



Selection and ordering data

		Type	Version	Width	Classic		Innovations						
					Fits 3RV1 Frame Size	Screw Connection Order No.	Fits 3RV2 Frame Size	Screw Connection Order No.					
Auxiliary switches³⁾													
3RV1901-1E	3RV2901-1E	Transverse auxiliary switches	1 CO 1 NO + 1 NC 2 NO	mm	S00, S0, S2, S3	3RV1901-1D 1) 3RV1901-1E 3RV1901-1F	S00, S0	3RV2901-1D 1), 2) 3RV2901-1E 1) 3RV2901-1F					
3RV1901-1G	3RV2901-1G		1 CO						S00, S0, S2, S3	3RV1901-1G	S00, S0	3RV2901-1G	
3RV1901-1A	3RV2901-1A	Solid-state compatible, transverse auxiliary switches for use in dusty atmosphere and in electronic circuits with low operating currents	1 CO	mm	S00, S0, S2, S3	3RV1901-1G	S00, S0	3RV2901-1G					
			1 CO						S00, S0, S2, S3	3RV1901-1G	S00, S0	3RV2901-1G	
		Covering caps for transverse auxiliary switch slots (pack of 10)			S00, S0, S2, S3	3RV1901-0H	S00, S0	3RV2901-0H					
		Lateral auxiliary switches (side mount) Width = 9 mm	1 NO + 1 NC	mm	S00, S0, S2, S3	1) 3RV1901-1A 1) 3RV1901-1B 1) 3RV1901-1C 3RV1901-1J	S00, S0	1), 2) 3RV2901-1A 1) 3RV2901-1B 1) 3RV2901-1C 3RV2901-1J					
			2 NO						9				
			2 NC						9				
			2 NO + 2 NC						18				
Signaling switch⁴⁾													
3RV1921-1M	3RV2921-1M	Signaling switch (side mount) Individual tripped and short-circuit signaling Width = 18 mm	1 NO + 1 NC each	mm	S0, S2, S3	3RV1921-1M	S00, S0	1), 2) 3RV2921-1M					
Auxiliary releases⁵⁾													
3RV1902-1AB4	3RV2902-1AB4	Undervoltage releases (side mount) Width = 18 mm	DC 24 V	mm	S00, S0, S2, S3	3RV1902-1AB4	S00, S0	3RV2902-1AB4					
			AC 50 Hz 20-24 V 90-110 V — 210-230 V 400 V 350-415 V 500 V						AC 60 Hz — 120 V 208 V 240 V 440 V 480 V 600 V	S00, S0, S2, S3	3RV1902-1AB0 3RV1902-1AF0 3RV1902-1AM1 3RV1902-1AP0 3RV1902-1AV0 3RV1902-1AV1 3RV1902-1AS0	S00, S0	1), 2) 3RV2902-1AB0 3RV2902-1AF0 1), 2) 3RV2902-1AM1 1), 2) 3RV2902-1AP0 3RV2902-1AV0 3RV2902-1AV1 3RV2902-1AS0
		Undervoltage releases with leading auxiliary contacts 2 NO (side mount) Width = 18 mm	230 V 400 V 415 V	mm	S00	3RV1912-1CP0 3RV1912-1CV0 3RV1912-1CV1	S00, S0	1) 3RV2922-1CP0 1) 3RV2922-1CV0 1), 2) 3RV2922-1CV1					
			240 V 440 V 480 V						S0, S2, S3	3RV1922-1CP0 3RV1922-1CV0 3RV1922-1CV1	S00, S0	1) 3RV2922-1CP0 1) 3RV2922-1CV0 1), 2) 3RV2922-1CV1	
		Shunt releases (side mount) Width = 18 mm	AC 50/60 Hz 100% ON⁶⁾ 20-24 V 90-110 V 210-240 V 350-415 V 500 V	mm	S00, S0, S2, S3	3RV1902-1DB0 3RV1902-1DF0 3RV1902-1DP0 3RV1902-1DV0 3RV1902-1DS0	S00, S0	1), 2) 3RV2902-1DB0 1), 2) 3RV2902-1DF0 1) 3RV2902-1DP0 3RV2902-1DV0 3RV2902-1DS0					
			AC 50/60 Hz 5 sec ON⁷⁾ 20-70 V 70-190 V 190-330 V 330-500 V 500 V										

1) This product is also available with spring terminals. The order no. must be changed in the 8th position to a "2": e.g. 3RV1901-2E

2) This product is also available with ring lug terminals. The order no. must be changed in the 8th position to a "4": e.g. 3RV2901-4E

3) Each motor starter protector can be fitted with one transverse and one lateral auxiliary switch. The lateral auxiliary switch 2 NO + 2 NC is used without transverse auxiliary switch.

