

Industrial Motors
Commercial &
Appliance Motors
**Automation &
Systems**
Energy
Transmission &
Distribution
Coatings

MSW - Switch-Disconnectors

Safety in every
movement



Driving efficiency and sustainability



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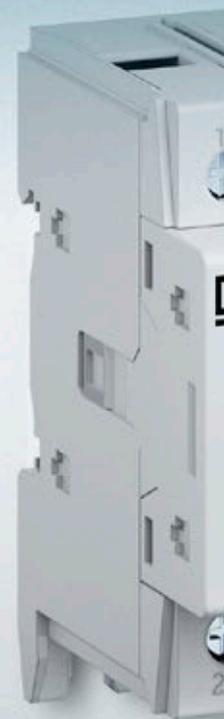
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Dimensions (mm)

16

Operation under load

25







A **SAFE AND RELIABLE** SOLUTION FOR EVERY OPERATION

The MSW Switch-Disconnectors are compact switching and isolating devices designed to open and close circuits and to ensure visible electrical isolation between the power supply and the load.

The compact MSW series was developed in accordance with IEC 60947-3/UL 508 standard and is intended to:

- Safely isolate circuit sections for maintenance or interventions (visible isolation).
- Disconnect power supplies to motors, machine panels, and distribution feeders.
- Enable controlled switching operations and allow lockout for Lockout/Tagout procedures.

Typical applications:

- Industrial and commercial distribution panels and control panels.
- Motor and inductive load disconnection in machinery.
- Main switch or motor starter isolation in compact panels.
- Supply of emergency circuits and critical loads requiring visible isolation.
- Feeder disconnection with fuses or use as main switch for machines or processes.
- Installations where visible isolation is mandatory (safety standards and procedures).



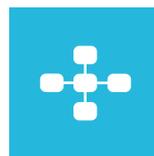
Key features



Compliance with the requirements of NR12 standard



Compact design



Comprehensive range of accessories



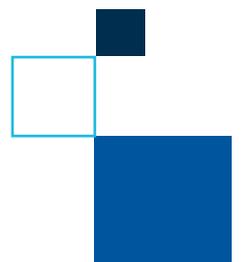
Terminals with IP2X protection rating



IP66-rated handles, allowing the use of up to three padlocks and door interlocking

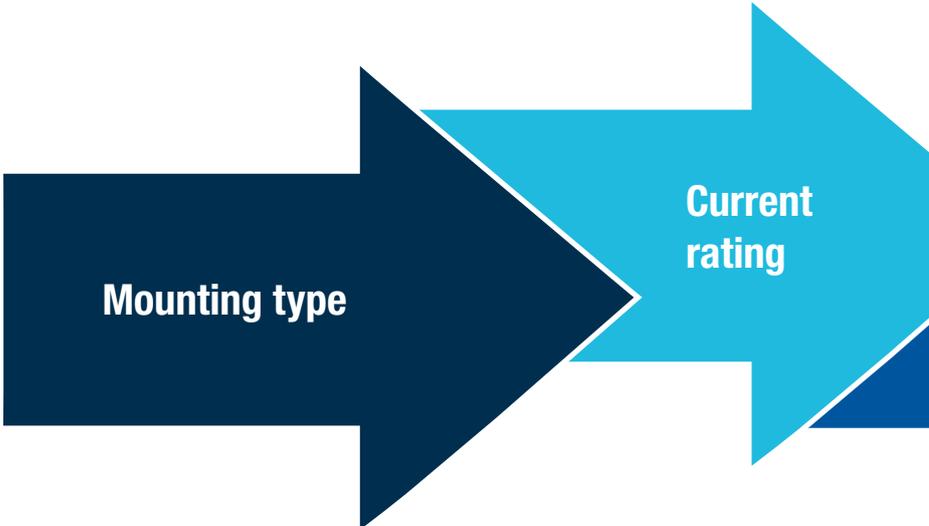


Two switch mounting options, meeting the needs of a wide range of applications



Selection

HOW TO SELECT THE MSW ACCORDING YOUR APPLICATION?



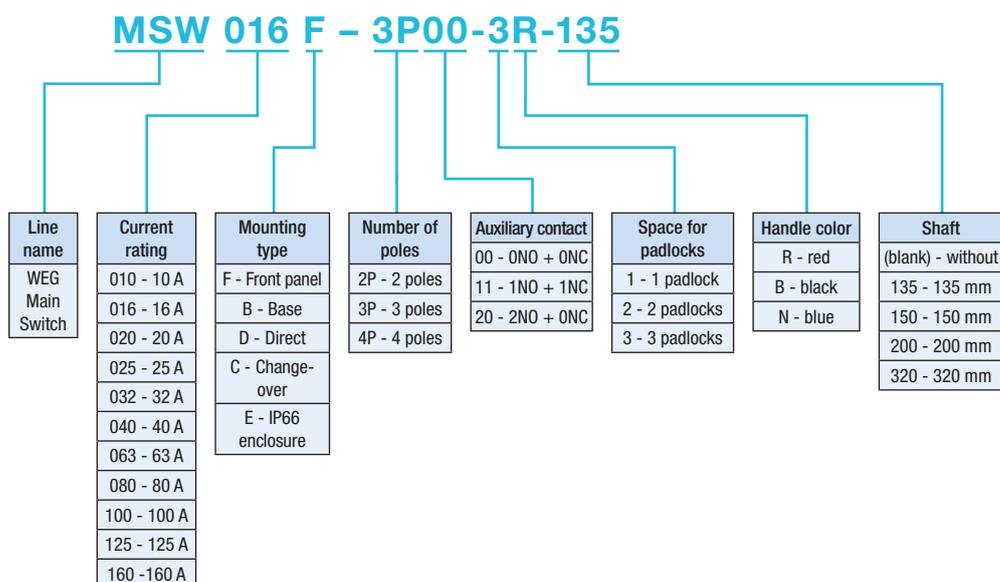
MSW compact switches are supplied in factory-standard configurations that already include the most commonly required features for industrial and commercial applications. These standard models streamline technical specification and serve as the basis for most projects, reducing selection time.

The MSW range offers a wide variety of accessories that can be incorporated into the standard models according to the specific requirements of each application. Optional items include:

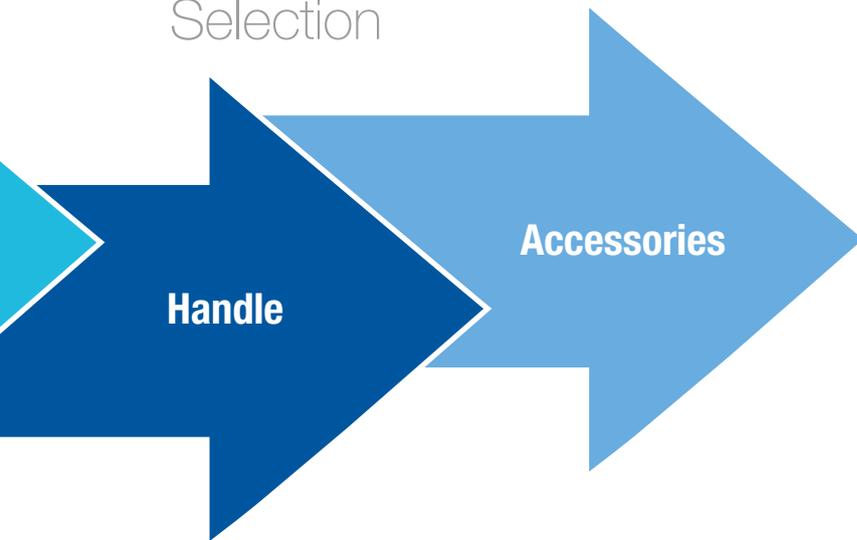
- Additional poles
- Auxiliary contacts for signaling
- Copper terminals
- Operating shafts in different lengths

The MSW smart code identifies all characteristics of each standard configuration, enabling fast and accurate identification of the technical composition.

Smart code - MSW line



Selection



MSW

SELECTED!

Below are the four steps necessary for the proper selection of the MSW switch-disconnector:

1 - Current rating

The switch-disconnector must present a rated current capacity equal to or above the rated current of the circuit/load. The MSW compact switch-disconnectors withstand currents up to 160 A. The rated values are indicated in the general characteristics table (pages 10 and 11).

2 - Mounting

The MSW compact switch-disconnectors can be door-mounted (front panel) or base-mounted depending on the model.

- Door mounting: in this system, the switch-disconnector is mounted on panel doors with screws. The switch-disconnector and the handle are always coupled.
- Base mounting: the switch-disconnector is mounted on a base, like the panel plates, with screws or on a DIN rail. The switch-disconnector is coupled to the rotary handle by means of a shaft, allowing the switch to be decoupled from the handle when it is in the OFF position.

3 - Handle and shaft

The handles of the MSW switch-disconnectors are IP66 rated and accept up to three padlocks in the OFF position for maximum safety during maintenance.

For base-mounted versions, an operating shaft is required in addition to the handle. The shaft length must be equal to or greater than the distance between the switch and the handle.

With those characteristics, it is possible to define a standard switch-disconnector, but WEG offers other accessories that may be required for each application.



Selection

4 - Accessories

4.a - Additional pole

For applications requiring neutral inclusion, the MSW range offers two additional pole models designed for use with the neutral conductor. They can be mounted next to the switch-disconnector.

4.b - Auxiliary contacts

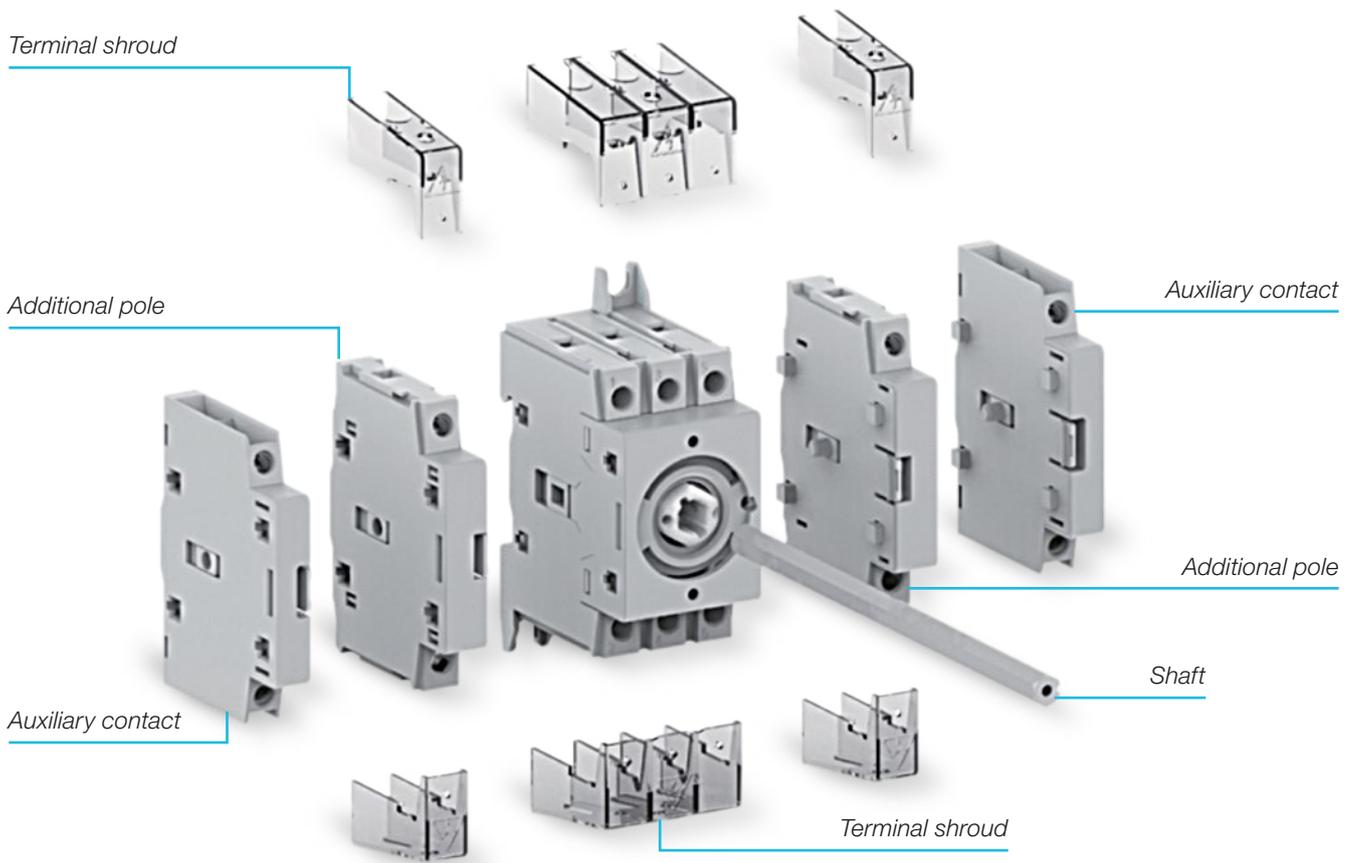
The MSW line features auxiliary contacts for side-mounting of the switch-disconnectors.

4.c - Shaft

For base-mounted MSW units requiring a shaft longer than the standard 135 mm, three extended options are available: 150, 200, and 320 mm.

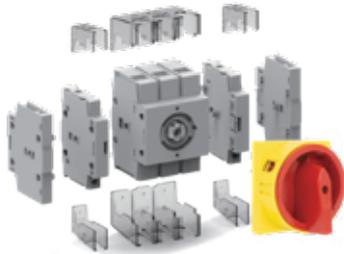
4.d - Terminal shrouds

In compliance with NR10, the MSW line features protective terminal shrouds to reduce the risk of accidental contact with the switch-disconnector terminals.



Compact switch-disconnector models

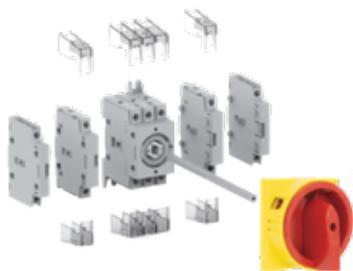
F (Top mounting)



- **Structure:** Top-mounted compact switch disconnector for direct installation on the panel door. Ideal for applications with space constraints.
- **Safety:** Lockable in the OFF position with up to three padlocks.
- **Current ratings:** 10, 16, 20, 25, 32, 40, 63, 80, 100 and 125 A.
- **Accessories:** Provision for installation of up to two additional poles or up to three auxiliary contacts.¹⁾

Note: 1) See the installation guide.

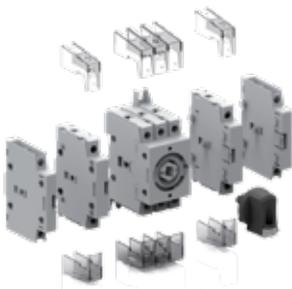
B (Base mounting)



- **Structure:** Compact switch-disconnector for base mounting on DIN rail, with handle installed on the panel door. The mechanism prevents the panel door from opening while the switch is in the ON position.
- **Safety:** Lockable in the OFF position with up to three padlocks.
- **Current ratings:** 16, 20, 25, 32, 40, 63, 80, 100 and 125 A.
- **Accessories:** Provision for installation of up to two additional poles or up to three auxiliary contacts.¹⁾

Note: 1) See the installation guide.

D (Direct command)



- **Structure:** Base-mounted switch-disconnector with direct handle operation, base mounting, and DIN rail mounting.
- **Safety:** Mechanical interlock prevents simultaneous connection between incoming supplies, ensuring complete separation of circuits. Lockable with 1 padlock.
- **Current ratings:** 16, 20, 25, 32, 40, 63, 80, 100, 125 and 160 A.
- **Accessories:** Provision for installation of up to two additional poles or up to three auxiliary contacts.¹⁾

Note: 1) See the installation guide.

C (Change-over)



- **Structure:** Two directly-operated, base-mounted switch-disconnectors.
- **Current ratings:** 16, 20, 25, 32, 40, 63, 80, 125 and 160 A
- **Safety:** Mechanical interlock prevents simultaneous connection between incoming supplies, ensuring complete separation of circuits. Lockable with 1 padlock.
- **Positions:**
 - 1: Left-side supply disconnected.
 - 2: Right-side supply disconnected.
 - 0: Both OFF (switching occurs in sequence: 1→0→2).
- **Accessories:** Provision for installation of additional pole and auxiliary contact.

E (IP66 enclosure)



- **Structure:** Switch-disconnectors mounted in a robust thermoplastic enclosure with IP66 protection, base-mounted.
- **Current ratings:** 16, 20, 25, 32, 40, 63, 80, 100 and 125 A.
- **Safety:** Lockable in the OFF position with up to two padlocks.
- **Connections:** Cable knockouts on top and bottom.
- **Colors:** Yellow/red or gray/black.
- **Accessories:** Provision for installation of 1 additional pole and 1 auxiliary contact.

Compact switch-disconnectors

General characteristics

EN 60947-1 and EN 60947-3 characteristics			MSW010F xx1R	MSW025F xx1R	MSW016	MSW020	MSW025	MSW032	
Rated operating voltage U_e	V		500	500	690				
Rated insulation voltage U_i	V				800				
Rated impulse withstand voltage U_{imp}	kV		4	6	8				
Rated thermal current $I_{th} = I_u$	A		12	25	16	20	25	32	
Frequency	Hz		50 / 60 Hz						
Rated operating current I_c : alternating current									
AC-21 A	3 poles	415 V	A	12	25	16	20	25	32
		500 V	A	-	-	16	20	25	25
		690 V	A	-	-	16	20	25	25
AC-21 B	3 poles	1,000 V	A	-	-	-	-	-	
AC-22 A	3 poles	415 V	A	12	25	16	20	25	32
		500 V	A	-	-	16	20	25	25
		690 V	A	-	-	16	20	25	25
AC-23 A	3 poles	415 V	A	10	25	16	20	25	32
		500 V	A	-	-	16	20	25	25
		690 V	A	-	-	16	20	25	25
Rated breaking power AC-23 A		415 V	kW	-	-	7.4	9.3	11.6	14.9
		500 V	kW	-	-	9	11.2	14	14
		690 V	kW	-	-	12.4	15.5	19.4	19.4
Reactive power ($\text{sen}\varphi=0.65$)	415 V	kVAr	5	12	7	9	12	15	
CBreaking capacity ($\text{cos}\varphi=0.35 - 0.45$)	415 V	A	100	250	128	160	200	256	
Making capacity ($\text{cos}\varphi=0.45$)	415 V	A	80	200	160	200	250	320	
Power dissipation per pole		W	-	-	0.3	0.45	0.6	1.1	
Rated short-time short circuit withstand current - I_{cw} (1s)		kA (rms)	0.1	0.4	0.5				
Rated making capacity (peak value) - I_{cm}		kA (peak)	0.141	-	0.85				
Short-circuit condition		kA	-	-	10				
Fuse rating gG	415 V	A	-	-	16	20	25	32	
Protection rating	Control	EN 60529	IP55		IP66				
	Terminals	EN 60529	IP2X						
Ambient temperature	Oper.	°C	-25 to +55 °C						
	Storage	°C	-40 to +80 °C						
Solid cable cross-section		mm ²	2x4		1.5 - 16				
Stranded cable cross-section		mm ²	2x2.5		1.5 - 10				
Terminal tightening torque		Nm	1		1.2 - 1.4				
Mechanical lifespan		Cycles	2,000,000	1,000,000	100,000				
Maximum weight		kg	-	0.158	0.141	0.141	0.141	0.141	

