Product data sheet
Characteristics

RSB1A120BDS
Interface plug in relay with socket, Harmony, 12A, 1CO, 24V DC



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 DC
[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	1440 Ohm DC 20 °C +/- 10 %
[Ue] rated operational voltage	19.2...26.4 V DC
[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
Electrical durability	100000 Cycles, 12 A at 250 V, AC-1 NO 100000 cycles, 6 A at 250 V, AC-1 NC
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
Marking	CE
Average coil consumption	0.45 W DC
Drop-out voltage threshold	>= 0.1 Uc DC
Safety reliability data	B10d = 100000
Protection category	RT I
Operating position	Any position
Sale per indivisible quantity	10
Device presentation	Complete product

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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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 conforming to 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)

Ordering and shipping details

Category	21127-ZELIO ICE CUBE RELAYS
Discount Schedule	CP2
GTIN	3389110251500
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.30 in (0.750 cm)
Package 1 Width	1.33 in (3.370 cm)
Package 1 Length	0.41 in (1.040 cm)
Package 1 Weight	1.59 oz (45.000 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	20
Package 2 Height	3.15 in (8.000 cm)
Package 2 Width	4.33 in (11.000 cm)
Package 2 Length	13.39 in (34.000 cm)
Package 2 Weight	2.40 lb(US) (1.090 kg)
Unit Type of Package 3	S03
Number of Units in Package 3	120
Package 3 Height	11.81 in (30.000 cm)
Package 3 Width	11.81 in (30.000 cm)
Package 3 Length	15.75 in (40.000 cm)
Package 3 Weight	15.21 lb(US) (6.901 kg)

Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes

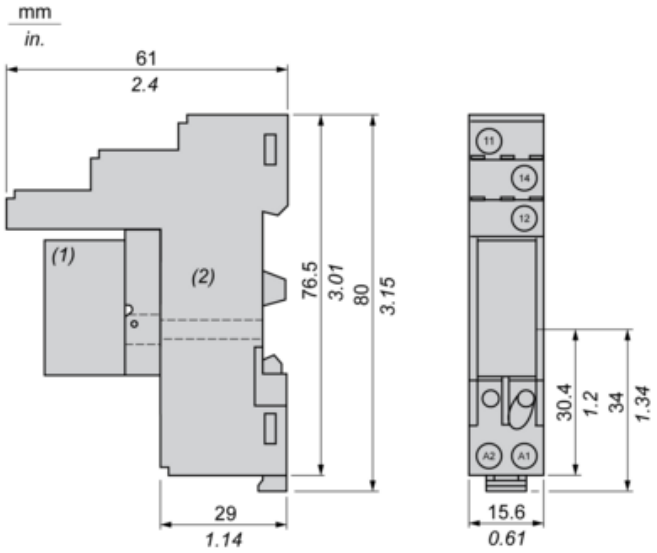
Environmental Disclosure	Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty

Warranty	18 months

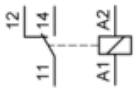
Dimensions

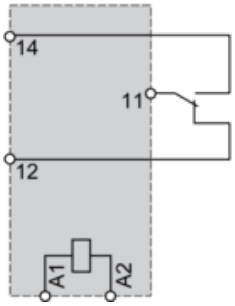
Relay Complete with Socket



(1) Relays
(2) Socket

Wiring Diagram



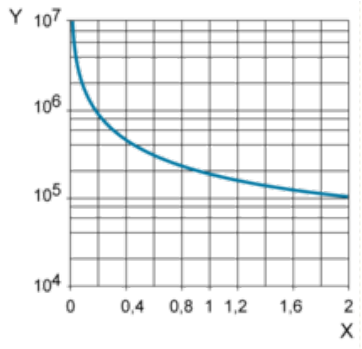


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

Electrical Durability of Contacts

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

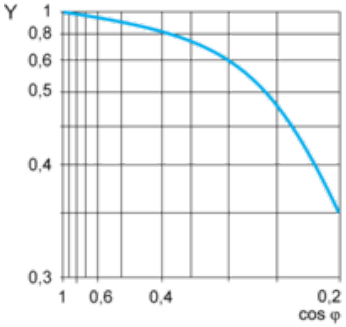
Resistive AC load



X Switching capacity (kVA)

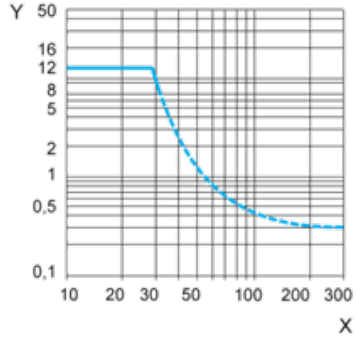
Y Durability (Number of operating cycles)

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.