4) One signaling switch can be mounted at the left of the motor starter protector.

5) One auxiliary release can be mounted at the right of each MSP: motor starter protector.

6) The response voltage at the lower limit of the voltage range at 0.85 (Tu=60°C) is valid for 100% (infinite)

7) The response voltage at the lower limit of the voltage range at 0.9 (Tu=60°C) applies for a duty cycle of 5 seconds at AC 50/60 Hz and DC.

3RV Motor Starter Protectors

Accessories

SIRIUS



Accessories for Busbar

Selection and ordering data

Modular spacing	Number of motor starter protectors that can be connected			Rated current I_n at 690 V	For motor starter protectors Size	Order No.	Order quantity	Weight approx.
	Without lateral accessories	Incl. lateral auxiliary switch	With auxiliary trip unit					
mm				A				kg

Three-phase busbar systems for Classic and Innovations

 3RV19 15-1AB	For feeding several motor starter protectors with screw terminals, mounted side-by-side on standard mounting rails, insulated, with touch protection.								
	45	2	--	--	63	S00, S0 ¹⁾²⁾	3RV19 15-1AB	1 unit	0.044
		3				S00, S0 ¹⁾²⁾	3RV19 15-1BB	1 unit	0.071
		4				S00, S0 ¹⁾²⁾	3RV19 15-1CB	1 unit	0.099
 3RV19 15-1BB	55	--	2	--	63	S00, S0 ¹⁾²⁾	3RV19 15-2AB	1 unit	0.048
			3			S00, S0 ¹⁾²⁾	3RV19 15-2BB	1 unit	0.079
 3RV19 15-1CB	63	--	--	2	63	S00, S0 ¹⁾²⁾	3RV19 15-2CB	1 unit	0.111
				4		S00, S0 ¹⁾²⁾	3RV19 15-2DB	1 unit	0.140
 3RV19 15-1DB	55	2	--	--	108	S2 ³⁾	3RV19 35-1A	1 unit	0.150
		3				S2 ³⁾	3RV19 35-1B	1 unit	0.214
		4				S2 ³⁾	3RV19 35-1C	1 unit	0.295
 3RV19 15-1DB	75	--	2	2	108	S2	3RV19 35-3A	1 unit	0.161
			3	3		S2	3RV19 35-3B	1 unit	0.262
			4	4		S2	3RV19 35-3C	1 unit	0.369

1) Not suitable for 3RV11 motor starter protectors with overload relay function. The 3RV1915-5DB connecting piece is available for connecting motor starter protectors from size S0 to size S00.

2) Not suitable for 3RV UL 489 circuit breakers.

3) Auxiliary trip units and lateral auxiliary switches cannot be used in combination.

Version	Modular spacing	For motor starter protectors Size	Order No.	Order quantity	Weight approx.
	mm				kg

Connecting pieces for three-phase busbars

 3RV19 15-5DB	For connecting three-phase busbars for motor starter protectors of size S0 (left) to size S00 (right)		45	S00, S0	3RV19 15-5DB	1 unit	0.042
	Conductor cross-section, AWG cables, solid or stranded		Tightening torque	For motor starter protector size	Order No.	Order No.	Order No.
For 3RV1 MSP	For 3RV2 MSP	Nm					
	AWG	AWG					

Three-phase feeder terminals

 3RV19 25-5AB	Connection from top		3...4	S00	3RV1915-5A	3RV2925-5AB
	12...4	10...4				
 3RV29 25-5AB	Connection from below ³⁾		Input: 4, Output: 2 ... 2.5	S00, S0	3RV1915-5B	3RV2915-5B
	12...4	10...4				
 3RV19 15-5B	Connection from top		4	S2	3RV1935-5A	—

Three-phase feeder terminals for constructing "Type E Starters"

					Classic	Innovations
Connection from top						
—	10...4	3-4	S00	—	3RV2925-5EB	
10...4	10...4	3-4	S0	3RV1925-5EB	3RV2925-5EB	
8...0	—	4.5-6	S2	3RV1935-5E	—	

1) Do not mix 3RV1 Classic Accessories with 3RV2 Innovations MSP's

2) Do not mix 3RV2 Innovations Accessories with 3RV1 Classic MSP's

3) This terminal is connected in place of a switch, please take the space requirement into account.

