

# Product datasheet

Specifications



Solid state panel mount relay, 50 A, zero voltage switching, thermal pad, input 3...32 V DC, output 24...300 V AC

SSP1A150BDT

## 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
[In] 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	3...32 V DC
Minimum switching voltage	3 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	10 mA at 12 V DC
Output voltage	24...300 V AC
Load current	0.15...50 A
Transient overvoltage	600 V
Surge current	625 A for 16.6 ms
Maximum I <sup>2</sup> t for fusing	1621 A <sup>2</sup> .s for 8.33 ms at 60 Hz 1770 A <sup>2</sup> .s for 10 ms at 50 Hz
Co-ordination type	Type 1 - 40 A miniature circuit breaker (MCB) - curve B Type 2 - 32 A miniature circuit breaker (MCB) - curve 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
Insulation resistance	1000 MOhm at 500 V DC

Maximum capacitance	10 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 <sup>2</sup> , (AWG 24...AWG 12) with cable end for input Screw terminals: 0.5...5.26 mm <sup>2</sup> , (AWG 20...AWG 10) with cable end for output Screw terminals: 0.2...3.3 mm <sup>2</sup> , (AWG 24...AWG 12) without cable end for input Screw terminals: 0.5...8.26 mm <sup>2</sup> , (AWG 20...AWG 8) without cable end for output 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
Thermal resistance	0.45 °C/W junction to case
thermal pad impedance	0.48 °C-in <sup>2</sup> /W at 25 psi
LED indicator	LED, green for input
IP degree of protection	IP20
Safety reliability data	MTTFd = 1875.9 years B10d = 1731395
Net weight	89.2 g
Device presentation	Complete product

## 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 UL EAC CSA
Marking	CE EAC CSA UL
Standards	IEC 62314 CSA C22.2 No 14-13 IEC 60950-1 UL 508

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.800 cm
Package 1 Width	4.800 cm
Package 1 Length	6.500 cm
Package 1 Weight	97.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	30

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<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	15.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	3.243 kg

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## **Contractual warranty**

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<b>Warranty</b>	18 months
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## Environmental Data

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.

[How this information helps you >](#)

### Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	5222
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	No
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Packaging without single use plastic	Yes
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EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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SCIP Number	134201bc-d293-4667-9cca-10a7f11729e0
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REACH Regulation	<a href="#">REACH Declaration</a>
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China RoHS Regulation	<a href="#">China RoHS declaration</a>
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## Use Again

### Repack and remanufacture

Circularity Profile	<a href="#">End of Life Information</a>
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Take-back

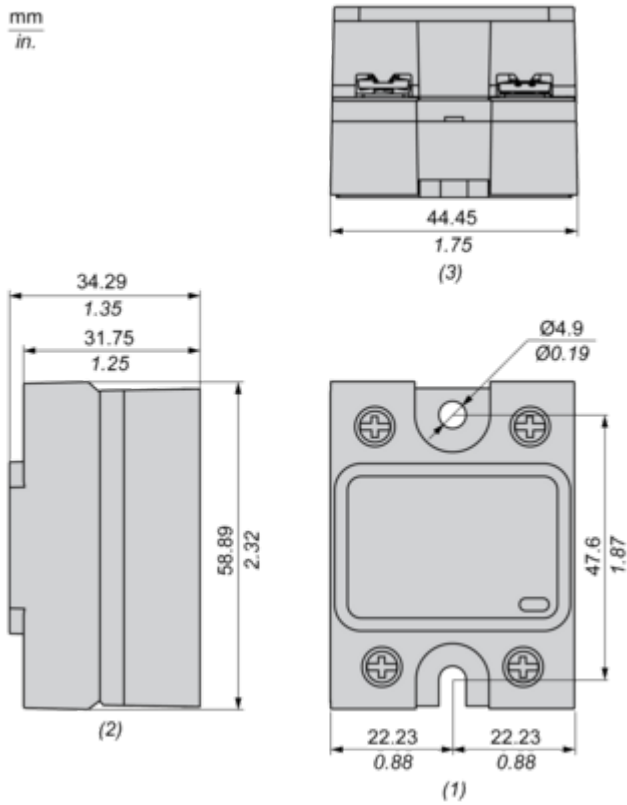
No

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Dimensions Drawings

Dimensions

mm  
in.

