Product data sheet
Characteristics

RPM31B7
Power plug in relay, Harmony, 15A, 3CO, lockable test button, 24V AC

Green Premium Product

Main

Range of Product	Harmony Electromechanical Relays
Series name	Power
Product or Component Type	Plug-in relay
Device short name	RPM
Contacts type and composition	3 C/O
[Uc] control circuit voltage	24 V AC 50/60 Hz
[Ithe] conventional enclosed thermal current	15 A -40…131 °F (-40…55 °C)
Status LED	Without
Control type	Lockable test button
Utilisation coefficient	20 %

Complementary

Shape of pin	Flat
[Ui] rated insulation voltage	250 V IEC 300 V CSA 300 V UL
[Uimp] rated impulse withstand voltage	4 kV 1.2/50 μs
Contacts material	AgNi
[Ie] rated operational current	15 A 277 V AC) UL 15 A 28 V DC) UL 15 A 250 V AC) NO IEC 15 A 28 V DC) NO IEC 7.5 A 250 V AC) NC IEC 7.5 A 28 V DC) NC IEC
Maximum switching voltage	250 V IEC
Load current	15 A 250 V AC 15 A 28 V DC
Maximum switching capacity	3750 VA 420 W
Minimum switching capacity	170 mW 10 mA, 17 V
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles resistive
Average coil consumption in VA	1.7 60 Hz
Drop-out voltage threshold	>= 0.15 Uc AC
Operating time	20 ms at nominal voltage
Reset time	20 ms at nominal voltage
Average resistance	110 Ohm at 68 °F (20 °C) +/- 15 %
Rated operational voltage limits	19.2...26.4 V AC
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Pollution degree	3
Safety reliability data	B10d = 100000

Net Weight	0.12 lb(US) (0.054 kg)
Device presentation	Complete product

Environment

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Dielectric strength	1500 V AC between contacts with micro disconnection 2000 V AC between coil and contact with reinforced 2000 V AC between poles with basic
Standards	UL 508 EN/IEC 61810-1 CSA C22.2 No 14
Product Certifications	UL[RETURN]CSA[RETURN]EAC
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Ambient air temperature for operation	-40…131 °F (-40…55 °C)
Vibration resistance	3 gn +/- 1 mm 10…150 Hz)5 cycles in operation 5 gn +/- 1 mm 10…150 Hz)5 cycles not operating
IP degree of protection	IP40 conforming to EN/IEC 60529
Shock resistance	15 gnin operation 30 gnnot operating

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.18 in (3 cm)
Package 1 Width	1.30 in (3.3 cm)
Package 1 Length	1.97 in (5 cm)
Package 1 Weight	2.05 oz (58 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.22 in (3.1 cm)
Package 2 Width	4.09 in (10.4 cm)
Package 2 Length	6.89 in (17.5 cm)
Package 2 Weight	20.53 oz (582 g)
Unit Type of Package 3	S01
Number of Units in Package 3	80
Package 3 Height	5.91 in (15 cm)
Package 3 Width	5.91 in (15 cm)
Package 3 Length	15.75 in (40 cm)
Package 3 Weight	10.76 lb(US) (4.881 kg)

Offer Sustainability

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Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
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
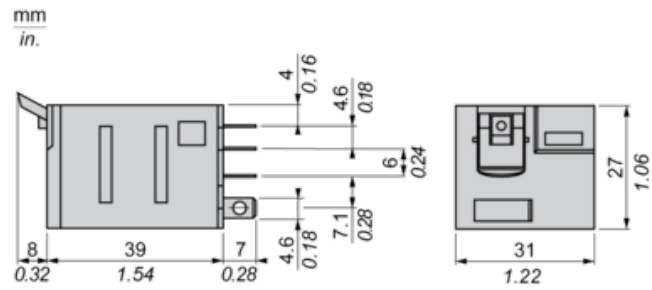
Pin Side View
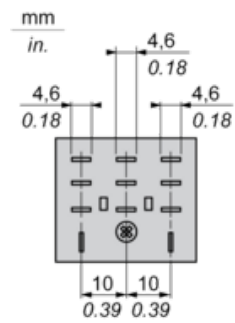
Wiring Diagram
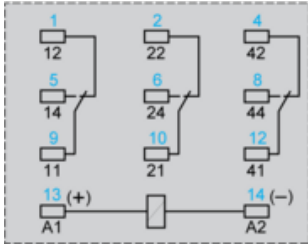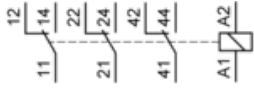
Symbols shown in blue correspond to Nema marking.

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Electrical Durability of Contacts

Durability (inductive load) = durability (resistive load) x reduction coefficient.
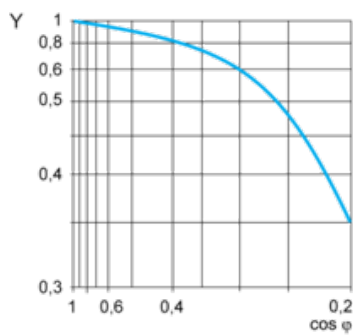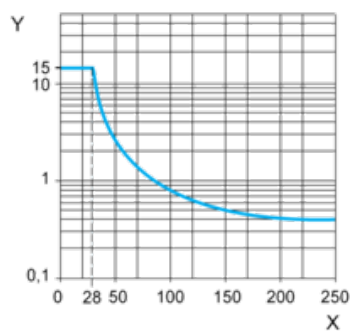
Resistive AC load
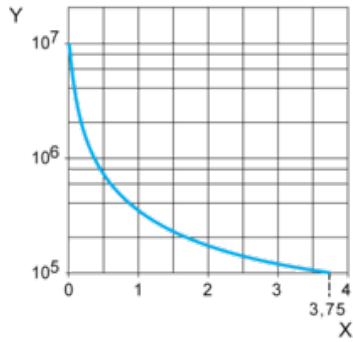
X Switching capacity (kVA)

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.