Product data sheet
Characteristics

SSP1D440BDT
single phase relay, Harmony Solid State Relays, 40A, panel mount, DC switching, thermal pad, input 3.5 to 32V DC, output 1 to 150V DC



Main

Range of product	Harmony Solid State Relays
Provided equipment	Thermal pad
Product or component type	Panel mount relay
Device short name	SSP1
Mounting support	Panel
Network number of phases	1 phase
[In] rated current	40 A
Solid state output type	Mosfet output DC switching
Output switching mode	DC switching

Complementary

Control type	Without test button
[Uc] control circuit voltage	3.5...32 V DC
Minimum switching voltage	3.5 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Response time	0.1 ms (turn-on) 0.1 ms (turn-off)
Input current limits	10…15 MA
Output voltage	1...150 V DC
Load current	0.001…40 A
Surge current	106 A for 10 ms
Protection device type	Type 2 - 20 A miniature circuit breaker (MCB) - curve B Type 1 - 40 A miniature circuit breaker (MCB) - curve B
Maximum leakage current	0.3 MA off-state
Maximum voltage drop	<2.1 V on-state
Insulation resistance	1000 MOhm at 500 V DC
Capacitance unbalance	50 PF for input/output
Dielectric strength	2.5 KV AC for input/output 2.5 KV AC for input or output to case
[Uimp] rated impulse withstand voltage	2.5 KV output to case
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 mm², (24 AWG...12 AWG) with cable end for input Screw terminals: 0.5...5.26 mm², (20 AWG...10 AWG) with cable end for output Screw terminals: 0.2...3.3 mm², (24 AWG...12 AWG) without cable end for input Screw terminals: 0.5...8.26 mm², (20 AWG...8 AWG) 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	0.22 °C/W junction to case
Thermal impedance	0.48 °C-in²/W at 25 psi
Local signalling	LED, green for input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years
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	UL[RETURN]CE[RETURN]CSA[RETURN]EAC
Marking	EAC CSA UL CE
Standards	CSA C22.2 No 14-13 UL 508 IEC 62314 IEC 60950-1

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	105.000 G
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Height	15 Cm
Package 2 Width	15 Cm
Package 2 Length	40 Cm
Package 2 Weight	3.413 Kg

Offer Sustainability

Recyclability potential, in %	77
Total lifecycle Carbon footprint	4 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1.104531256285696
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.006855086179315367
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.04535870104068418
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	2.4455424669854047
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	2 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes

Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.13076538345158806
Carbon footprint of the end-of-life phase [C1 to C4]	0.1 kg CO2 eq.
Total lifecycle Carbon footprint	4
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Free of Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised