Industrial Motors

Commercial & Appliance Motors

Automation

Digital & Systems

Energy

Transmission & Distribution

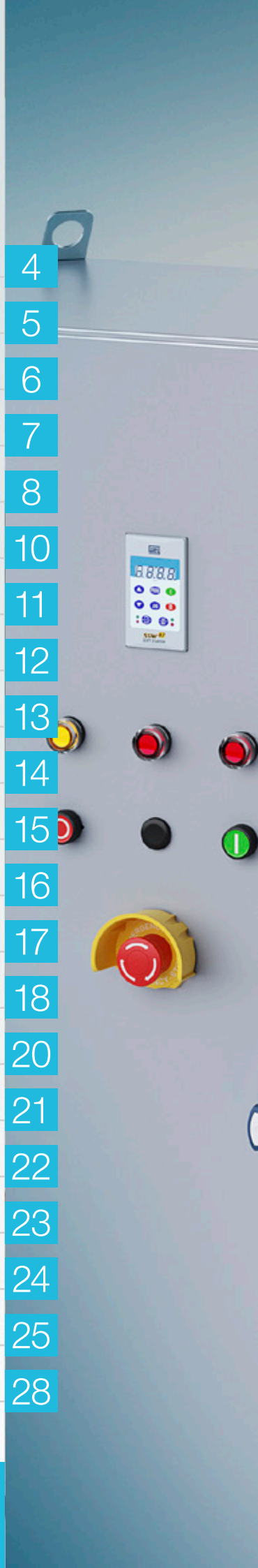
Coatings

ASW07 and ASW900 Panel-Mounted Soft-Starters

Advanced technology for the soft start of **electric motors**

Driving efficiency and sustainability

SUMMARY




ASW900
ASW07
0.0 A
SSW900
SOFT-STARTER

ASW900 AND ASW07

Advanced technology for the soft start of **electric motors**

With the evolution of processes and machinery, the need to use resources that enable smooth and controlled motor starting has become increasingly evident. Using state-of-the-art technology, WEG soft-starters are designed to deliver optimal performance for each type of application. They offer features that enable simple and efficient starting and stopping of three-phase induction motors, protecting both the motor and the load against torque surges by gradually accelerating the motor until it reaches its rated speed.

WEG soft-starters are the ideal solutions with excellent cost-benefit for starting and stopping three-phase induction motors in applications requiring speed and torque control during the start.

The ASW is a panel-mounted soft-starter solution that meets the NBR IEC 61439-1/2 requirements, providing reliability, safety and guarantee to the assembled set.

It is available in different panel sizes, with IP42 or IP54 protection rating options, anticorrosion painting and internal parts with anticorrosion treatment, providing greater durability of the assembled system and complying with the requirements of different environments and power ratings.

The ASW line offers a wide and comprehensive range of functions for smooth and controlled starting and stopping of three-phase induction motors, according to the application requirements. It features complete electrical protection to ensure a longer motor service life, and user-friendly programming of WEG's soft-starter line through an external-access HMI, which provides simple configuration and easy access to essential operational data.

Available in two lines, ASW900 and ASW07, the panel-mounted soft-starters offer high robustness, with excellent overload capacity and a wide range of flexible features.

The ASW07 is designed for robust applications, offering simplified programming and essential features.

The ASW900 is designed for robust applications that require advanced features and accessories, providing refined control and connectivity to the motor start.

Benefits

- Easy operation and start-up
- Efficiency and high performance
- Connectivity
- Built-in bypass
- High power density
- Compact dimensions
- Excellent cost effectiveness
- Modern graphic HMI[1)]
- Connection for motor thermistor-PTC
- WEG quality and know-how
- In compliance with the main international standards
- Full drive, ready for use in the application
- Several optional items available to customize the project
- Effective motor protection
- Special functions
- Robustness: available with IP42 and IP54 protection rating
- *Fire* mode (emergency start)
- Soft-starter compatible with WEG WPS and MFM programming and asset management software[1)]

Note: 1) Feature available on the ASW900 line.

Main functions

Kick start
Ideal for applications where the loads require an extra force from the drive at the moment of the start due to the high resistant torque, making it necessary to supply the motor with a voltage higher than that defined in the acceleration voltage ramp.

Pump control
This is a predefined (specific) configuration for pumping systems, where it is usually necessary to set a voltage ramp for both acceleration and deceleration, in addition to enabling protections in the soft-starter.

Motor coasting
Soft-starters instantly reduce the output voltage to zero, meaning the motor produces no torque on the load, losing speed until all kinetic energy is dissipated.

Current limitation
Used in most cases where the load has high inertia, this function causes the grid/soft-starter system to feed the motor with the current just necessary to perform the load acceleration.

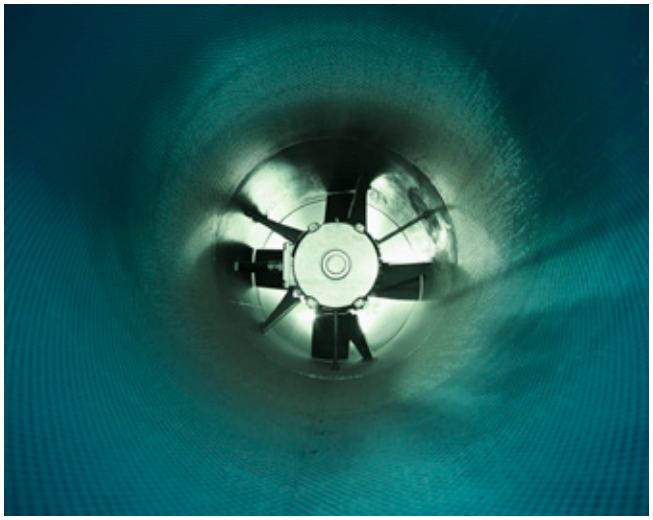
Reduction of the Water Hammer
Using a soft-starter to stop the motor smoothly (pump control) reduces the chances of Water Hammer.

Voltage ramp in the deceleration
At controlled stops, soft-starters will gradually reduce the output voltage to a minimum value in a predefined time.

Voltage ramp in the acceleration
Soft-starters, by controlling the firing angle of the thyristor bridge, generate a gradual and continuous increase in the effective output voltage, rising until the rated line voltage is reached.

Note: for more details, refer to the catalog or user's manual of each soft-starter, available on our website: www.weg.net.

Applications



Cement and Mining

- Dosing pumps
- Sifters / vibrating tables
- Dynamic graders
- Conveyor belts

Chemical and Petrochemical

- Fans / exhaust fans
- Centrifugal pumps
- Dosing pumps
- Centrifuges
- Stirrers / mixers
- Compressors
- Soap extruders

Glass

- Fans / exhaust fans
- Continuous dryers / ovens
- Roller tables

Plastic and Rubber

- Extruders
- Blowers
- Mixers
- Calenders
- Granulators

Sanitation

- Centrifugal pumps
- Pumping systems

Textile

- Stirrers / mixers
- Dryers / washing machines

Wood

- Veneer machines
- Sanders
- Choppers
- Woodchippers
- Saws and planers

Steel and Metallurgy

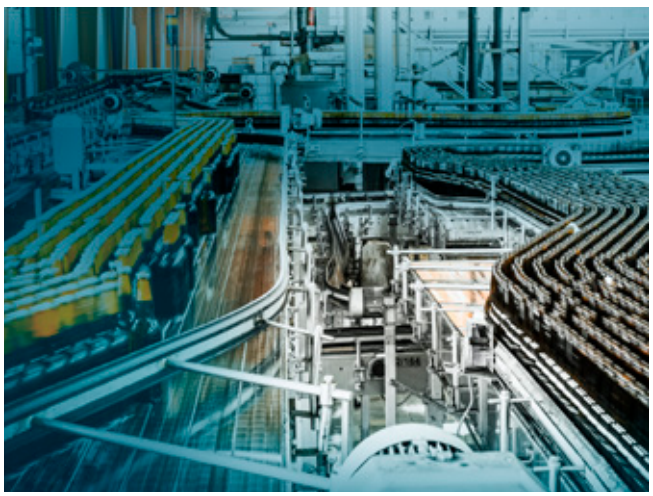
- Fans / exhaust fans
- Conveyors
- Drilling machines / grinders
- Pumps

