Product data sheet

Specification





single phase relay, Harmony Solid State Relays, 50A, panel mount, zero voltage switching, thermal pad, input 4 to 32V DC, output 48 to 660V AC

SSP1A450BDT

Product availability: Stock - Normally stocked in distribution facility

Price*: 40.85 USD

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
Line Rated Current	50 A
Solid State Output Type	SCR output Zero voltage switching
Output Switching Mode	Zero voltage switching

Complementary

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	712 mA
Load Current	0.1550 A
Transient Overvoltage	1200 V
Surge Current	625 A 16.6 ms
Maximum I ² T For Fusing	1770 A².s for 10 ms at 50 Hz 1629 A².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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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	1.51.7 N.m for input 22.2 N.m for output
Connections - Terminals	Screw terminals 0.23.3 mm², AWG 24AWG 12) with cable end input Screw terminals 0.55.26 mm², AWG 20AWG 10) with cable end output Screw terminals 0.23.3 mm², AWG 24AWG 12) without cable end input Screw terminals 0.58.26 mm², AWG 20AWG 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
Thermal Pad Impedance	0.48 °C-in²/W at 25 psi
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	-40176 °F (-4080 °C)
Ambient Air Temperature For Storage	-40257 °F (-40125 °C)
Pollution Degree	2
Overvoltage Category	III
Product Certifications	UL CE EAC CSA
Marking	EAC UL CE CSA
Standards	CSA C22.2 No 14-13 UL 508 IEC 60950-1 IEC 62314

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
Gtin	3606485442068
Returnability	Yes
Country Of Origin	US

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	1.50 in (3.800 cm)
Package 1 Width	1.89 in (4.800 cm)
Package 1 Length	2.56 in (6.500 cm)
Package 1 Weight	3.42 oz (97.000 g)
Unit Type Of Package 2	S01
Number Of Units In Package 2	30
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	5.91 in (15.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	7.17 lb(US) (3.250 kg)

Sustainability Green Premium*

Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance



Mercury Free



Rohs Exemption Information

Yes

Certifications & Standards

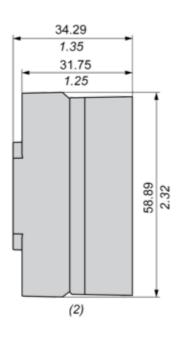
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
Circularity Profile	End of Life Information
Environmental Disclosure	Product Environmental Profile
China Rohs Regulation	China RoHS declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Reach Regulation	REACh Declaration

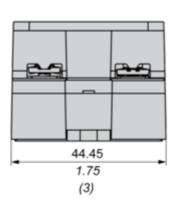
Jun 4, 2024

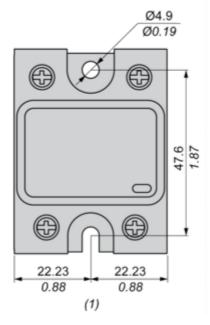
Dimensions Drawings

Dimensions

 $\frac{\text{mm}}{in.}$



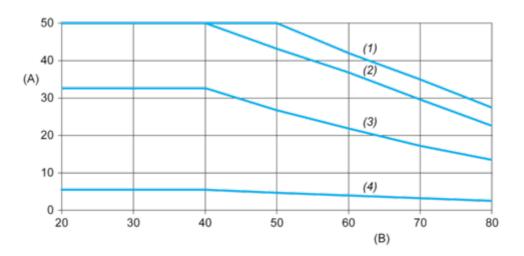




- (1) Front view
- (2) Side view
- (3) Bottom view

Performance Curves

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