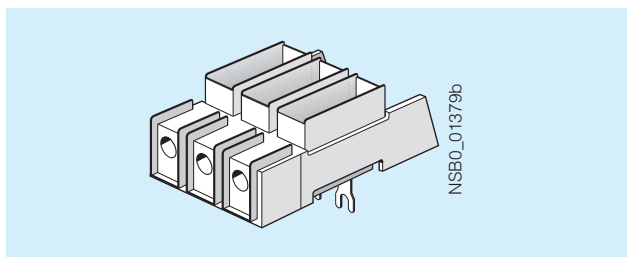


Overview

Accessories for “Self-Protected Combination Motor Controllers (Type E)” according to UL 508

Most 3RV motor starter protectors are approved according to UL 508 as “Self-Protected Combination Motor Controllers (Type E)”.

This requires increased clearance and creepage distances (1 inch and 2 inches respectively) at the input side of the device, which are achieved by mounting terminal blocks. The Type E terminal block is simply screwed onto the basic unit.



3RV19 28-1H terminal block

Another way to obtain the increased clearance and creepage distances for Type E is to mount the 3RV29 28-1K phase barriers. Special three-phase feeder terminals are required for constructing “Type E Starters” with an insulated three-phase busbar system (see “Busbar Accessories”).

Note:

According to CSA, the terminal blocks and the phase barriers can be omitted when the device is used as a “Self-Protected Combination Motor Controller” (Type E).

Link modules

Starters can be easily assembled from single devices with the help of the link modules. The following table shows the various possible combinations for devices with screw connection or spring-type terminals.

Combination device	3RV motor starter protector Size	3RT contactor; 3RW30/40 soft starters; 3RF34 solid-state contactors Size	Link Modules	
			Screw terminals	Spring-type terminals
Link modules for connecting switching devices to 3RV motor starter protectors ¹⁾				
3RT2 contactors with AC or DC coil	S00	S00	3RA19 21- 1DA00	3RA29 11- 2AA00
	S0	S00		—
3RT contactors with AC coil	S00	S0	3RA29 21-1AA00	—
	S0	S0	—	3RA29 21-2AA00
	S2	S2	3RA19 31-1AA00	—
	S3	S3	3RA19 41-1AA00	—
3RT contactors with DC coil	S00	S0	3RA29 21-1BA00	—
	S0	S0	—	3RA29 21-2AA00
	S2	S2	3RA19 31-1BA00	—
	S3	S3	3RA19 41-1BA00	—
3RW30 soft starters	S00	S00	3RA29 21-1BA00	3RA29 11-2GA00
	S0	S00	—	—
3RW30/3RW40 soft starters	S00	S0	3RA29 21-1BA00	—
	S0	S0	—	3RA29 21-2GA00
3RF34 solid-state contactors	S00\S0	S00	3RA29 21-1BA00	—
Hybrid link modules for connecting contactors with spring-type terminals to 3RV2 motor starter protectors with screw connection ¹⁾				
3RT2 contactors with AC or DC coil	S00	S00	3RA29 11-2FA00	—
	S0	S0	3RA29 21-2FA00	—

¹⁾ Link modules and hybrid link modules cannot be used for 3RV2. 21-4PA1., 3RV2. 21-4FA1., 3RV27 and 3RV28 motor starter protectors.

3RV Motor Starter Protectors

Accessories

SIRIUS



Mounting accessories

Selection and ordering data

Version	For motor starter protector size	Innovations 3RV2/3RT2 Order No.	Classic 3RV1/3RT1 Order No.	Order Quantity
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Terminal blocks and phase barriers for "Self-Protected Combination Motor Controllers (Type E)" according to UL 508

Note:

UL 508 demands 1-inch clearance and 2-inch creepage distance at line side for "Combination Motor Controller Type E".

The following terminal blocks or phase barriers must be used on 3RV motor starter protectors.

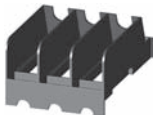
The terminal blocks or phase barriers cannot be used in combination with the 3RV19 .5 three-phase busbars.

