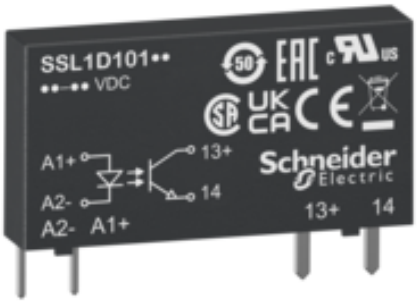
Product data sheet
Characteristics

SSL1A12JDR
Solid state slim relay, Harmony, 2A, random switching, input 3 to 12V DC, output 24 to 280V AC



Main

Range of product	Harmony Solid State Relays
Device short name	SSL
Network number of phases	1 phase
[Uc] control circuit voltage	3...12 V
Output switching mode	Random voltage switching
Short-circuit current	5000 A
Associated fuse rating	2.5 A at 250 V coordination type 1
[Ui] rated insulation voltage	280 V
Insulation resistance	> 100 MOhm at 500 V DC
Electromagnetic compatibility	Electrostatic discharge - test level: 4 kV criteria B (contact discharge) conforming to IEC 61000- Electrostatic discharge - test level: 8 kV criteria B (air discharge) conforming to IEC 61000-4-2 Conducted RF disturbances - test level: 10 V criteria A (0.15...80 MHz) conforming to IEC 6100 Electrical fast transient/burst immunity test - test level: 2 kV criteria B (5 kHz) conforming to IEC Electrical fast transient/burst immunity test - test level: 1 kV criteria B (5 kHz) conforming to IEC Surge immunity test - test level: 1 kV criteria B (line to line) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV criteria B (line to earth) conforming to IEC 61000-4-5 Surge immunity test - test level: 1 kV criteria B (line to earth) conforming to IEC 61000-4-5 Radiated emission - test level: 30...1000 Mhz conforming to IEC 60947-1 Conducted emission - test level: 0.15...30 Mhz conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	4.0 KV for input to case conforming to IEC 62314 4.0 KV for input/output circuit conforming to UL 508 4.0 KV for input/output circuit conforming to IEC 62314 4.0 KV output to case conforming to IEC 62314 4.0 KV output to case 4.0 KV for input to case conforming to UL 508 4.0 KV output to case conforming to UL 508

Complementary

Mounting support	Socket
[In] rated current	2 A
Output voltage	24...280 V AC
[Uc] control circuit voltage	3...12 V DC
Capacitance unbalance	2.5 PF input/output
Minimum switching voltage	3 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Input current	15 MA
Input impedance	400 Ohm
Solid state output type	Random voltage switching SCR output
Load current	0.07…2 A
Absolute maximum voltage	600 V

Surge current	84 A for 16.6 ms 80 A for 20 ms
Maximum voltage drop	<1.5 V on-state
Maximum I²t for fusing	33 A².S for 10 ms at 50 Hz 29 A².S for 8.3 ms at 60 Hz
Maximum leakage current	4 MA off-state
DV/dt	500 V/µs off-state at maximum voltage
Response time	0.5 cycle (turn-off) 0.1 ms (turn-on)
Overvoltage category	III
Width	5 Mm
Height	28 Mm
Depth	15 Mm
Net weight	0.0041 Kg
Device presentation	Complete product

Environment

Flame retardance	V0 conforming to UL 94
Dielectric strength	2500 V for input/output
Pollution degree	2
Standards	IEC/EN 60947-4-3 IEC/EN 62314 UL 508 C22.2 No. 14
Product certifications	cURus[RETURN]CSA[RETURN]EAC[RETURN]CE[RETURN]UKCA
Marking	CE
IP degree of protection	IP00
Ambient air temperature for operation	-20…80 °C
Ambient air temperature for storage	-20…85 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.700 Cm
Package 1 Width	2.500 Cm
Package 1 Length	37.000 Cm
Package 1 Weight	5.000 G
Unit Type of Package 2	BB1
Number of Units in Package 2	12
Package 2 Height	0.700 Cm
Package 2 Width	2.500 Cm
Package 2 Length	37.000 Cm
Package 2 Weight	60.000 G
Unit Type of Package 3	S01
Number of Units in Package 3	1080
Package 3 Height	15.000 Cm
Package 3 Width	15.000 Cm
Package 3 Length	40.000 Cm
Package 3 Weight	5.684 Kg

Offer Sustainability

Recyclability potential, in %	27
Total lifecycle Carbon footprint	10 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	0.0881487524
Carbon footprint of the manufacturing phase [A1 to A3]	0.1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.0006451152
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.

Carbon footprint of the installation phase [A5]	0.000327428
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	9.7641104167
Carbon footprint of the use phase [B2, B3, B4, B6]	10 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.000731094
Carbon footprint of the end-of-life phase [C1 to C4]	0 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	10
Packaging made with recycled cardboard	Yes
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	No need of specific recycling operations
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised