : IMPS2 - Max. Reverse DC Current - Book 8	Immediate	IMPS2: Maximum reverse DC current in Book 8 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0648 : IMPS2 - Max. Reverse DC Current - Book 9	Immediate	IMPS2: Maximum reverse DC current in Book 9 identified	- Short circuit in the MPS750 (internal or in the power terminals - Short-circuit between the other internal components of the SIW750.
F0650 : IMPS2 - DC Short Circuit - Book 1	Immediate	IMPS2: Short circuit fault in the DC bus of Book 1 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0651 : IMPS2 - DC Short Circuit - Book 2	Immediate	IMPS2: Short circuit fault in the DC bus of Book 2 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0652 : IMPS2 - DC Short Circuit - Book 3	Immediate	IMPS2: Short circuit fault in the DC bus of Book 3 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0653 : IMPS2 - DC Short Circuit - Book 5	Immediate	IMPS2: Short circuit fault in the DC bus of Book 4 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0654 : IMPS2 - DC Short Circuit - Book 5	Immediate	IMPS2: Short circuit fault in the DC bus of Book 5 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0655 : IMPS2 - DC Short Circuit - Book 6	Immediate	IMPS2: Short circuit fault in the DC bus of Book 6 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0656 : IMPS2 - DC Short Circuit - Book 7	Immediate	IMPS2: Short circuit fault in the DC bus of Book 7 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0657 : IMPS2 - DC Short Circuit - Book 8	Immediate	IMPS2: Short circuit fault in the DC bus of Book 8 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0658 : IMPS2 - DC Short Circuit - Book 9	Immediate	IMPS2: Short circuit fault in the DC bus of Book 9 identified.	- Short circuit in the MPS750 (internal or in the power terminals) - Short-circuit between the other internal components of the SIW750.
F0660 : IMPS2 - Phase U Pulse Feedback Fault - Book 1	Immediate	IMPS2: Book 1 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0661 : IMPS2 - Phase U Pulse Feedback Fault - Book 2	Immediate	IMPS2: Book 2 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0662 : IMPS2 - Phase U Pulse Feedback Fault - Book 3	Immediate	IMPS2: Book 3 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0663 : IMPS2 - Phase U Pulse Feedback Fault - Book 4	Immediate	IMPS2: Book 4 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0664 : IMPS2 - Phase U Pulse Feedback Fault - Book 5	Immediate	IMPS2: Book 5 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0665 : IMPS2 - Phase U Pulse Feedback Fault - Book 6	Immediate	IMPS2: Book 6 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0666 : IMPS2 - Phase U Pulse Feedback Fault - Book 7	Immediate	IMPS2: Book 7 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0667 : IMPS2 - Phase U Pulse Feedback Fault - Book 8	Immediate	IMPS2: Book 8 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0668 : IMPS2 - Phase U Pulse Feedback Fault - Book 9	Immediate	IMPS2: Book 9 phase U pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0670 : IMPS2 - Phase V Pulse Feedback Fault - Book 1	Immediate	IMPS2: Book 1 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0671 : IMPS2 - Phase V Pulse Feedback Fault - Book 2	Immediate	IMPS2: Book 2 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0672 : IMPS2 - Phase V Pulse Feedback Fault - Book 3	Immediate	IMPS2: Book 3 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0673 : IMPS2 - Phase V Pulse Feedback Fault - Book 4	Immediate	IMPS2: Book 4 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0674 : IMPS2 - Phase V Pulse Feedback Fault - Book 5	Immediate	IMPS2: Book 5 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0675 : IMPS2 - Phase V Pulse Feedback Fault - Book 6	Immediate	IMPS2: Book 6 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0676 : IMPS2 - Phase V Pulse Feedback Fault - Book 7	Immediate	IMPS2: Book 7 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0677 : IMPS2 - Phase V Pulse Feedback Fault - Book	Immediate	IMPS2: Book 8 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0678 : IMPS2 - Phase V Pulse Feedback Fault - Book 9	Immediate	IMPS2: Book 9 phase V pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0680 : IMPS2 - Phase W Pulse Feedback Fault - Book 1	Immediate	IMPS2: Book 1 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0681 : IMPS2 - Phase W Pulse Feedback Fault - Book 2	Immediate	IMPS2: Book 2 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0682 : IMPS2 - Phase W Pulse Feedback Fault - Book 3	Immediate	IMPS2: Book 3 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0683 : IMPS2 - Phase W Pulse Feedback Fault - Book 4	Immediate	IMPS2: Book 4 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0684 : IMPS2 - Phase W Pulse Feedback Fault - Book 5	Immediate	IMPS2: Book 5 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0685 : IMPS2 - Phase W Pulse Feedback Fault - Book 6	Immediate	IMPS2: Book 6 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0686 : IMPS2 - Phase W Pulse Feedback Fault - Book 7	Immediate	IMPS2: Book 7 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0687 : IMPS2 - Phase W Pulse Feedback Fault - Book 8	Immediate	IMPS2: Book 8 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0688 : IMPS2 - Phase W Pulse Feedback Fault - Book 9	Immediate	IMPS2: Book 9 phase W pulse feedback failed.	- Feedback cables disconnected. - Damaged IGBT module.
F0690 : IMPS2 - Communication Fault with FPGA1	Immediate	IMPS2: Occurs when the IMPS card fails to communicate with the FPGA 1.	- Electrical noise. - Defect in internal circuits.
F0691 : IMPS2 - Communication Fault with FPGA2	Immediate	IMPS2: Occurs when the IMPS card fails to communicate with the FPGA 2.	- Electrical noise. - Defect in internal circuits.
F0700 : IMPS2 - HW Overcurrent - Book 1	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0701 : IMPS2 - HW Overcurrent - Book 2	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0702 : IMPS2 - HW Overcurrent - Book 3	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0703 : IMPS2 - HW Overcurrent - Book 4	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0704 : IMPS2 - HW Overcurrent - Book 5	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0705 : IMPS2 - HW Overcurrent - Book 6	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0706 : IMPS2 - HW Overcurrent - Book 7	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0707 : IMPS2 - HW Overcurrent - Book 8	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0708 : IMPS2 - HW Overcurrent - Book 9	Immediate	IMPS2: IGBT module (s) shorted.	- IGBT module (s) shorted.
F0710 : IMPS2 - Phase U Desat. Fault - Book 1	Immediate	IMPS2: Book 1 U arm desaturation failure.	- Short circuit between the phases at the output.
F0711 : IMPS2 - Phase U Desat. Fault - Book 2	Immediate	IMPS2: Book 2 U arm desaturation failure.	- Short circuit between the phases at the output.
F0712 : IMPS2 - Phase U Desat. Fault - Book 3	Immediate	IMPS2: Book 3 U arm desaturation failure.	- Short circuit between the phases at the output.
F0713 : IMPS2 - Phase U Desat. Fault - Book 4	Immediate	IMPS2: Book 4 U arm desaturation failure.	- Short circuit between the phases at the output.
F0714 : IMPS2 - Phase U Desat. Fault - Book 5	Immediate	IMPS2: Book 5 U arm desaturation failure.	- Short circuit between the phases at the output.
F0715 : IMPS2 - Phase U Desat. Fault - Book 6	Immediate	IMPS2: Book 6 U arm desaturation failure.	- Short circuit between the phases at the output.
F0716 : IMPS2 - Phase U Desat. Fault - Book 7	Immediate	IMPS2: Book 7 U arm desaturation failure.	- Short circuit between the phases at the output.
F0717 : IMPS2 - Phase U Desat. Fault - Book 8	Immediate	IMPS2: Book 8 U arm desaturation failure.	- Short circuit between the phases at the output.
F0718 : IMPS2 - Phase U Desat. Fault - Book 9	Immediate	IMPS2: Book 9 U arm desaturation failure.	- Short circuit between the phases at the output.
F0720 : IMPS2 - Phase V Desat. Fault - Book 1	Immediate	IMPS2: Book 1 V arm desaturation failure.	- Short circuit between the phases at the output.
F0721 : IMPS2 - Phase V Desat. Fault - Book 2	Immediate	IMPS2: Book 2 V arm desaturation failure.	- Short circuit between the phases at the output.
F0722 : IMPS2 - Phase V Desat. Fault - Book 3	Immediate	IMPS2: Book 3 V arm desaturation failure.	- Short circuit between the phases at the output.
F0723 : IMPS2 - Phase V Desat. Fault - Book 4	Immediate	IMPS2: Book 4 V arm desaturation failure.	- Short circuit between the phases at the output.
F0724 : IMPS2 - Phase V Desat. Fault - Book 5	Immediate	IMPS2: Book 5 V arm desaturation failure.	- Short circuit between the phases at the output.
F0725 : IMPS2 - Phase V Desat. Fault - Book 6	Immediate	IMPS2: Book 6 V arm desaturation failure.	- Short circuit between the phases at the output.
F0726 : IMPS2 - Phase V Desat. Fault - Book 7	Immediate	IMPS2: Book 7 V arm desaturation failure.	- Short circuit between the phases at the output.
F0727 : IMPS2 - Phase V Desat. Fault - Book 8	Immediate	IMPS2: Book 8 V arm desaturation failure.	- Short circuit between the phases at the output.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0728 : IMPS2 - Phase V Desat. Fault - Book 9	Immediate	IMPS2: Book 9 V arm desaturation failure.	- Short circuit between the phases at the output.
F0730 : IMPS2 - Phase W Desat. Fault - Book 1	Immediate	IMPS2: Book 1 W arm desaturation failure.	- Short circuit between the phases at the output.
F0731 : IMPS2 - Phase W Desat. Fault - Book 2	Immediate	IMPS2: Book 2 W arm desaturation failure.	- Short circuit between the phases at the output.
F0732 : IMPS2 - Phase W Desat. Fault - Book 3	Immediate	IMPS2: Book 3 W arm desaturation failure.	- Short circuit between the phases at the output.
F0733 : IMPS2 - Phase W Desat. Fault - Book 4	Immediate	IMPS2: Book 4 W arm desaturation failure.	- Short circuit between the phases at the output.
F0734 : IMPS2 - Phase W Desat. Fault - Book 5	Immediate	IMPS2: Book 5 W arm desaturation failure.	- Short circuit between the phases at the output.
F0735 : IMPS2 - Phase W Desat. Fault - Book 6	Immediate	IMPS2: Book 6 W arm desaturation failure.	- Short circuit between the phases at the output.
F0736 : IMPS2 - Phase W Desat. Fault - Book 7	Immediate	IMPS2: Book 7 W arm desaturation failure.	- Short circuit between the phases at the output.
F0737 : IMPS2 - Phase W Desat. Fault - Book 8	Immediate	IMPS2: Book 8 W arm desaturation failure.	- Short circuit between the phases at the output.
F0738 : IMPS2 - Phase W Desat. Fault - Book 9	Immediate	IMPS2: Book 9 W arm desaturation failure.	- Short circuit between the phases at the output.
A0740 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 1	-	The current of phase U of IMPS2 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0741 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 2	-	The current of phase U of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0742 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 3	-	The current of phase U of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0743 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 4	-	The current of phase U of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0744 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 5	-	The current of phase U of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0745 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 6	-	The current of phase U of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0746 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 7	-	The current of phase U of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0747 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 8	-	The current of phase U of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0748 : IMPS2 - Phase U RMS Current Unbalanced Alarm - Book 9	-	The current of phase U of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0750 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase U of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0751 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 2	Ramp	The current of phase U of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0752 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase U of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0753 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase U of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0754 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase U of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0755 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 6	Ramp	The current of phase U of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0756 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase U of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0757 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase U of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0758 : IMPS2 - Phase U RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase U of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0760 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 1	-	The current of phase V of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0761 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 2	-	The current of phase V of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0762 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 3	-	The current of phase V of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0763 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 4	-	The current of phase V of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0764 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 5	-	The current of phase V of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0765 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 6	-	The current of phase V of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0766 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 7	-	The current of phase V of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0767 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 8	-	The current of phase V of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0768 : IMPS2 - Phase V RMS Current Unbalanced Alarm - Book 9	-	The current of phase V of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0770 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase V of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0771 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 2	Ramp	The current of phase V of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0772 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase V of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0773 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase V of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0774 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase V of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0775 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 6	Ramp	The current of phase V of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0776 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase V of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0777 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase V of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0778 : IMPS2 - Phase V RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase V of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0780 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 1	-	The current of phase W of IMPS2 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0781 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 2	-	The current of phase W of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0782 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 3	-	The current of phase W of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0783 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 4	-	The current of phase W of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0784 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 5	-	The current of phase W of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0785 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 6	-	The current of phase W of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0786 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 7	-	The current of phase W of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0787 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 8	-	The current of phase W of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0788 : IMPS2 - Phase W RMS Current Unbalanced Alarm - Book 9	-	The current of phase W of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0790 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 1	Ramp	The current of phase W of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0791 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 2	Ramp	The current of phase W of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0792 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 3	Ramp	The current of phase W of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0793 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 4	Ramp	The current of phase W of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0794 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 5	Ramp	The current of phase W of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0795 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 6	Ramp	The current of phase W of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0796 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 7	Ramp	The current of phase W of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0797 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 8	Ramp	The current of phase W of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0798 : IMPS2 - Phase W RMS Current Unbalanced Fault - Book 9	Ramp	The current of phase W of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0800 : IMPS2 - Phase U IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0801 : IMPS2 - Phase U IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0802 : IMPS2 - Phase U IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 3	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0803 : IMPS2 - Phase U IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 4	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0804 : IMPS2 - Phase U IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0805 : IMPS2 - Phase U IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0806 : IMPS2 - Phase U IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0807 : IMPS2 - Phase U IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0808 : IMPS2 - Phase U IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the phase U IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0810 : IMPS2 - Phase U IGBT Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0811 : IMPS2 - Phase U IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0812 : IMPS2 - Phase U IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0813 : IMPS2 - Phase U IGBT Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0814 : IMPS2 - Phase U IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0815 : IMPS2 - Phase U IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0816 : IMPS2 - Phase U IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0817 : IMPS2 - Phase U IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0818 : IMPS2 - Phase U IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase U IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0820 : IMPS2 - Phase V IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0821 : IMPS2 - Phase V IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0822 : IMPS2 - Phase V IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0823 : IMPS2 - Phase V IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0824 : IMPS2 - Phase V IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0825 : IMPS2 - Phase V IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0826 : IMPS2 - Phase V IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0827 : IMPS2 - Phase V IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0828 : IMPS2 - Phase V IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the phase V IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0830 : IMPS2 - Phase V IGBT Temperature Alert - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0831 : IMPS2 - Phase V IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0832 : IMPS2 - Phase V IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0833 : IMPS2 - Phase V IGBT Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0834 : IMPS2 - Phase V IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0835 : IMPS2 - Phase V IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0836 : IMPS2 - Phase V IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0837 : IMPS2 - Phase V IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0838 : IMPS2 - Phase V IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase V IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0840 : IMPS2 - Phase W IGBT Temperature Alarm - Book 1	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0841 : IMPS2 - Phase W IGBT Temperature Alarm - Book 2	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0842 : IMPS2 - Phase W IGBT Temperature Alarm - Book 3	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0843 : IMPS2 - Phase W IGBT Temperature Alarm - Book 4	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0844 : IMPS2 - Phase W IGBT Temperature Alarm - Book 5	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0845 : IMPS2 - Phase W IGBT Temperature Alarm - Book 6	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0846 : IMPS2 - Phase W IGBT Temperature Alarm - Book 7	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0847 : IMPS2 - Phase W IGBT Temperature Alarm - Book 8	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0848 : IMPS2 - Phase W IGBT Temperature Alarm - Book 9	-	IMPS1: High temperature alarm measured on the NTC of the phase W IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0850 : IMPS2 - Phase W IGBT Temperature Fault - Book 1	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 1.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0851 : IMPS2 - Phase W IGBT Temperature Fault - Book 2	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 2.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0852 : IMPS2 - Phase W IGBT Temperature Fault - Book 3	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 3.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0853 : IMPS2 - Phase W IGBT Temperature Fault - Book 4	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 4.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0854 : IMPS2 - Phase W IGBT Temperature Fault - Book 5	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 5.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0855 : IMPS2 - Phase W IGBT Temperature Fault - Book 6	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 6.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0856 : IMPS2 - Phase W IGBT Temperature Fault - Book 7	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 7.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0857 : IMPS2 - Phase W IGBT Temperature Fault - Book 8	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 8.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0858 : IMPS2 - Phase W IGBT Temperature Fault - Book 9	Ramp	IMPS1: High temperature fault measured on the NTC of the phase W IGBT, from Book 9.	- Book heatsink fins very dirty, impairing the air flow in these.) and . - High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0860 : IMPS2 - Inductor Temperature Alarm - Book 1	-	IMPS2: High temperature alarm in Book 1 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0861 : IMPS2 - Inductor Temperature Alarm - Book 2	-	IMPS2: High temperature alarm in Book 2 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0862 : IMPS2 - Inductor Temperature Alarm - Book 3	-	IMPS2: High temperature alarm in Book 3 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0863 : IMPS2 - Inductor Temperature Alarm - Book 4	-	IMPS2: High temperature alarm in Book 4 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0864 : IMPS2 - Inductor Temperature Alarm - Book 5	-	IMPS2: High temperature alarm in Book 5 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0865 : IMPS2 - Inductor Temperature Alarm - Book 6	-	IMPS2: High temperature alarm in Book 6 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0866 : IMPS2 - Inductor Temperature Alarm - Book 7	-	IMPS2: High temperature alarm in Book 7 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0867 : IMPS2 - Inductor Temperature Alarm - Book 8	-	IMPS2: High temperature alarm in Book 8 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0868 : IMPS2 - Inductor Temperature Alarm - Book 9	-	IMPS2: High temperature alarm in Book 9 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0870 : IMPS2 - Inductor Temperature Fault - Book 1	Ramp	IMPS2: High temperature fault in Book 1 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0871 : IMPS2 - Inductor Temperature Fault - Book 2	Ramp	IMPS2: High temperature fault in Book 2 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0872 : IMPS2 - Inductor Temperature Fault - Book 3	Ramp	IMPS2: High temperature fault in Book 3 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0873 : IMPS2 - Inductor Temperature Fault - Book 4	Ramp	IMPS2: High temperature fault in Book 4 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0874 : IMPS2 - Inductor Temperature Fault - Book 5	Ramp	IMPS2: High temperature fault in Book 5 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0875 : IMPS2 - Inductor Temperature Fault - Book 6	Ramp	IMPS2: High temperature fault in Book 6 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0876 : IMPS2 - Inductor Temperature Fault - Book 7	Ramp	IMPS2: High temperature fault in Book 7 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0877 : IMPS2 - Inductor Temperature Fault - Book 8	Ramp	IMPS2: High temperature fault in Book 8 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0878 : IMPS2 - Inductor Temperature Fault - Book 9	Ramp	IMPS2: High temperature fault in Book 9 Inductor.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0880 : IMPS2 - CMPS Temperature Alarm - Book 1	-	IMPS2: High temperature alarm in Book 1 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0881 : IMPS2 - CMPS Temperature Alarm - Book 2	-	IMPS2: High temperature alarm in Book 2 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0882 : IMPS2 - CMPS Temperature Alarm - Book 3	-	IMPS2: High temperature alarm in Book 3 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0883 : IMPS2 - CMPS Temperature Alarm - Book 4	-	IMPS2: High temperature alarm in Book 4 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0884 : IMPS2 - CMPS Temperature Alarm - Book 5	-	IMPS2: High temperature alarm in Book 5 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0885 : IMPS2 - CMPS Temperature Alarm - Book 6	-	IMPS2: High temperature alarm in Book 6 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0886 : IMPS2 - CMPS Temperature Alarm - Book 7	-	IMPS2: High temperature alarm in Book 7 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0887 : IMPS2 - CMPS Temperature Alarm - Book 8	-	IMPS2: High temperature alarm in Book 8 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