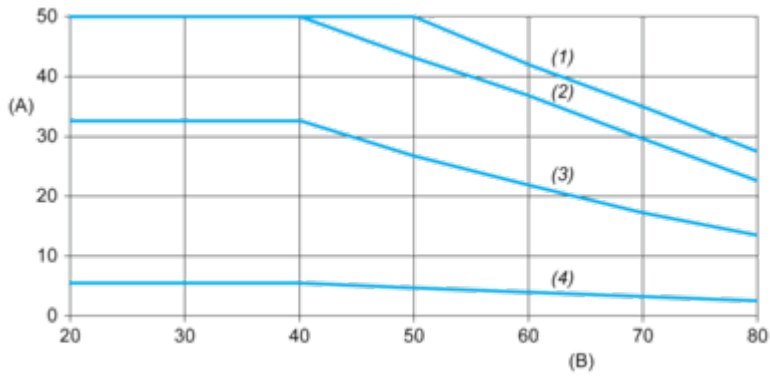


- (1) Front view
- (2) Side view
- (3) Bottom view

Performance Curves

Derating Curves

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- A : Load Current (Arms)
- B : Ambient Temperature (°C)
- (1) For Heatsink SSRHP07
- (2) For Heatsink SSRHD10
- (3) For Heatsink SSRHP17
- (4) No Heatsink

Technical Illustration

Dimensions

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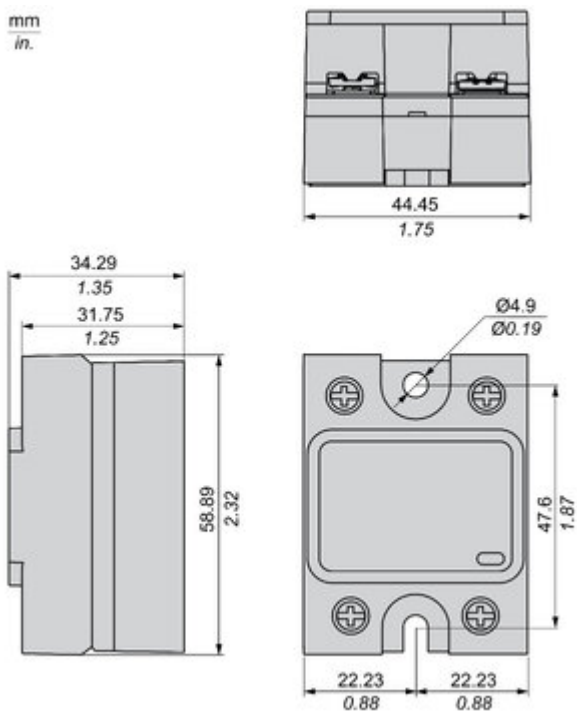
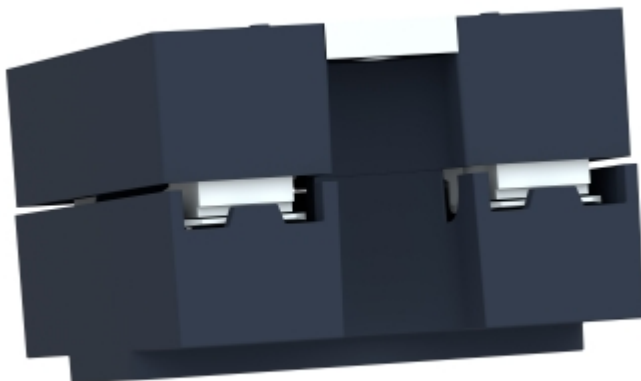




Image of product / Alternate images

Alternative

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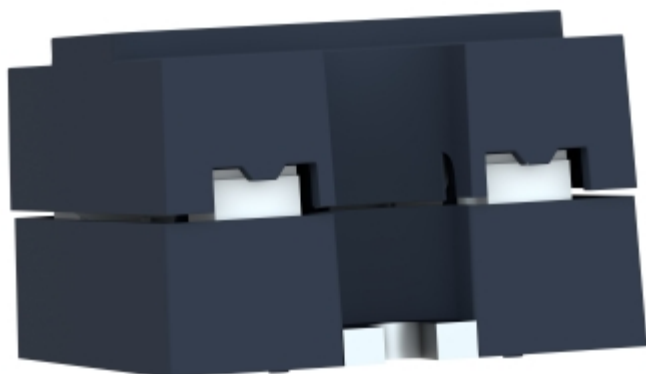


Image of product in real life situation

