

single phase panel, Harmony Solid State Relays, 90A, panel mount, zero voltage switching, thermal pad, input 4...32V DC, output 48...660V AC

SSP1A490BDT

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

Main

Range of Product	Harmony Solid State Relays	
Provided accessory	Thermal pad	
Product or Component Type	Panel mount relay	
Device short name	SSP1	
Mounting Support	Panel	
Number of phases	1 phase	
Line Rated Current	90 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	0.1590 A	
Transient overvoltage	1200 V	
Surge current	1200 A 16.6 ms	
Maximum I ² t for fusing	5976 A².s for 8.33 ms at 60 Hz 6560 A².s for 10 ms at 50 Hz	
Co-ordination type	Type 1 - 63 A miniature circuit breaker (MCB) B Type 2 - 50 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	1.5 hp 120 V AC 3 hp 240 V AC 7.5 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	1.51.7 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	0.27 °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	MTTFd = 1875.9 years B10d = 1731395	
Net Weight	3.1 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 CSA CE EAC	
Marking	EAC UL CE CSA	
Standards	CSA C22.2 No 14-13 IEC 60950-1 UL 508 IEC 62314	

Ordering and shipping details

Category	US10CP222375	
Discount Schedule	0CP2	
GTIN	3606485442099	
Returnability	Yes	
Country of origin	MX	

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	3.527 oz (100.000 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	7.496 lb(US) (3.400 kg)	



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

∇ Environmental footprint	
Carbon footprint (kg CO2 eq, Total Life cycle)	9391
Environmental Disclosure	Product Environmental Profile

Use Better

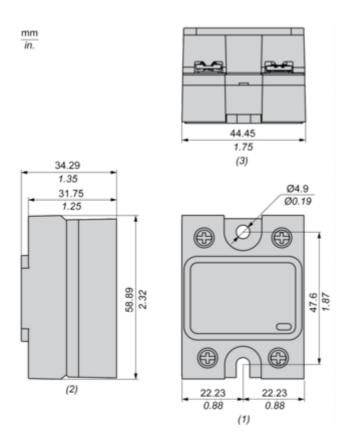
⊗ Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	134201bc-d293-4667-9cca-10a7f11729e0
REACh Regulation	REACh Declaration
California proposition 65	WARNING: 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

Use Again

○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No

Dimensions Drawings

Dimensions

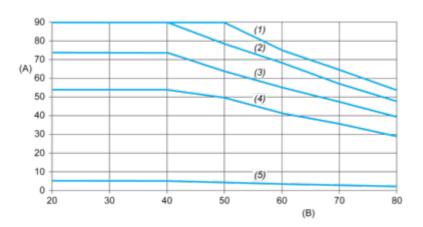


- (1) Front view
- (2) Side view
- (3) Bottom view

Jul 5, 2025

Performance Curves

Derating Curves



- A: Load Current (Arms)
- **B**: Ambient Temperature (°C)
- (1) For Heatsink SSRHP02
- (2) For Heatsink SSRHP05
- (3) For Heatsink SSRHP07
- (4) For Heatsink SSRHD10
- (5) No Heatsink

Technical Illustration

Dimensions

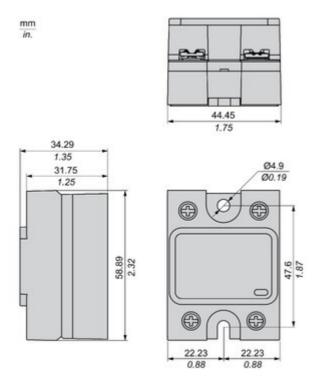
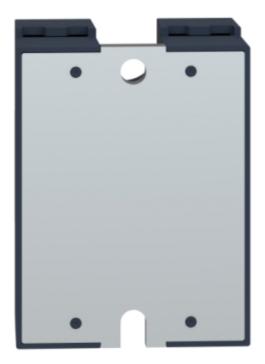


Image of product / Alternate images

Alternative







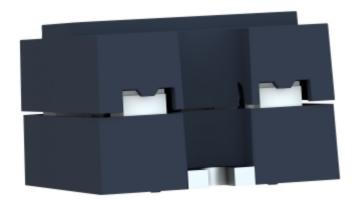






Image of product in real life situation