A0888 : IMPS2 - CMPS Temperature Alarm - Book 9	-	IMPS2: High temperature alarm in Book 9 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0890 : IMPS2 - CMPS Temperature Fault - Book 1	Ramp	IMPS2: High temperature fault in Book 1 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0891 : IMPS2 - CMPS Temperature Fault - Book 2	Ramp	IMPS2: High temperature fault in Book 2 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0892 : IMPS2 - CMPS Temperature Fault - Book 3	Ramp	IMPS2: High temperature fault in Book 3 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0893 : IMPS2 - CMPS Temperature Fault - Book 4	Ramp	IMPS2: High temperature fault in Book 4 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0894 : IMPS2 - CMPS Temperature Fault - Book 5	Ramp	IMPS2: High temperature fault in Book 5 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0895 : IMPS2 - CMPS Temperature Fault - Book 6	Ramp	IMPS2: High temperature fault in Book 6 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0896 : IMPS2 - CMPS Temperature Fault - Book 7	Ramp	IMPS2: High temperature fault in Book 7 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0897 : IMPS2 - CMPS Temperature Fault - Book 8.	Ramp	IMPS2: High temperature fault in Book 8 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0898 : IMPS2 - CMPS Temperature Fault - Book 9	Ramp	IMPS2: High temperature fault in Book 9 power.	- High ambient temperature (> 45 °C) and high output current. - Fan blocked or defective.
F0900 : IMPS2 - Fault to Open AC - Book 1	Immediate	IMPS2: Failed to open the CA Book 1 contactor.	- Defect in Contactor CA.
F0901 : IMPS2 - Fault to Open AC - Book 2	Immediate	IMPS2: Failed to open the CA Book 2 contactor.	- Defect in Contactor CA.
F0902 : IMPS2 - Fault to Open AC - Book 3	Immediate	IMPS2: Failed to open the CA Book 3 contactor.	- Defect in Contactor CA.
F0903 : IMPS2 - Fault to Open AC - Book 4	Immediate	IMPS2: Failed to open the CA Book 4 contactor.	- Defect in Contactor CA.
F0904 : IMPS2 - Fault to Open AC - Book 5	Immediate	IMPS2: Failed to open the CA Book 5 contactor.	- Defect in Contactor CA.
F0905 : IMPS2 - Fault to Open AC - Book 6	Immediate	IMPS2: Failed to open the CA Book 6 contactor.	- Defect in Contactor CA.
F0906 : IMPS2 - Fault to Open AC - Book 7	Immediate	IMPS2: Failed to open the CA Book 7 contactor.	- Defect in Contactor CA.
F0907 : IMPS2 - Fault to Open AC - Book 8	Immediate	IMPS2: Failed to open the CA Book 8 contactor.	- Defect in Contactor CA.
F0908 : IMPS2 - Fault to Open AC - Book 9	Immediate	IMPS2: Failed to open the CA Book 9 contactor.	- Defect in Contactor CA.
F0910 : IMPS2 - Fault to Close AC - Book 1	Immediate	IMPS2: Failure to close the CA Book 1 contactor.	- Defect in Contactor CA.
F0911 : IMPS2 - Fault to Close AC - Book 2	Immediate	IMPS2: Failure to close the CA Book 2 contactor.	- Defect in Contactor CA.
F0912 : IMPS2 - Fault to Close AC - Book 3	Immediate	IMPS2: Failure to close the CA Book 3 contactor.	- Defect in Contactor CA.
F0913 : IMPS2 - Fault to Close AC - Book 4	Immediate	IMPS2: Failure to close the CA Book 4 contactor.	- Defect in Contactor CA.
F0914 : IMPS2 - Fault to Close AC - Book 5	Immediate	IMPS2: Failure to close the CA Book 5 contactor.	- Defect in Contactor CA.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0915 : IMPS2 - Fault to Close AC - Book 6	Immediate	IMPS2: Failure to close the CA Book 6 contactor.	- Defect in Contactor CA.
F0916 : IMPS2 - Fault to Close AC - Book 7	Immediate	IMPS2: Failure to close the CA Book 7 contactor.	- Defect in Contactor CA.
F0917 : IMPS2 - Fault to Close AC - Book 8	Immediate	IMPS2: Failure to close the CA Book 8 contactor.	- Defect in Contactor CA.
F0918 : IMPS2 - Fault to Close AC - Book 9	Immediate	IMPS2: Failure to close the CA Book 9 contactor.	- Defect in Contactor CA.
F0920 : IMPS2 - Fault to Open Pre Charge - Book 1	Immediate	IMPS2: Book 1 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0921 : IMPS2 - Fault to Open Pre Charge - Book 2	Immediate	IMPS2: Book 2 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0922 : IMPS2 - Fault to Open Pre Charge - Book 3	Immediate	IMPS2: Book 3 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0923 : IMPS2 - Fault to Open Pre Charge - Book 4	Immediate	IMPS2: Book 4 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0924 : IMPS2 - Fault to Open Pre Charge - Book 5	Immediate	IMPS2: Book 5 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0925 : IMPS2 - Fault to Open Pre Charge - Book 6	Immediate	IMPS2: Book 6 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0926 : IMPS2 - Fault to Open Pre Charge - Book 7	Immediate	IMPS2: Book 7 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0927 : IMPS2 - Fault to Open Pre Charge - Book 8	Immediate	IMPS2: Book 8 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0928 : IMPS2 - Fault to Open Pre Charge - Book 9	Immediate	IMPS2: Book 9 pre-charge contactor failed to open.	- Pre-charge contactor defect.
F0930 : IMPS2 - Fault to Close Pre Charge - Book 1	Immediate	IMPS2: Failure to close the Book 1 pre-charge contactor.	- Pre-charge contactor defect.
F0931 : IMPS2 - Fault to Close Pre Charge - Book 2	Immediate	IMPS2: Failure to close the Book 2 pre-charge contactor.	- Pre-charge contactor defect.
F0932 : IMPS2 - Fault to Close Pre Charge - Book 3	Immediate	IMPS2: Failure to close the Book 3 pre-charge contactor.	- Pre-charge contactor defect.
F0933 : IMPS2 - Fault to Close Pre Charge - Book 4	Immediate	IMPS2: Failure to close the Book 4 pre-charge contactor.	- Pre-charge contactor defect.
F0934 : IMPS2 - Fault to Close Pre Charge - Book 5	Immediate	IMPS2: Failure to close the Book 5 pre-charge contactor.	- Pre-charge contactor defect.
F0935 : IMPS2 - Fault to Close Pre Charge - Book 6	Immediate	IMPS2: Failure to close the Book 6 pre-charge contactor.	- Pre-charge contactor defect.
F0936 : IMPS2 - Fault to Close Pre Charge - Book 7	Immediate	IMPS2: Failure to close the Book 7 pre-charge contactor.	- Pre-charge contactor defect.
F0937 : IMPS2 - Fault to Close Pre Charge - Book 8	Immediate	IMPS2: Failure to close the Book 8 pre-charge contactor.	- Pre-charge contactor defect.
F0938 : IMPS2 - Fault to Close Pre Charge - Book 9	Immediate	IMPS2: Failure to close the Book 9 pre-charge contactor.	- Pre-charge contactor defect.
F0939 : IMPS1 - DC Disconnector Closing Fault	Immediate	The closing of the IMPS2 DC disconnector has been commanded but there is no return of the closing.	- Connection problem or broken wire in the return signal of the respective DC disconnector.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0940 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 1	-	The current of phase U of IMPS2 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0941 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 2	-	The current of phase U of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0942 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 3	-	The current of phase U of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0943 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 4	-	The current of phase U of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0944 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 5	-	The current of phase U of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0945 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 6	-	The current of phase U of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0946 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 7	-	The current of phase U of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0947 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 8	-	The current of phase U of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0948 : IMPS2 - Phase U AVG Current Unbalanced Alarm - Book 9	-	The current of phase U of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0950 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase U of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0951 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase U of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0952 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase U of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0953 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase U of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0954 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase U of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0955 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase U of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0956 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase U of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0957 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase U of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0958 : IMPS2 - Phase U AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase U of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase U of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0960 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 1	-	The current of phase V of IMPS2 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0961 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 2	-	The current of phase V of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0962 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 3	-	The current of phase V of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0963 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 4	-	The current of phase V of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0964 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 5	-	The current of phase V of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0965 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 6	-	The current of phase V of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0966 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 7	-	The current of phase V of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0967 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 8	-	The current of phase V of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0968 : IMPS2 - Phase V AVG Current Unbalanced Alarm - Book 9	-	The current of phase V of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0970 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase V of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0971 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase V of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0972 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase V of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0973 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase V of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0974 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase V of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0975 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase V of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F0976 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase V of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0977 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase V of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0978 : IMPS2 - Phase V AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase V of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase V of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0980 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 1	-	The current of phase W of IMPS2 book 1 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0981 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 2	-	The current of phase W of IMPS2 book 2 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0982 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 3	-	The current of phase W of IMPS2 book 3 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0983 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 4	-	The current of phase W of IMPS2 book 4 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0984 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 5	-	The current of phase W of IMPS2 book 5 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0985 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 6	-	The current of phase W of IMPS2 book 6 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0986 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 7	-	The current of phase W of IMPS2 book 7 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
A0987 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 8	-	The current of phase W of IMPS2 book 8 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
A0988 : IMPS2 - Phase W AVG Current Unbalanced Alarm - Book 9	-	The current of phase W of IMPS2 book 9 exceeded the percentage limit defined by P01252, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0990 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 1	Immediate	The current of phase W of IMPS2 book 1 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0991 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 2	Immediate	The current of phase W of IMPS2 book 2 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0992 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 3	Immediate	The current of phase W of IMPS2 book 3 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0993 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 4	Immediate	The current of phase W of IMPS2 book 4 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0994 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 5	Immediate	The current of phase W of IMPS2 book 5 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0995 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 6	Immediate	The current of phase W of IMPS2 book 6 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0996 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 7	Immediate	The current of phase W of IMPS2 book 7 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0997 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 8	Immediate	The current of phase W of IMPS2 book 8 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F0998 : IMPS2 - Phase W AVG Current Unbalanced Fault - Book 9	Immediate	The current of phase W of IMPS2 book 9 exceeded the percentage limit defined by P01254, in relation to the average current of phase W of all books in operation	- Variation in impedance between the phases of the internal inductor of the harmonic filter. - Problem with the ribbon cable that interconnects the CMPS card of the book with the IMPS card. - Problem in the PWM signal circuit of the respective book on the IMPS card.
F1000 : IMPS1 - FPGA Monitor: Phase U CMPS1 Overtemperature	Immediate	IGBT Temperature of phase U of IMPS1 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1001 : IMPS1 - FPGA Monitor: Phase V CMPS1 Overtemperature	Immediate	IGBT Temperature of phase V of IMPS1 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1002 : IMPS1 - FPGA Monitor: Phase W CMPS1 Overtemperature	Immediate	IGBT Temperature of phase W of IMPS1 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1003 : IMPS1 - FPGA Monitor: Inductor CMPS1 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 1 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1004 : IMPS1 - FPGA Monitor: Phase U CMPS2 Overtemperature	Immediate	IGBT Temperature of phase U of IMPS1 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1005 : IMPS1 - FPGA Monitor: Phase V CMPS2 Overtemperature	Immediate	IGBT Temperature of phase V of IMPS1 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1006 : IMPS1 - FPGA Monitor: Phase W CMPS2 Overtemperature	Immediate	IGBT Temperature of phase W of IMPS1 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1007 : IMPS1 - FPGA Monitor: Inductor CMPS2 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 2 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1008 : IMPS1 - FPGA Monitor: Phase U CMPS3 Overtemperature	Immediate	IGBT Temperature of phase U of IMPS1 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1009 : IMPS1 - FPGA Monitor: Phase V CMPS3 Overtemperature	Immediate	IGBT Temperature of phase V of IMPS1 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1010 :	Immediate	IGBT Temperature of phase W of IMPS1 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1011 : IMPS1 - FPGA Monitor: Inductor CMPS3 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 3 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1012 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS1 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1013 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS1 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1014 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS1 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1015 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS1 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1016 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS2 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1017 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS2 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1018 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS2 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1019 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS2 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1020 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS3 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1021 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS3 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1022 :	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1023 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS3 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1030 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS4 Overtemperature	Immediate	IGBT temperature of book 4 of IMPS1 phase U exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1031 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS4 Overtemperature	Immediate	IGBT temperature of book 4 of IMPS1 phase V exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1032 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS4 Overtemperature	Immediate	IGBT temperature of book 4 of IMPS1 phase W exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1033 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS4 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 4 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1034 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS5 Overtemperature	Immediate	IGBT temperature of book 5 of IMPS1 phase U exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1035 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS5 Overtemperature	Immediate	IGBT temperature of book 5 of IMPS1 phase V exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1036 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS5 Overtemperature	Immediate	IGBT temperature of book 5 of IMPS1 phase W exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1037 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS5 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 5 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1038 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS6 Overtemperature	Immediate	IGBT temperature of book 6 of IMPS1 phase U exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1039 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS6 Overtemperature	Immediate	IGBT temperature of book 6 of IMPS1 phase V exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1040 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS6 Overtemperature	Immediate	IGBT temperature of book 6 of IMPS1 phase W exceeded the limit defined by P07950 - FPGA	- Cooling System Off; - Low liquid pressure in the cooling system; - Liquid inlet and/or outlet valves closed in the respective book
F1041 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS6 Overtemperature	Immediate	Inductor Temperature of IMPS1 book 6 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1042 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS4 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1043 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS4 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1044 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS4 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1045 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS4 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1046 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS5 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1047 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS5 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1048 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS5 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1049 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS5 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1050 : IMPS1 - FPGA Monitor: Broken Wire or Phase U CMPS6 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS1 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1051 : IMPS1 - FPGA Monitor: Broken Wire or Phase V CMPS6 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS1 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1052 : IMPS1 - FPGA Monitor: Broken Wire or Phase W CMPS6 Overtemperature	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS1 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1053 : IMPS1 - FPGA Monitor: Broken Wire or Inductor CMPS6 Overtemperature	Immediate	Problem in measuring the IGBT temperature of IMPS1 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1060 : IMPS1 - FPGA Monitor: PV Inverted Polarity	Immediate	Input 1 DC voltage with inverted polarity - FPGA	- PV cable installation error - Measurement of input DC voltage with inverted connectors
F1061 : IMPS1 - FPGA Monitor: PV Overvoltage	Immediate	High voltage at DC input 1 - FPGA	- Problem reading DC voltage (IGS card) - Uncorrectly sizing of the photovoltaic plant
F1100 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 1	Immediate	IGBT Temperature of phase U of IMPS2 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1101 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 1	Immediate	IGBT Temperature of phase V of IMPS2 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1102 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 1	Immediate	IGBT Temperature of phase W of IMPS2 book 1 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1103 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 1	Immediate	Inductor Temperature of IMPS2 book 1 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1104 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 2	Immediate	IGBT Temperature of phase U of IMPS2 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1105 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 2	Immediate	IGBT Temperature of phase V of IMPS2 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1106 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 2	Immediate	IGBT Temperature of phase W of IMPS2 book 2 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1107 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 2	Immediate	Inductor Temperature of IMPS2 book 2 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1108 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 3	Immediate	IGBT Temperature of phase U of IMPS2 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1109 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 3	Immediate	IGBT Temperature of phase V of IMPS2 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1110 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 3	Immediate	IGBT Temperature of phase W of IMPS2 book 3 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1111 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 3	Immediate	Inductor Temperature of IMPS2 book 3 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1112 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Overtemperature - Book 1	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1113 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Overtemperature - Book 1	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1114 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Overtemperature - Book 1	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1115 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 1	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 1.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1116 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Overtemperature - Book 2	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1117 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Overtemperature - Book 2	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1118 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Inductor Overtemperature - Book 2	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1119 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 2	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 2.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1120 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Overtemperature - Book 3	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1121 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Overtemperature - Book 3	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1122 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Overtemperature - Book 3	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1123 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 3	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 3.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1130 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 4	Immediate	IGBT Temperature of phase U of IMPS2 book 4 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1131 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 4	Immediate	IGBT Temperature of phase V of IMPS2 book 4 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1132 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 4	Immediate	IGBT Temperature of phase W of IMPS2 book 4 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1133 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 4	Immediate	Inductor Temperature of IMPS2 book 4 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1134 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 5	Immediate	IGBT Temperature of phase U of IMPS2 book 5 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1135 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 5	Immediate	IGBT Temperature of phase V of IMPS2 book 5 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1136 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 5	Immediate	IGBT Temperature of phase W of IMPS2 book 5 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1137 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 5	Immediate	Inductor Temperature of IMPS2 book 5 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1138 : IMPS2 - FPGA Monitor: Phase U Overtemperature - Book 6	Immediate	IGBT Temperature of phase U of IMPS2 book 6 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1139 : IMPS2 - FPGA Monitor: Phase V Overtemperature - Book 6	Immediate	IGBT Temperature of phase V of IMPS2 book 6 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1140 : IMPS2 - FPGA Monitor: Phase W Overtemperature - Book 6	Immediate	IGBT Temperature of phase W of IMPS2 book 6 exceeded the limit defined by P07950 - FPGA	- Cooling system off; - liquid inlet and/or outlet valves closed in the respective book.
F1141 : IMPS2 - FPGA Monitor: Inductor Overtemperature - Book 6	Immediate	Inductor Temperature of IMPS2 book 6 exceeded the limit defined by P07952 - FPGA	- Cooling system off; - Low liquid pressure in the system cooling; - liquid inlet and/or outlet valves closed in the respective book.
F1142 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Overtemperature - Book 4	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1143 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Overtemperature - Book 4	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1144 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Overtemperature - Book 4	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor

Fault/Alarm/Event	Shutdown	Description	Possible Causes
F1145 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 4	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 4.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1146 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Overtemperature - Book 5	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1147 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Overtemperature - Book 5	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1148 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Overtemperature - Book 5	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1149 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 5	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 5.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1150 : IMPS2 - FPGA Monitor: Broken Wire or Phase U Inductor Overtemperature - Book 6	Immediate	Problem in measuring the IGBT temperature of phase U of IMPS2 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1151 : IMPS2 - FPGA Monitor: Broken Wire or Phase V Inductor Overtemperature - Book 6	Immediate	Problem in measuring the IGBT temperature of phase V of IMPS2 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1152 : IMPS2 - FPGA Monitor: Broken Wire or Phase W Inductor Overtemperature - Book 6	Immediate	Problem in measuring the IGBT temperature of phase W of IMPS2 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1153 : IMPS2 - FPGA Monitor: Broken Wire or Inductor Overtemperature - Book 6	Immediate	Problem in measuring the IGBT temperature of IMPS2 book 6.	- Inductor temperature sensor cable not connected to the CMPS card - Broken IGBT temperature sensor
F1160 : IMPS2 - FPGA Monitor: PV Inverted Polarity	Immediate	Input 2 DC voltage with inverted polarity - FPGA	- PV cable installation error - Measurement of input DC voltage with inverted connectors
F1161: IMPS2 - FPGA Monitor: PV Overvoltage	Immediate	High voltage at DC input 2 - FPGA	- Problem reading DC voltage (IGS card) - Uncorrectly sizing of the photovoltaic plant

3 SAFETY INSTRUCTIONS

This section contains safety instructions that must be understood and followed in order to avoid hazardous situations when operating the SIW750 central solar inverter, performing any installation or maintenance work.

3.1 SAFETY NOTICES

The following safety notices are used in this manual:

DANGER!
Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING!
Indicates a hazardous situation that can result in death, personal injury, or damage to the equipment.

NOTE!
Indicates additional information and emphasizes contents in this manual.

3.2 SAFETY LABELS

The following safety labels are attached to the product:

High voltages are present.
Caution, risk of electric shock.

Components sensitive to electrostatic discharge. Do not touch them.
Sensitive electronics can be damaged by electrostatic discharges. A wrist strap, heel strap, or other ESD protections should be used.

Mandatory connection to the protective earth (PE).
Connection to protective earth (PE) is required.

Connection of the shield to the ground.
Grounding required.

DANGER!
This product contains capacitors which store energy after de-energization. Wait for at least 15 minutes before handling the equipment to ensure that the capacitors are discharged. Voltage levels should always be verified prior to any installation or maintenance work.

Electronic waste. Do not dispose.

3.3 GENERAL INFORMATION ABOUT ASSEMBLY, LOCATION AND MOUTING REQUIREMENTS

DANGER!
Both the inverter and the PV arrays must be installed in closed electrical operating areas only, i.e., access must be restricted to skilled or instructed persons.

WARNING!
Read accompanying documentation for specific information about transport, assembly and mounting.

