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Product data sheet
Characteristics

RSB1A160BDPV
Interface plug-in relay pre-assembled, 16 A, 1 CO, LED, protection module, 24 V DC



Main

Range of product	Harmony Relay
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	16 A -40…104 °F (-40…40 °C)
Status LED	1 LED
Control type	Without

Complementary

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 (AgNi)
[Ie] rated operational current	16 A AC-1/DC-1) NO IEC 8 A AC-1/DC-1) NC IEC
Minimum switching current	10 mA
Maximum switching voltage	250 V
Minimum switching voltage	12 V
Maximum switching capacity	4000 VA AC 448 W DC
Resistive rated load	16 A 250 V AC 16 A 28 V DC
Minimum switching capacity	120 mW 10 mA, 12 V
Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	30000000 cycles
Electrical durability	70000 Cycles, 16 A 250 V, AC-1 NO 70000 cycles, 8 A 250 V, AC-1 NC
Operating time	20 ms operating 20 ms reset
Average coil consumption	0.45 W DC
Drop-out voltage threshold	>= 0.1 Uc DC
Safety reliability data	B10d = 100000
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Torque value	7.08 Lbf.In (0.8 N.m) 7.0 lbf.in (0.79 N.m)
Connections - terminals	Connector, 1 x 0.25...1 x 2.5 mm² (AWG 22...AWG 14) flexible with cable end Connector, 2 x 0.25...2 x 1 mm² (AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm² (AWG 20...AWG 14) solid without cable end Connector, 2 x 0.5...2 x 1.5 mm² (AWG 20...AWG 16) solid without cable end

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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Net weight	0.11 lb(US) (0.050 kg)
Sale per indivisible quantity	30
Device presentation	Complete product

Environment

Dielectric strength	1000 V AC between contacts 5000 V AC between coil and contact
Standards	EN/IEC 61810-1 CSA C22.2 No 14 UL 508 IEC 61984
Product certifications	CE UL CSA EAC RoHS
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	IP20 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…185 °F (-40…85 °C) DC)

Ordering and shipping details

Category	21127 - ZELIO ICE CUBE RELAYS
Discount Schedule	CP2
GTIN	03606489562724
Nbr. of units in pkg.	1
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	No

Packing Units

Package 1 Height	3.31 in (84.200 mm)
Package 1 width	0.61 in (15.600 mm)
Package 1 Length	2.53 in (64.200 mm)

Offer Sustainability

Sustainable offer status	Green Premium product
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
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
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

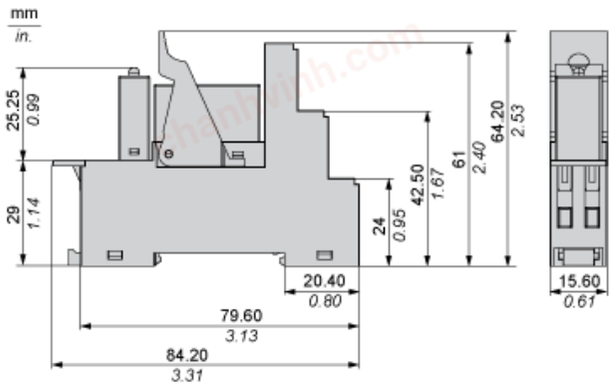
Warranty	18 Months

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Product data sheet
Dimensions Drawings

RSB1A160BDPV

Dimensions

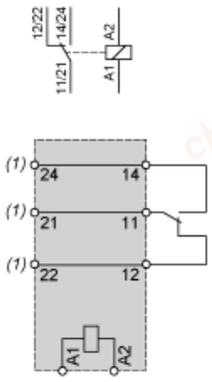


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Product data sheet
Connections and Schema

