

SSP1D412BD

single phase relay, Harmony Solid State Relays, 12A, panel mount, DC switching, input 3.5 to 32V DC, output 1 to 150V DC



Main

Range of product	Harmony Solid State Relays
Product or component type	Solid state relay up to 20 A
Device short name	SSP1
Mounting support	Panel
Number of phases	1 phase
[In] rated current	12 A
Solid state output type	DC switching Mosfet output
Output switching mode	DC switching

Complementary

Minimum switching voltage	3.5 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Response time	0.1 ms (turn-on) 0.1 ms (turn-off)
Input current	10...15 mA
Load current	0.001...12 A
Surge current	31 A for 10 ms
Co-ordination type	Type 1 - 10 A miniature circuit breaker (MCB) - curve B Type 2 - 6 A miniature circuit breaker (MCB) - curve B
Maximum leakage current	0.3 mA off-state
Maximum voltage drop	<2.8 V on-state
Insulation resistance	1000 MOhm at 500 V DC
Maximum capacitance	50 pF for input/output
Dielectric strength	2.5 KV AC for input/output 2.5 kV AC for input or output to case
[Uimp] rated impulse withstand voltage	2.5 kV output to case
Tightening torque	1.5...1.7 N.m for input 2...2.2 N.m for output
Connections - terminals	Screw terminals: 0.2...3.3 mm ² , (AWG 24...AWG 12) with cable end for input Screw terminals: 0.5...5.26 mm ² , (AWG 20...AWG 10) with cable end for output Screw terminals: 0.2...3.3 mm ² , (AWG 24...AWG 12) without cable end for input Screw terminals: 0.5...8.26 mm ² , (AWG 20...AWG 8) without cable end for output Forked type tag connectors: 9.2 x 4 mm for input Ring lugs: 9.2 x 4 mm for input Forked type tag connectors: 11.7 x 4.5 mm for output Ring lugs: 11.7 x 4.5 mm for output
Thermal resistance	0.71 °C/W junction to case
LED indicator	LED, green for input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years
Net weight	89.2 g
Device presentation	Complete product

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Environment

Ambient air temperature for operation	-40...80 °C
Ambient air temperature for storage	-40...125 °C
Pollution degree	2
Overvoltage category	III
Product certifications	CE[RETURN]UL[RETURN]CSA[RETURN]EAC
Marking	CSA UL CE EAC
Standards	IEC 62314 UL 508 CSA C22.2 No 14-13 IEC 60950-1

Packing Units

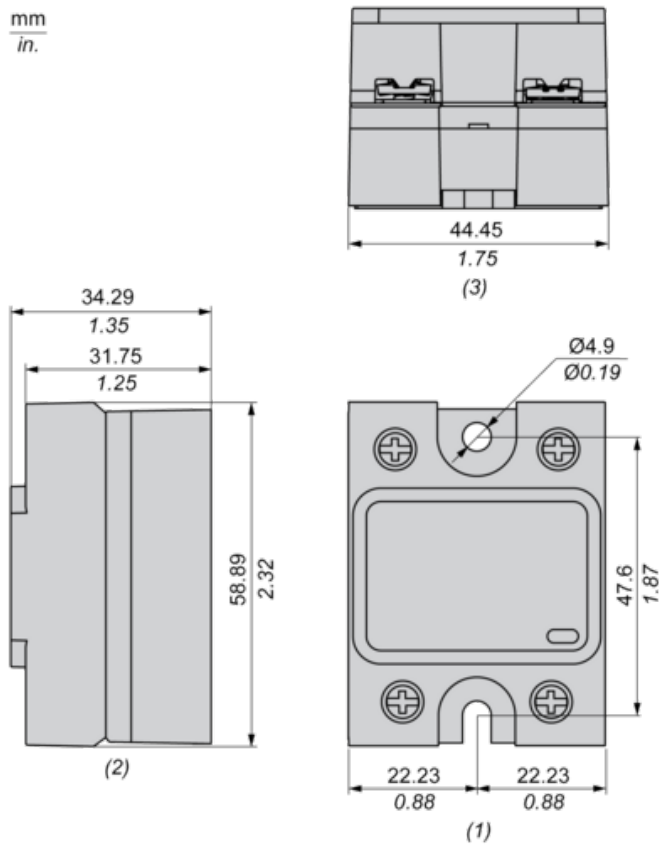
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.8 cm
Package 1 Width	4.8 cm
Package 1 Length	6.5 cm
Package 1 Weight	95.0 g
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.134 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

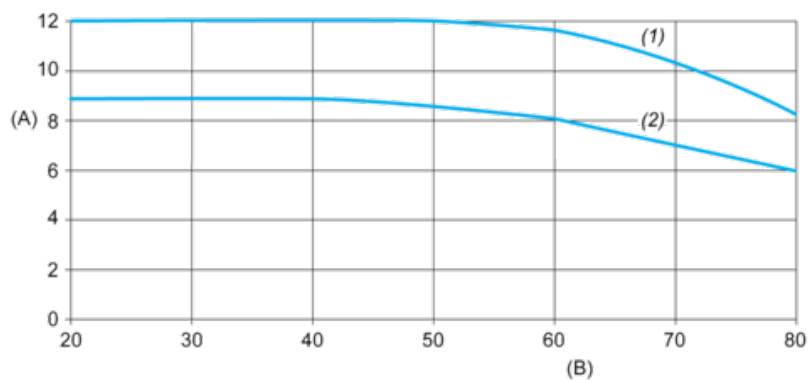
Dimensions

mm
in.



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

Derating Curves



A : Load Current (Arms)

B : Ambient Temperature (°C)

(1) For Heatsink SSRHP25

(2) No Heatsink