For construction with three-phase busbars, see "Accessories for busbar"

3RV29 28-1H



3RV29 28-1K



3RV19 28-1H



Terminal blocks type E	For extended clearance and creepage distances (1 and 2 inch)	3RV29 28-1H	—	1 unit
	S00, S0	—	3RV19 28-1H	1 unit
	S0	—	3RT19 46-4GA07	1 unit
	S3	—		
Phase barriers				
For extended clearance and creepage distances (1 and 2 inch)	S00, S0	3RV29 28-1K	—	

Actuating voltage of contactor	Size 3RT contactor	3RV motor starter protector	Innovations 3RV2/3RT2 Order No.	Classic 3RV1/3RT1 Order No.	Order Quantity
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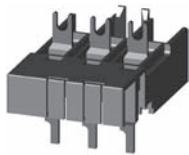
Link modules for motor starter protector to contactor ¹⁾

For mechanical and electrical connection between motor starter protector and contactor with screw terminals.

Single-unit packaging

AC/DC	S00	S00/S0	3RA19 21-1DA00	—	1 unit
AC	S0	S00/S0	3RA29 21-1AA00	—	1 unit
AC	S2	S2	—	3RA19 31-1AA00	1 unit
AC	S3	S3	—	3RA19 41-1AA00	1 unit
DC	S0	S00/S0	3RA29 21-1BA00	—	1 unit
DC	S2	S2	—	3RA19 31-1BA00	1 unit
DC	S3	S3	—	3RA19 41-1BA00	1 unit

3RA29 21-1AA00



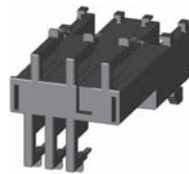
AC/DC	S00	S00/S0	3RA19 21-1D	—	10 units
AC	S0	S00/S0	3RA29 21-1A	—	10 units
DC	S0	S00/S0	3RA29 21-1B	—	10 units

For mechanical and electrical connection between motor starter protector and contactor with spring-type terminals.

Single-unit packaging

AC/DC	S00	S00	3RA29 11-2AA00	—	1 unit
AC ²⁾	S0	S0	3RA29 21-2AA00	—	1 unit
DC	S0	S0	3RA29 21-2AA00	—	1 unit

3RA29 11-2AA00



AC/DC	S00	S00	3RA29 11-2A	—	10 units
AC ²⁾	S0	S0	3RA29 21-2A	—	10 units
DC	S0	S0	3RA29 21-2A	—	10 units

Spacers

For compensating height on AC contactors

Single-unit packaging	S0	S0	3RA29 11-1CA00	—	1 unit
Multi-unit packaging	S0	S0	3RA29 11-1C	—	5 units

1) The link modules for motor starter protector to contactor cannot be used for the 3RV2. 21-4PA1., 3RV2. 21-4FA1., 3RV27 and 3RV28 motor starter protectors

Note

Size S0 link modules can be used up to max. 32 A.

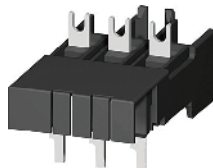
2) A spacer for height compensation on AC contactors size S0 is optionally available



Selection and ordering data

Size	Order No.	PU (UNIT, SET, M)	PS*	Weight approx.
3RW30, 3RW40 soft starters; 3RF34 solid-state contactors	3RV2 motor starter protectors			kg

Link modules for motor starter protector to soft starter¹⁾ and motor starter protector to solid-state contactor



Connection between motor starter protector and soft starter / solid-state contactor with screw terminals

Single-unit packaging

S00	S00/S0	
S0	S00/S0	

Multi-unit packaging

S00	S00/S0	
S0	S00/S0	

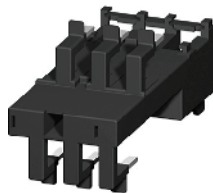
3RA29 21-1BA00

Screw terminals



3RA29 21-1BA00	1	1 unit	0.001
3RA29 21-1BA00	1	1 unit	0.001

3RA29 21-1B	1	10 units	0.001
3RA29 21-1B	1	10 units	0.001



Connection between motor starter protector and soft starter with spring-type terminals

Single-unit packaging

S00	S00	
S0	S0	

Multi-unit packaging

S00	S00	
S0	S0	

3RA29 21-2GA00

Spring-type terminals



3RA29 11-2GA00	1	1 unit	0.038
3RA29 21-2GA00	1	1 unit	0.072

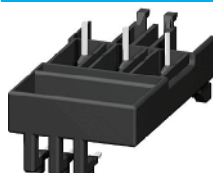
3RA29 11-2G	1	10 units	0.380
3RA29 21-2G	1	10 units	0.720

¹⁾ The link modules for motor starter protector to soft starter and for motor starter protector to solid-state contactor cannot be used for the 3RV2. 21-4PA1., 3RV2. 21-4FA1., 3RV27 and 3RV28 motor starter protectors.

Note:
Link modules can be used up to max. 32 A.

Actuating voltage of contactor	Size	Order No.	PU (UNIT, SET, M)	PS*	Weight approx.
	3RT2 contactors	3RV2 motor starter protectors			kg

Hybrid link modules for motor starter protector to contactor¹⁾



For mechanical and electrical connection between motor starter protector with screw terminals and contactor with spring-type terminals

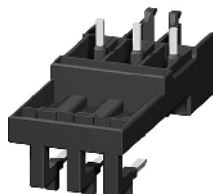
Single-unit packaging

AC/DC	S00	S00	
AC ²⁾ /DC	S0	S0	

Multi-unit packaging

AC/DC	S00	S00	
AC ²⁾ /DC	S0	S0	

3RA29 11-2FA00



Spacers²⁾

for compensating the height on AC contactors

Single-unit packaging	S0	S0	
Multi-unit packaging	S0	S0	

3RA29 21-2FA00

3RA29 11-2FA00	1	1 unit	0.029
3RA29 21-2FA00	1	1 unit	0.056

3RA29 11-2F	1	10 units	0.290
3RA29 21-2F	1	10 units	0.560

3RA29 11-1CA00	1	1 unit	0.001
3RA29 11-1C	1	5 units	0.001

¹⁾ The hybrid link modules for motor starter protector to contactor cannot be used for the 3RV2. 21-4PA1., 3RV2. 21-4FA1., 3RV27 and 3RV28 motor starter protectors.

²⁾ A spacer for height compensation on AC contactors size S0 is optionally available.

Note:
Hybrid link modules can be used up to max. 32 A.



Mounting accessories

Selection and ordering data


Type	Design	For SIRIUS MSP size	Order No.	Order Quantity	Weight approx. (kg)
Isolator module					
3RV19 38-1A with padlock 	3RV29 28-1A with padlock 	Visible isolating distance for isolating individual motor starter protectors from the network, lockable in isolating position.	S00, S0	3RV29 28-1A	1 unit 0.132
			S2	3RV19 18-5B	1 unit 0.29
Auxiliary terminal, 3 pole					
3RT19 46-4F 	For connection of auxiliary and control cables to the main conductor connections	S3	3RT19 46-4F	1 unit	0.10
Covers					
3RV1 (size S3) with 3RT19 46-4EA1 	Terminal cover for box terminals	Additional touch guard to be fitted at the box terminals (2 units can be mounted per MSP)	S2	3RT19 36-4EA2	1 unit 0.10
			S3	3RT19 46-4EA2	1 unit
3RV29 28-4AA00 	Terminal cover for cable lug and bar connection	For maintaining the required voltage clearance and as protection against the equipment being touched if distant box terminals are used (2 units can be mounted per MSP)	S3	3RT19 46-4EA1	1 unit 0.03
3RV29 08-4AA10 	Terminal cover for devices with ring lug terminal connection	<ul style="list-style-type: none"> • Main current level • For transverse auxiliary switches 	S00, S0 ¹⁾	3RV29 28-4AA00	1 unit 0.01
			S00, S0 ¹⁾	3RV29 08-4AA10	1 unit 0.01
3RV29 08-0P 	Scale cover	For covering the current setting scale. Packing unit: Bag with 10 scale covers.	S00, S0 ²⁾ S2, S3	3RV29 08-0P 3RV19 08-0P	10 units 10 units
Fixing Material					
3RV29 28-0B 	Push-in lugs For screwing the motor starter protector onto mounting plates.	Two units are required for each motor starter protector.	S00, S0	3RV29 28-0B	10 units 0.10
Tools for opening spring-type terminals by hand					
3RA29 08-1A 	Screwdriver For all SIRIUS devices with spring terminals	Length approx. 200 mm, 3.0 mm x 0.5 mm, titanium gray/black partially insulated	S00, S0, S2, S3	3RA29 08-1A	1 unit 0.045

1) Compatible with 3RV20 motor starter protectors.

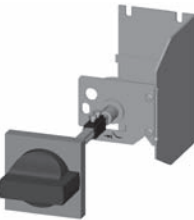
2) Compatible with 3RV20, 3RV21, and 3RV24 motor starter protectors.






