

SSP1A450BD

Harmony, Solid state relay, 50 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...660 V AC



Main

Range of Product	Harmony Solid State Relays
Product or Component Type	Solid state relay up to 50 A
Device short name	SSP1
Mounting Support	Panel
Number of phases	1 phase
Line Rated Current	50 A
Solid state output type	Zero voltage switching SCR output
Output switching mode	Zero voltage switching

Complementary

[Uc] control circuit voltage	4...32 V DC
Minimum switching voltage	4 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	7...12 mA
Output voltage	48...660 V AC
Load current	0.15...50 A
Transient overvoltage	1200 V
Surge current	625 A 16.6 ms
Maximum I ² t for fusing	1770 A ² .S for 10 ms at 50 Hz 1629 A ² .s for 8.33 ms at 60 Hz
Co-ordination type	Type 1 - 40 A miniature circuit breaker (MCB) B Type 2 - 32 A miniature circuit breaker (MCB) 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 5 hp 480 V AC
Insulation resistance	1000 MOhm at 500 V DC
Maximum capacitance	8 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 input Screw terminals 0.5...5.26 mm ² , AWG 20...AWG 10) with cable end output Screw terminals 0.2...3.3 mm ² , AWG 24...AWG 12) without cable end input Screw terminals 0.5...8.26 mm ² , AWG 20...AWG 8) without cable end output Forked type tag connectors 9.2 x 4 mm input Ring lugs 9.2 x 4 mm input Forked type tag connectors 11.7 x 4.5 mm output Ring lugs 11.7 x 4.5 mm output
Thermal resistance	0.45 °C/W junction to case

LED indicator	LED, green input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years
Net Weight	3.15 oz (89.2 g)
Device presentation	Complete product

Environment

Ambient air temperature for operation	-40...176 °F (-40...80 °C)
Ambient Air Temperature for Storage	-40...257 °F (-40...125 °C)
Pollution degree	2
Overvoltage category	III
Product Certifications	CSA UL EAC CE
Marking	UL CSA EAC CE
Standards	CSA C22.2 No 14-13 EN/IEC 60950-1 EN/IEC 62314 UL 508

Ordering and shipping details

Category	22375 - INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
GTIN	3606485441870
Nbr. of units in pkg.	1
Package weight(Lbs)	3.39 oz (96 g)
Returnability	No
Country of origin	MX

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.50 in (3.8 cm)
Package 1 width	1.89 in (4.8 cm)
Package 1 Length	2.64 in (6.7 cm)
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Weight	6.92 lb(US) (3.14 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	5.91 in (15 cm)
Package 2 Length	15.75 in (40 cm)

Offer Sustainability

Sustainable offer status	Green Premium product
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
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration

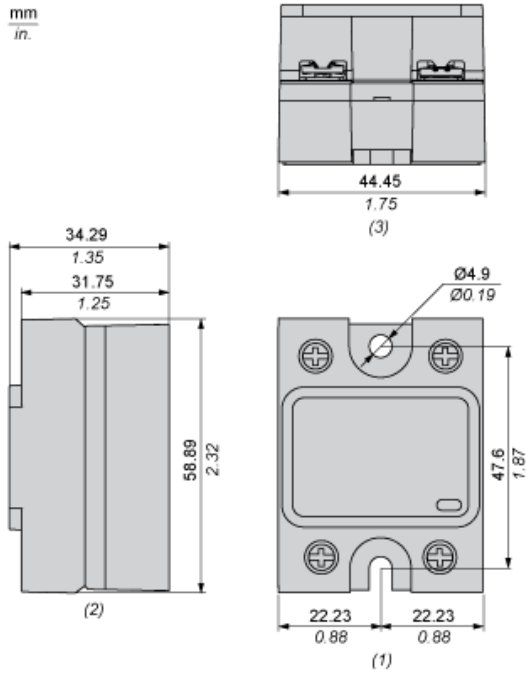
Environmental Disclosure

 [Product Environmental Profile](#)

Circularity Profile

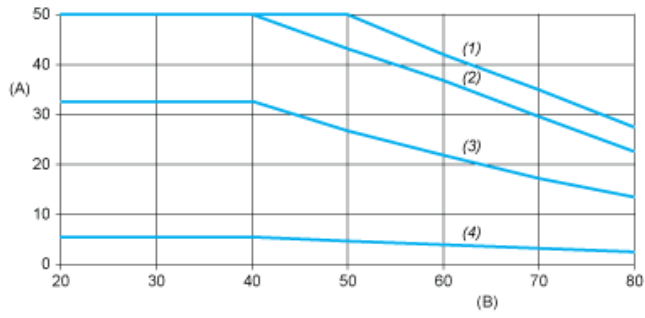
 [End Of Life Information](#)

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