

SSP1A150BDT

single phase relay, Harmony Solid State Relays, 50A, panel mount, zero voltage switching, thermal pad, input 3 to 32V DC, output 24 to 300V AC



Main

Range of product	Harmony Solid State Relays
Provided accessory	Thermal pad
Product or component type	Solid state relay up to 50 A
Device short name	SSP1
Mounting support	Panel
Number of phases	1 phase
[In] rated current	50 A
Solid state output type	Zero voltage switching SCR output
Output switching mode	Zero voltage switching

Complementary

Minimum switching voltage	3 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Response time	0.5 cycle (turn-on) 0.5 cycle (turn-off)
Input current	10 mA at 12 V DC
Load current	0.15...50 A
Transient overvoltage	600 V
Surge current	625 A for 16.6 ms
Maximum I ² t for fusing	1621 A ² .S for 8.33 ms at 60 Hz 1770 A ² .s for 10 ms at 50 Hz
Co-ordination type	Type 1 - 40 A miniature circuit breaker (MCB) - curve B Type 2 - 32 A miniature circuit breaker (MCB) - curve B
Maximum leakage current	1 mA off-state
Maximum voltage drop	<1.15 V on-state
DV/dt	500 V/μs off-state at maximum voltage
Power factor	0.5 (with maximum load)
Motor controller rating	0.75 Hp 120 V AC 2 hp 240 V AC
Insulation resistance	1000 MOhm at 500 V DC
Maximum capacitance	10 pF for input/output
Dielectric strength	4 kV AC for input/output 4 kV AC for input or output to case
[Uimp] rated impulse withstand voltage	6 kV output to case 6 kV input to output
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	0.45 °C/W junction to case

Thermal pad impedance	0.48 °C-in²/W at 25 psi
LED indicator	LED, green for input
IP degree of protection	IP20
Safety reliability data	MTTFd = 1875.9 years B10d = 1731395
Net weight	89.2 g
Device presentation	Complete product

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]EAC[RETURN]CSA
Marking	CE EAC CSA UL
Standards	IEC 62314 CSA C22.2 No 14-13 IEC 60950-1 UL 508

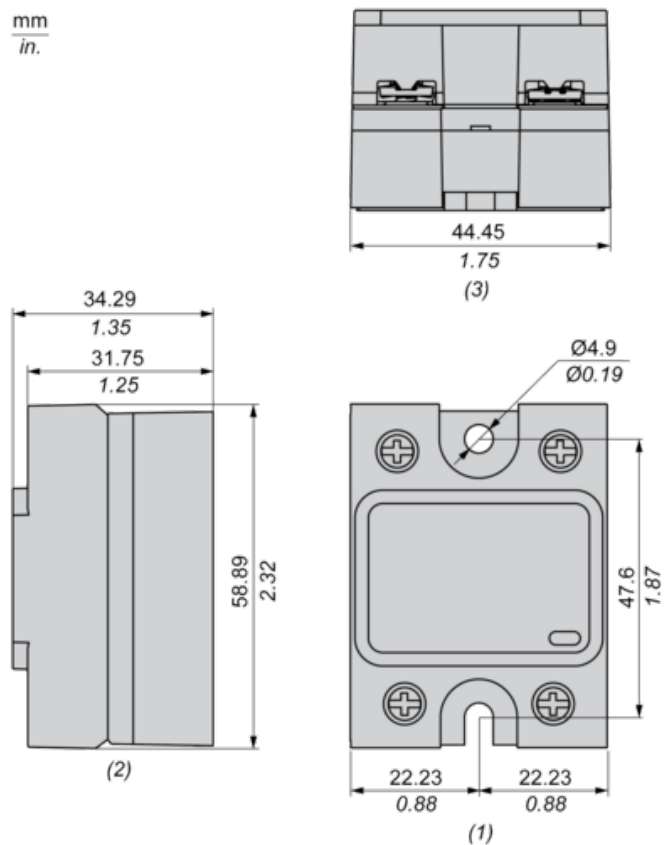
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.800 cm
Package 1 Width	4.800 cm
Package 1 Length	6.500 cm
Package 1 Weight	97.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.243 kg

Offer Sustainability

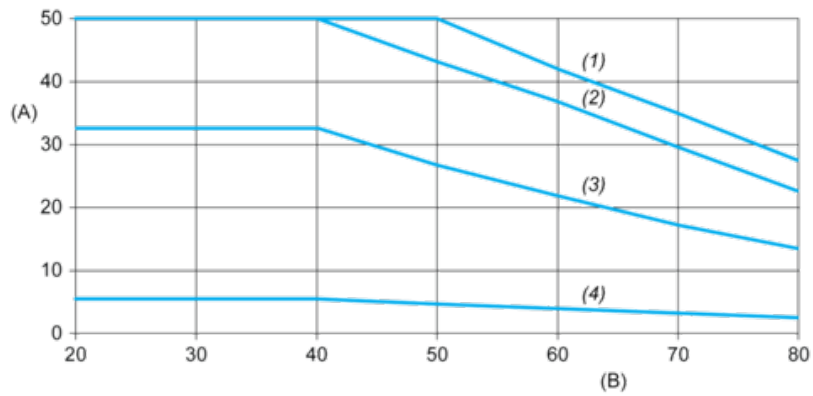
Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental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

Dimensions



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

Derating Curves



A : Load Current (Arms)

B : Ambient Temperature (°C)

(1) For Heatsink SSRHP07

(2) For Heatsink SSRHD10

(3) For Heatsink SSRHP17

(4) No Heatsink