Compact switch-disconnectors

General characteristics

EN 60947-1 and EN 60947-3 characteristics			MSW040	MSW063	MSW080	MSW100	MSW125	MSW125C	MSW160C	
Rated operating voltage U_e	V	690								
Rated insulation voltage U_i	V	800						1,000		
Rated impulse withstand voltage U_{imp}	kV	8								
Rated thermal current $I_{th} = I_u$	A	40	63	80	100	125	125	160		
Frequency	Hz	50 / 60 Hz								
Rated operating current I_c : alternating current										
AC-21 A	3 poles	415 V	A	40	63	80	100	125	125	160
		500 V	A	25	63	80	80	100	125	160
		690 V	A	25	63	80	63	63	125	160
AC-21 B	3 poles	1,000 V	A	-	-	-	100	125	-	-
AC-22 A	3 poles	415 V	A	40	63	80	100	125	125	160
		500 V	A	25	63	80	80	100	125	160
		690 V	A	25	63	80	63	63	125	160
AC-23 A	3 poles	415 V	A	40	63	80	100	125	125	160
		500 V	A	25	63	80	80	100	100	125
		690 V	A	25	63	80	63	63	80	80
Rated breaking power AC-23 A		415 V	kW	18.6	29.4	37.3	46.7	58.4	58.4	74.7
		500 V	kW	14	35.4	45	45	56.2	56.2	70.3
		690 V	kW	19.4	48.9	62.1	48.9	48.9	62.1	62.1
Reactive power ($\text{sen}\varphi=0.65$)	415 V	kVAr	19	29	37	47	58	58	75	
Breaking capacity ($\text{cos}\varphi=0.35 - 0.45$)	415 V	A	320	504	640	800	1,000	1,000	1,280	
Making capacity ($\text{cos}\varphi=0.45$)	415 V	A	400	630	800	1,000	1,250	1,250	1,600	
Power dissipation per pole	W	1.6 2.8 4 4.5 6.3 2.65 4.35								
Rated short-time short circuit withstand current - I_{sc} (1s)	kA (rms)	0.5	0.85			2.75			7	
Rated making capacity (peak value) - I_{cm}	kA (peak)	0.85	1.5			3.9			13	
Short-circuit condition	kA	10	15			20			-	-
Fuse rating gG	415 V	A	40	63	80	100	125	-	-	
Protection rating	Control	EN 60529	IP66				IP65			
	Terminals	EN 60529	IP2X				-			
Ambient temperature	Oper.	°C	-25 to +55 °C							
	Storage	°C	-40 to +80 °C							
Solid cable cross-section	mm ²	1.5 - 16	2.5 - 35			10 - 70			95	
Stranded cable cross-section	mm ²	1.5 - 10	2.5 - 35			10 - 70			5/25	
Terminal tightening torque	Nm	1.2 - 1.4	2.5 - 2.8			3.5 - 4			13	
Mechanical lifespan	Cycles	100,000	100,000				8,000			
Maximum weight	kg	0.141	0.248	0.248	0.427	0.427	1.8 / 2.1	1.8 / 2.1		

Compact switch-disconnectors

F - Top mounting

Reference	Current (A)	Switch mounting	Poles	Code
MSW010F-2P00-1R	10	Top	2	18840895
MSW025F-2P00-1R	25			18840771
MSW010F-3P00-1R	10		3	18968851
MSW025F-3P00-1R	25			18968852



Reference	Current (A)	Switch mounting	Poles	Code
MSW016F-3P00-3R	16	Top	3	18853272
MSW020F-3P00-3R	20			18840896
MSW025F-3P00-3R	25			18840978
MSW032F-3P00-3R	32			18840980
MSW040F-3P00-3R	40			18840981
MSW063F-3P00-3R	63			18840983
MSW080F-3P00-3R	80			18840984
MSW100F-3P00-3R	100			18840986
MSW125F-3P00-3R	125			18841008



Note: the standard supply includes red rotary handle for the panel door and yellow escutcheon.

B - Base mounting

Reference	Current (A)	Switch mounting	Poles	Shaft (mm)	Code
MSW016B-3P00-3R-135	16	Base	3	135	18841009
MSW020B-3P00-3R-135	20				18841011
MSW025B-3P00-3R-135	25				18841012
MSW032B-3P00-3R-135	32				18841014
MSW040B-3P00-3R-135	40				18841015
MSW063B-3P00-3R-135	63				18841017
MSW080B-3P00-3R-135	80				18841028
MSW100B-3P00-3R-135	100				18841029
MSW125B-3P00-3R-135	125				18841030



Note: shaft and red rotary handle for panel door and yellow escutcheon included.

Compact switch-disconnectors

D - Rotary change-over switch with direct operation

Reference	Current (A)	Switch mounting	Poles	Code
MSW016D-3P00-1B	16	Base	3	18841031
MSW020D-3P00-1B	20			18841032
MSW025D-3P00-1B	25			18841033
MSW032D-3P00-1B	32			18841035
MSW040D-3P00-1B	40			18841037
MSW063D-3P00-1B	63			18841099
MSW080D-3P00-1B	80			18841100
MSW100D-3P00-1B	100			18841102
MSW125D-3P00-1B	125			18841103



Notes: Black rotary handle.
Base-mounted switch with handle fixed to the switch.

R - Change-over rotary switch

Reference	Current (A)	Switch mounting	Poles	Handle	Code
MSW016C-3P00-1B	16	Base	3	Black	18841104
MSW020C-3P00-1B	20				18841105
MSW025C-3P00-1B	25				18841107
MSW032C-3P00-1B	32				18841148
MSW040C-3P00-1B	40				18841149
MSW063C-3P00-1B	63				18841150
MSW080C-3P00-1B	80		18841152		
MSW125C-3P00-1B	125		3	Blue	18853274
MSW125C-4P00-1B	125		4		18853277
MSW160C-3P00-1B	160		3		18853273
MSW160C-4P00-1B	160	4	18853276		



Note: base-mounted switch with handle fixed to the switch.

E - Compact switch-disconnectors in IP66 enclosure

Reference	Current (A)	Switch mounting	Poles	Front color	Code
MSW016E-3P00-2R	16	Base	3	Yellow cover, red handle	18841153
MSW020E-3P00-2R	20				18841154
MSW025E-3P00-2R	25				18841155
MSW032E-3P00-2R	32				18841156
MSW040E-3P00-2R	40				18841157
MSW063E-3P00-2R	63				18841210
MSW080E-3P00-2R	80				18841212
MSW100E-3P00-2R	100				18841214
MSW125E-3P00-2R	125				18841215
MSW016E-3P00-2B	16				Grey cover, black handle
MSW020E-3P00-2B	20			18841217	
MSW025E-3P00-2B	25			18841218	
MSW032E-3P00-2B	32			18841219	
MSW040E-3P00-2B	40			18841221	
MSW063E-3P00-2B	63			18841222	
MSW080E-3P00-2B	80			18841224	
MSW100E-3P00-2B	100			18841226	
MSW125E-3P00-2B	125			18841227	



Note: 2 cable entries on each side in sizes M12 to M16. 2 top cable entries and 2 bottom cable entries in sizes M16 to M25.

Accessories

Shaft for rotary handle

Compatible switch-disconnectors	Reference	Switch mounting	Length (mm)	Code
MSW(016-040)B	MSW-SE150-Y	Base	150	18841511
	MSW-SE200-Y		200	18841512
	MSW-SE320-Y		320	18841513
MSW(063-125)B	MSW-SE150-G		150	18968853
	MSW-SE200-G		200	18968854
	MSW-SE320-G		320	18968855



Note: the shaft accessory for rotary handle can only be used on the MSW_B (base) line.

Additional pole

- Models for base-mounted switches: applicable to MSW_B (base), MSW_D, MSW_C and MSW_E
- Models for top-mounted (door) switches: applicable to MSW_F (top)

Compatible switch-disconnectors	Reference	Switch mounting	Diagram	Code
MSW(016-040)B MSW(016-040)D MSW(016-040)C MSW(016-040)E	MSW-AP1-S	Base		18841395
MSW(063-080)B MSW(063-080)D MSW(063-080)C MSW(063-080)E	MSW-AP2-S			18841396
MSW(100-125)B MSW(100-125)D MSW(100-125)E	MSW-AP3-S			18841397
MSW(016-040)B MSW(016-040)D MSW(016-040)C MSW(016-040)E	MSW-AP1-N ¹⁾			18841471
MSW(063-080)B MSW(063-080)D MSW(063-080)C MSW(063-080)E	MSW-AP2-N ¹⁾			18841472
MSW(100-125)B MSW(100-125)D MSW(100-125)E	MSW-AP3-N ¹⁾			18853373
MSW(016-040)F	MSW-AP1-SF	Top		18841468
MSW(063-080)F	MSW-AP2-SF			18841469
MSW(100-125)F	MSW-AP3-SF			18841470
MSW(016-040)F	MSW-AP1-NF ¹⁾			18853374
MSW(063-080)F	MSW-AP2-NF ¹⁾			18853375
MSW(100-125)F	MSW-AP3-NF ¹⁾			18853859



Note: 1) The additional neutral pole does not provide contact opening and does not allow the installation of another pole or an auxiliary contact coupled to it.

Accessories

Auxiliary contact

- Direct mounting on the side of the switch-disconnector or the additional pole, except for the neutral pole
- Provision for installation of up to 2 auxiliary contacts per compact switch-disconnector
- Models for base-mounted switches: applicable to MSW_B, MSW_D, MSW_C and MSW_E
- Models for top-mounted (door) switches: applicable to MSW_F (top)

Reference	Compatible switch-disconnectors	Switch mounting	Diagram	Contacts	Code
MSW-AC-11-S	MSW016-125B MSW016-125D MSW016-080C MSW016-125E	Base		1NO + 1NC	18841391
MSW-AC-20-S				2NO	18841393
MSW-AC-11-F	MSW016-125F	Top		1NO + 1NC	18841296
MSW-AC-20SF				2NO	18841392
MSW-AC-11-C	MSW125-160C	Base		1NO + 1NC	18853371
MSW-AC-22-C	MSW125-160C			2NO + 2NC	18853372

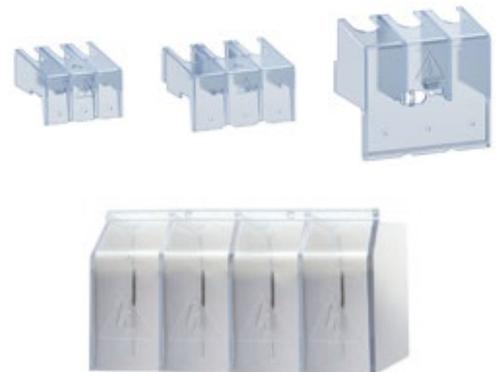


Note: 1) The MSW125-160C can receive up to 2 auxiliary contacts. Other models support up to 3 auxiliary contacts, provided that no additional poles are used, as instructed in the installation guide.

Terminal shroud for switch-disconnectors

- They offer protection against accidental contact with the switch terminals
- Models for base-mounted switches: applicable to MSW_B, MSW_D and MSW_C
- Models for top-mounted (door) switches: applicable to MSW_F (top)

Compatible switch-disconnectors	Reference	Switch mounting	Poles	Code
MSW016-040F ¹⁾	MSW-TS1-3P	Top	3	18841473
MSW016-040B MSW016-040D MSW016-040C		Base		
MSW063-080F	MSW-TS2-3P	Top	3	18841475
MSW063-080B MSW063-080D MSW063-080C		Base		
MSW100-250F	MSW-TS3-3P	Top	3	18841508
MSW100-125B MSW100-125D		Base		
MSW125-160C ²⁾	MSW-TS4-3PU	Base	3 (top)	18853377
MSW125-160C ²⁾	MSW-TS4-3PD	Base	3 (bottom)	18853641
MSW125-160C	MSW-TS4-4P	Base	4 (top and bottom)	18853438



Notes: 1) Not applicable to MSW010F-2P00-1R and MSW025F-2P00-1R.

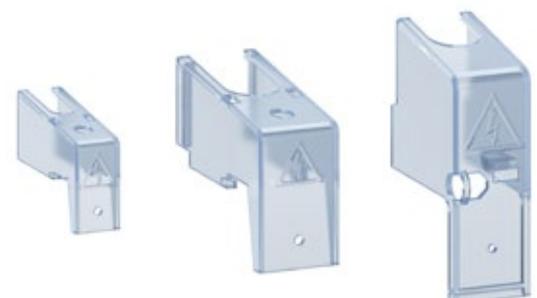
2) Note that for 125 A, 3-pole reversing change-over switches, the top and bottom terminal shrouds are different.

3) All items are supplied individually. For cable entry and exit protection, you need to purchase 2 units.

4) For the MSW(016-080)C, 4 terminal shrouds will be needed: 2 for the top and 2 for the bottom. For other models up to 125 A, it will be necessary to purchase 2 terminal shrouds: 1 for the top and 1 for the bottom.

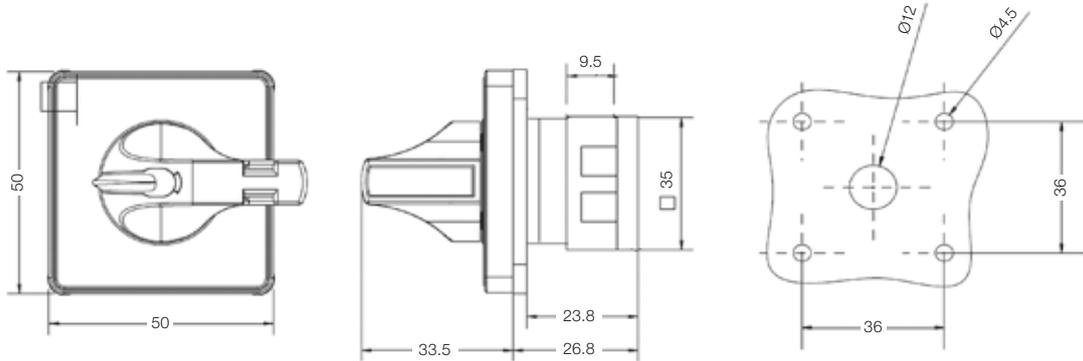
Terminal shrouds for poles

Compatible additional poles	Reference	Switch mounting	Poles	Code
MSW-AP1-SF MSW-AP1-NF	MSW-TS1-1P	Top	1	18841474
MSW-AP1-S MSW-AP1-N		Base		
MSW-AP2-SF MSW-AP2-NF	MSW-TS2-1P	Top	1	18841477
MSW-AP2-S MSW-AP2-N		Base		
MSW-AP3-SF MSW-AP3-NF	MSW-TS3-1P	Top	1	18841510
MSW-AP3-S MSW-AP3-N		Base		

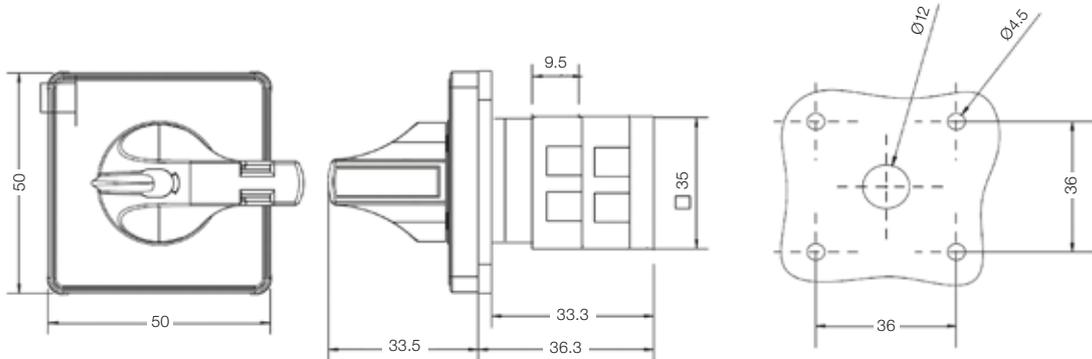


Dimensions (mm)

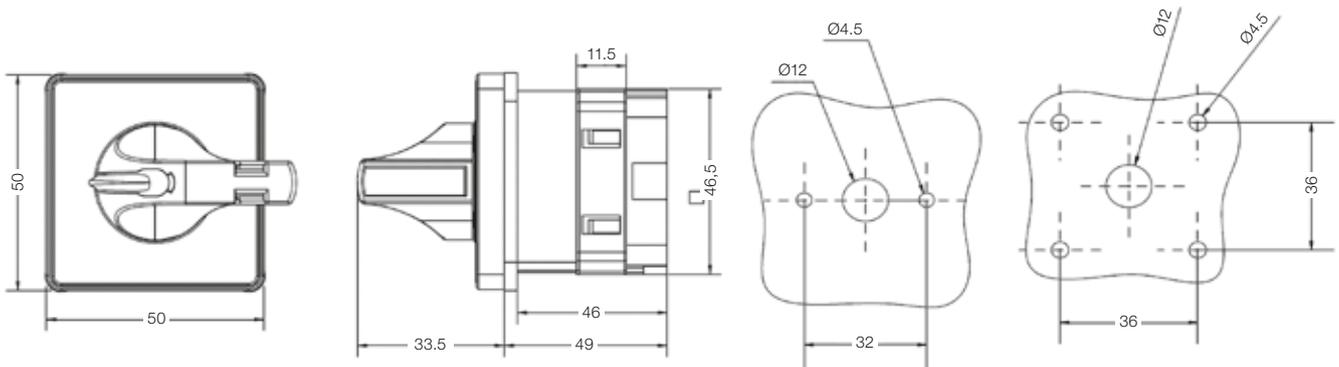
MSW010F-2P00-1R



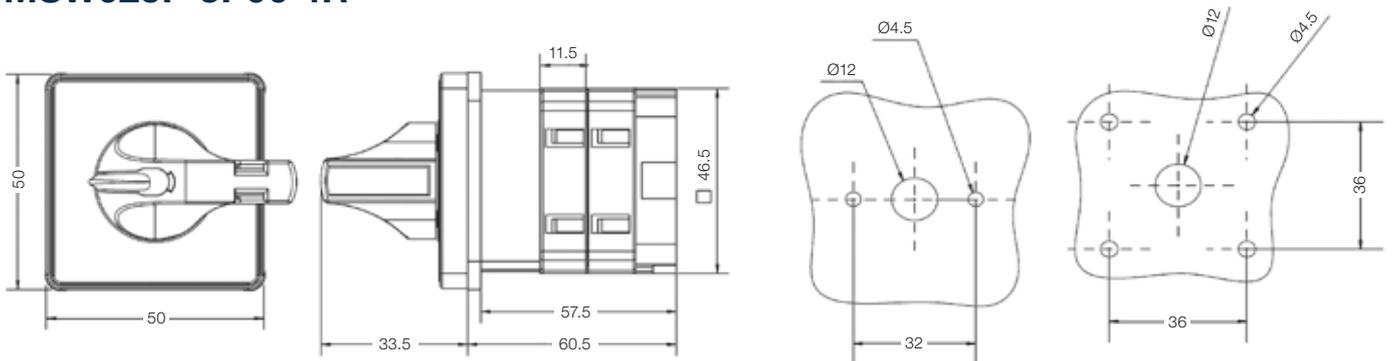
MSW010F-3P00-1R



MSW025F-2P00-1R

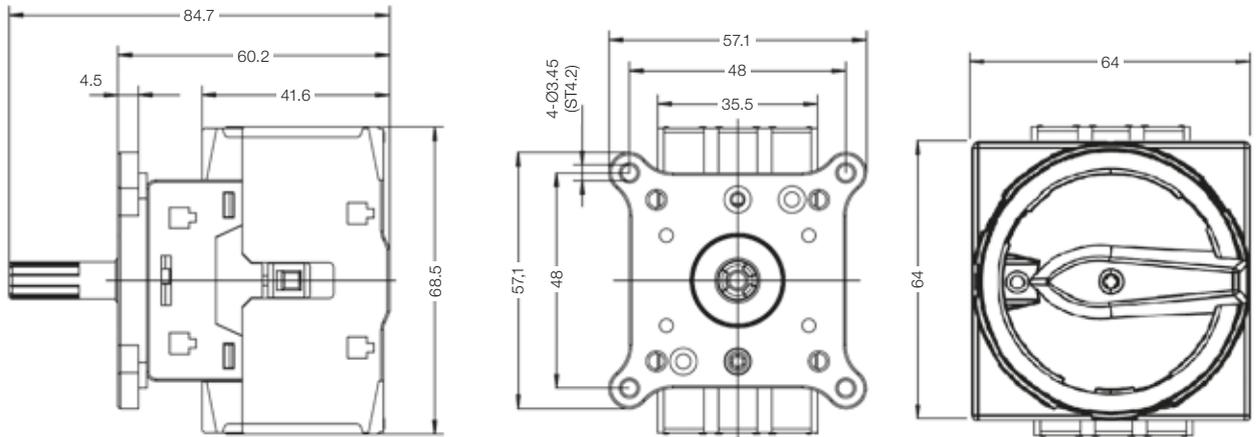


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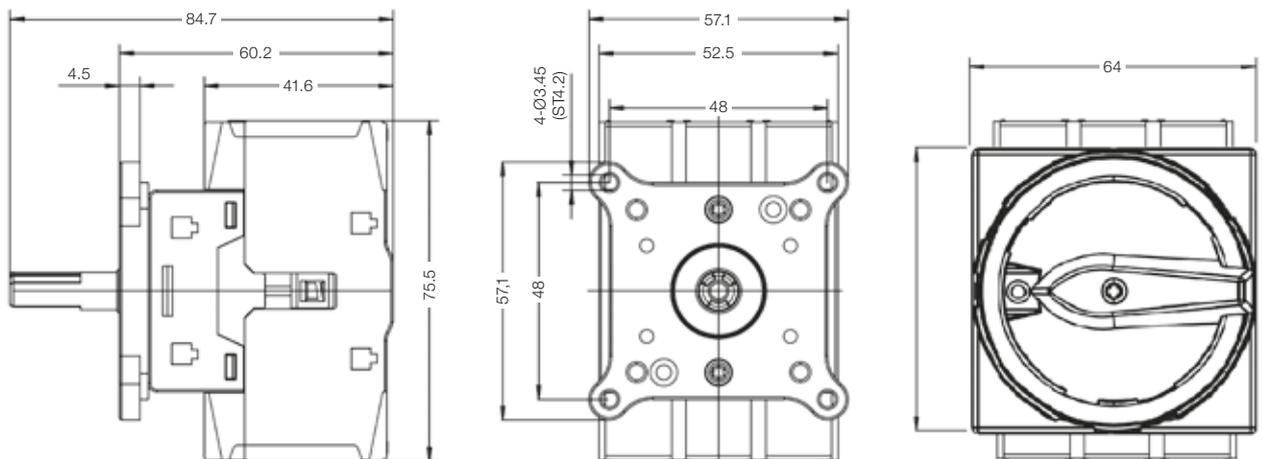


Dimensions (mm)

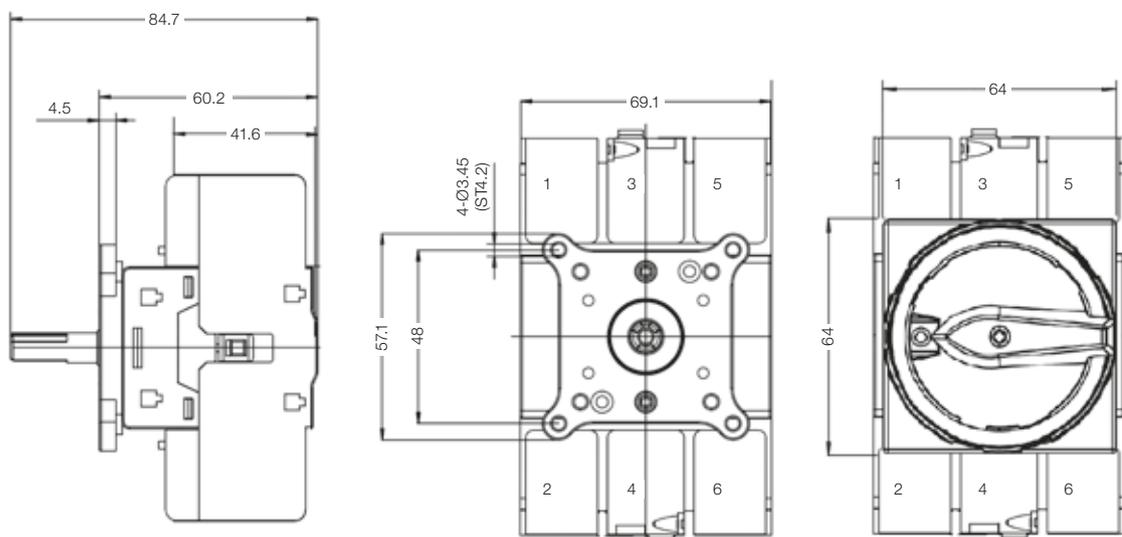
MSW(016-040)F-3P00-3R



MSW(063-080)F-3P00-3R

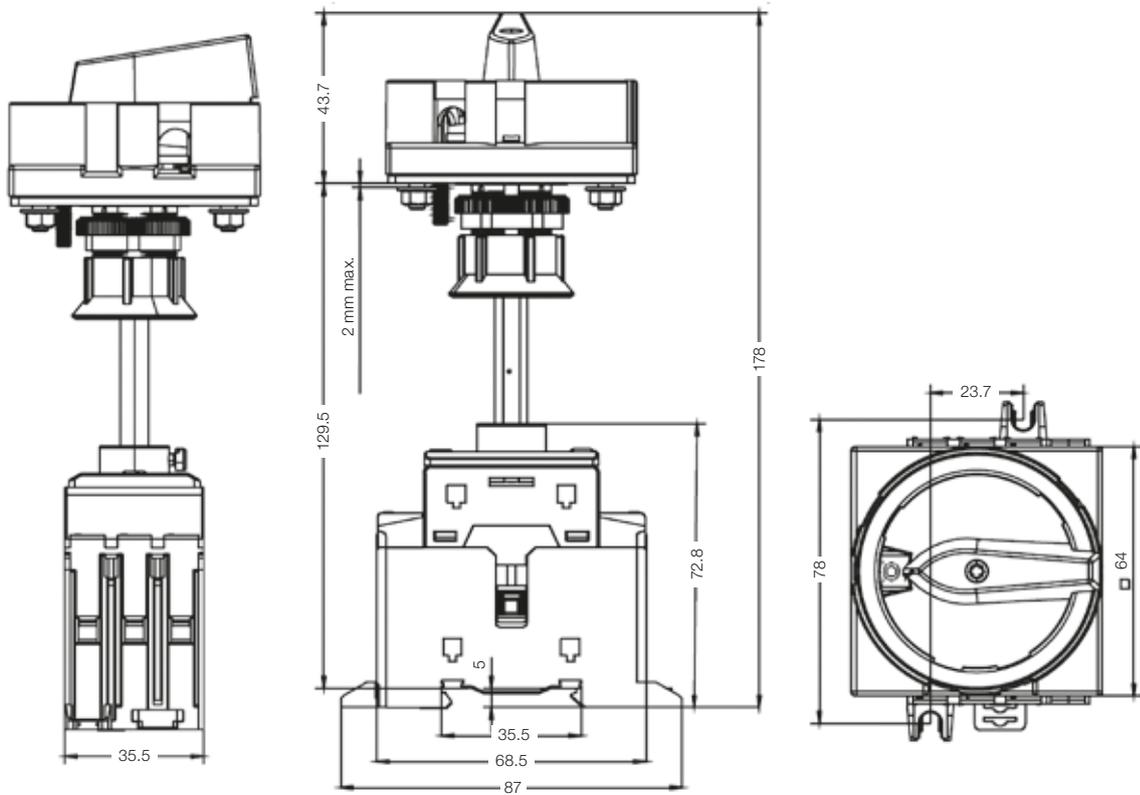


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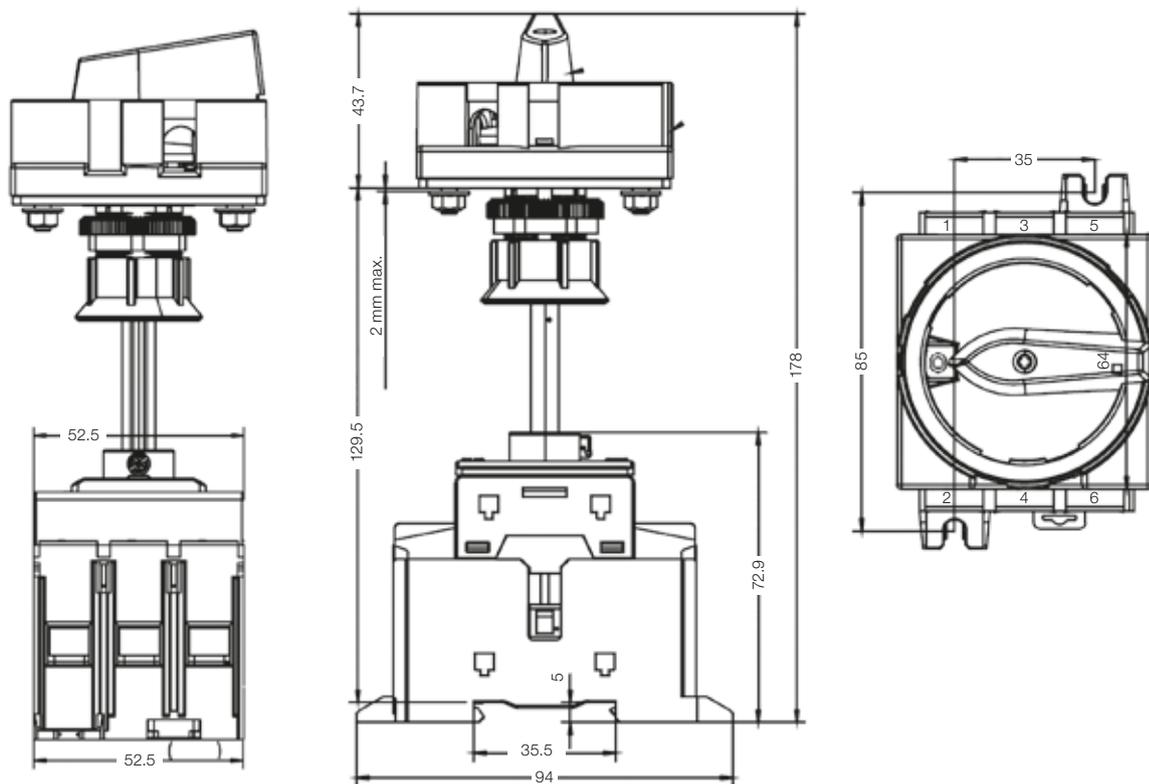


Dimensions (mm)

MSW(016-040)B-3P00-3R

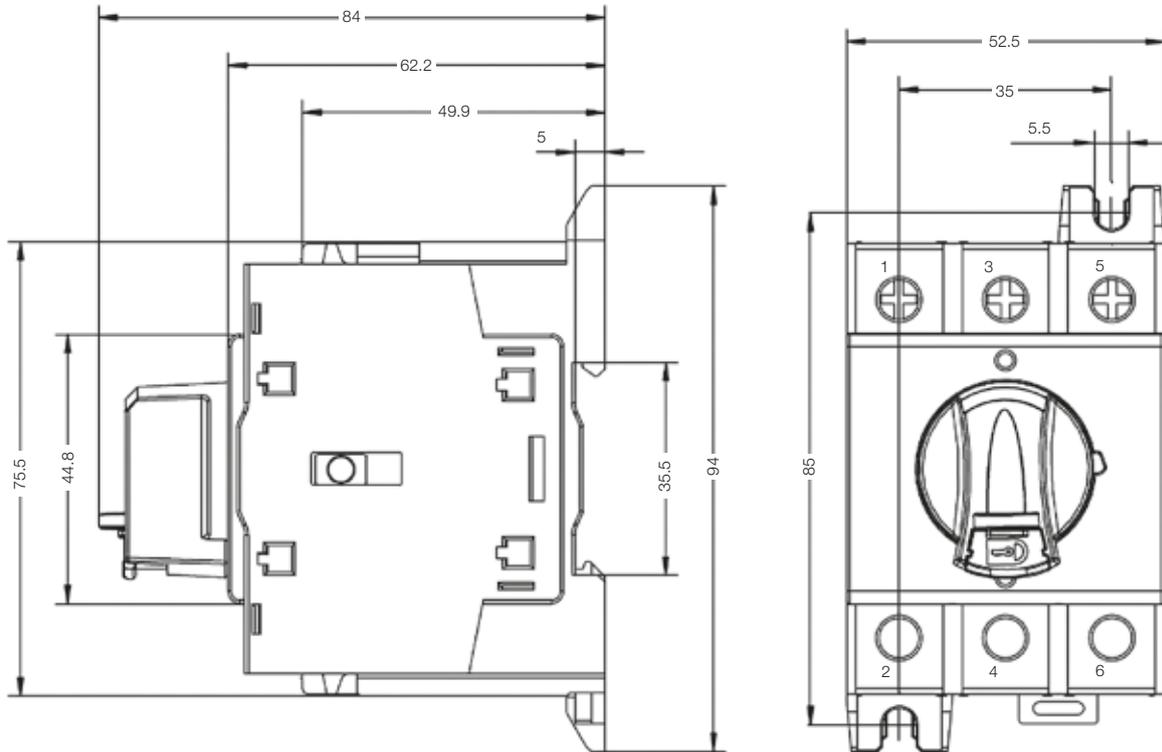


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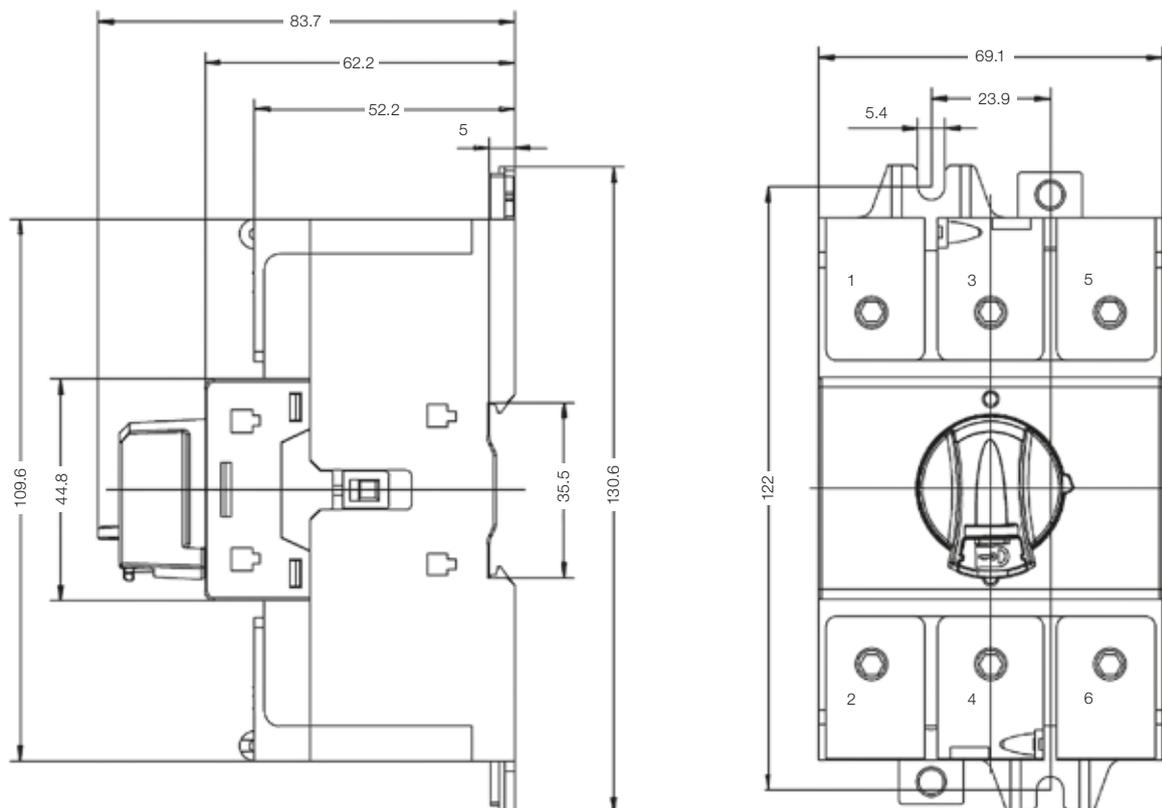


Dimensions (mm)

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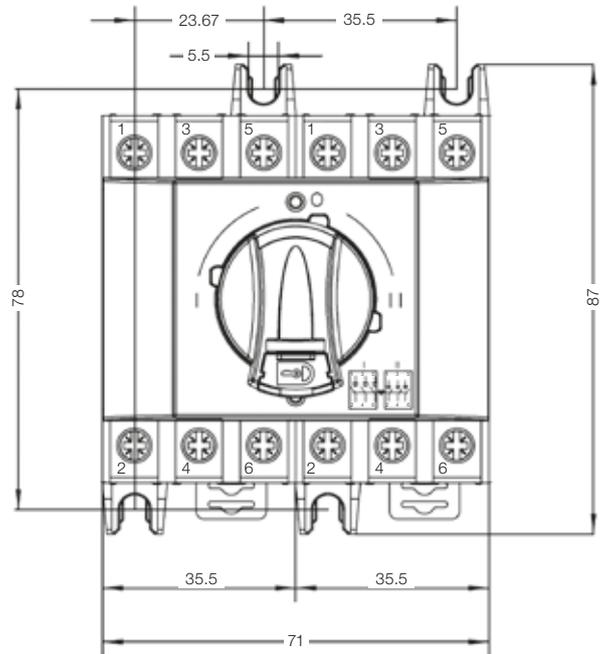
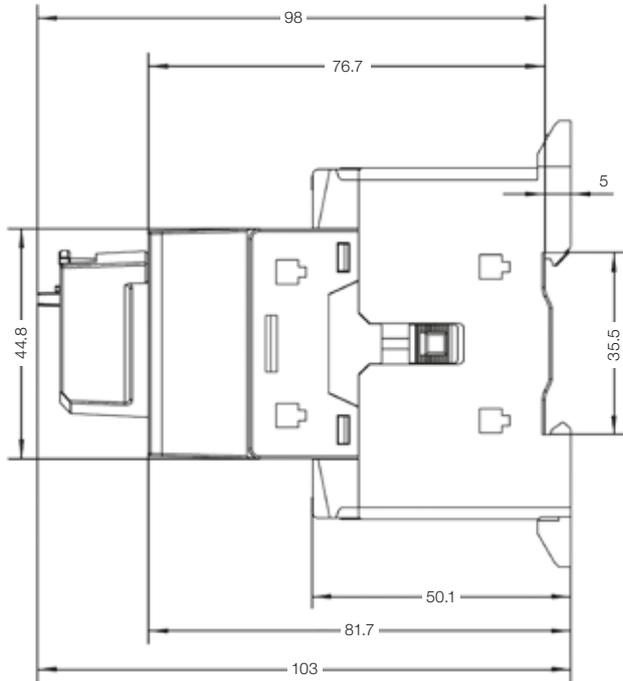


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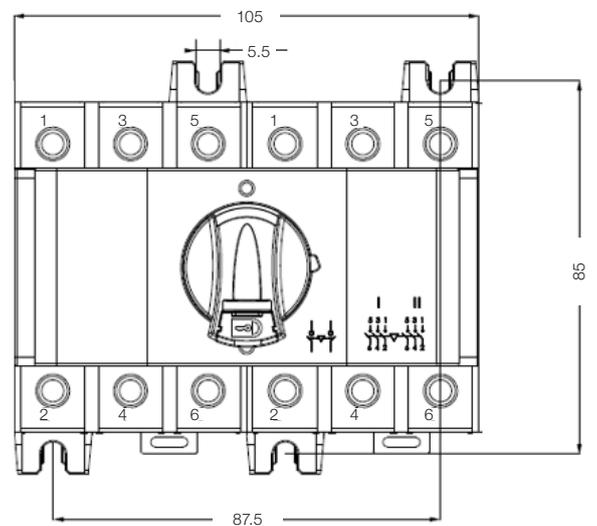
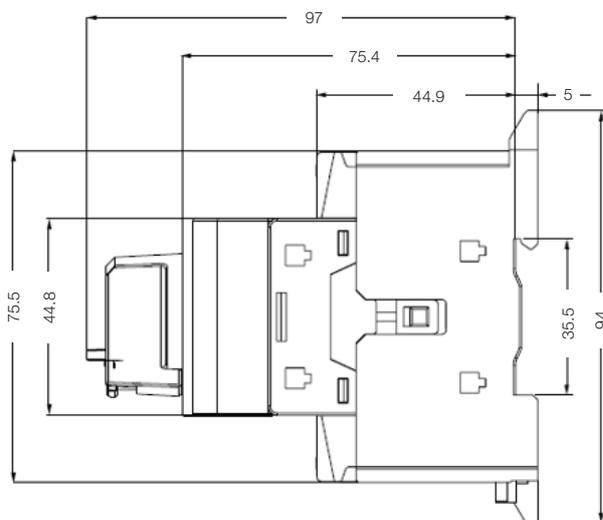


Dimensions (mm)

MSW(012-040)C-3P00-1B

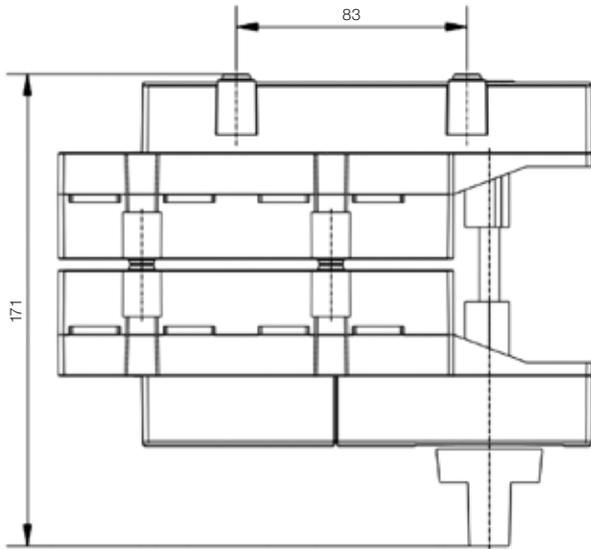
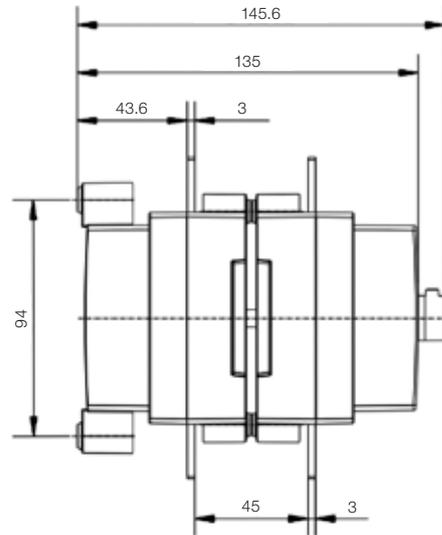
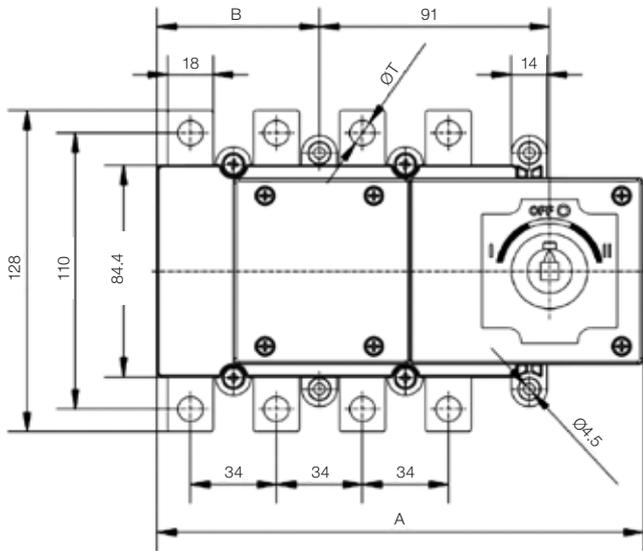


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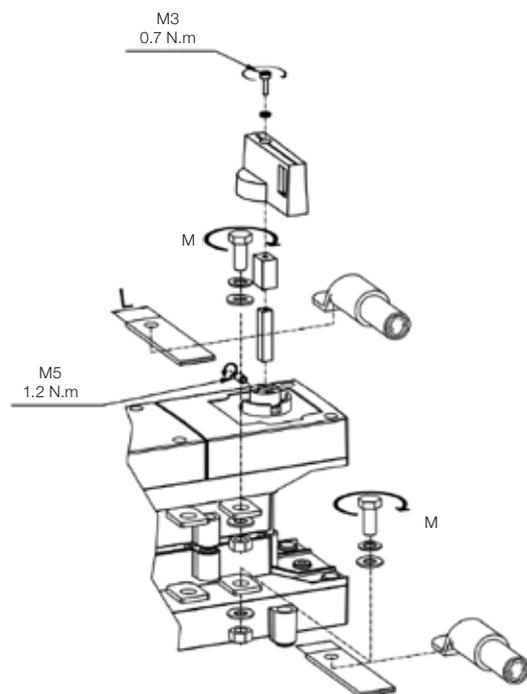


