

Product data sheet

Specifications



Interface plug in relay with socket, Harmony, 12A, 1CO, 24V AC

RSB1A120B7S

⚠ Discontinued on: Jun 15, 2023

⚠ Discontinued

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	24 V AC
[Ithe] Conventional Enclosed Thermal Current	12 A -40...104 °F (-40...40 °C)
Status Led	Without
Control Type	Without push-button

Complementary

Shape Of Pin	Flat
Average Coil Resistance	400 Ohm AC 20 °C +/- 15 %
[Ue] Rated Operational Voltage	19.2...26.4 V AC 50 Hz 20.4...26.4 V AC 60 Hz
[Ui] Rated Insulation Voltage	400 V EN/IEC 60947
[Uimp] Rated Impulse Withstand Voltage	3.6 kV IEC 61000-4-5
Contacts Material	Silver alloy (Ag/Ni)
[Ie] Rated Operational Current	12 A AC-1/DC-1) NO IEC 6 A AC-1/DC-1) NC IEC
Minimum Switching Current	5 mA
Maximum Switching Voltage	300 V DC 400 V AC
Minimum Switching Voltage	5 V
Maximum Switching Capacity	3000 VA AC 336 W DC
Resistive Rated Load	12 A 250 V AC 12 A 28 V DC
Minimum Switching Capacity	300 mW 5 mA
Operating Rate	<= 600 cycles/hour under load <= 72000 cycles/hour no-load
Mechanical Durability	30000000 cycles

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

Electrical Durability	100000 cycles, 12 A 250 V, AC-1 NO 100000 cycles, 6 A 250 V, AC-1 NC
Operating Time	10 ms between coil de-energisation and making of the Off-delay contact 12 ms between coil energisation and making of the On-delay contact
Marking	CE
Average Coil Consumption	0.75 VA AC 60 Hz
Drop-Out Voltage Threshold	>= 0.15 Uc AC
Safety Reliability Data	B10d = 100000
Protection Category	RT I
Operating Position	Any position
Sale Per Indivisible Quantity	10
Device Presentation	Complete product

Environment

Dielectric Strength	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
Standards	UL 508 CSA C22.2 No 14 EN/IEC 61810-1
Product Certifications	UL CSA GOST
Ambient Air Temperature For Storage	-40...185 °F (-40...85 °C)
Vibration Resistance	+/- 1 mm 10...55 Hz)EN/IEC 60068-2-6
Ip Degree Of Protection	IP40 EN/IEC 60529
Shock Resistance	10 gn 11 ms) not operating EN/IEC 60068-2-27 5 gn 11 ms) in operation EN/IEC 60068-2-27
Ambient Air Temperature For Operation	-40...158 °F (-40...70 °C) AC) -40...185 °F (-40...85 °C) DC)

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	3.03 in (7.7 cm)
Package 1 Width	4.02 in (10.2 cm)
Package 1 Length	13.39 in (34 cm)
Package 1 Weight	1.83 oz (52 g)
Unit Type Of Package 2	BB1
Number Of Units In Package 2	20
Package 2 Height	3.03 in (7.7 cm)
Package 2 Width	4.02 in (10.2 cm)
Package 2 Length	13.39 in (34 cm)
Package 2 Weight	2.40 lb(US) (1.09 kg)
Unit Type Of Package 3	S03
Number Of Units In Package 3	140

Package 3 Height	11.81 in (30 cm)
Package 3 Width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)
Package 3 Weight	18.02 lb(US) (8.174 kg)

