Product data sheet
Characteristics

SSP1A150BDE
solid state relay, Harmony Solid State Relays, input 5 to 24V DC, output 24 to 240V AC, 50A, Zero cross switching



Main

Range of product	Harmony Solid State Relays
Provided equipment	Thermal pad
Product or component type	Solid state relay up to 50 A
Device short name	SSP1E
Mounting support	Panel
Network number of phases	1 phase
Contacts type and composition	1 NO
[In] rated current	50 A
Solid state output type	SCR output
Output switching mode	Zero voltage switching

Complementary

Control type	Electronic controller
[Uc] control circuit voltage	4...32 V DC
Minimum switching voltage	4 V DC turn-on
Maximum switching voltage	2 V DC turn-off
Response time	0.5 cycle (turn-on)
Load current	0.1…50 A
Absolute maximum voltage	530 V
Surge current	500 A for 1/2 Cycle
Maximum I²t for fusing	1600 A².S for 10 ms at 50 Hz
Maximum leakage current	1 MA off-state
Maximum voltage drop	<1.6 V on-state
DV/dt	500 V/µs off-state at maximum voltage
Cos phi	0.8 (with maximum load)
Insulation resistance	500 MOhm at 500 V DC
Dielectric strength	3.8 KV AC for input/output 2 KV AC for output connection
[Uimp] rated impulse withstand voltage	8 KV output to case 6 KV input to output
Tightening torque	1.5...1.7 N.m for input 2...2.4 N.m for output

Connections - terminals	Screw terminals: 0.2...3.3 mm², (24 AWG...12 AWG) with cable end Screw terminals: 0.5...5.26 mm², (20 AWG...10 AWG) with cable end Screw terminals: 0.2...3.3 mm², (24 AWG...12 AWG) without cable end Screw terminals: 0.5...8.26 mm², (20 AWG...8 AWG) without cable end Forked type tag connectors: 9.2 x 4 mm Ring lugs: 9.2 x 4 mm Forked type tag connectors: 11.7 x 4.5 mm Ring lugs: 11.7 x 4.5 mm
Local signalling	LED, green for input
IP degree of protection	IP10
Net weight	115 G
Width	59 Mm
Height	45 Mm
Depth	29 Mm
Device presentation	Complete product

Environment

Ambient air temperature for operation	-30…80 °C
Ambient air temperature for storage	-30…100 °C
Pollution degree	2
Overvoltage category	III
Product certifications	UL[RETURN]CE[RETURN]UKCA[RETURN]TÜV[RETURN]RoHS[RETURN]REACH
Marking	UL CE UKCA TÜV
Standards	UL 508 EN/IEC 60947-4-3 EN/IEC 62314 CSA C22.2 No 14

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.000 Cm
Package 1 Width	3.000 Cm
Package 1 Length	4.500 Cm
Package 1 Weight	132.000 G
Unit Type of Package 2	BB1
Number of Units in Package 2	8
Package 2 Height	4.000 Cm
Package 2 Width	13.000 Cm
Package 2 Length	19.000 Cm
Package 2 Weight	1.106 Kg
Unit Type of Package 3	S02
Number of Units in Package 3	64
Package 3 Height	15.000 Cm
Package 3 Width	30.000 Cm
Package 3 Length	40.000 Cm
Package 3 Weight	9.158 Kg

Offer Sustainability

Total lifecycle Carbon footprint	2 387 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	2.118636363636363
Carbon footprint of the manufacturing phase [A1 to A3]	2 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.019994545454545452
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.020679090909090907
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.

Carbon footprint of the use phase [B2, B3, B4, B6]	2384.9437499999995
Carbon footprint of the use phase [B2, B3, B4, B6]	2 385 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.08389909090909091
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	2387
Packaging made with recycled cardboard	No
Packaging without single use plastic	No
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