Dimensions (mm)

MSW(125-160)C

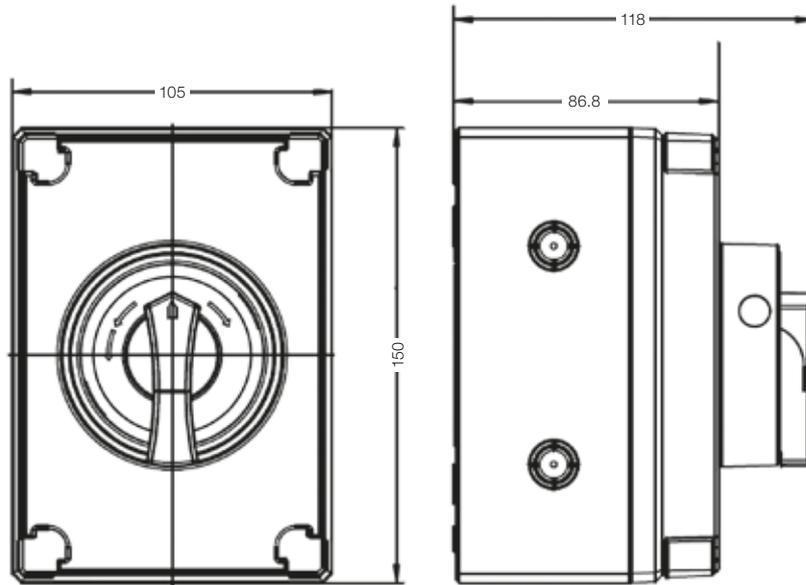


A		B	
3P	4P	3P	4P
181	192	53	64

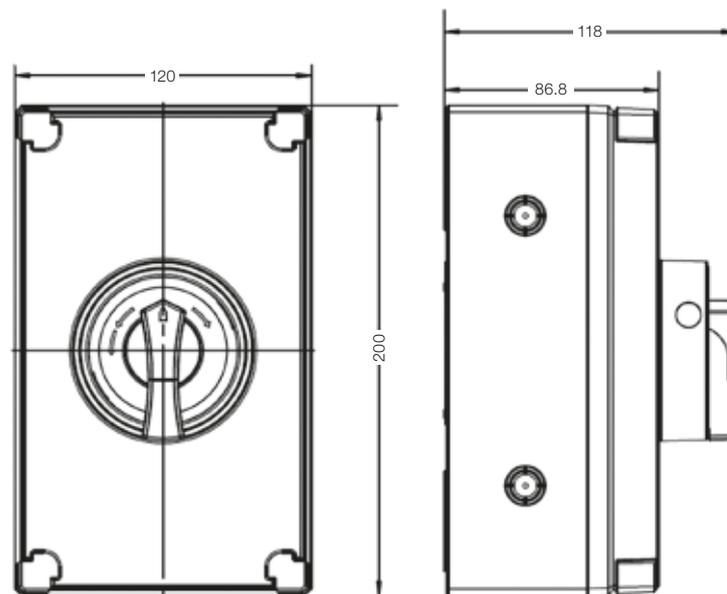


Dimensions (mm)

MSW(016-040)E-3P00-2B/R

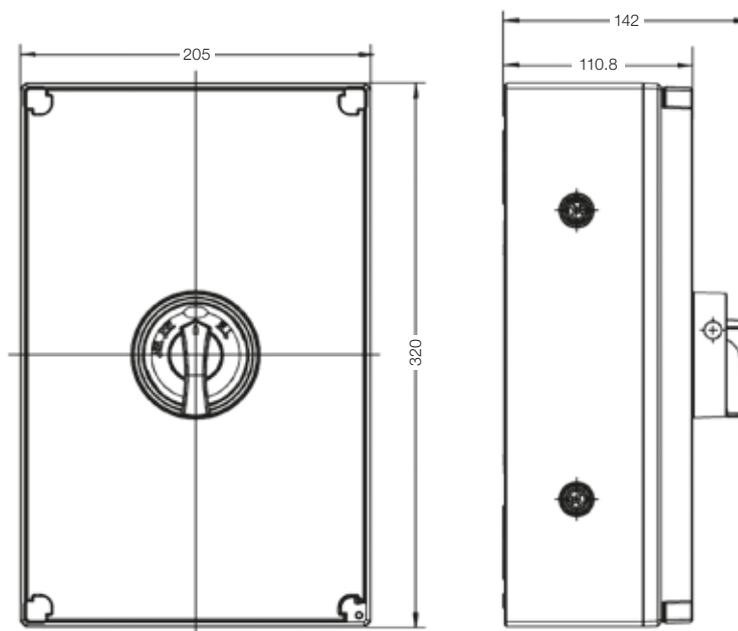


MSW(063-080)E-3P00-2B/R



Dimensions (mm)

MSW(100-125)E-3P00-2B/R



Global presence

is essential, as much as understanding your needs.



Global Presence

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Availability is to have a global support network



Partnership is to create solutions that suits your needs

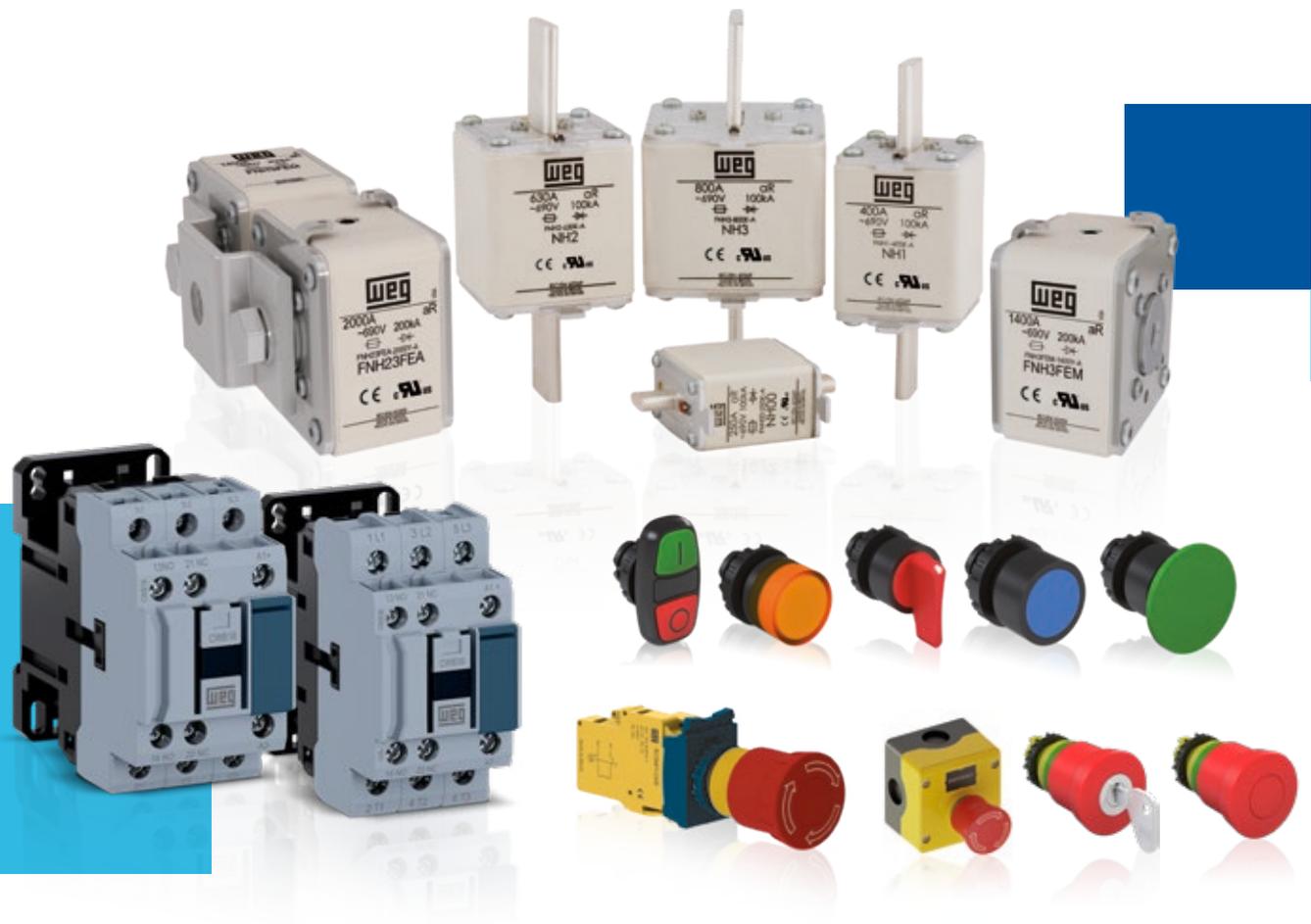


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The values shown are subject to change without prior notice.
The information contained is reference values.