Ceramic

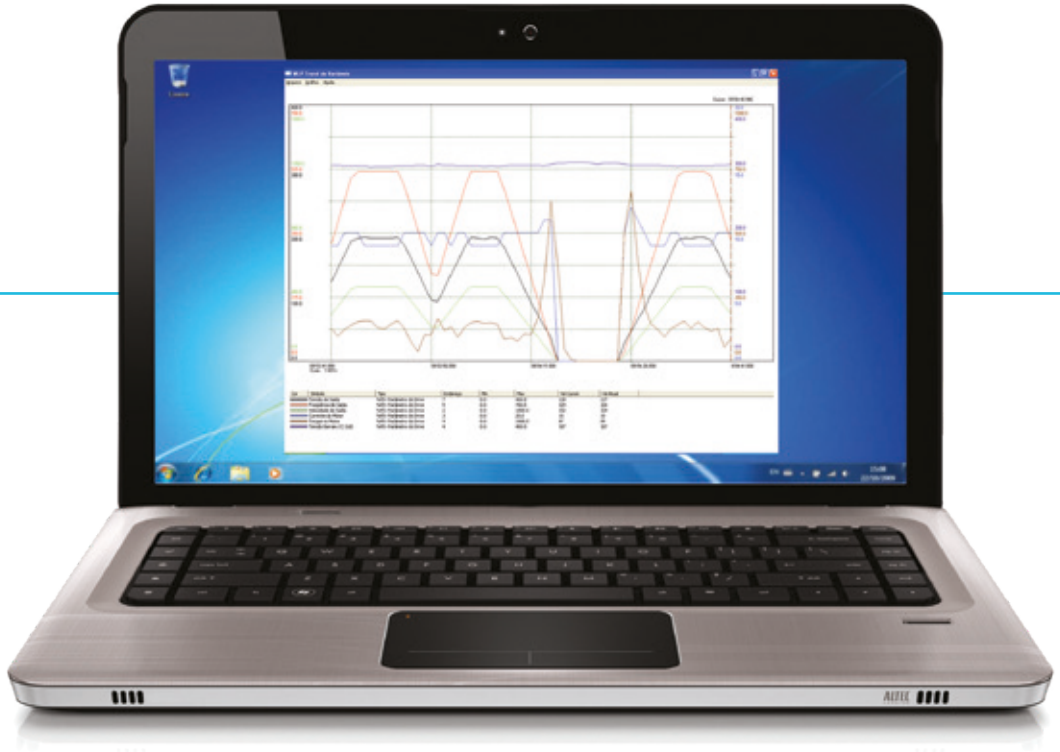
- Fans / exhaust fans
- Continuous dryers / ovens
- Ball mills
- Roller tables
- Conveyor belts

Food & Beverage

- Continuous centrifuges
- Roller tables
- Conveyor belts
- Bottling lines



Connectivity



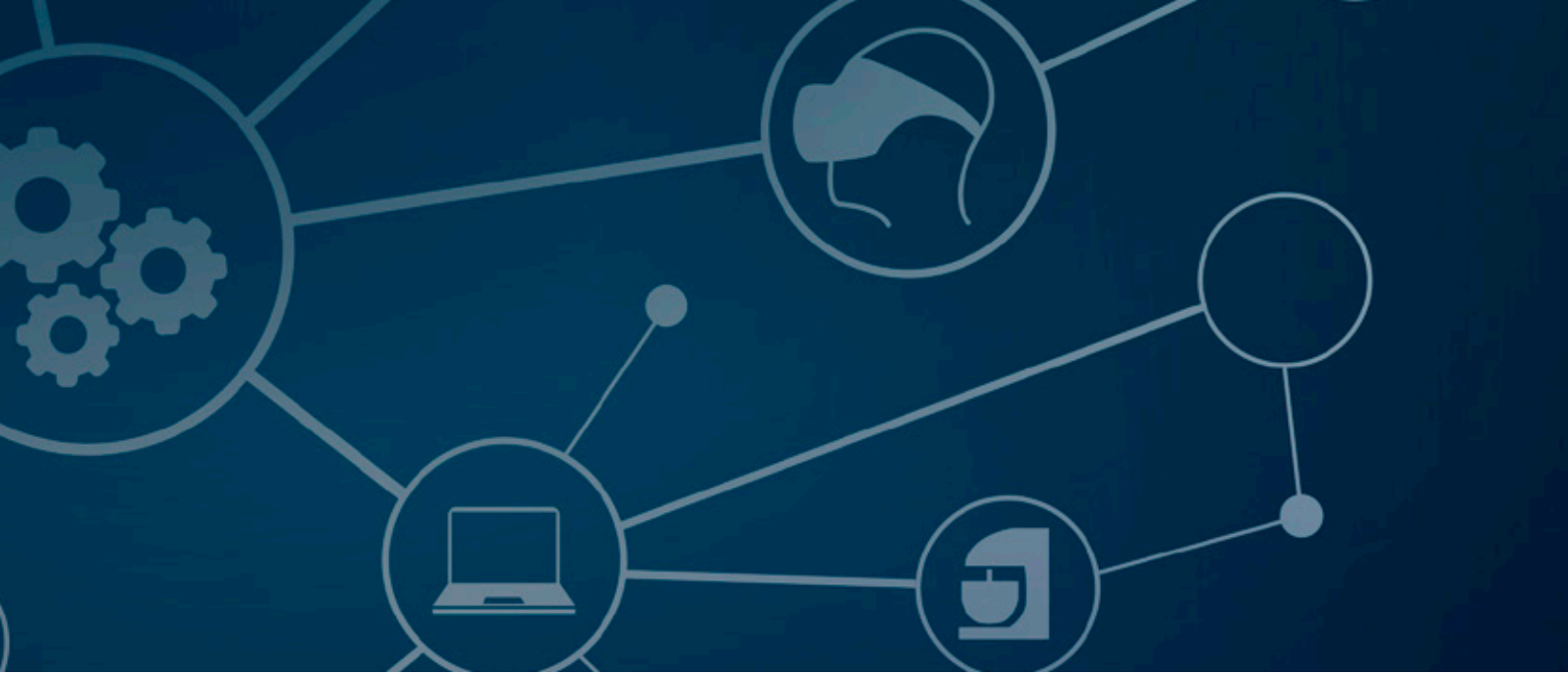
SuperDrive G2

Using the SuperDrive G2 software, you can change, monitor and graphically view the variables of the frequency inverter via connection to a personal computer.

Trend function

Trend charts for online monitoring of parameters and other variables within the SuperDrive G2 software.

