Product data sheet

Specifications

Harmony, Interface plug-in relay pre-assembled, 16 A, 1 CO, with LED, with protection circuit, 230 V AC

RSB1A160P7PV

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	230 V AC 50/60 Hz
[Ithe] conventional enclosed thermal current	16 A at -40…40 °C
Status LED	1 LED
Control type	Without

Complementary

Average coil resistance	32500 Ohm network: AC at 20 °C +/- 15 %
[Ue] rated operational voltage	184...253 V AC 50/60 Hz
[Ui] rated insulation voltage	400 V conforming to EN/IEC 60947
[Uimp] rated impulse withstand voltage	3.6 kV conforming to IEC 61000-4-5
Contacts material	Silver alloy (AgNi)
[Ie] rated operational current	16 A (AC-1/DC-1) NO conforming to IEC 8 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	4000 VA AC 448 W DC
Resistive rated load	16 A at 250 V AC
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	70000 cycles, 16 A at 250 V, AC-1 NO

	70000 cycles, 8 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 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
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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	56 g
Package 1 Height	1.7 cm
Package 1 width	7 cm
Package 1 Length	8.5 cm
Unit Type of Package 2	BB1
Number of Units in Package 2	30
Package 2 Weight	1.986 kg
Package 2 Height	19 cm
Package 2 width	9 cm
Package 2 Length	27 cm

Unit Type of Package 3	S03
Number of Units in Package 3	180
Package 3 Weight	12.774 kg
Package 3 Height	30 cm
Package 3 width	30 cm
Package 3 Length	40 cm

Offer Sustainability

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
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

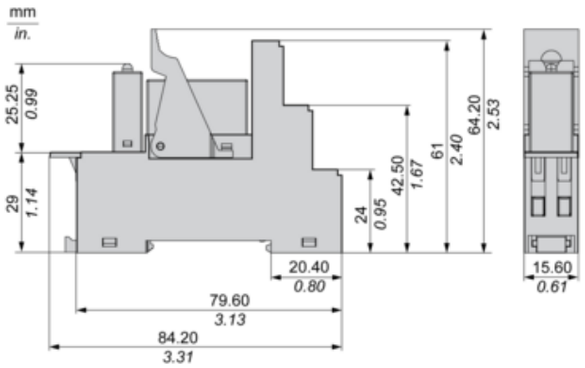
Contractual warranty

Warranty	18 Months

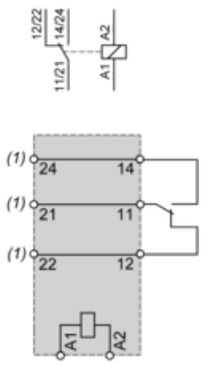
Product data sheet
Dimensions Drawings

RSB1A160P7PV

Dimensions



Wiring Diagram



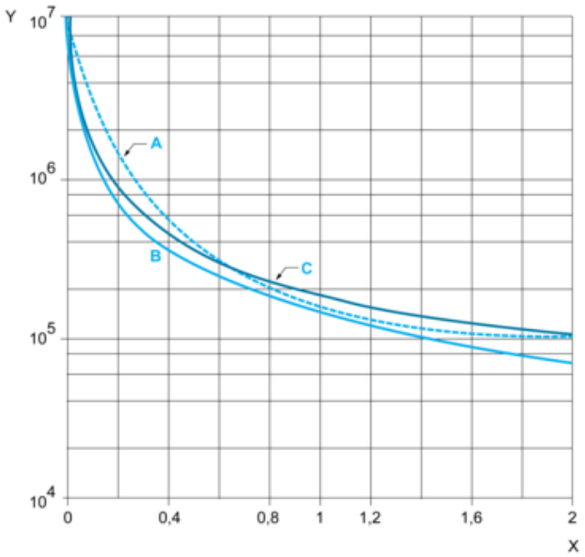
(1) Terminals 11 and 21,14 and 24,12 and 22 must be linked for this references

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

Electrical Durability of Contacts

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

Resistive AC Load



(y) Durability (Number of operating cycles)

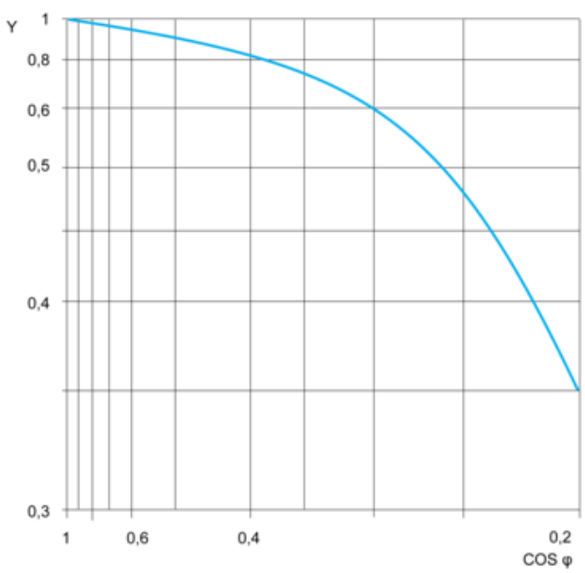
(x) Switching capacity (kVA)

A : RSB2A080●●

B : RSB1A160●●

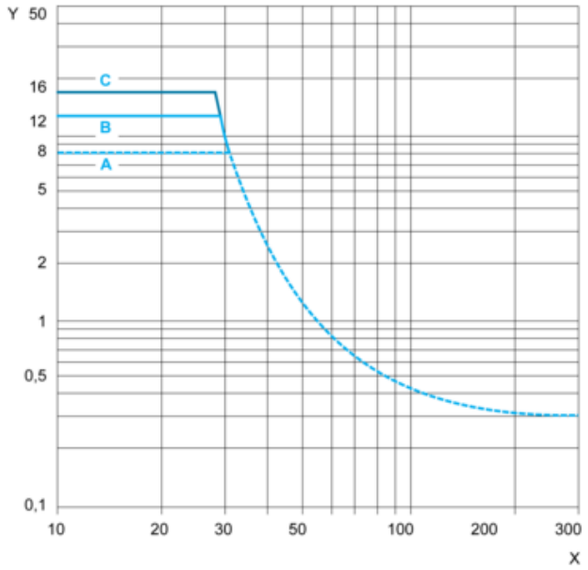
C : RSB1A120●●

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



(y) Reduction coefficient (A)

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.