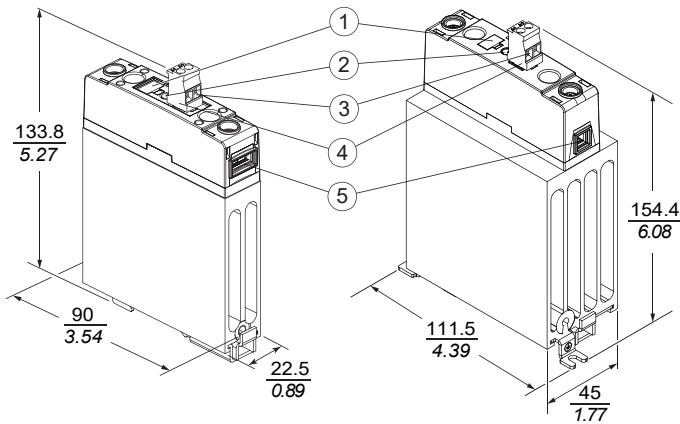


## 1 Product Descriptions



22.5 mm Contactor Configuration (Spring or Screw Input)

### Solid State Relays

- ① - Clip-in legend
- ② - Control input voltage LED indicator
- ③ - Control input connection terminal
- ④ - Pluggable Spring / Screw input connectors\*
- ⑤ - Load output connection terminal

(\*) - If the input connectors (spring / screw) is misplaced or damaged, please replace it with the following input connectors:

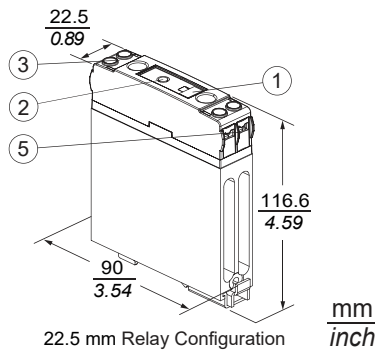
a) Pluggable Screw Input Connector

- Phoenix Contact - MVSTBR 2,5/2-ST
- Wurth Elektronik - 691351700002
- Camdenboss - CTBP92VG/2R

b) Pluggable Spring Input Connector

- Phoenix Contact - FK 2,5/2-ST

45 mm Contactor Configuration (Spring or Screw Input)

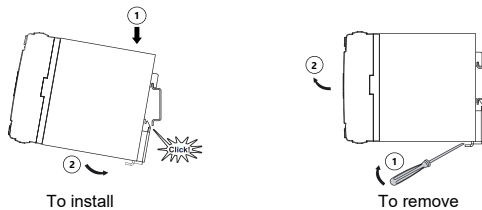


22.5 mm Relay Configuration

## 2 Mounting Instructions

### DIN rail mounting

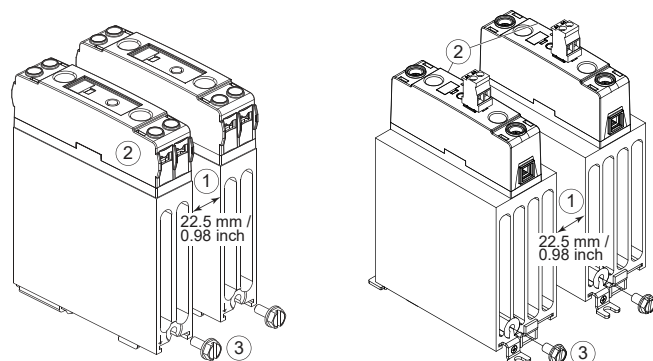
Rail 35 mm (1.38 in.) (IEC/EN 60715)



### Note

Removing product from 35 mm rail incorrectly by not using the appropriate tool would damage the latching system. Heatsink fins should always be positioned in vertical orientation in order to ensure proper heat ventilation.

## 3 Installation Instructions

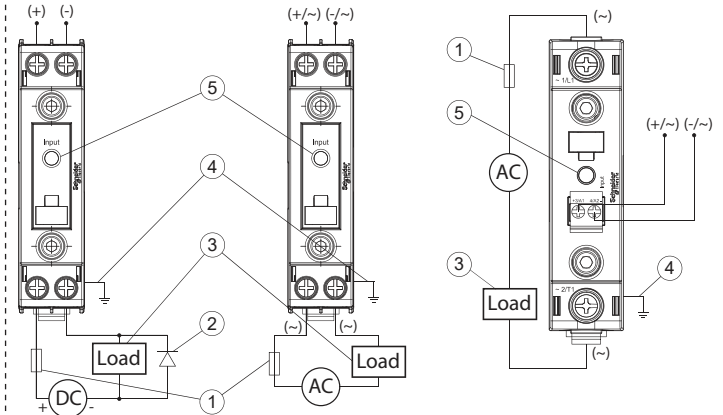


- ① - Recommended distance between SSD1●●● and adjacent unit is 22.5 mm / 0.98 inch minimum; to ensure heat dissipation through natural airflow.
- ② - The derating curve can be found on the side of the device. Ensure the ambient temperature and load current follows the derating curve. If the distance between units is shorter than 22.5 mm / 0.98 inch, the derating curve for "Multiple Units" must be followed.
- ③ - Protective Earth (PE) screw type recommended is 10-32 UNC standard (recommended torque 33.3 Nm / 29 in-lb), not provided with SSR. Through the use of a DIN rail ground (protective conductor) terminal block, the DIN rail itself can be used as the grounding bus bar. In this case, the zinc plated steel material used for the DIN rail clip permits a secure path to ground and avoids the need of a further PE connection.
- ④ - Surface of the solid state relay will be hot during operation. Ensure that the surface have sufficiently cooled down before attempting to touch.
- ⑤ - If the copper lugs (SSRAL1/SSRAL2) are used, the minimum spacing of 6mm in between the copper lugs must be followed. Refer to SSRAL1 / SSRAL2 instruction sheet before installation.



- en For translated instructions, please scan the QR code.
- fr Pour les fiches d'instructions traduites, veuillez scanner le code QR.
- de Für übersetzte Anweisungen scannen Sie bitte den QR-Code.
- es Para las hojas de instrucciones traducidas, por favor escanee el código QR.
- it Per i fogli di istruzioni tradotti, scannerizzare il codice QR.
- zh 对于翻译的说明书, 请扫描QR码。

## 4 Wiring Diagram



SSD1D●●●●●C1

Relay Configuration (DC type)

SSD1A●●●●●C1


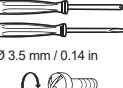
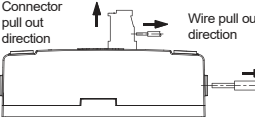

Relay Configuration (AC type)

SSD1A●●●●●C2/C3

Contact Configuration (AC only)

- ① - Refer to the table in the next page for recommended protection devices
- ② - DC inductive loads must be diode suppressed
- ③ - Load can be wired to either load output terminal. Proper polarity must be observed for DC type
- ④ - Connect Protective Earth (PE) to Heat Sink before turning on power
- ⑤ - LED indicates only input status. It does not represent output status

## 5 Recommended Wire sizes, Torque and Pull Out Force

Description	Wire		Torque		Pull out force			
	Wire Stripping length* 		Phillips / Slotted pan head 					
			Ø 3.5 mm / 0.14 in 		Wire		Connector	
Terminal	AWG	mm <sup>2</sup>	N.m	lb-in	N	lb	N	lb
22.5 mm Control Input	18...10	1...6	1.5 - 1.7	13 - 15	60	13.5	-	-
22.5 mm Relay - Load Output	18...10	1...6	1.5 - 1.7	13 - 15	60	13.5	-	-
22.5 mm Contactor - Load Output	20...8	0.75...10	2 - 2.2	18 - 20	60	13.5	-	-
45 mm Contactor - Load Output	18...3	1...26.67	2 - 2.2	18 - 20	60	13.5	-	-
Pluggable Screw Input	30...12	0.05...3.30	0.5	5	60	13.5	20	4.5
Pluggable Spring Input	26...12	0.13...3.30	N.A.	-	60	13.5	25	5.6

\* Wire stripping length for relay configuration (input and output) : 10 mm

\* Wire stripping length for contactor configuration: 8 mm (for pluggable spring/screw input connectors), 10 mm (for output)