Contractual warranty

Warranty	18 months
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency

Well-being performance

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
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China Rohs Regulation	China RoHS declaration
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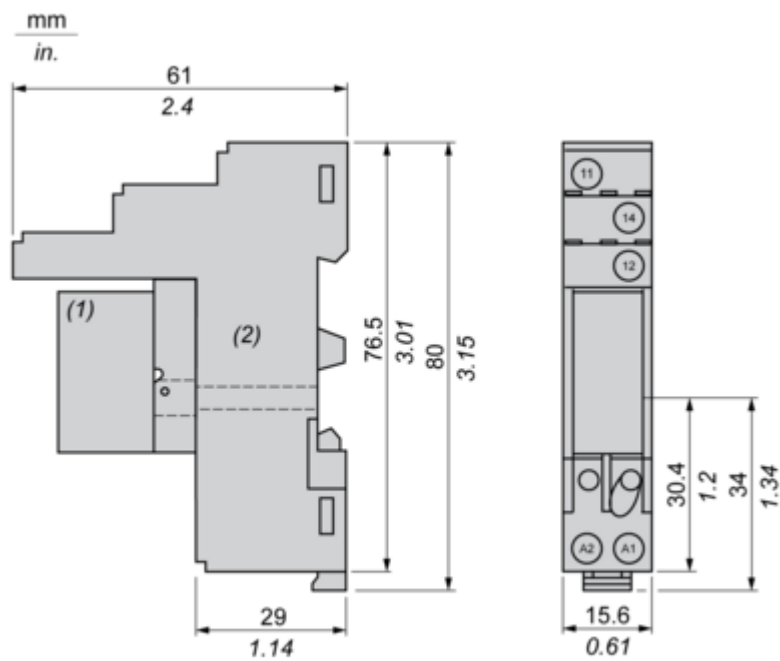
Environmental Disclosure	Product Environmental Profile
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Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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Dimensions Drawings

Dimensions

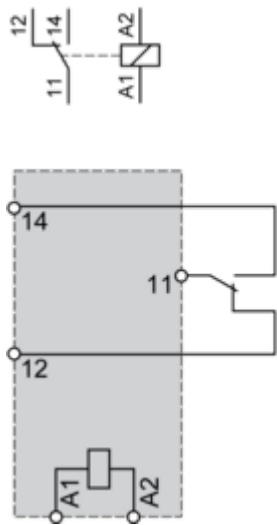
Relay Complete with Socket



- (1) Relays
- (2) Socket

Connections and Schema

Wiring Diagram

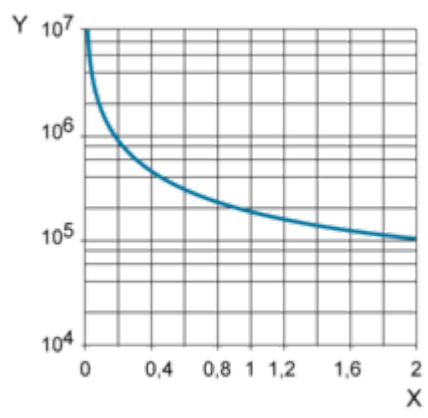


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

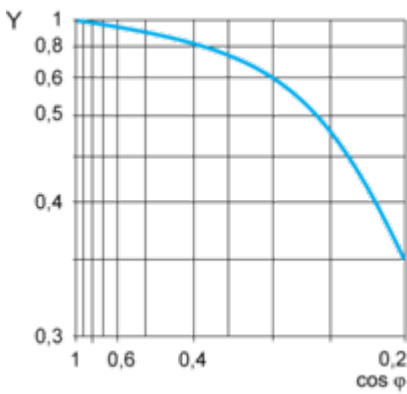
Performance Curves

Electrical Durability of Contacts

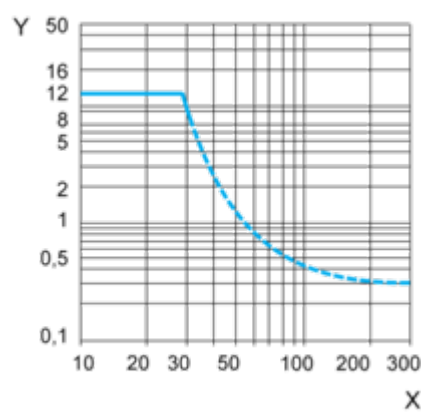
Durability (inductive load) = durability (resistive load) x reduction coefficient.
Resistive AC load



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.

