## **Product data sheet**

Specification





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

SSP1A450BD

Product availability: Non-Stock - Not normally stocked in distribution facility

Price\*: 38.55 USD

#### Main

Range of Product	Harmony Solid State Relays
Product or Component Type	Panel mount relay
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

test button	Without test button
[Uc] control circuit voltage	432 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	712 mA
Output voltage	48660 V AC
load current	0.1550 A
Transient overvoltage	1200 V
Surge current	625 A 16.6 ms
Maximum I <sup>2</sup> 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)

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

Motor controller rating	0.75 hp 120 V AC
Motor controller rating	2 hp 240 V AC
	5 hp 480 V AC
	3 TIP 460 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	6 kV output to case
voltage	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
LED indicator	LED, green input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395
	MTTFd = 1875.9 years
Net Weight	3.1 oz (89.2 g)
device presentation	Complete product

### **Environment**

Ambient Air Temperature for Operation	-40.0000000000176.0000000000 °F (-4080 °C)
Ambient Air Temperature for Storage	-40.0000000000257.00000000000 °F (-40125 °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 IEC 60950-1 IEC 62314 UL 508

# Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3606485441870
Returnability	No
Country of origin	MX

## **Packing Units**

•	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.5 in (3.8 cm)
Package 1 Width	1.9 in (4.8 cm)
Package 1 Length	2.6 in (6.7 cm)
Package 1 Weight	3.4 oz (96.0 g)
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	5.9 in (15.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	6.92 lb(US) (3.14 kg)

## Sustainability Green Premium

**Green Premium**<sup>TM</sup> **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-CO<sub>2</sub> 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

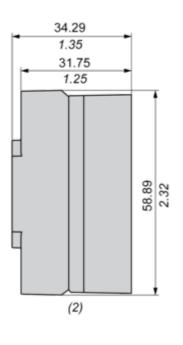
#### **Certifications & Standards**

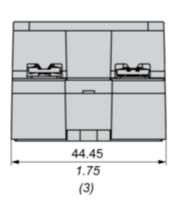
REACh Declaration
Pro-active compliance (Product out of EU RoHS legal scope)
China RoHS declaration
Product Environmental Profile
End of Life Information
WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and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

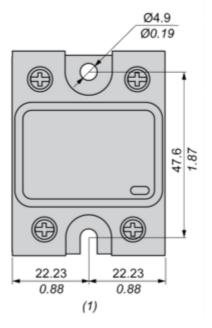
#### **Dimensions Drawings**

#### **Dimensions**

mm in.



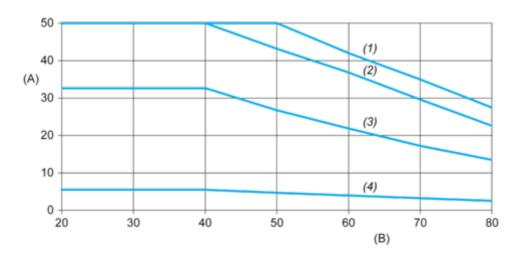




- (1) Front view
- (2) Side view
- (3) Bottom view

#### 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