Product data sheet
Characteristics

SSP3A250BDRT
three phase relay, Harmony Solid State Relays, 50A, panel mount, random switching, thermal pad, input 4 to 32V DC, output 42 to 660V AC



Main

Range of product	Harmony Solid State Relays
Provided equipment	Thermal pad
Product or component type	Panel mount relay
Device short name	SSP
Mounting support	Panel
Network number of phases	3 phases
[In] rated current	50 A
Solid state output type	Random voltage switching
Output switching mode	Random voltage switching

Complementary

Control type	Without test button
[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	8.33 ms (turn-off) 0.1 ms (turn-on)
Input current limits	15…35 MA
Output voltage	42...660 V AC
Load current	0.4…50 A
Absolute maximum voltage	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
Protection device 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
Cos phi	0.5 (with maximum load)
Motor power hp	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
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	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, (24 AWG...14 AWG) for input Screw terminals: 1 x 1.5...1 x 10 mm², (16 AWG...8 AWG) for output
Thermal resistance	0.15 °C/W
Local signalling	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 c 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 61 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 610 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...6 GHz criteria A conform 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	4.000 Cm
Package 1 Width	8.500 Cm
Package 1 Length	12.000 Cm
Package 1 Weight	271.000 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	7.726 Kg

Offer Sustainability

Recyclability potential, in %	29
Total lifecycle Carbon footprint	5 140 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1.4288421443
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.0349648913
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.002229524
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	5138.7062430238
Carbon footprint of the use phase [B2, B3, B4, B6]	5 139 kg CO2 eq.
Lead free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.058345336
Carbon footprint of the end-of-life phase [C1 to C4]	0.1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	5140
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised