Product data sheet
Characteristics

SSP3A250B7T
three phase relay, Harmony Solid State Relays, 50A, panel mount, zero voltage switching, thermal pad, input 18 to 36V AC, output 42 to 660V AC

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	18 V AC turn-on
Maximum switching voltage	2 V AC turn-off
Response time	20 ms (turn-on) 30 ms (turn-off)
Input current	15…20 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
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[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]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

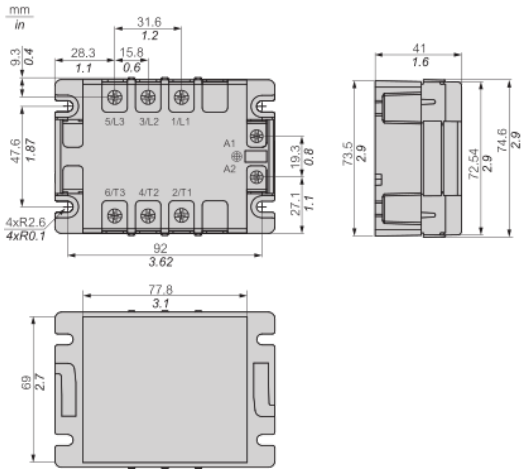
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.6 cm
Package 1 Width	8.0 cm
Package 1 Length	11.5 cm
Package 1 Weight	368 g
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	9.190 kg

Offer Sustainability

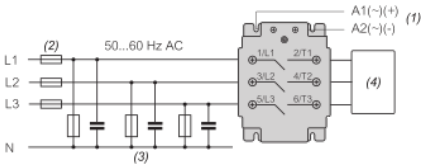
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Lead free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes

SSP3A250B7T

Dimensions



Wiring



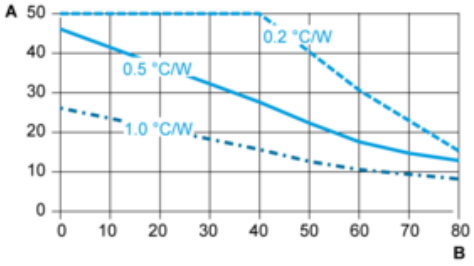
(1) Setting control voltage in between turn on and turn off voltage may cause malfunction or damage the SSR.

(2) Recommended fuses.

(3) Recommended to install filters if Conductive Emission (CE) Class A is required.

(4) Load.

Derating Curves



A : Load Current (Amperes)

B : Ambient Temperature (°C)