RSB1A160BDPV

Wiring Diagram



(1) Terminals 11 and 21,14 and 24,12 and 22 must be linked for this references

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

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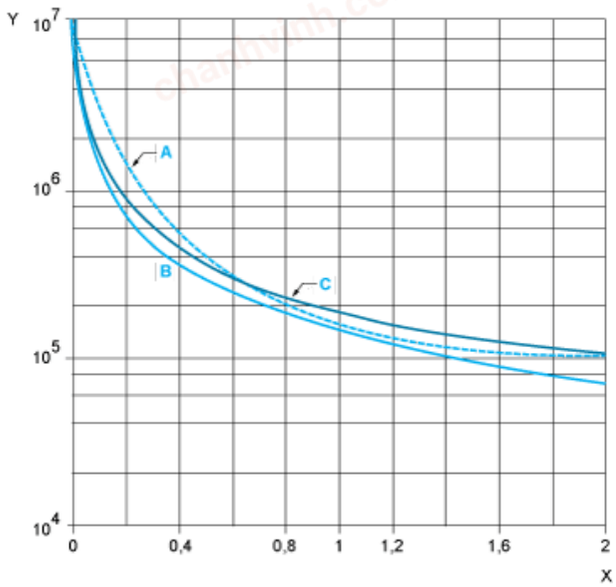
Product data sheet
Performance Curves

RSB1A160BDPV

Electrical Durability of Contacts

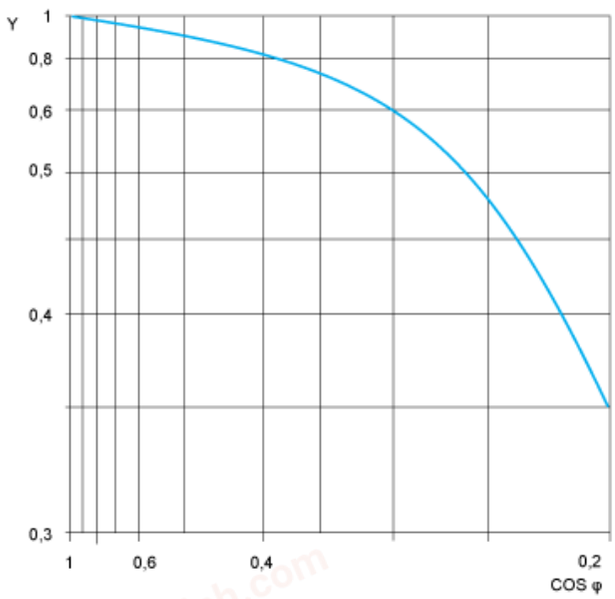
Durability (Inductive Load) = Durability (Resistive Load) x Reduction Coefficient.

Resistive AC Load



(y) Durability (Number of operating cycles)
(x) Switching capacity (kVA)
A : RSB2A080●●
B : RSB1A160●●
C : RSB1A120●●

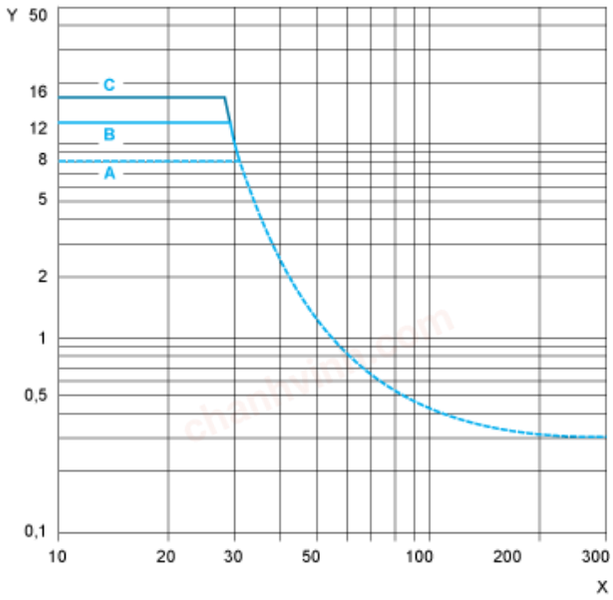
Reduction Coefficient for Inductive AC Load (Depending on Power Factor cos ϕ)



(y) Reduction coefficient (A)

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Maximum Switching Capacity on Resistive DC Load



(y) Current DC
(x) Voltage DC
A : RSB2A080●●
B : RSB1A160●●
C : RSB1A120●●

NOTE: These are typical curves, actual durability depends on load, environment, duty cycle, etc.

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