WARNING!
The installation position shall not prevent access to the disconnection means. Ensure easy access to the disconnection means.

WARNING!
In the final installation, vents shall not be covered or obstructed.

3.4 PRELIMINARY RECOMMENDATIONS

NOTE!
Carefully read all instructions before handling, installing, or operating the inverter.

DANGER!
Installation and operation of this equipment must be performed by trained and qualified personnel only.
Failure to comply with the instructions described in this manual may result in death or serious injury.

DANGER!
Ensure that all sources of power have been disconnected before performing any installation or maintenance work.

Before performing any installation or maintenance work, ensure that both the d.c. side switch-disconnector (Q0) and the a.c. side circuit breaker (Q1) are switched OFF. Figure 3.1 visually indicates where Q0 and Q1 are located inside the cabinet.

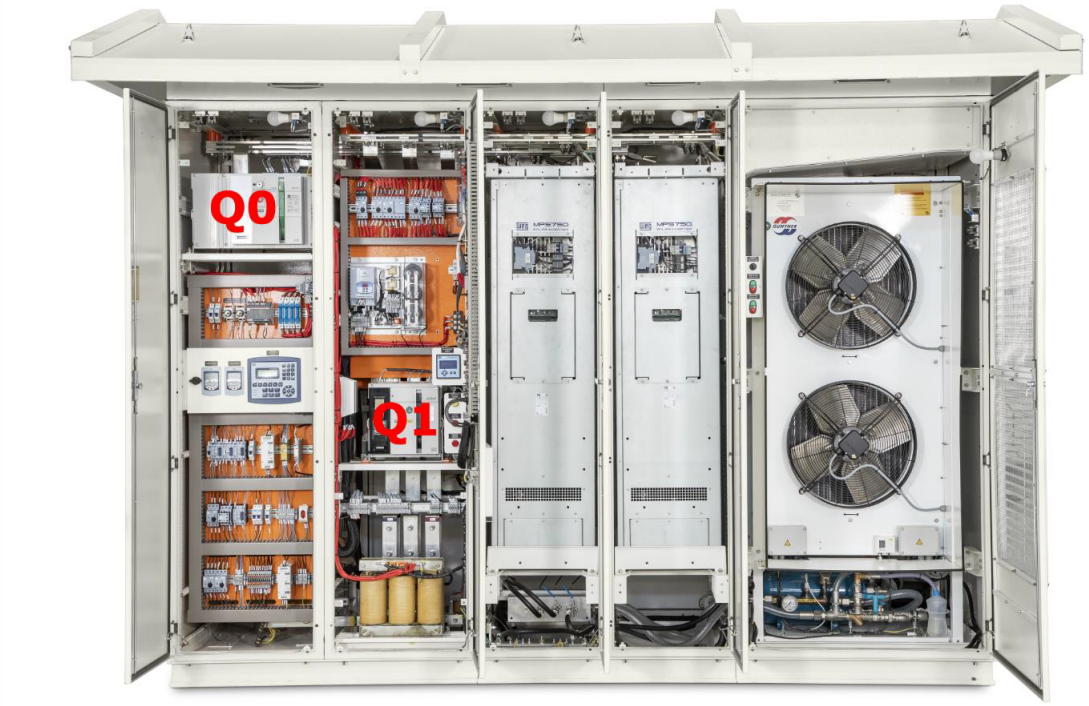

Figure 3.1: *SIW750 T-1.0 d.c. side switch-disconnector (Q0) and a.c. side circuit breaker (Q1).*

DANGER!
PV modules generate electricity when exposed to light.

DANGER!
This product contains capacitors which store energy after de-energization. Wait for at least 15 minutes before handling the equipment to ensure that the capacitors are discharged. Voltage levels should always be verified prior to any installation or maintenance work.

DANGER!
The protection provided by the equipment may be impaired if the product is not used as specified in this manual. Chassis must be grounded. For safe operation use the product only as specified.

Hipot test must not be performed by the user!
Contact WEG if on-site hipot testing is necessary.

4 ABOUT THE SIW750

4.1 OVERVIEW AND APPLICABILITY

The SIW750 is a high power central photovoltaic (PV) inverter suitable for applications where the peak power generated by the PV array exceeds 1 MWp.

The inverter can be configured with the WEG Programming Suite (WPS), section 4.2, on a computer which communicates with the SIW750 via USB, RS485, RS232, or Ethernet.

4.2 WPS (WEG PROGRAMMING SUITE)

WPS is a software tool that allows monitoring and configuring the SIW750 and other WEG products parameters as well as remotely operating the inverter.

NOTE!
For specific information about communication with the SIW750 and how to use the WEG Programming Suite, please refer to the documentation listed below:

- WEG SIW750 Central Solar Inverter Start-up and OM Guide;
- WPS user manual.

4.2.1 FIRMWARE VERSION IDENTIFICATION

Firmware version can be verified with parameters P00900 to P00909 in WPS.

4.3 CHARACTERISTICS

The SIW750 is a high-performance high power central photovoltaic (PV) DC/AC converter that allows DC energy generated by PV modules to be efficiently transferred to the AC power grid as shown in Figure 4.1.

The MPS750 Solar Power Module, also referred to as 'book', is the main component of the SIW750 power circuit and up to six power modules can be associated in a single SIW750 inverter.

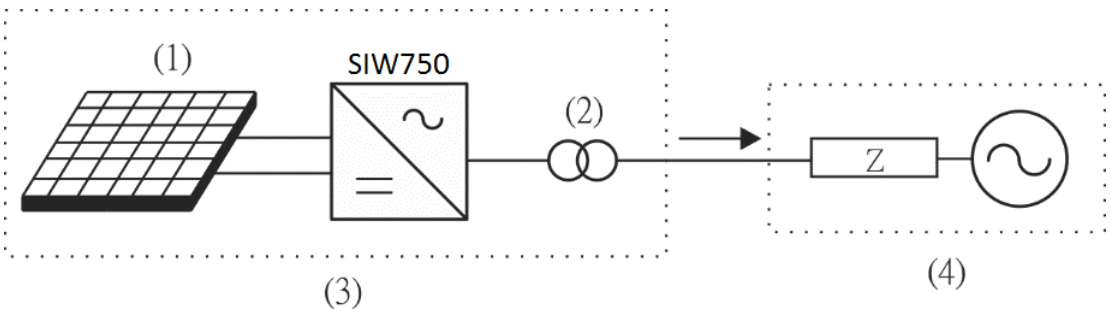

Figure 4.1: *Block diagram of a PV system using the SIW750.*

Where:

1. PV power plant – grounded or floating array

2. Isolation transformer
3. Solar generation system
4. Grid.

WARNING!
Isolation transformer shall not be grounded (IT network).

The PV array can be grounded or floating.

An isolation transformer is required to connect the inverter to the power grid. See section 4.4 for technical information about the transformer.

SIW750 functionalities include:

1. Maximum Power Point Tracking (MPPT);
2. Anti-islanding;
3. Fault recording;
4. Reactive power control.

4.4 ISOLATION TRANSFORMER SPECIFICATIONS

The transformer must be dedicated to service only the inverter(s). No loads may be powered from the connection between the inverter and the transformer.

The transformer must not be grounded at the secondary side, i.e., inverter side. High-impedance grounding is also acceptable, e.g., IT network.

Furthermore, the isolation transformer must comply with the specifications listed below:

- Grounded shield between primary and secondary windings.
- Equivalent series impedance between 6% and 8% at the secondary side.
- The isolation provided by the transformer must limit the available residual current to less than 10 mA RMS per kVA of rated continuous output power, measured in accordance with IEC 62109-2:2011.
- Minimum insulation requirements: 1500Vdc working voltage, 6000V impulse withstand voltage and 2550Vpeak / 1800Vrms temporary over-voltage.
- Reinforced isolation between primary and secondary.
- If a multi-winding transformer is employed, ensure continuous operation even if only one of the secondary windings is used. In such a case, care should be taken to avoid high inrush current, current unbalance or other unwanted situations that may negatively affect the SIW750.

4.5 CABLE ESPECIFICATIONS

External power cables connected to the inverter busbars shall be specified for maximum continuous power and 50 °C ambient temperature.

Cable insulation shall be rated at 1.5x the maximum d.c. bus voltage or greater.

Although the maximum cable length depends on a number of factors such as cable impedance, short circuit ratio (SCR), system efficiency and mechanical limitations, it is recommended that it does not exceed 15 meters.

Protective earthing conductor shall be specified with a minimum cross-sectional area of 300 mm² (Cu) or S/2, where S is the equivalent cross-sectional area of the power cables.

DANGER!
The absence of protective earthing may result in electric shock in the event of an abnormal situation.

NOTE!
For more information about the connection of protective earthing conductors and power cables, please refer to accompanying documentation.

4.5.1 TIGHTENING TORQUE TO BE APPLIED TO WIRING TERMINALS

Table 4.1 specifies the tightening torque for busbars connections, while Table 4.2 specifies the tightening torque to be applied to other wiring terminals.

Table 4.1: *Tightening torque for busbars connections.*

Screw size	Tightening torque (N.m)
M4	2
M6	5.5
M8	15
M10	30
M12	60

Table 4.2: *Tightening torque to be applied to other wiring terminals.*

Screw size	Tightening torque (N.m)
M4	2.5
M5	5
M6	8.3
M8	19
M10	37
M12	61

4.6 COOLING SYSTEM

The SIW750 employs a liquid cooling system to achieve maximum performance. The heat is then transferred to the ambient via convective heat transfer.

The cooling system features one water pump, two ventilators that are responsible for transferring heat from the coolant to the ambient, and an extra ventilation system on the top of the inverter which helps cooling the air inside the cabinet.

The coolant temperature is maintained below 50 °C under normal operation and a system fault signal is generated if temperature rises above this level. Moreover, the inverter will cease operation if any abnormal condition is detected in the cooling system.

NOTE!
For detailed information about the cooling system, please refer to the following documentation:

- Cooling system solar drive SIW750 1 MW.

WARNING!
Coolant system servicing is to be done only by service personnel.

5 COMMISSIONING

DANGER!
Installation and operation of this equipment must be performed by trained and qualified personnel only.
Failure to comply with the instructions described in this manual may result in death or serious injury.

