



Main

Range of product	Harmony Electromechanical Relays
Series name	Interface relay
Product or component type	Pre-assembled plug-in relay with socket
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 at -40...40 °C
Status LED	1 LED
Control type	Without

Complementary

Average coil resistance	350 Ohm network: AC at 20 °C +/- 15 %
[Ue] rated operational voltage	19.2...26.4 V AC 50/60 Hz
[Ui] rated insulation voltage	400 V conforming to EN/IEC 60947
[Uiimp] rated impulse withstand voltage	3.6 kV IEC 61000-4-5
Contacts material	Silver alloy (AgNi)
[Ie] rated operational current	12 A (AC-1/DC-1) NO conforming to IEC 6 A (AC-1/DC-1) NC conforming to IEC
Minimum switching current	10 mA
Maximum switching voltage	300 V DC conforming to IEC
Minimum switching voltage	12 V
Maximum switching capacity	3000 VA AC 336 W DC
Resistive rated load	12 A at 250 V AC 12 A at 28 V DC
Minimum switching capacity	120 mW at 10 mA, 12 V
Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	10000000 cycles
Electrical durability	100000 Cycles, 12 A at 250 V, AC-1 NO 100000 cycles, 6 A at 250 V, DC-1 NC
Operating time	20 ms operating 20 ms reset
Average coil consumption	0.75 VA AC
Drop-out voltage threshold	>= 0.15 Uc AC
Safety reliability data	B10d = 100000
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Torque value	0.8 N.M 0.79 N.m

Connections - terminals	Connector, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 22...AWG 14) flexible with cable end Connector, 2 x 0.25...2 x 1 mm <sup>2</sup> (AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Connector, 2 x 0.5...2 x 1.5 mm <sup>2</sup> (AWG 20...AWG 16) solid without cable end
Net weight	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
Ambient air temperature for storage	-40...85 °C
Vibration resistance	+/- 1 mm (f= 10...55 Hz) conforming to EN/IEC 60068-2-6
IP degree of protection	IP20 conforming to EN/IEC 60529
Shock resistance	10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27
Ambient air temperature for operation	-40...70 °C (AC)

## Packing Units

Package 1 Weight	53.000 g
Package 1 Height	84.200 mm
Package 1 width	15.600 mm
Package 1 Length	64.200 mm

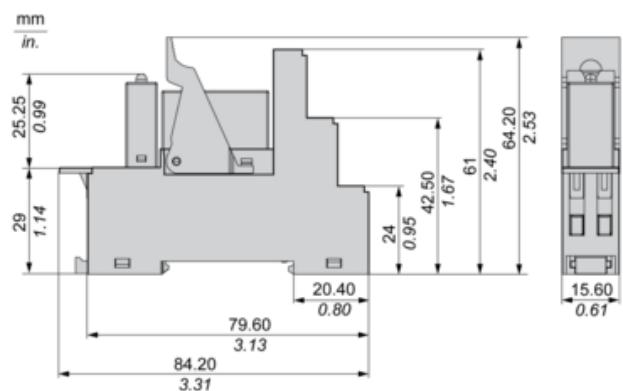
## Offer Sustainability

EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>
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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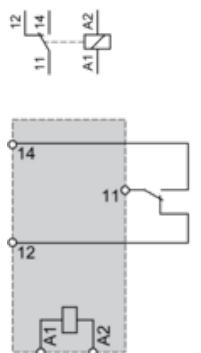
## Dimensions



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Wiring Diagram

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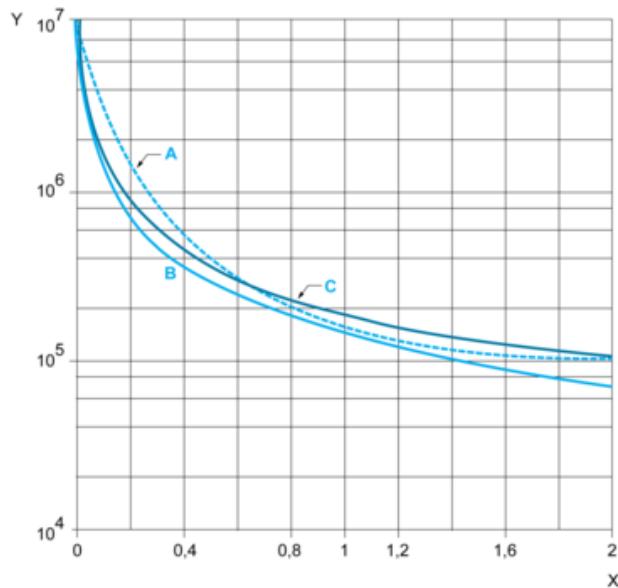


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

Electrical Durability of Contacts

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

Resistive AC Load



(y) Durability (Number of operating cycles)

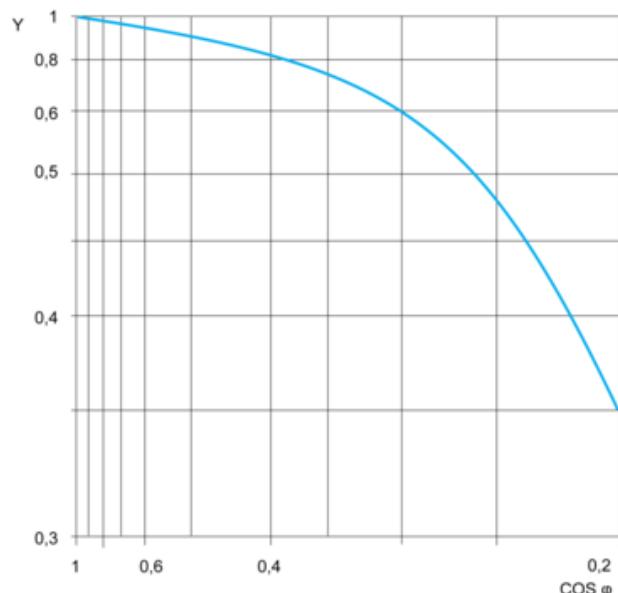
(x) Switching capacity (kVA)

A : RSB2A080••

B : RSB1A160••

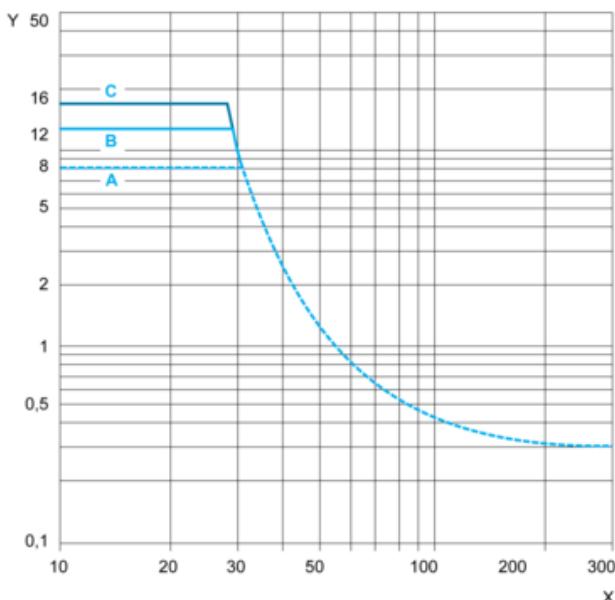
C : RSB1A120••

Reduction Coefficient for Inductive AC Load (Depending on Power Factor  $\cos \phi$ )



(y) Reduction coefficient (A)

## 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.