

Product data sheet

Specifications



Interface plug in relay with socket, Harmony, 12A, 1CO, 12V DC

RSB1A120JDS

⚠ Discontinued on: Jun 15, 2023

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Main

Range of product	Harmony Electromechanical Relays
Series name	Interface relay
Product or component type	Plug-in relay
Device short name	RSB
Contacts type and composition	1 C/O
Contact operation	Standard
[Uc] control circuit voltage	12 V DC
status LED	Without
Control type	Without push-button
[Ithe] conventional enclosed thermal current	12 A at -40...40 °C

Complementary

Average resistance	360 Ohm network: DC at 20 °C +/- 10 %
[Ue] rated operational voltage	9.6...13.2 V DC
[Uimp] rated impulse withstand voltage	3.6 kV conforming to IEC 61000-4-5
[Ie] rated operational current	12 A (AC-1/DC-1) NO conforming to IEC 6 A (AC-1/DC-1) NC conforming to IEC
[Ui] rated insulation voltage	400 V conforming to IEC 60947
Maximum switching voltage	300 V DC 400 V AC
Drop-out voltage threshold	>= 0.1 Uc DC
Load current	12 A at 250 V AC 12 A at 28 V DC
minimum switching current	5 mA
Maximum switching capacity	3000 VA AC 336 W DC
minimum switching voltage	5 V
Minimum switching capacity	300 mW at 5 mA
Operating time	4 ms between coil de-energisation and making of the Off-delay contact 9 ms between coil energisation and making of the On-delay contact
Mechanical durability	30000000 cycles
Electrical durability	100000 cycles, 12 A at 250 V, AC-1 NO 100000 cycles, 6 A at 250 V, AC-1 NC

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Safety reliability data	B10d = 100000
Operating rate	<= 600 cycles/hour under load <= 72000 cycles/hour no-load
Average coil consumption	0.45 W DC
Protection category	RT I
Operating position	Any position
Device presentation	Complete product
Sale per indivisible quantity	10
Contacts material	Silver alloy (Ag/Ni)
Shape of pin	Flat
Compatibility code	RSB

Environment

Dielectric strength	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
Vibration resistance	+/- 1 mm (f= 10...55 Hz) conforming to IEC 60068-2-6
IP degree of protection	IP40 conforming to IEC 60529
Ambient air temperature for operation	-40...70 °C (AC) -40...85 °C (DC)
Standards	CSA C22.2 No 14 UL 508 IEC 61810-1
Product certifications	UL GOST CSA
Marking	CE
Ambient air temperature for storage	-40...85 °C
Shock resistance	10 gn (duration = 11 ms) for not operating conforming to IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.5 cm
Package 1 Width	10.4 cm
Package 1 Length	34 cm
Package 1 Weight	0.9 g
Unit Type of Package 2	BB1
Number of Units in Package 2	20
Package 2 Height	7.5 cm
Package 2 Width	10.4 cm
Package 2 Length	34 cm
Package 2 Weight	1.07 kg
Unit Type of Package 3	S02

Number of Units in Package 3	60
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	3.55 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained](#) >

[How we assess product sustainability](#) >

Use Better



Materials and Substances

EU RoHS Directive

[Compliant](#)

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

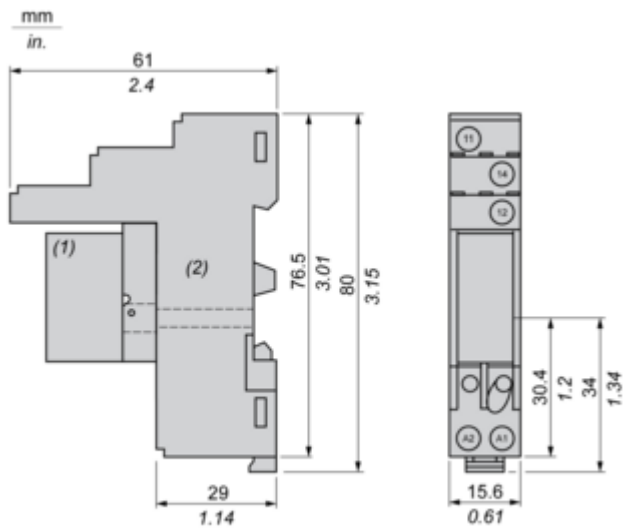
End of life manual availability

No need of specific recycling operations

Dimensions Drawings

Dimensions

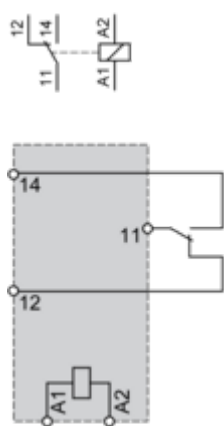
Relay Complete with Socket



- (1) Relays
- (2) Socket

Connections and Schema

Wiring Diagram

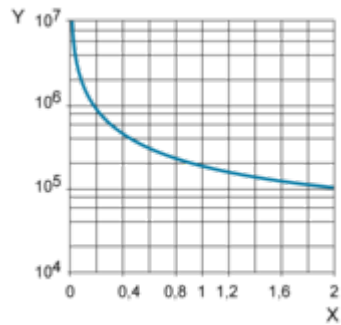


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

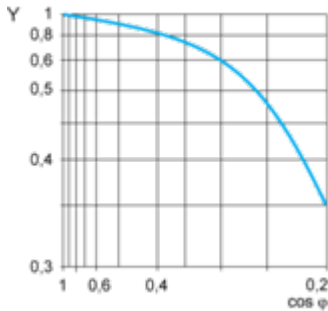
Performance Curves

Electrical Durability of Contacts

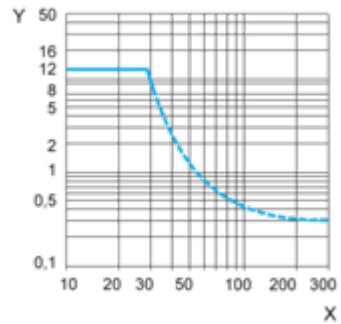
Durability (inductive load) = durability (resistive load) x reduction coefficient.
Resistive AC load



X Switching capacity (kVA)
Y Durability (Number of operating cycles)
Reduction coefficient for inductive AC load (depending on power factor cos φ)



Y Reduction coefficient (A)
Maximum switching capacity on resistive DC load



X Voltage DC
Y Current DC
Note : These are typical curves, actual durability depends on load, environment, duty cycle, etc.