DANGER!
Ensure that all sources of power have been disconnected before performing any installation or maintenance work.

DANGER!
PV modules generate electricity when exposed to light.

DANGER!
This product contains capacitors which store energy after de-energization. Wait for at least 15 minutes before handling the equipment to ensure that the capacitors are discharged. Voltage levels should always be verified prior to any installation or maintenance work.

DANGER!
The absence of protective earthing may result in electric shock in the event of an abnormal situation.

This chapter discusses key points for proper commissioning of the inverter. It is assumed that all the instructions from previous chapters have been followed.

5.1 ENERGIZING

Review the following steps before energizing the inverter:

1. Ensure that both the d.c. side switch-disconnector (Q0) and the a.c. side circuit breaker (Q1) are switched OFF;
2. Make sure that the protective earthing conductor and power cables are connected as specified by the manufacturer and properly tightened;
3. Ensure that the cooling system has been previously prepared for operation and that vents are not covered or obstructed;
4. Prior to energizing, remove debris and unwanted objects from the inverter and installation site, including mounting tools, screws, metallic chips from drilling, weld splatter etc.;
5. Ensure easy access to the disconnection means.
6. Check if both voltage and current levels of the PV array are in agreement with SIW750 specifications;
7. Measure voltage levels of both the a.c. mains supply and PV array to ensure that specifications are not violated;
8. Energize command and control circuitry, turn on the circuit breaker labeled Q1 and close cabinet doors;
9. Verify that the ventilation system is working properly;
10. Configure and operate the SIW750 in conformity with installation requirements and applicable grid codes.

5.2 START-UP GUIDE

NOTE!
For detailed information about SIW750 start-up, operation and maintenance, please refer to the following documentation:

- WEG SIW750 Central Solar Inverter Start-up and OM Guide.

5.2.1 BASIC CONFIGURATION

NOTE!
Some protection algorithms depend on characteristics that are specific to each installation, such as mains voltage and frequency. These are set when shipped from the factory, but can also be adjusted by authorized personnel, if needed, provided that the product specifications are not violated.

Mains nominal voltage (V) should be configured with parameter P0990. Mains nominal frequency (Hz) should be configured with parameter . Inverter nominal power (kVA) can be set (limited) with parameter P0994.

5.2.2 SETTING DATE AND TIME

Date and time can be set with parameter P7184 using the following notation: dd/mm/yyyy – hh/mm/ss.

Date and time are stored on non-volatile memory, so that information will not be lost if the inverter is turned off.

5.2.3 MULTIPURPOSE INPUTS AND OUTPUTS

The SIW750 benefits from multipurpose digital outputs, analog and digital inputs, that can be configured to meet specific customer's requirements, if needed.

In total, there are 2 analog inputs, 12 digital inputs and 14 digital outputs.

NOTE!
Contact WEG to discuss the use of analog inputs, digital inputs or digital outputs for specific installation requirements.

5.2.4 MODBUS-RTU (RS-485 / USB) SETTINGS

In the RS-485 and USB communication ports, the communication protocol available for monitoring the parameters of the SIW750 is the MODbusRTU. **According to availability, it is possible to perform: write access and reading in the SIW750 parameters**. The purpose of the SIW750 communication network is to monitor parameters regarding its functioning and connectivity with photovoltaic panels. The parameters illustrated in Table 5.1 are used to configure the communication grid of the SIW750.

Table 5.1: Modbus-RTU parameters.

Parameter	Description	Factory Settings
P4000	Serial Address	1
P4001	Serial Communiction Rate	4: 115200 bits/s
P4002	Serial Bytes Setting	0: 8 bits, without, 1
P4003	Serial Protocol	0: Modbus RTU
P4004	Serial Communicaiton Timeout	500 ms
P4006	Action in case of Serial Communication Timeout	0: Reset communication

Setting by P4006 to the value "1: Fault", a communication fault will be generated if the communication fails during the time programmed in P4004 with inverter by ramp shutdown. With parameter P4006 set to the value "0: Reset communication", in case of communication fault, the inverter will only reset Modbus communication.

5.2.5 MODBUS-TCP (ETHERNET) SETTINGS

The SIW750 has support for 10 and 100 Mbps Ethernet connections, Half or Full Duplex, in Modbus TCP protocol. Parameters P4010 to P4010 are related to this communication and the configurable parameters are shown in Table 5.2.

Table 5.2: Modbus-TCP parameters.

Parameter	Description	Factory Settings
P4010	Modbus TCP Communication Port	502
P4011	Modbus TCP Device Address	1
P4014	Modbus TCP Communication Timeout	5000 ms
P4015	DHCP	0: Inactive
P4016	Ethernet IP Address	192.168.0.100
P4018	Ethernet Netmask	255.255.255.0
P4020	Gateway Ethernet	0.0.0.0

5.2.6 D.C. PROTECTIONS

The SIW750 is capable of quickly and automatically taking actions to prevent damage to the equipment if any of situations listed below are detected:

- Voltage imbalance of the d.c. bus capacitors;
- Reverse d.c. polarity;
- Occurrence of a short-circuit in the d.c. bus;
- Overvoltage in the d.c. bus;
- Reverse d.c. current.

It is possible to adjust protective measures to meet specific installation requirements, as indicated in Table 5.3.

Table 5.3: parameters related to d.c. protections.

Parameter	Description	Factory settings
P1206	Max. Unbalanced DC Bus voltage - Alarm	50.0 V
P1204	Max. Unbalanced DC Bus voltage - Fault	80.0 V
P1222	Negative PV Voltage Limit	-50.0 V
P1208	DC Voltage per capacitor for DC short circuit protection	200 V
P1210	DC Current for DC short circuit protection	200 A
P1212	Min. time for DC short circuit protection	100 ms
P1214	Protection start time for DC short curcuit protection	1000 ms
P1220	Max. PV Voltage Limit	1550.0 V
P1216	Max. reverse current	-50 A
P1218	Min. Time for reverse current protection	100.0 ms

5.2.7 PROGRAMABLE OPERATIONAL LIMITS

It is possible to set operational limits for the inverter during operation, as indicated in Table 5.4.

Table 5.4: programable operational limits.

Parameter	Description	Valor Padrão
P1334	Power setpoint limit	100.0 %Pn
P1336	Total current setpoint limit	100.0 %In
P1338	Power limit ramp rate	1 Hz
P1340	Upper active current setpoint limit	100.0 %In
P1342	Lower active current setpoint limit	-100.0 %In
P1344	Reactive current limit setpoint	100.0 %In
P1346	Current reference limit ramp rate	3000.0 Hz

Example: P1334 will limit the maximum active power delivered to the grid. If, for a given time interval, the mains voltage equals 110 %Vn and P1334 is set to 100 %Pn, then the maximum active current (d-axis) will be limited to a value given by (100 %Pn) / (110 %Vn) = 90.90 %In.

5.2.8 STARTUP MODES

- Local operation, auto start enabled: a digital input is set to 1: Start in Parameters => Configurations => Digital Inputs and remote mode is disabled, i.e., P1001 checkbox is clear. Auto Start Enable checkbox, P1006, is checked. The time interval required for auto start is adjusted with parameter P1042.
- Local operation, auto start disabled: both Remote Mode, P1001, and Auto Start Enable, P1006, are unchecked. The inverter startup and shut down are achievable locally, with external commands sent through digital inputs configured as Run and Stop in Parameters => Configurations => Digital Inputs.
- Remote, auto start enabled: both Remote Mode, P1002, and Auto Start Enable checkbox, P1001, are checked. The time interval required for auto start is adjusted with parameter P1006.
- Remote, auto start disabled: Remote Mode, P1002 is enabled and Auto Start Enable, P1001 is unchecked. In this mode, the inverter will only start when the Run checkbox is checked in P1001.

5.3 MODULAR DESIGN

Multiple MPS750 power modules can be associated and integrated in a single inverter, as previously discussed in Section 4.3, to achieve higher operating current and power.

The SIW750 T-1.0 model employs two MPS750 power modules to achieve 1215 kVA maximum continuous power, and other SIW750 family models have power ratings that are multiple times this value, such as the SIW750 T-3.0, which is capable of delivering 3645 kVA.

The main advantages of such a design strategy are:

- Increased reliability;
- Flexibility;
- Greater overall efficiency, since less power modules are active when power generation is lower;
- Reduced maintenance costs.

5.3.1 DISABLING POWER MODULES

As previously mentioned, greater overall efficiency can be achieved when power generation is lower by disabling some of the power modules. Hence, all available power is processed by the minimum number of power modules that are required.

Another advantage of modular design is that power modules which need to be removed, e.g., preventive maintenance, can be easily disabled and the inverter is capable of maintaining partial generation. It is important, though, to balance power generation of each module in a way that all power modules operate for similar time intervals throughout the entire lifetime of the inverter. This is achieved by the power generation equalization control, which is discussed in the next section.

5.3.2 POWER GENERATION EQUALIZATION CONTROL

It is important to balance power generation of each module in a way that all power modules operate for similar time intervals throughout the entire lifetime of the inverter.

The SIW750 keeps track of the total time each power module has been operating. The decision whether to enable or disable a power module at a given time takes this information into account. For example, based on the operating history shown in Figure 5.1, the SIW750 T-1.0 will prioritize enabling power module 2.

In this example, power module 1 will be enabled when PV generation is high enough, or at another time, when the operating history is the opposite.

Figure 5.1: *Power generation equalization control example for the SIW750 T-1.0.*

6 REACTIVE POWER CONTROL

The SIW750 has four operating modes for reactive power control: Unity Power Factor, Fixed Power Factor, Variable Power Factor and kVAr Control. Table 6.1 presents a brief description for each control mode, while Table 6.2 indicates the parameters for configuring the reactive control modes.

Table 6.1: *Reactive power control modes.*

Control mode	Description
Unity PF	The inverter operates with PF = 1.
Fixed PF	The power factor is fixed and given by the value configured with P1390.
Variable PF	The power factor varies during operation, as defined by curves adjusted by the operator.
kVAr control	Reactive power is configured with P1392.

Table 6.2: *Reactive power control parameters.*

Parameter	Description	Factory settings
P1016	Reactive Control Mode	0: Unit PF
P1374	Proportional gain - Reactive Power control	0.1
P1376	Integral gain - Reactive Power control	10.0
P1386	Reactive injection start voltage - variable PF control	103.0 %Vn
P1388	Reactive injection final voltage - variable PF control	100.0 %Vn
P1390	Power Factor setpoint - PF control	1.0
P1392	Reactive Power Setpoint - kVAR control	0.0 %
P1394	Minimum Apparent Power - kVAR control	20 %

The following convention will be followed throughout this manual:

- A negative sign (-) represents capacitive reactive power, or leading PF;
- A positive sign (+) represents inductive reactive power, or lagging PF.Potência reativa ou FP (+): indutivo..

6.1 UNITY FP MODE

This is the default operating mode of the SIW750. Reactive power is virtually inexistent so that PF≈1. This mode is enabled if parameter P1016 is set to 0 (zero).

6.2 FIXED FP

In this mode, the SIW750 controls the power factor according to the value stored in P1390, which can vary from -1.00 to +1.00. This mode is enabled if parameter P1016 is set to 1 (one).

Table 6.3: *Fixed PF mode.*

Description	Factory settings	Range
FIXED FP	0.999	0.500 to 0.999
FIXED FP MODE	0 (inductive)	“0”: inductive, “1”: capacitive

Figure 6.1 illustrates this mode, where Pnom is the nominal power of the inverter.

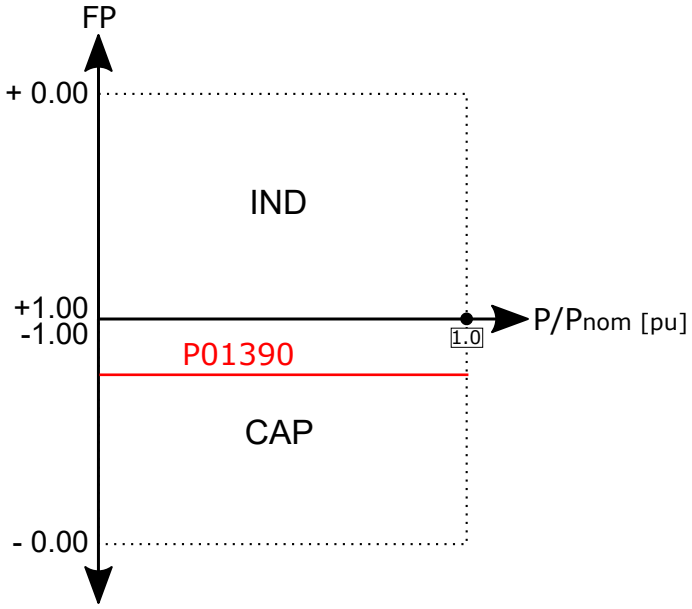

Figure 6.1: *Fixed PF control mode.*

6.3 VARIABLE FP

In this mode, parameters P7534 to P7566 can be set to define a power factor versus power curve such as the one shown in Figure 6.2.

P1386 and P1388 define the voltage at which the PF control should be enabled or disabled, respectively.

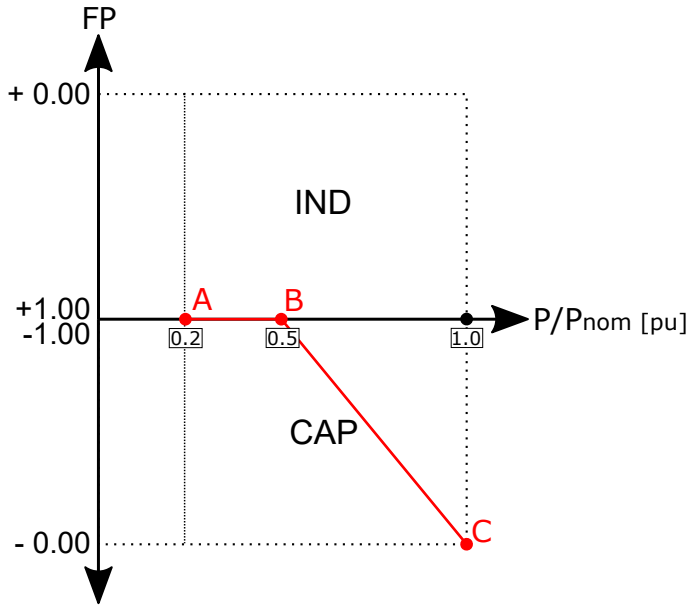

Figure 6.2: *Variable PF control mode.*

6.4 KVAR CONTROL

This control mode allows the operator to adjust reactive power generation during operation with parameter P1392, which can vary from -100% to 100% of the nominal power of the inverter, Pnom.

This mode is enabled if parameter P1016 is set to 3 (three).

The ratio between the active power and the reactive power that the SIW750 can operate is shown in the P x Q limits curve in Figure 6.3.

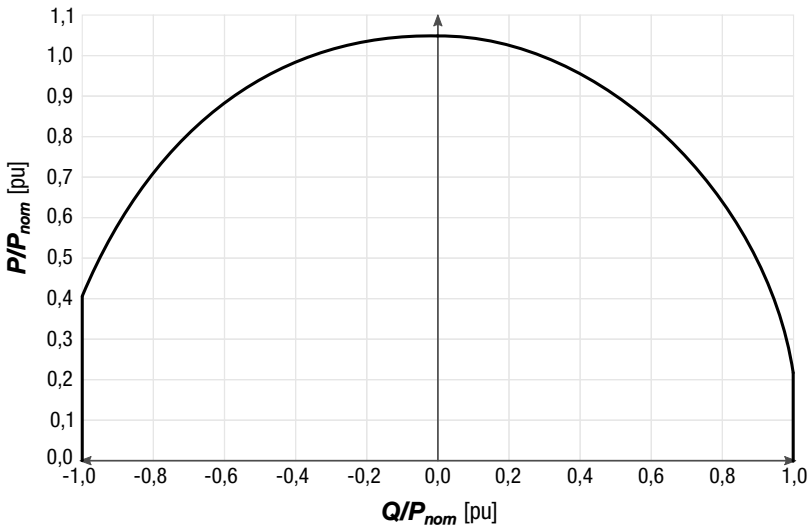

Figure 6.3: *P x Q limits for kVAR control.*

6.5 REACTIVE POWER CONTROL AT NIGHT

With the growing number of photovoltaic power plants connected to the electrical system, the need to supply reactive power has always been present to offer support to the EPS (Electric Power System). This support try to compensate for voltage variations in the near of the EPS where the photovoltaic plant is connected through its CCP (Common Connection Point), with the supply of capacitive reactive energy used to raise the voltage in the portion of the EPS where the plant is connected and inductive reactive energy used to reduce voltage.

Reactive compensation was never a problem during the day, as in this case the injection of reactive energy can be done easily by varying the operating FP of the inverters. The problem occurs at night, as in this case the inverters are disconnected from the grid due to the absence of photovoltaic energy, making the possibility of dynamic compensation of reactive energy for the EPS via the inverters impracticable.

Injecting capacitive reactive energy, the current at the connection point of the solar plant remains 90º ahead of the grid voltage, according to the positive sequencing of the phases. This causes the voltage at the grid inductances to be in counter-phase with the EPS general voltage, causing a sum of the voltages VLg (voltage drop over the grid impedances) and Veps (grid voltage) increasing the fundamental voltage near the connection point of the plant.

The opposite is also true, by injecting inductive reactive power, the current at the connection point remains delayed 90º in relation to the grid voltage, causing the voltage in the grid inductances to be in phase with the EPS general voltage, causing a vector subtraction of the voltages VLg and Veps decreasing the fundamental voltage in the near of the connection point of the solar park. Figure 6.4 illustrates the two cases presented.

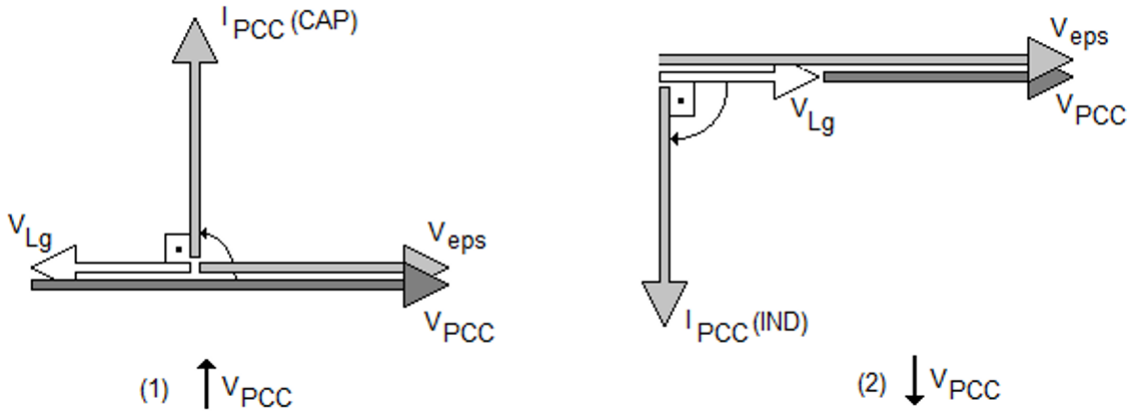

Figure 6.4: *Vector analysis of QatNight reactive injection*

The QatNight function available on the SIW750 solves the reactive control problem at night. This functionality allows EPS voltage compensation through reactive injection to be carried out by the inverter, eliminating the need for capacitor and inductor banks to perform the correction. In case the SIW750 is in QatNight mode, the inverters work disconnected from the panels and circulating reactants between the phases.

The parameters used to setting the QatNight function are:

Table 6.4: *Description of QatNight mode parameters.*

Parâmetro	Descrição
P01416	The QatNight functionality is activated by parameter P01416. Setting by P01416 = 1, the decision to enter the QatNight mode is made by the inverter itself based on the reactive reference (P0970) of the ControlKVAr mode and PV shutdown power. The output of QatNight is performed by the PV starting voltage.
P01452	Parameter shows the voltage of the photovoltaic panels when the DC bus is disconnected from the panels.
P01418	Parameter that defines the voltage of the DC bus that the inverter must regulate during the operation of QatNight Mode.
P01450	Configures the time to disconnect from QatNight mode and time to timed input. The timed input is carried out when the inverter is unable to make a new connection attempt during the time configured in P01450. After the time defined in P01450, the inverter enters QatNight mode if P01416 = 1 and P01392 ≠ 0.
P01392	Parameter that defines the reference for the injection of reactive power in the grid. A negative value for this parameter provides injection of inductive reactives, while a positive value provides injection of capacitive reactives.