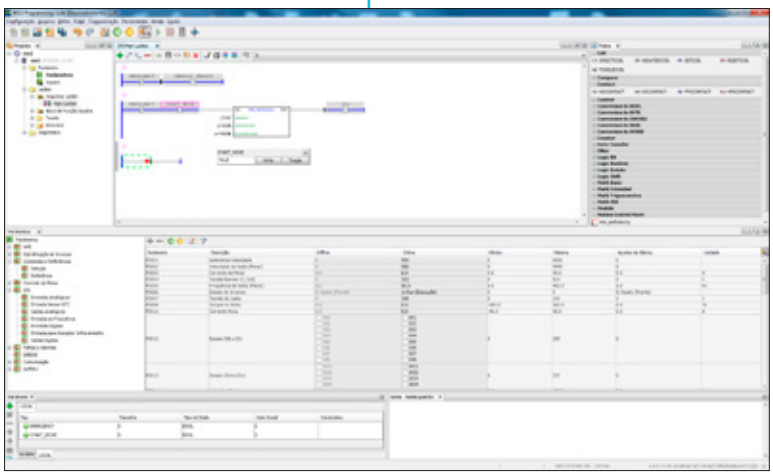
- Easy operation and view
- Free on the website *www.weg.net*



WEG *Programming Suite* (WPS)

Integrated tool that assists in the creation of automation applications, allowing graphical monitoring, parameter setting and programming in Ladder language (IEC 61131-3) of various WEG product families.

- Multi-products that meet the requirements of a wide range of WEG products
- Multi-use, allowing:
  - Equipment parameterization
  - Equipment programming in Ladder language
  - Equipment monitoring
  - Support for the development and configuration of automation applications



Communication protocols (ASW900)

Modbus

CANopen

DeviceNet

EtherNet/IP

PROFIBUS®

PROFINET®

ASW07 product overview

- Power range: from 4.5 to 260 kW[1)]
- Voltages: from 220 to 480 V[2)] at 50/60 Hz
- Overload capacity: 300%*In for 30s
- Start capacity: 5 to 10 starts / hour depending on the version
- Currents: 17 to 412 A
- Optimized design, reduced panel dimensions with bypass integrated into the soft-starter
- Built-in SSW07
- Complete motor protection, including built-in overload protection and thermal image
- Built-in control and power input protection
- 7-segment LED display and keypad operator interface
- Built-in control and power input protection
- Robust structure with rigorous treatment and coating process
- Performance and reliability assurance with NBR IEC 61439-1/2 testing
- Flexible solution with customized project options
- Excellent cost effectiveness

Notes: 1) Power for reference voltage 440 V.
2) Possibility of voltages up to 575 V in customized version.

Certification

CE

ASW07 coding

1	2	3	4	5	6
ASW07	D	412	T	5	42

1 – Drive type

ASW07	Panel mounted SSW07 soft-starter

2 – Frame

A	10 ... 30 A
B	45 ... 85 A
C	130 ... 200 A
D	255 ... 412 A

3 – Rated current

200 - 480 V[1)]	
0017 = 17 A	0171 = 171 A
0024 = 24 A	0200 = 200 A
0030 = 30 A	0255 = 255 A
0045 = 45 A	0312 = 312 A
0061 = 61 A	0365 = 365 A
0085 = 85 A	0412 = 412 A
0130 = 130 A	

4 – Number of phases

T	Three-phase power supply

5 – Power supply 50/60 Hz

5	220 to 480 V[1)]

6 – Panel protection rating

42	IP42 protection rating (standard)
54	IP54 protection rating

Note: 1) Possibility of voltages up to 575 V in customized version.

ASW07 features

The ASW07 panel-mounted soft-starter provides robustness and simplicity for starting three-phase induction motors. The assembly complies with the requirements of NBR IEC 61439-1/2 and ensures the performance guaranteed by the SSW07 soft-starter.

The ASW07 is available in two options:
- Default configuration provided in the coding
- Customized configuration according to the needs of the project[1)]

The standard configuration includes, in the basic version without accessories and optional items, the following features:

In the panel:
- Power protection against overcurrents through high speed fuses
- General power circuit breaker with external handle and control circuit breaker
- *ON/OFF* and *Emergency* pushbuttons
- Indication of energized panel, starter activated and alarm
- Internal lighting and dehumidifier module, 220 VAC 50/60 Hz
- Panel ventilation system on the door or ceiling extractor depending on the frame
- HMI mounted on the panel door

In the soft-starter:
- 3 digital inputs from 110 to 240 VAC
- 2 relay outputs, NO contacts rated at 1 A / 240 VAC
- Optional communication port, described in the optional items
- Built-in bypass as standard
- Full electronic motor protection
- Electronic thermal relay and thermal imaging

Main features

- Kick start
- Current limiting
- Reduction of Water Hammer
- Voltage ramp in the deceleration
- Voltage ramp in the acceleration

Protections

- Phase loss in the power supply and in the motor
- Locked rotor
- Motor overload
- Over and undercurrent in the motor
- Overtemperature in the motor and in the soft-starter
- Fault in the thyristor (overheating)
- Phase sequence
- Undervoltage in the electronics
- Fault in the bypass
- Overcurrent before the bypass closes
- Supply line frequency out of the range
- Voltage and current imbalance
- Internal fault

Note: 1) For additional features not specified above and not available in the Optional Items section, contact your sales representative to analyze a customized version.

ASW07 features

ASW07 specifications

ASW07 - Basic version without accessories or optional items

Basic reference[1) 2)]	Rated current (A)	Frame	Panel dimension H x W x D (mm)	Maximum applicable motor[2) 3)]					
				220 V		380 V		440 V	
				cv	kW	cv	kW	cv	kW
ASW07A0017T5□	17	A	1,098 x 445 x 335	6	4.5	10	7.5	12.5	9.2
ASW07A0024T5□	24			7.5	5.5	15	11	15	11
ASW07A0030T5□	30			10	7.5	20	15	20	15
ASW07A0045T5□	45	B		15	11	30	22	30	22
ASW07B0061T5□	61			20	15	40	30	50	37
ASW07B0085T5□	85			30	22	60	45	60	45
ASW07B0130T5□	130	C	1,657 x 421 x 450	50	37	75	55	100	75
ASW07B0171T5□	171			60	45	125	90	125	90
ASW07C0200T5□	200			75	55	150	110	150	110
ASW07C0255T5□	255	D		100	75	175	132	200	150
ASW07C0312T5□	312			125	90	200	150	250	185
ASW07D0365T5□	365			150	110	250	185	300	220
ASW07D0412T5□	412			150	110	300	220	350	260

Notes: 1) Replace □ with 42 for IP42 protection rating or 54 for IP54 protection rating.
2) WEG Premium or Plus IV Poles Motors.
3) Possibility of voltages up to 575 V in customized versions.

ASW07 diagram

Simplified one-line diagram typical of the ASW07 standard version

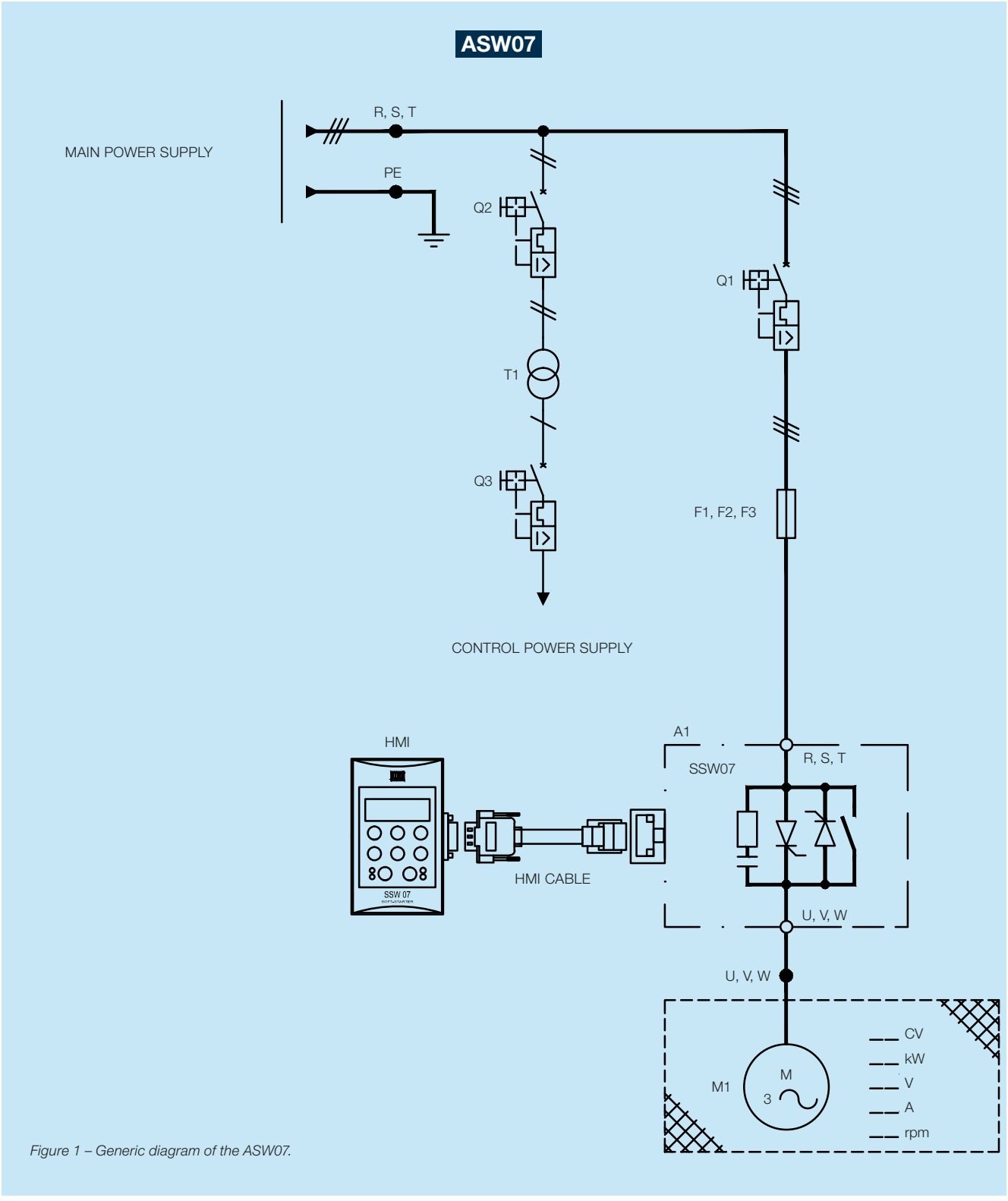


Figure 1 – Generic diagram of the ASW07.

ASW900 product overview

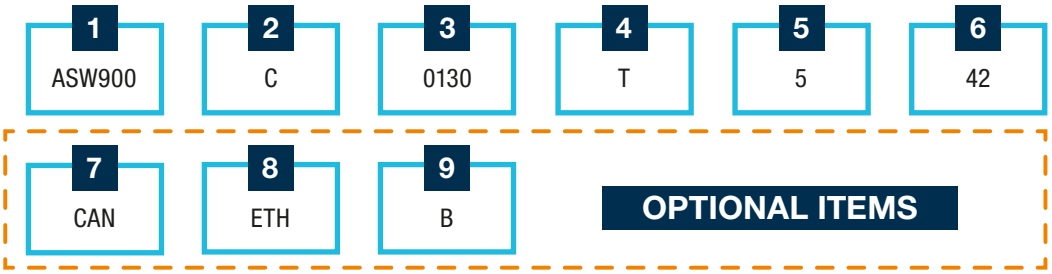
- Power range: from 2.2 to 900 kW[1)]
- Voltages: from 220 to 480 V[2)] at 50/60 Hz
- Overload capacity: 300%*In for 30s
- Start capacity: 5 to 10 starts/hour depending on the version
- Currents: 10 to 1,400 A
- Optimized design, reduced panel dimensions with bypass integrated into the soft-starter
- Built-in SSW900
- Full motor protection including built-in overload protection and thermal imaging
- Connectivity through optional items: Modbus-RTU, CANopen, DeviceNet, Profibus-DP, EtherNet/IP, Modbus-TCP, PROFINET IO
- Externally accessible USB programming port on the HMI
- WEG SuperDrive G2 parameterization and monitoring software and WPS programming software[3)]
- Built-in control and power input protection.
- Graphical LCD operator interface and keypad, optional Bluetooth® version
- Allows the installation of the SSW900 accessories
- Robust structure with rigorous treatment and painting process
- Performance and reliability assurance with NBR IEC 61439-1/2 tests
- Flexible solution with customized project options

Notes: 1) Power for reference voltage 440 V.
2) Possibility of voltages up to 575 V in customized version.
3) The communication port is optional and required for access to the soft-starter via software.

Certification

CE

ASW900 coding



1 – Drive type

ASW900	SSW900 panel-mounted soft-starter

2 – Frame

A	10 ... 30 A
B	45 ... 105 A
C	130 ... 200 A
D	255 ... 412 A
E	480 ... 670 A
F	820 ... 950 A
G	1,100 ... 1,400 A

3 – Rated current

200 - 575 V	
0010 = 10 A	0255 = 255 A
0017 = 17 A	0312 = 312 A
0024 = 24 A	0365 = 365 A
0030 = 30 A	0412 = 412 A
0045 = 45 A	0480 = 480 A
0061 = 61 A	0604 = 604 A
0085 = 85 A	0670 = 670 A
0105 = 105 A	0820 = 820 A
0130 = 130 A	0950 = 950 A
0171 = 171 A	1100 = 1,100 A
0200 = 200 A	1400 = 1,400 A

4 – Number of phases

T	Three-phase power supply

5 – Power supply 50/60 Hz

5	220 to 480 V[1)]

6 – Panel protection rating

42	IP42 protection rating (standard)
54	IP54 protection rating

Note: 1) Possibility of voltages up to 575 V in customized version.

7 – Communication or temperature module (optional in slot 1)

---	No module in slot 1
RS4	CRS485-W (Modbus-RTU communication)
CAN	CAN-W (CANopen or DeviceNet communication)
ETW	CETH-W (EtherNet/IP or Modbus-TCP communication)
PT1	PT-100-W (Pt-100 temperature module)

8 – Communication or temperature module (optional in slot 2)

---	No module in slot 2
CDN	CDN-N (DeviceNet communication)
CPD	CPDP-N (Profibus-DP communication)
ETH	CETH-IP-N (EtherNet/IP communication)
ETM	CMB-TCP-N (Modbus-TCP communication)
ETP	CPN-IO-N (PROFINET IO communication)
ETW	CETH-W (EtherNet/IP or Modbus-TCP communication)
PT1	PT-100-W (Pt-100 temperature module)

9 – HMI version

---	HMI without Bluetooth® (standard)
B	HMI with Bluetooth®

ASW900 optional items

Description of selectable optional items in the coding

Optional item type	Reference in the ASW900 code	Separate reference as ASW900 accessory[1)]	Description	Optional items selectable in the ASW900 coding
Communication	RS4	SSW900-CRS485-W	RS485 Modbus-RTU communication module	√
	CAN	SSW900-CAN-W	CANopen and DeviceNet communication module	√
	ETW	SSW900-CETH-W	EtherNet/IP and Modbus-TCP communication module	√
	CDN	SSW900-CDN-N	DeviceNet - Anybus communication module	√
	CPD	SSW900-CPDP-N	Profibus-DP - Anybus communication module	√
	ETH	SSW900-CETH-IP-N	EtherNet/IP - Anybus communication module	√
	ETM	SSW900-CMB-TCP-N	Modbus-TCP - Anybus communication module	√
	ETP	SSW900-CPN-IO-N	PROFINET IO - Anybus communication module	√
Temperature sensor expansion	PT1	SSW900-PT100-W	Input module for Pt-100 sensors - 6 channels	√
HMI	-	SSW900-HMI	Standard operator interface (HMI)	Standard
HMI with Bluetooth®	B	SSW900-HMI-BLT	Operator Interface (HMI) with Bluetooth® connectivity	√

Note: 1) The items are standard accessories for the SSW900. If they are not configured in the ASW900, the user can add them separately; however, in this case, interconnection cables to the terminal block (when applicable) will not be supplied or represented in the electrical diagram.
The SSW900 allows the installation of up to two modules, only 1 of which is of the Anybus type. For further details, refer to the SSW900 soft-starter manual.

ASW900 features

The ASW900 panel-mounted soft-starter provides robustness, high performance, connectivity, flexibility and space optimization in line with the requirements of IEC 61439-1/2.

The ASW900 is available in two options:
- Standard configuration provided in the coding[1)]
- Customized configuration according to the needs of the project[2)]

The standard configuration includes, in the basic version without accessories and optional items, the following features:

In the panel:
- Power protection against overcurrents through high speed fuses
- General power circuit breaker with external handle and control circuit breaker
- *ON/OFF* and *Emergency* pushbuttons
- Indication of energized panel, starter activated and alarm
- Internal lighting and dehumidifier module, 220 VAC 50/60 Hz
- Panel ventilation system on the door or ceiling extractor depending on the frame
- Graphical HMI mounted on the panel door with connectivity via USB port and optional Bluetooth®

In the soft-starter:
- 5 digital inputs, 24 VDC
- 1 input for the motor PTC thermistor
- 2 relay outputs, NO contacts rated at 1 A / 240 VAC
- 1 relay output, NO/NC contact rated at 1 A / 240 VAC
- 1 analog output, 0 to 10 V or 4 to 20 mA
- Optional communication port, described in the optional items
- Built-in bypass as standard
- Full electronic motor protection
- Electronic thermal relay and thermal imaging
- Real-time clock (RTC) with time-stamped event log

Main features

- Kick start
- Pump control
- Motor coasting
- Current limiting
- Reduction of Water Hammer
- Voltage ramp in the deceleration
- Voltage ramp in the acceleration
- Current ramp
- Torque control
- Pump control
- Optimal braking
- *SoftPLC* function (allows programming logic via software)

Notes: 1) For other features not specified above, check the Optional Items section for selection.
2) For additional features not specified above and not available in accessories, contact your sales representative to analyze a customized version.

ASW900 features

Protections

- Phase loss in the power supply and in the motor
- Locked rotor
- Motor overload
- Over and undercurrent in the motor
- Overtemperature in the motor and in the soft-starter
- Fault in the thyristor
- Phase sequence
- Undervoltage in the electronics
- Fault in the bypass
- Under and overcurrent before the bypass closes
- Supply line frequency out of the range
- Voltage and current imbalance
- Internal fault
- Warning for alarms before going into fault
- Under and overvoltage in the power
- Earth leakage
- Motor not connected
- Incorrect motor connection
- Over and undertorque
- Over and underpower
- Starting time exceeded

ASW900 specifications

ASW900 - Basic version without accessories or optional items

Basic reference[1) 2)]	Rated current (A)	Frame	Panel dimension H x W x D (mm)	Maximum applicable motor[3) 4)]					
				220 V		380 V		440 V	
				cv	kW	cv	kW	cv	kW
ASW900A0010T5□	10	A	1,098 x 445 x 335	3	2.2	6	4.5	7.5	5.5
ASW900A0017T5□	17			6	4.5	10	7.5	12.5	9.2
ASW900A0024T5□	24			7.5	5.5	15	11	15	11
ASW900A0030T5□	30			10	7.5	20	15	20	15
ASW900B0045T5□	45	B		15	11	30	22	30	22
ASW900B0061T5□	61			20	15	40	30	50	37
ASW900B0085T5□	85			30	22	60	45	60	45
ASW900B0105T5□	105			40	30	75	55	75	55
ASW900C0130T5□	130	C	1,657 x 421 x 450	50	37	75	55	100	75
ASW900C0171T5□	171			60	45	125	90	125	90
ASW900C0200T5□	200			75	55	150	110	150	110
ASW900D0255T5□	255	D		100	75	175	132	200	150
ASW900D0312T5□	312			125	90	200	150	250	185
ASW900D0365T5□	365			150	110	250	185	300	225
ASW900D0412T5□	412			150	110	300	220	350	260
ASW900E0480T5□	480	E	2,057 x 621 x 650	200	150	350	260	400	300
ASW900E0604T5□	604			250	185	450	330	500	370
ASW900E0670T5□	670			250	185	500	370	550	410
ASW900F0820T5□	820	F	2,057 x 821 x 650	350	260	550	410	700	525
ASW900F0950T5□	950			400	300	750	550	800	600
ASW900G1100T5□	1,100	G		450	330	800	600	900	670
ASW900G1400T5□	1,400			550	410	1,000	750	1,200	900

Notes: 1) Replace □ with 42 for IP42 protection rating or 54 for IP54 protection rating.
2) Add the code for the accessories and optional items and the protection rating at the end of the code, as per the Coding Section, fields 7 to 9.
3) WEG Premium or Plus IV Poles Motors.
4) Possibility of voltages up to 575 V in customized version.

ASW900 diagram

Simplified one-line diagram typical of the ASW900 standard version

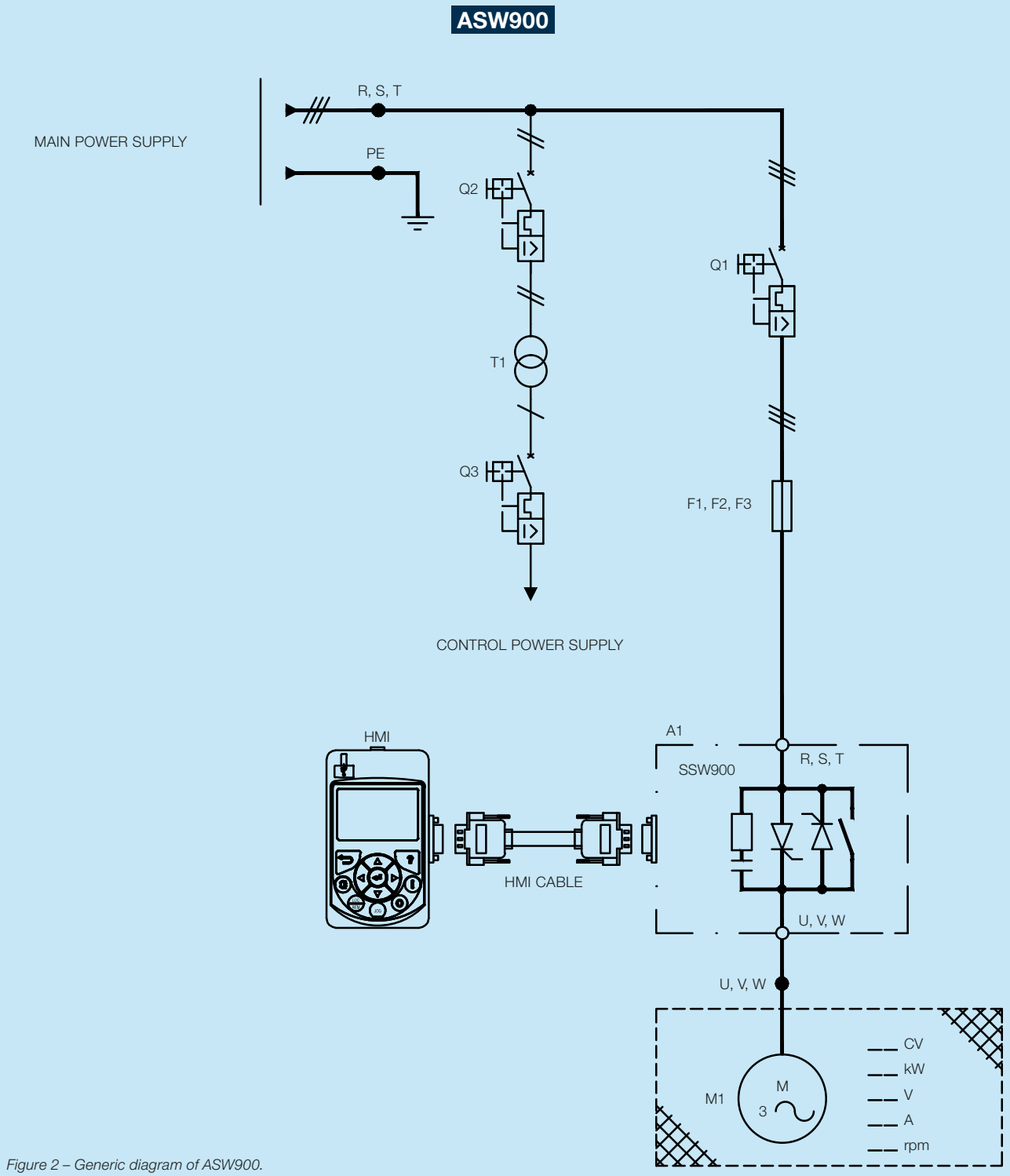
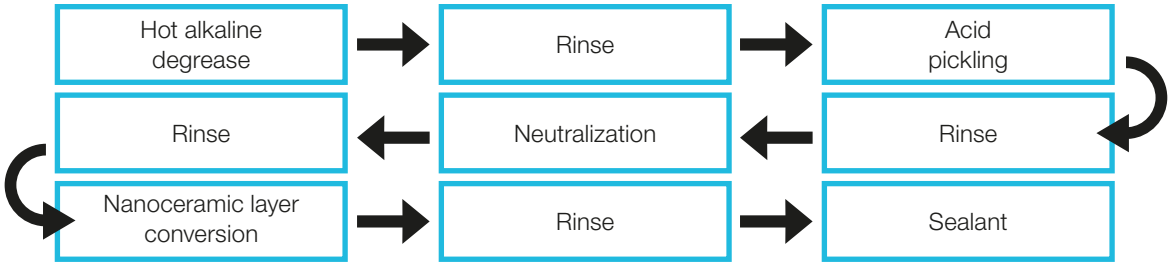


Figure 2 – Generic diagram of ASW900.

Structure preparation and painting

Executed within strict quality control, it follows the procedure:



The quality, strength and durability of the coating are guaranteed by the following tests:

Adhesion grade

Testing reference and standard:
NBR 11003
Acceptance criteria evaluated:
X1Y1
Purpose: identify paint adhesion flaws

Resistance to salt spray environment

Testing reference and standard:
ASTM B117
Acceptance criteria:
500 hours
Purpose: evaluate the paint performance under accelerated corrosion condition

Resistance to immersion in distilled water

Testing reference and standard:
ASTM D870
Acceptance criteria:
24 hours
Purpose: evaluate the resistance of the paint in deionized water

Resistance to UV-A

Testing reference and standard:
ASTM D4587
Acceptance criteria:
500 hours
Purpose: evaluate the resistance of the painting to sun exposure

Topcoat

Panel type	Structure	Door	Cladding	Mounting plate	Accidental touch protection
Self-supported	RAL 7035	RAL 7035	RAL 7035	Galvanized metal sheet	Galvanized metal sheet

Notes: It is recommended to install the panel in a sheltered, normal to slightly harsh industrial environment with an average relative humidity of up to 90%. Not recommended for direct exposure to alkalis, solvents and acidic fumes.
For installation in aggressive environments, with the presence of SO_2, for example, contact WEG to evaluate the appropriate treatment for both the panel and the VSD (extra coating treatment on electronic circuit boards).

Tests

To ensure safety, performance and reliability, electrical panels must be subjected to type testing, verification procedures and routine testing according to the guidelines of NBR IEC 61439-1/2. Type tests, which are carried out by the original manufacturer and are mostly destructive, check the structure and performance of the panel. Routine tests, which are conducted after the assembly, check that the panel meets the requirements established in the design.

Type tests

No.	Characteristic to be checked
1	Resistance of materials and parts:
	- Corrosion resistance
	Properties of the insulating materials:
	- Thermal stability
	- Resistance of the insulating material to abnormal heat and fire due to internal electrical effects
	Resistance to ultraviolet radiation (UV)[1)]
	Lifting
	Mechanical impact
	Marking
2	Enclosure protection rating
3	Clearance distances
4	Creepage distances
5	Protection against electric shock and integrity of the protection circuits:
	- Effective continuity between exposed conductive parts of the ASSEMBLY and the protection circuit
	- Short circuit withstand capacity of the protection circuit
6	Switchgear and component integration
7	Internal electrical circuits and connections
8	Terminals for external conductors
9	Dielectric properties:
	- Withstand voltage at industrial frequency
	- Impulse withstand voltage
10	Temperature rise limits
11	Short circuit withstand capacity
12	Electromagnetic compatibility (EMC)

Routine tests

No.	Characteristic to be checked	
1	Construction verifications	Protection rating check
		Check of clearance and creepage distances
		Check of protections against electric shock and integrity of the protection circuits
2	Protection	Check of the built-in component integration
		Internal electrical circuit and connection check
		Check of the terminals for external conductors
		Mechanical operation check
3	Electrical checks	Dielectric properties
		Cabling, operating performance and function

Note: 1) Not applicable to metal panels.

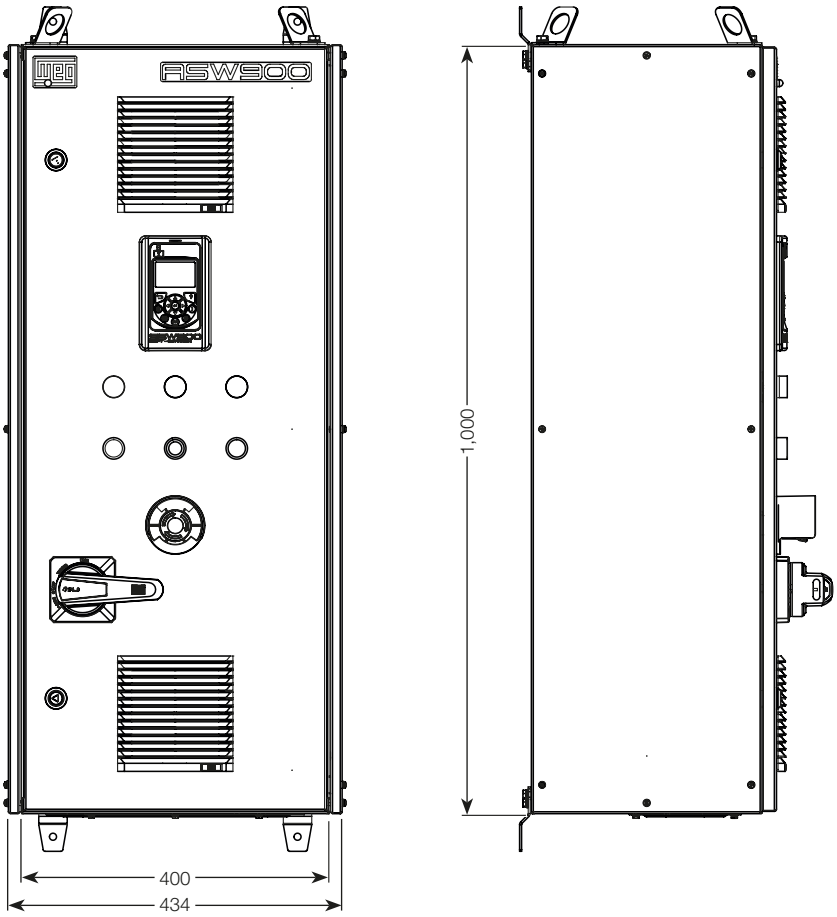
Technical data[1)]

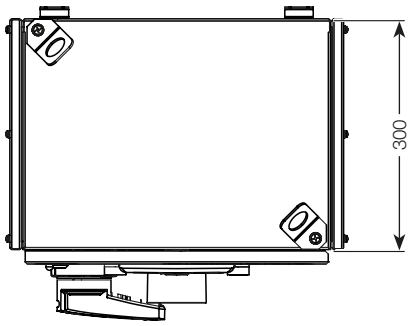
		ASW07	ASW900
Supply voltage (Ue)		220 / 380 / 440 / 460 / 480 V	220 / 380 / 440 / 460 / 480 V
Frequency		50 or 60 Hz	50 or 60 Hz
Rated insulation voltage (Ui)		690 V	690 V
Rated conditional short-circuit current of a set (Icc sym)		50 kA @ 1s	50 kA @ 1s
Control voltage[3)]		220 V	220 V
Auxiliary service voltage (heating/outlet and lighting)		220 V	220 V
Maximum rated impulse-withstand voltage		6 kV	6 kV
Protection rating[2)]		IP42 (standard) or IP54	IP42 (standard) or IP54
Degree of impact		IK10	IK10
Operating temperature		-5 to 40 °C	-5 to 40 °C
Storage and transportation temperature		-26 to 60 °C	-26 to 60 °C
Altitude		Up to 2,000 m	Up to 2,000 m
Humidity conditions		5% to 90% (non-condensing)	5% to 90% (non-condensing)
Painting scheme[2)]		WAU 05 - Phosphating and polyester powder coating	WAU 05 - Phosphating and polyester powder coating
Panel color		Gray RAL 7035	Gray RAL 7035
Minimum paint layer thickness[2)]		80 µm	80 µm
Mounting plates		Zinc-plated steel (unpainted)	Zinc-plated steel (unpainted)
Protection against touch		Zinc-plated steel (unpainted)	Zinc-plated steel (unpainted)
Overload		3x In for 30s and 10 to 105 A: 10 starts/hour 130 to 200 A (IP42): 7 starts/hour 130 to 200 A (IP54): 5 starts/hour 255 to 1,100 A: 5 starts/hour 1,400 A: 5 starts/hour 2.1x In for 30s and 1,400 A: 4 starts/hour	
Installation type		Sheltered environment	Sheltered environment
Pollution degree		3	3
Installation		Fixed sheltered	Fixed sheltered
Cable entry/exit		Bottom	Bottom
Mounting		1	1
Diversity factor		1	1
Electromagnetic compatibility rating		A	A
Planned grounding scheme		Solid grounding system	Solid grounding system
Package for shipment type		Land	Land
Standards		NBR IEC 61439-1/2 NR10	NBR IEC 61439-1/2 NR10
Metal sheet thickness	Structure	ARW type #18 (1.2 mm)	Frame A and B: ARW Type #18 (1.2 mm) Frame C to G: #14 (1.9 mm)
	Base	#14 (1.9 mm)	#14 (1.9 mm)
	Door	#18 (1.2 mm)	Frame A and B: #18 (1.2 mm) Frame C to G: #14 (1.9 mm)
	Side	#20 (0.9 mm)	Frame A and B: #20 (0.9 mm) Frame C to G: #16 (1.5 mm)
	Mounting plate	#16 (1.5 mm)	Frame A and B: #16 (1.5 mm) Frame C to G: #14 (1.9 mm)
	Side tab	#14 (1.9 mm)	#14 (1.9 mm)
	Frame support	-	Frame A and B: - Frame C to G #14 (1.9 mm)
	Support for components	#16 (1.5 mm)	Frame A and B: #16 (1.5 mm) Frame C to G: -
	Metal protection plate	-	Frame A and B: - Frame C to G: #20 (0.9 mm)
	Base coverage	-	Frame A and B:- Frame C to G: #20 (0.9 mm)
	Frame	-	Frame A and B:- Frame C to G: #16 (1.5 mm)
	Back wall	-	Frame A and B:- Frame C to G: #20 (0.9 mm)
	Top	-	Frame A and B:- Frame C to G:#20 (0.9 mm)

Notes: 1) For environments and specifications other than those presented, contact WEG.
2) For aggressive environments, for example, with the presence of SO_2, contact WEG for versions with special treatment for the panel and electronic boards.
3) For different control voltages, contact WEG.

ASW07 and ASW900 dimensional drawings

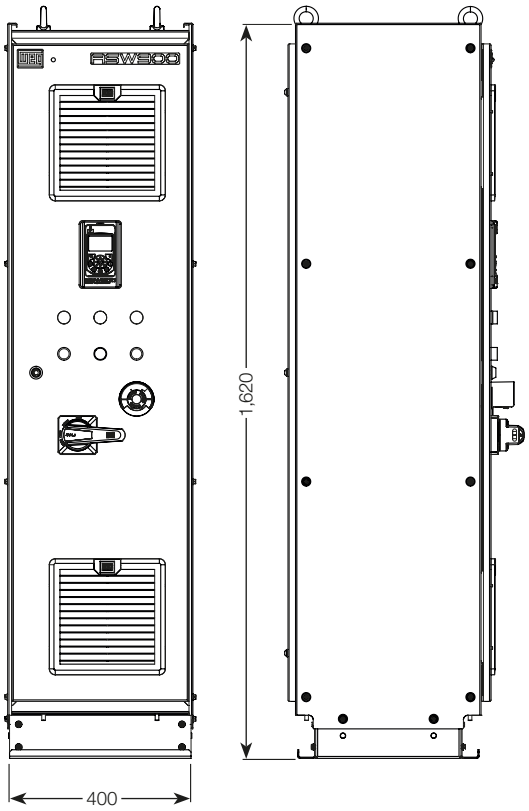
Frames A/B
ASW07 and ASW900

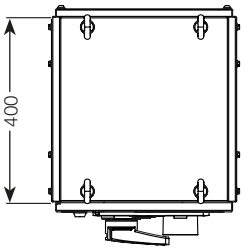




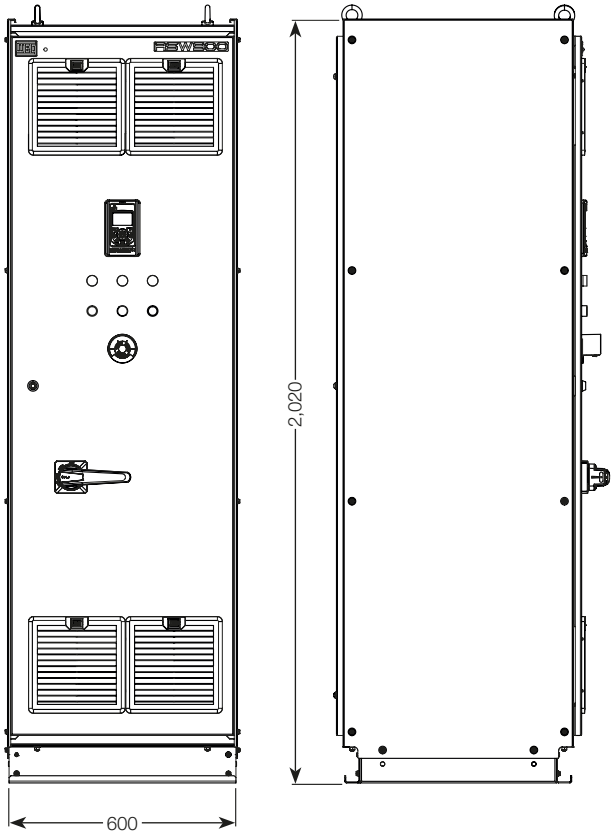
ASW07 and ASW900 dimensional drawings

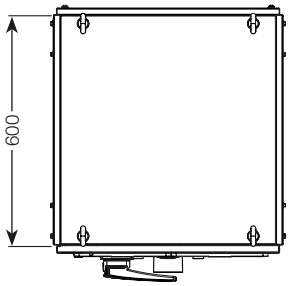
Frames C/D
ASW07 and ASW900





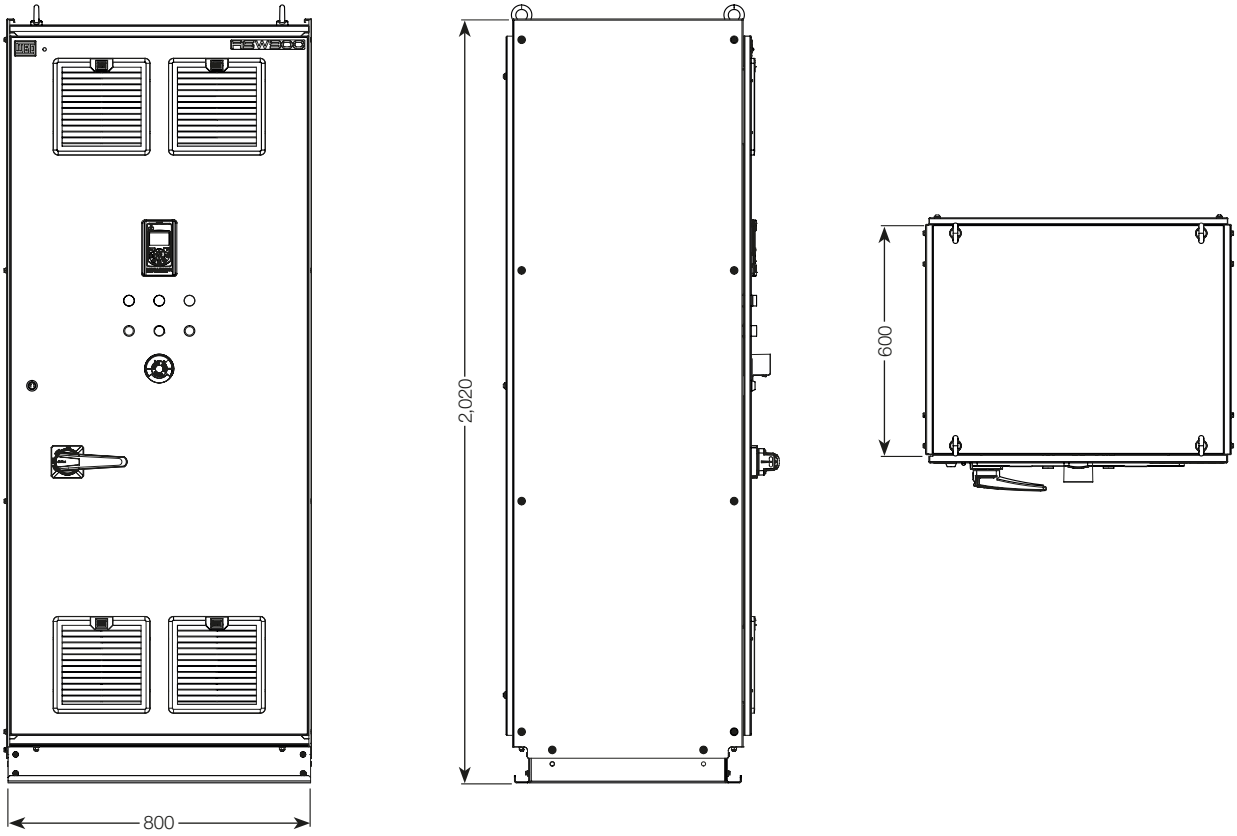
Frame E
ASW900





ASW07 and ASW900 dimensional drawings

Frames F/G
ASW900



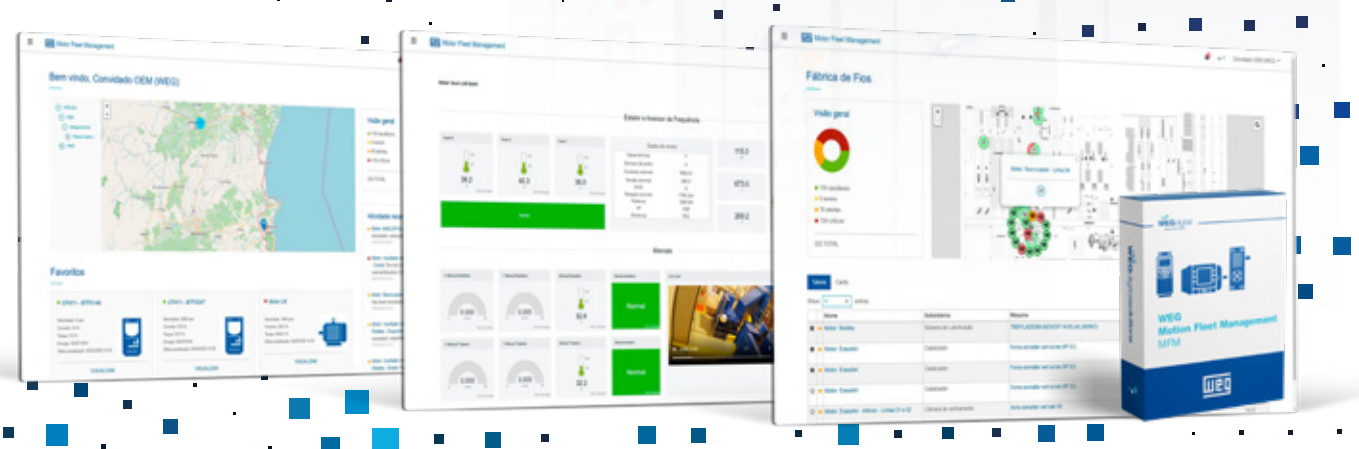
Customized solutions

In addition to the standardized panel-mounted soft-starters presented in this catalog, WEG offers the ideal solution for your application, including other options and customizations of the ASW07 and ASW900 soft-starters, or based on the AFW900 and AFW11 variable speed drive platforms. We have a project engineering team to develop the best solution according to the characteristics of different industrial applications. Some optional items and customizations that can be added to the inverter panel are presented below:

- Special braking features
- Panels with multiple soft-starters and other types of starters
- Auxiliary starters (inverters, soft-starters, direct-on-line starters)
- Controllers and communication systems
- Digital asset management solutions
- Instrumentation
- Cable input through the bottom or top
- Treatment for harsh environments
- Outdoor installation

Among other possibilities according to the installation requirements.

For any optional item other than those determined in the coding or in the necessary customizations, please contact your WEG sales representative.



Notes

Global presence is essential, as much as understanding your needs.

Global Presence

With more than 47,000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our ***ASW07 and ASW900 Panel-Mounted Soft-Starters*** are the right choice for your application and business, assuring safety, efficiency and reliability.

Availability is to have a global support network

Partnership is to create solutions that suits your needs

Competitive edge is to unite technology and inovation

Learn More

High performance and reliable products to improve your production process.

Excelence is to provide a whole solution in industrial automation that improves our customers productivity.

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The scope of WEG Group solutions
is not limited to products and solutions
presented in this catalogue.
To see our portfolio, contact us.

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