

Product data sheet

Specifications



Harmony, Solid state modular relay, 45 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...660 V AC

SSM1A445BD

⚠ Discontinued

⚠ Discontinued on: 31 October 2022

⚠ End-of-service on: 29 November 2022

Main

Range of product	Harmony Solid State Relays
Product or component type	Solid state relay up to 50 A
Device short name	SSM1
Number of phases	1 phase
Output switching mode	Zero voltage switching

Complementary

Mounting support	Symmetrical DIN rail
[In] rated current	45 A
Output voltage	48...660 V AC
[Uc] control circuit voltage	4...32 V DC
Tightening torque	0.6...0.7 N.m for input 1.36...1.7 N.m for output
Connections - terminals	Screw terminals: 1 x 0.2...1 x 3.3 mm ² , (AWG 24...AWG 12) for input Screw terminals: 1 x 0.2...1 x 8.4 mm ² , (AWG 24...AWG 8) for output
Maximum capacitance	8 pF for input/output
Insulation resistance	1000 MOhm at 500 V DC
Local signalling	LED (green) for input status
Switching voltage	4 V DC turn-on 1 V DC turn-off
Input current	14...17 mA
Solid state output type	Zero voltage switching SCR output
Load current	0.15...45 A
Transient overvoltage	1200 V
Surge current	625 A for 16.6 ms
Maximum voltage drop	<1.7 V on-state
Maximum I ² t for fusing	1620 A ² .s for 8.3 ms
Maximum leakage current	1 mA off-state

DV/Dt	500 V/ μ s off-state at maximum voltage
Response time	0.5 cycle (turn-on) 0.5 cycle (turn-off)
Overvoltage category	III
Net weight	0.476 kg

Environment

Dielectric strength	4 kV AC for input/output 4 kV AC for input or output to case
Pollution degree	2
Standards	IEC 60950-1 CSA C22.2 No 14 UL 508
Product certifications	EAC CSA UL
Marking	CE CSA EAC UL
IP degree of protection	IP20
Ambient air temperature for operation	-40...80 °C
Ambient air temperature for storage	-40...125 °C

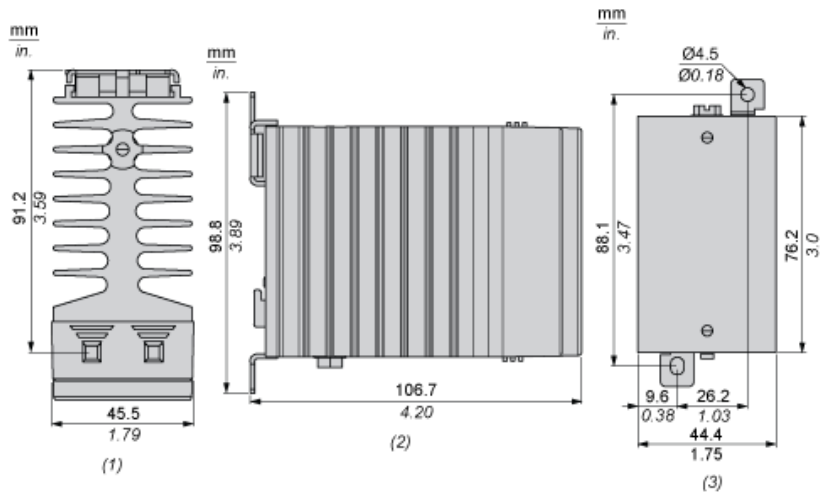
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.0 cm
Package 1 Width	11.5 cm
Package 1 Length	11.8 cm
Package 1 Weight	521.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	12
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	6.714 kg

Offer Sustainability

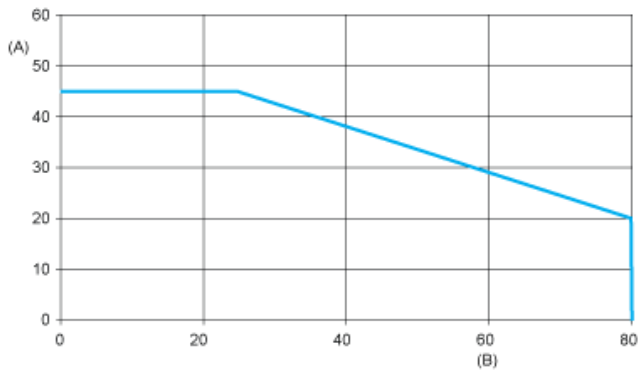
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Dimensions



- (1) Top view
- (2) Side view
- (3) Front view

Derating Curves



A : Load Current (Amperes)
B : Ambient Temperature (°C)

Recommended replacement(s)

SSM1A445BD is replaced by:

1x



Harmony, Solid state relay, 45 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...600 V AC
SSD1A345BDC2
