

Product datasheet

Specifications



solid state relay - panel-input
4-32VDC, output 48-530VAC, 50A-
Thermal Interface

SSP3A250BDT

⚠ Discontinued on: Apr 11, 2023

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Main

Range Of Product	Harmony Solid State Relays
Provided Accessory	Thermal interface
Product Or Component Type	Solid state relay up to 50 A
Device Short Name	SSP
Mounting Support	Panel
Number Of Phases	3 phases
[In] Rated Current	50 A
Solid State Output Type	Zero voltage switching
Output Switching Mode	Zero voltage switching

Complementary

Control Type	Without test button
Minimum Switching Voltage	4 V DC turn-on
Maximum Switching Voltage	1 V DC turn-off
Response Time	8.33 ms (turn-on) 8.33 ms (turn-off)
Input Current	15...35 mA
Load Current	0.4...50 A
Transient Overvoltage	1200 V
Surge Current	715 A for 20 ms 750 A for 16.6 ms
Maximum I²T For Fusing	2520 A².s for 10 ms at 50 Hz 2320 A².s for 8.3 ms at 60 Hz
Co-Ordination Type	TVS
Maximum Leakage Current	3 mA off-state
Maximum Voltage Drop	<1.6 V on-state
Dv/Dt	500 V/μs off-state at maximum voltage
Power Factor	0.5 (with maximum load)
Motor Controller Rating	1.5 hp 40 °C 120 V AC 3 hp 40 °C 240 V AC 7.5 hp 40 °C 480 V AC 10 hp 40 °C 600 V AC

Disclaimer: 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

Motor Power Kw	1.1 kW at 40 °C 120 V AC 2.2 kW at 40 °C 240 V AC 5.5 kW at 40 °C 480 V AC 7.5 kW at 40 °C 600 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	0.8 kV for input to case 6 kV for input/output circuit 6 kV for input/output to case
Tightening Torque	1.2 N.m for input 2.5 N.m for output
Connections - Terminals	Screw terminals: 1 x 0.2...1 x 2.5 mm², (AWG 24...AWG 14) for input Screw terminals: 1 x 1.5...1 x 10 mm², (AWG 16...AWG 8) for output
Thermal Resistance	0.15 °C/W
Led Indicator	LED, green for input
Ip Degree Of Protection	IP20
Electromagnetic Compatibility	Electrostatic discharge 4 kV criteria B contact discharge conforming to IEC 61000-4-2 Electrostatic discharge 8 kV criteria B air discharge conforming to IEC 61000-4-2 Conducted RF disturbances 10 V, 0.15...80 MHz criteria A conforming to IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A conforming to IEC 61000-4-3 Surge immunity test 1 kV criteria B output ports line to line conforming to IEC 61000-4-5 Surge immunity test 2 kV criteria B output ports line to earth conforming to IEC 61000-4-5 Surge immunity test 1 kV criteria B input ports line to earth conforming to IEC 61000-4-5 Electrical fast transient/burst immunity test 2 kV, 5kHz criteria B output ports conforming to IEC 61000-4-4 Immunity to voltage dips 0 %/20 ms criteria B conforming to IEC 61000-4-11 Immunity to voltage dips 40 %/200 ms criteria C conforming to IEC 61000-4-11 Immunity to voltage dips 70 %/500 ms criteria C conforming to IEC 61000-4-11 Immunity to short interruption 0 %/5 s criteria C conforming to IEC 61000-4-11 Electrical fast transient/burst immunity test 1 kV, 5kHz criteria B input ports conforming to IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...6 GHz criteria A conforming to IEC 61000-4-3 Radiated emission 30...1000 Mhz environment A conforming to IEC 60947-1 Conducted emission 0.15...30 Mhz environment A conforming to IEC 60947-1
Net Weight	0.37 kg
Width	104 mm
Height	74.6 mm
Depth	41 mm
Device Presentation	Complete product

Environment

Flame Retardance	V0 conforming to UL 94
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 EAC UL UKCA
Marking	CE
Standards	IEC/EN 62314 IEC/EN 60947-4-2 IEC/EN 60947-4-3 UL 60947-4-2 C22.2 No. 14