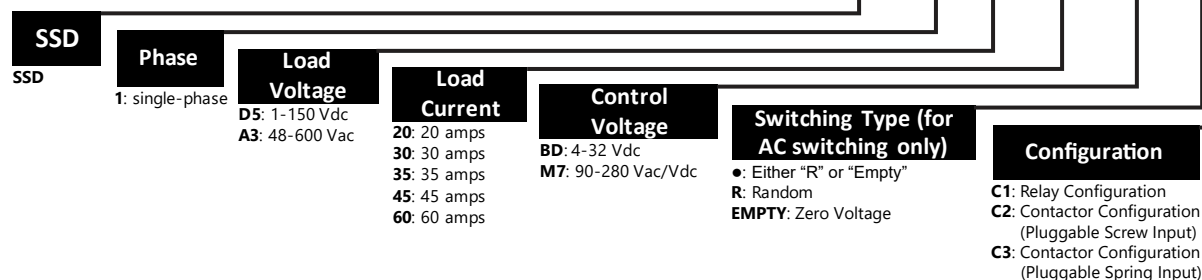
## 6 Terminals and Recommended Accessories

Compatible Terminals (for 22.5mm Contactor configuration references only)				
Accessories	W	D	AWG	
Fork Lug	11.4 mm (0.45 in)	8 mm (0.168 in)	-	
Ring Lug	11.4 mm (0.45 in)	8 mm (0.168 in)	-	
Copper Lug	-	-	AWG 6 (13.3 mm <sup>2</sup> ) to AWG 0 (53.5 mm <sup>2</sup> )	
Copper Lug	-	-	AWG 14 (2.1 mm <sup>2</sup> ) to AWG 6 (13.3 mm <sup>2</sup> )	
Recommended Accessories				
Copper lug (for 22.5mm Contactor configuration references only)			Clip-in Legend	
SSRAL1 [AWG 6 (13.3 mm <sup>2</sup> ) to AWG 0 (53.5 mm <sup>2</sup> )] SSRAL2 [AWG 14 (2.1 mm <sup>2</sup> ) to AWG 6 (13.3 mm <sup>2</sup> )]			SSDZLB [BLANK STRIPS] SSDZLN1 [NUMBERED 1 TO 10 STRIPS] SSDZLN2 [NUMBERED 11 TO 20 STRIPS]	

Note  
Product may malfunction if dropped, please replace product if necessary.