Selection and ordering data

Type	Details	For SIRIUS MSP size	Order No.	Approx. Wt. (kg)	
Door-coupling rotary operating mechanisms for Classic and Innovations					
3RV29 26-0B 	The door-coupling rotary operating mechanisms consist of a knob, a coupling driver and a 130/330 mm long extension shaft (6 mm x 6 mm). The door-coupling rotary operating mechanisms are designed to degree of protection IP65. The door locking device prevents accidental opening of the control cabinet door in the ON position of the motor starter protector. The OFF position can be locked with up to 3 padlocks.	S00, S0	3RV29 26-0B	0.111	
			S2, S3	3RV29 26-0B	0.1
	Door-coupling rotary operating mechanisms (black)	Extension shaft 130 mm	S00, S0	3RV29 26-0K	0.324
		Extension shaft 330 mm	S2, S3	3RV29 26-0K	0.3
	EMERGENCY STOP door-coupling rotary operating mechanisms (red/yellow)	Extension shaft 130 mm	S00, S0	3RV29 26-0C	0.110
		Extension shaft 330 mm	S2, S3	3RV29 26-0C	0.1
		S00, S0	3RV29 26-0L	0.316	
		S2, S3	3RV29 26-0L	0.3	

Door-coupling rotary operating mechanisms for arduous conditions

Type	Details	For SIRIUS MSP size	Order No.	Approx. Wt. (kg)	
Door-coupling rotary operating mechanisms for arduous conditions					
3RV29 26-2C 	The door-coupling rotary operating mechanisms consist of a knob, a coupling driver, an extension shaft of 300 mm length (8 mm x 8 mm), a spacer and two metal brackets, into which the MSP is inserted. The door-coupling rotary operating mechanisms are designed for degree of protection IP 65. The door locking device reliably prevents accidental opening of the control cabinet door in the ON position of the MSP. The OFF position can be locked with up to 3 padlocks. Laterally mountable auxiliary releases and two-pole auxiliary switches can be used. The door-coupling rotary operating mechanisms thus meet the requirements for isolating functions according to IEC 60 947-2.	S00, S0	3RV29 26-2B	1.2	
			S2	3RV29 36-2B	1.6
	Door-coupling rotary operating mechanisms (gray)		S3	3RV29 46-2B	1.7
		EMERGENCY STOP door-coupling rotary operating mechanisms (red/yellow)	S00, S0	3RV29 26-2C	1.2
			S2	3RV29 36-2C	1.5
			S3	3RV29 46-2C	1.7

Enclosures and front plates

Type	Details	For SIRIUS MSP size	Order No.	Approx. Wt. (kg)	
Front Plates					
3RV19 23-4B + 3RV19 23-4G 	Molded-plastic front plate with rotary operating mechanism, lockable. For actuation of 3RV motor starter protectors in any enclosure	S00, S0 S2, S3	3RV19 23-4B	0.08	
	Molded-plastic front plate with EMERGENCY STOP door-coupling rotary operating mechanisms (red/yellow)	S00, S0 S2, S3	3RV19 23-4E	0.08	
	Holders for front plates	Holder is mounted on front plate, MSP size S00 or S0 with or without accessories is snapped in	S00, S0	3RV19 23-4G	0.19
Enclosures for wall mounting					
3RV19 23-1CA00 	Molded-plastic enclosure for wall mounting with rotary operating mechanism, lockable, with metric cable gland	Degree of protection IP 55, with N and PE terminals, lockable in 0 position overall width: 54 mm (for switch + lateral auxiliary switch)	S00, S0	3RV19 23-1CA00	0.26
			S00, S0	3RV19 23-1DA00	0.30
	3RV19 23-1DA01 	Cast aluminum surface-mount enclosure with rotary operating mechanism, lockable, with metric cable gland	Degree of protection IP 65, with PE terminals, ¹⁾ lockable in 0 position overall width: 72 mm (for MSP + lateral auxiliary switch + auxiliary release)	S00, S0	3RV19 23-1DA01
S00, S0				3RV19 23-1GA01	1.01
	Cast aluminum surface-mount enclosure with EMERGENCY-OFF rotary operating mechanism, red/yellow, lockable, with metric cable gland	Degree of protection IP 65, with PE terminals, ¹⁾ lockable in 0 position overall width: 72 mm (for MSP + lateral auxiliary switch + auxiliary release)	S00, S0	3RV19 23-1GA01	1.01

1) If required, an additional N terminal can be mounted (e.g. 8WA10 11-1BG11).