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	4.000 cm
Package 1 Width	8.500 cm
Package 1 Length	12.000 cm
Package 1 Weight	277.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	27
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.880 kg

Sustainability



Green Premium™ label is Schneider Electric’s commitment to delivering products with best-in-class 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 >](#)

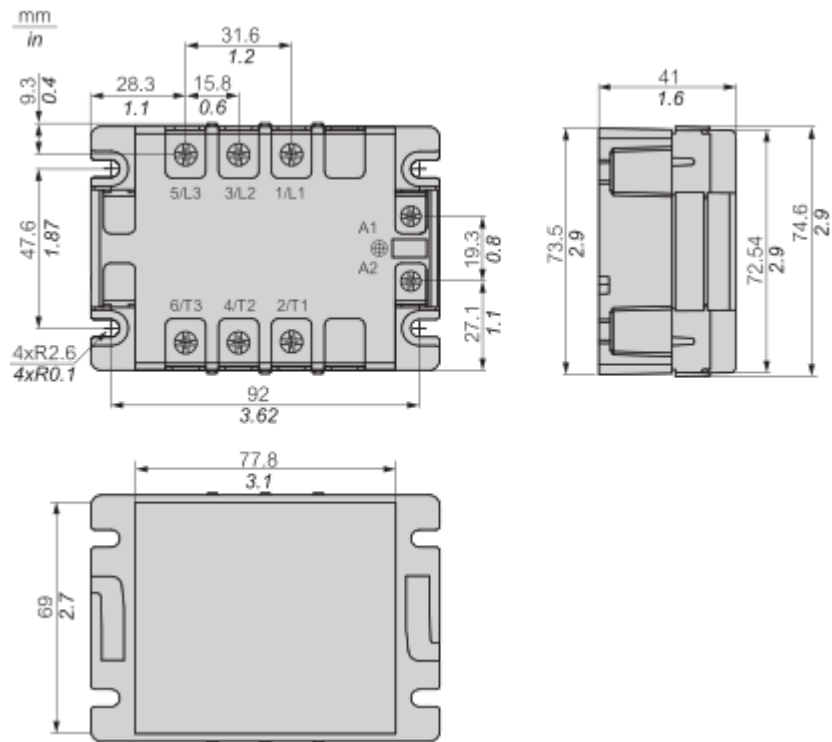
[Guide to assess a product’s sustainability >](#)

Well-being performance

 Lead Free	
 Rohs Exemption Information	Yes
Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration

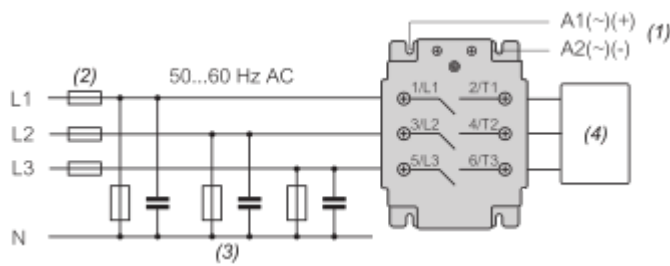
Dimensions Drawings

Dimensions



Connections and Schema

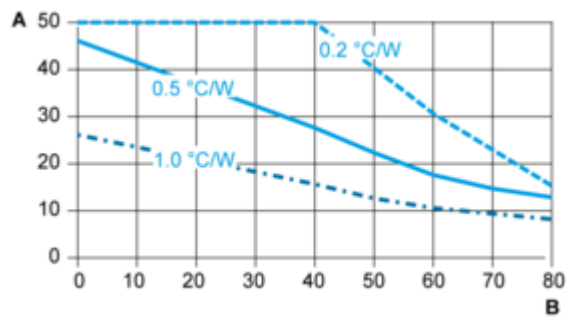
Wiring



- (1) Setting control voltage in between turn on and turn off voltage may cause malfunction or damage the SSR.
- (2) Recommended fuses.
- (3) Recommended to install filters if Conductive Emission (CE) Class A is required.
- (4) Load.

Performance Curves

Derating Curves



A : Load Current (Amperes)
B : Ambient Temperature (°C)