## 7 Product Nomenclature, Configurations and References

### Reference example:

**SSD 1 A3 35 BD R C1**

Recommended fuses / circuit breakers for type 1 or 2 coordination protection

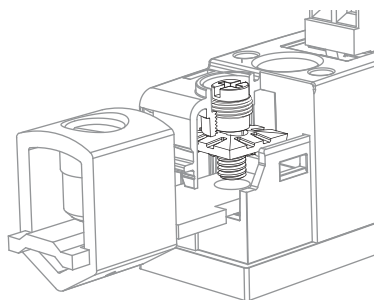
Reference	Control Voltage	Current Type	Load Voltage (AC/DC)	I <sub>FT</sub> 50/60 Hz	Type 1 Coordination (100kA)			Type 2 Coordination (100kA)	
					Type	Fuse	Circuit Breaker	Fuse	
					Brand	Mersen / Bussmann	Schneider C60	Eaton/Mersen	
SSD1D520BDC1	4...32 Vdc	20 A	5...150 Vdc	-	Class K5	OT35**	-	-	-
SSD1D530BDC1	4...32 Vdc	30 A	5...150 Vdc	-	Class K5	OT40**	-	-	-
SSD1A320BD●C1	4...32 Vdc	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	Curve B, IC60H 10A	FWC-16A10F	
SSD1A320BD●C2	4...32 Vdc	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	-	FWC-16A10F	
SSD1A320BD●C3	4...32 Vdc	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	-	FWC-16A10F	
SSD1A320M7●C1	90...280 Vac/Vdc (*)	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	Curve B, IC60H 10A	FWC-16A10F	
SSD1A320M7●C2	90...280 Vac/Vdc (*)	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	-	FWC-16A10F	
SSD1A320M7●C3	90...280 Vac/Vdc (*)	20 A	48...600 Vac	409/375 A <sup>2</sup> S	Class J	JKS-35	-	FWC-16A10F	
SSD1A335BD●C1	4...32 Vdc	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-35	Curve B, IC60H 25A	FWC-32A10F	
SSD1A335BD●C2	4...32 Vdc	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-100	Curve B, IC60H 63A	FWP-50A10F	
SSD1A335BD●C3	4...32 Vdc	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-100	Curve B, IC60H 63A	FWP-50A10F	
SSD1A335M7●C1	90...280 Vac/Vdc (*)	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-35	Curve B, IC60H 25A	FWC-32A10F	
SSD1A335M7●C2	90...280 Vac/Vdc (*)	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-100	Curve B, IC60H 63A	FWP-50A10F	
SSD1A335M7●C3	90...280 Vac/Vdc (*)	35 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-100	Curve B, IC60H 63A	FWP-50A10F	
SSD1A345BD●C2	4...32 Vdc	45 A	48...600 Vac	2563/2343 A <sup>2</sup> S	Class J	JKS-60	Curve B, IC60H 32A	FWP-40A14F	
SSD1A345BD●C3	4...32 Vdc	45 A	48...600 Vac	2563/2343 A <sup>2</sup> S	Class J	JKS-60	Curve B, IC60H 32A	FWP-40A14F	
SSD1A345M7●C2	90...280 Vac/Vdc	45 A	48...600 Vac	2563/2343 A <sup>2</sup> S	Class J	JKS-60	Curve B, IC60H 32A	FWP-40A14F	
SSD1A345M7●C3	90...280 Vac/Vdc	45 A	48...600 Vac	2563/2343 A <sup>2</sup> S	Class J	JKS-60	Curve B, IC60H 32A	FWP-40A14F	
SSD1A360BD●C2	4...32 Vdc	60 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-110	Curve B, IC60H 63A	A70QS63-22F	
SSD1A360BD●C3	4...32 Vdc	60 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-110	Curve B, IC60H 63A	A70QS63-22F	
SSD1A360M7●C2	90...280 Vac/Vdc	60 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-110	Curve B, IC60H 63A	A70QS63-22F	
SSD1A360M7●C3	90...280 Vac/Vdc	60 A	48...600 Vac	8320/7593 A <sup>2</sup> S	Class J	JKS-110	Curve B, IC60H 63A	A70QS63-22F	

● Denotes switching type - Refer to the nomenclature above.

\* For ambient operation temperature 60 °C to 80 °C, control voltage limited from 90 Vac/Vdc to 140 Vac/Vdc.

\*\* For 5kA Type 1 Coordination protection

## 8 Telescopic Screw Information



1. The telescopic screw option allows the screw and clamp to be raised out of the mating threads completely. This provides for the insertion and use of a ring or lug wire terminal.
2. A #2 Phillips head driver should be used with the telescopic screw. If a powered driver is used, avoid speeds above 500RPM.
3. Cutting threads in the cover plastic as the screw elevates is key to the elevating feature. It has a finite life and therefore not recommended to be used more than 50 times during the product lifetime.
4. Do not continue rotating the screw (in the elevating direction) once it freely rotates at the top of the plastic surface. The telescopic screw is capable of clearing 3.175 mm (0.125 in) between the terminal and the bottom of the screw. Insertion of a terminal or lug thicker than 3.175 mm (0.125 in) is not recommended.
5. When inserting the terminal ensure that the terminal hole is in line with the screw.
6. During tightening, be certain that the terminal is seated flat within the cavity, and that the clamping washer is secure against the upper surface of the terminal.
7. To prevent improper contact, when fork terminations or stranded wire are used, do not raise the telescopic screw out of the mating threads.

## 9 Safety Information

### ⚠ ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before servicing equipment.
- Confirm that the product power supply voltage and its tolerances are compatible with those of the network.
- Connect protective earth (PE) to Heat Sink before turning on power.
- Heatsink fins should always be positioned in vertical orientation in order to ensure proper heat ventilation.
- Install Fuse or Circuit Breaker before turning on power.

**Failure to follow this instruction will result in death or serious injury.**

### ⚠ CAUTION

#### EQUIPMENT OPERATION HAZARD

- Hot surface do not touch.

**Failure to follow this instruction can result in injury or equipment damage.**

- Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel.
- No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.