In addition to the parameters mentioned above, there are other parameters already present in the inverter that the QatNight functionality changes to be able to enter into operation, restoring their values to be able to return to the normal solar operation mode. These parameters are listed in Table 6.5, along with the values that are forced into the QatNight Mode input.

Table 6.5: *Parameters changed in QatNight mode.*

Parameter	Description	QatNight Mode
P01392	PV Shutdown Power	0.0%
P1016	Reactive Generation Mode	3 = kVAr Control

The QatNight mode input at the end of each afternoon can be done in 2 different ways: immediate input or timed input.

- Immediate input is carried out when the inverter fails to try to connect again in the late afternoon three times in a row (Wait mode activated). At that moment, the algorithm understands that QatNight should start operating if P01416 = 1 and P01392 ≠ 0.

- The timed input is carried out when the inverter is unable to make a new connection attempt during the time defined in P01450, after being disconnected by the shutdown power. After the time established by P01450, the algorithm understands that QatNight must start operating if P01416 = 1 and P01392 ≠ 0..

The output is carried out at the beginning of the day when the photovoltaic panels voltage is higher than the PV starting voltage during the starting time.

7 UTILITY INTERACTION

The SIW750 central solar inverter is equipped with several functionalities that allows it to comply with the requirements of the power utility and local grid codes. Default factory settings are set in conformity with sub-module 2.10 from ONS (National System Operator in Brazil).

7.1 PASSIVE PROTECTIONSYSTEM AND UTILITY INTERACTION

The inverter is able to detect the following abnormal grid conditions:

- Overvoltage;
- Undervoltage;
- Overfrequency;
- Underfrequency.

Trip limits and trip times for voltage and frequency can be adjusted to meet local grid codes, as indicated in Figure 7.1.

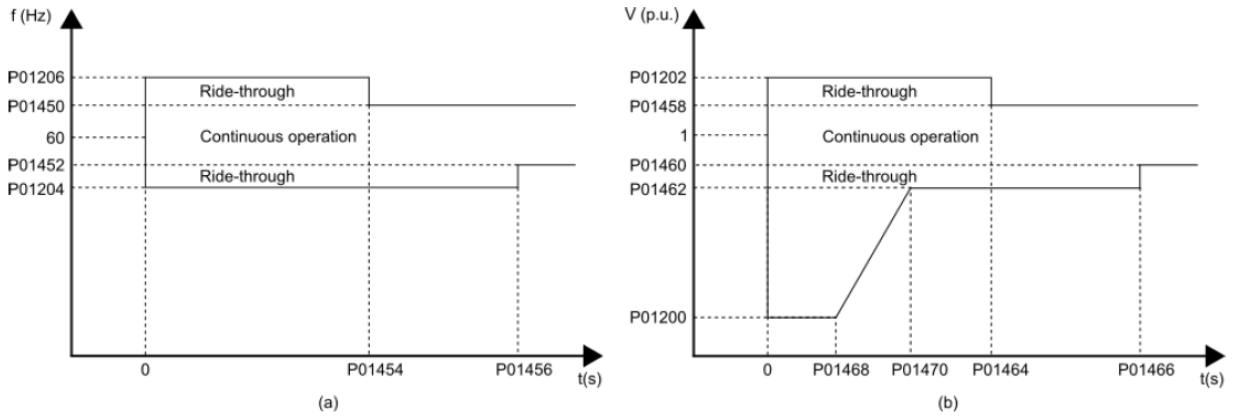

Figure 7.1: *SIW750 adjustable trip limits and trip times for (a) frequency and (b) voltage.*

Table 7.1 and Table 7.2 describe the trip limit and time adjustment ranges. The default factory settings are set in conformity with ONS sub-module 2.10.

Table 7.1: *trip limits and fault IDs.*

Description	Factory settings	Adjustable range	Fault ID
Grid undervoltage	20.0 %Vn	20.0 %Vn (0.0 to 200.0 %Vn)	F0001
Grid overvoltage	120.0 %Vn	120.0 %Vn (0.0 to 200.0 %Vn)	F0004
Grid underfrequency	56.0 Hz	56.0Hz (0.0 to 100.0Hz)	F0006
Grid overfrequency	63.0 Hz	63.0Hz (0.0 to 100.0Hz)	F0008

Table 7.2: *Fault ride-through configurations.*

Description	Factory settings	Adjustable range	Fault ID
Low voltage ride-through - LVRT0	90.0%Vn	1.0%Vn até 95.0%Vn	F0002
Low voltage ride-through - LVRT1	85.0%Vn	1.0%Vn até 95.0%Vn	F0003
Overvoltage	110.0 %Vn	100.0%Vn to 145%Vn	F0005
Underfrequency	62.5Hz	45.0 to 80.0Hz	F0007
Overfrequency	58.5Hz	45.0 to 80.0Hz	F0009
OFP trip time	10.0s	1.00 to 100.0s	-
UFP trip time	20.0s	1.00 to 100.0s	-
OVP trip time	2.5s	0.1 to 100.0s	-
UVP0 trip time	5.0s	0.1 to 100.0s	-
UVP1 Time 0	1.0s	0.1 to 100.0s	-
UVP1 Time 1	0.5s	0.1 to 100.0s	-

8 MAINTENANCE

DANGER!
Ensure that all sources of power have been disconnected before performing any installation or maintenance work.

DANGER!
PV modules generate electricity when exposed to light.

DANGER!
This product contains capacitors which store energy after de-energization.
Wait for at least 15 minutes before handling the equipment to ensure that the capacitors are discharged. Voltage levels should always be verified prior to any installation or maintenance work.

DANGER!
PV modules generate electricity when exposed to light.

8.1 PREVENTIVE MAINTANCE

It is recommended that the following inspections are carried out every 6 months after commissioning.

Table 8.1: *Periodic inspection.*

Component	Abnormality	Corrective action
Terminals, connectors	Loose screws	Tightening
	Improper connections	Connect the connectors properly
Printed Circuit Boards (PCB)	Accumulation of dust, oil, moisture	Cleaning
	Burning smell	Replacement
Power Module / Power Connections	Accumulation of dust, oil, moisture	Cleaning
	Loose screws	Tightening
Heatsink	Accumulation of dust, dirt	Cleaning

8.2 CLEANING

Ventilation system:

- Remove dust deposited on air inlets using a brush or duster.
- Remove the dust from heatsinks and fans using an air duster.
- Clean all air filters.

PCBs:

- Clean the PCBs using antistatic brush and/or ionizing air gun (reference: A6030-6DESCO).
- If necessary, remove the PCBs from the converter, taking necessary precautions to avoid ESD damage to the equipment.

8.3 PROBLEMS AND POSSIBLE CAUSES

Table 8.2: *problems and possible causes.*

Problem	Possible cause / corrective action
No power generation	▪ Insufficient solar radiation (early in the morning or late in the afternoon, cloudy days etc.). ▪ The inverter may be halted due to a fault condition. ▪ Check cables and connections. ▪ Ensure that both a.c. and d.c. voltage are within operating range. ▪ Check d.c. input polarity. ▪ Check the a.c. fuses. ▪ Perform a visual inspection for damage. ▪ Ensure that the PV array is not impaired.
Low power generation	▪ Check the d.c. fuses. ▪ Ensure that the PV array is not impaired.

8.4 TECHNICAL SUPPORT

Contact WEG Technical Support team at www.weg.net for answers to technical questions and for product and application support.

Please make sure you have the following information available:

- Product model;
- Product serial number;
- Software version.

9 SPECIFICATION

Table 9.1: specifications

Model	SIW750 T-1.0	SIW750 T-2.0	SIW750 T-3.0
Input (d.c.)			
Maximum operating PV input current	1.640 A	3.280 A	4.100 A
Isc PV (absolute maximum)	1.640 A	3.280 A	4.100 A
Vmax PV (absolute maximum)	1.500 V		
PV input operating voltage range (MPPT range)	874...1.350 V		
Static / dynamic MPPT efficiency	99,8 / 99,7%		
d.c. overvoltage category (as per IEC 62109-1:2010)	II		
Output (a.c.)			
Voltage	600 V – 690 V		
Frequency	50 Hz – 60 Hz		
Current (maximum continuous)	1020 A	2035 A	3055 A
Power (maximum continuous)[1]	1215 kVA	2115 kVA	3175 kVA
Power factor range	0.01c - 0.01i		
THD (max. @ 600 V)	< 3%		
Efficiency: Max.[2] / Euro	98.5% / 98.4%		
a.c. overvoltage category (as per IEC 62109-1:2010)	III		
Maximum output fault current	50 kA for 1 s		
Maximum output overcurrent protection	1120 A	2240 A	3360 A
Self-consumption (max.)	1595 W	3185 W	4700 W
Stand-by consumption	Day: < 500 W		
	Night: < 200 W		
Protective class	I		
Environmental			
Ingress protection (IP)	IP54		
Pollution Degree	3		
Environmental category	Outdoor/Wet location		
Operating temperature[3]	-20°C to +50°C		
Relative humidity range	4% to 100% (without condensing)		

Where:

1. For 690 V nominal voltage.
2. THD < 2%.
3. Derating for operation above 50°C ambient temperature.

PV array configuration: grounded or floating.

NOTE!
Other ratings on request.

WARNING!
Isolation transformer shall not be grounded (IT network).

DANGER!
Both the inverter and the PV arrays must be installed in closed electrical operating areas only, i.e., access must be restricted to skilled or instructed persons.

10 REPLACEABLE COMPONENTS AND ACCESSORIES

Operator replaceable components and accessories are listed in Table 10.1.

Table 10.1: *Operator replaceable components and accessories.*

SIW750 T-1.0		
Qty / Cabinet	Component	WEG Part
3	AC Main Fuses	10707110
12	DC Main Fuses	14854596
4	DC Sense Fuses	14836862
4	AC Surge Protector	14443918
1	DC Surge Protector	14443920
2	Power Module MPS750T505	15200488
1	AC Disconnect Switch 1600A	11420042
2	DC Disconnect Switch 1600A	14588687
8 (L)	Ethylene glycol	12014320

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