

SSP1A450BDS

SSR-panel mount-thermal pad-input 4-32 VDC,output 48-660 VAC,50A with Diagnostic



Main

Range of product	Zelio Relay
Product or component type	Solid state relay
Provided equipment	Thermal pad
Device short name	SSP1
Mounting support	Panel
Network number of phases	1 phase
Contacts type and composition	1 NO
[In] rated current	50 A
Solid state output type	Zero voltage switching SCR output

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 limits	7...12 mA
Output voltage	48...660 V AC
Load current	0.15...50 A
Absolute maximum voltage	1200 V
Surge current	<= 625 A for 16.6 ms
Maximum I ² t for fusing	1770 A ² .s for 10 ms at 50 Hz half cycle 1629 A ² .s for 8.33 ms at 60 Hz half cycle
Protection device type	Type 1 - 40 A miniature circuit breaker (MCB) - curve B Type 2 - 32 A miniature circuit breaker (MCB) - curve B
Leakage current	<= 1 mA off-state
Voltage drop	1.15 V on-state
DV/dt	500 V/μs off-state at maximum voltage
Cos phi	0.5 with maximum load
Motor power hp	5 hp 480 V AC 0.75 hp 120 V AC 2 hp 240 V AC
Insulation resistance	1000 MOhm at 500 V DC
Capacitance unbalance	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 17.7...19.47 lb.in for output 13.27...15.04 lb.in for input 0.5...0.6 N.m for auxillary terminal 4.4...5.3 lb.in for auxillary terminal
Connections - terminals	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 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

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Screw terminals : 0.2...3.3 mm², (AWG 24...AWG 12) without cable end for input
 Screw terminals : 0.5...8.26 mm², (AWG 20...AWG 8) without cable end for output

Auxiliary connection terminal	Screw-type connector, 0.5...1.5 mm ² (AWG 20...AWG 16) with slotted Philips screwdriver
Thermal resistance	0.45 °C/W junction to case
Local signalling	LED, steady, amber for ON status for load LED, steady, red for open-circuit for control input LED, flashing, red for load cut-off/short-circuit LED, steady, green for ON status for control input/test button actuated LED, flashing, amber for control input to energise load
Maximum output current	30 mA at 32 V DC
Minimum load	150 mA
IP degree of protection	IP20
Safety reliability data	MTTFd = 1875.9 years B10d = 1731395
Product weight	97.1 g

Environment

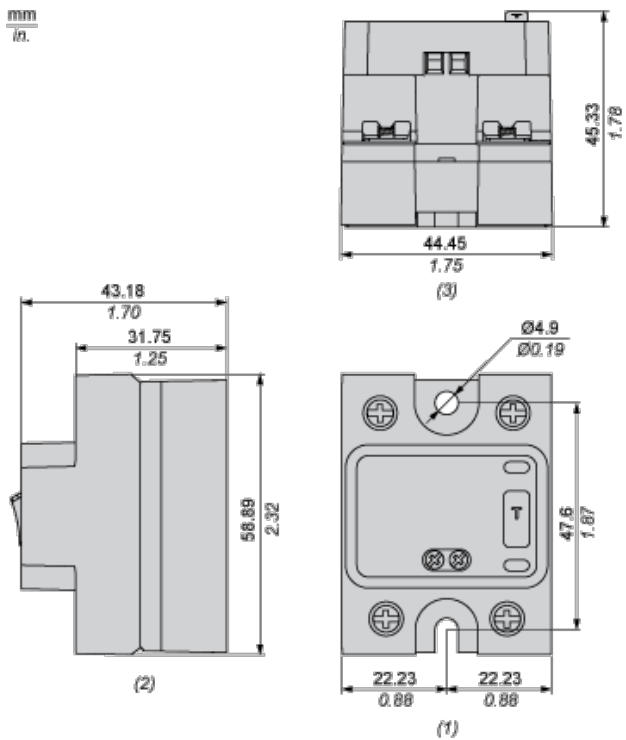
ambient air temperature for operation	-40...80 °C
ambient air temperature for storage	-40...125 °C
pollution degree	2
overvoltage category	III
product certifications	CE CSA RoHS UL REACH EAC
marking	CE CSA UL EAC
standards	EN/IEC 60950-1 UL 508 EN/IEC 62314 CSA C22.2 No 14-13

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1522 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

Dimensions

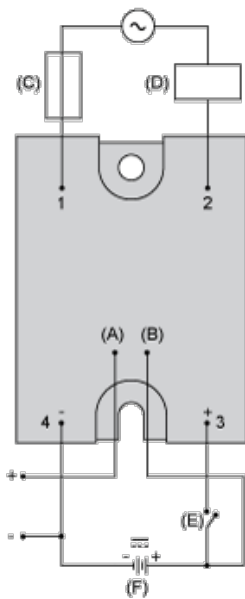
mm
in.



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

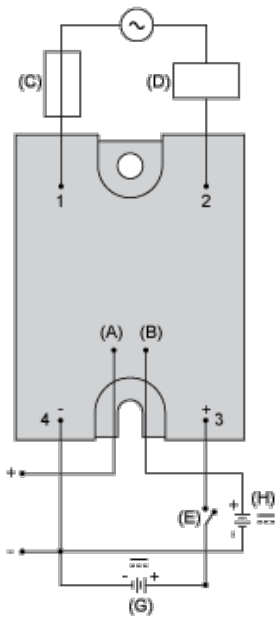
Wiring Diagram

Single Supply Connection



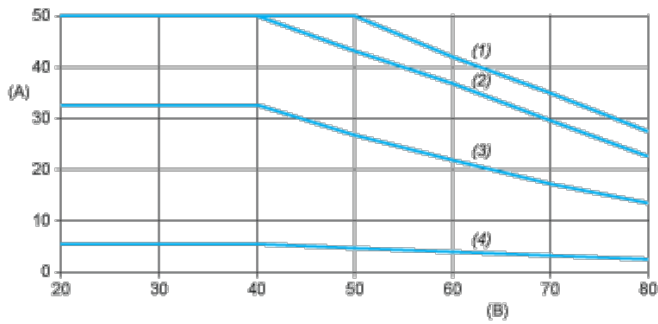
- (F) Control/Auxiliary supply (4...32 V DC)
- (A) Alarm output terminal (4...32 V DC)
- (B) Auxiliary supply terminal
- (C) Fuse or circuit-breaker
- (D) Load
- (E) Switch to energize load

Dual Supply Connection



- (G) Control supply (4...32 V DC)
- (H) Auxiliary supply (4...32 V DC)
- (A) Alarm output terminal (4...32 V DC)
- (B) Auxiliary supply terminal
- (C) Fuse or circuit-breaker
- (D) Load
- (E) Switch to energize load

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