

Product data sheet

Specifications



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

RPM31B7

⚠ Discontinued on: Jun 30, 2023

⚠ Discontinued

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
status LED	Without
Minimum switching capacity	170 mW 10 mA, 17 V
Release time	20 ms at nominal voltage
Ambient air temperature for operation	-40...131 °F (-40...55 °C)
[Ithe] conventional enclosed thermal current	15 A -40...131 °F (-40...55 °C)

Complementary

[Uc] control circuit voltage	24 V AC 50/60 Hz
Control type	Lockable test button
[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
Degree of protection (Housing only)	IP40 conforming to EN/IEC 60529
Rated operational voltage limits	19.2...26.4 V AC
[Ui] rated insulation voltage	250 V IEC 300 V CSA 300 V UL
Maximum switching voltage	250 V IEC
Drop-out voltage threshold	>= 0.15 Uc AC
Maximum switching capacity	3750 VA 420 W
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles resistive
Safety reliability data	B10d = 100000
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load

Disclaimer: 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

Utilisation coefficient	20 %
Dielectric strength	1500 V AC between contacts micro disconnection 2000 V AC between coil and contact reinforced 2000 V AC between poles basic
[Uimp] rated impulse withstand voltage	4 kV 1.2/50 µs
Protection category	RT I
Operating position	Any position
Test levels	Level A group mounting
Device presentation	Complete product
Contacts material	AgNi
Shape of pin	Flat
Net weight	0.119 lb(US) (0.054 kg)

Environment

Average coil consumption in VA	1.7 60 Hz
Pollution degree	3
Standards	UL 508 EN/IEC 61810-1 CSA C22.2 No 14
Product certifications	UL CSA EAC
Ambient air temperature for storage	-40...185 °F (-40...85 °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
Shock resistance	15 gnin operation 30 gnnot operating

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.2 in (3 cm)
Package 1 Width	1.3 in (3.3 cm)
Package 1 Length	2.0 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	1.2 in (3.1 cm)
Package 2 Width	4.09 in (10.4 cm)
Package 2 Length	6.9 in (17.5 cm)
Package 2 Weight	20.5 oz (582 g)
Unit Type of Package 3	S01
Number of Units in Package 3	80
Package 3 Height	5.9 in (15 cm)
Package 3 Width	5.9 in (15 cm)

Package 3 Length	15.7 in (40 cm)
Package 3 Weight	10.761 lb(US) (4.881 kg)

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant

Use Longer

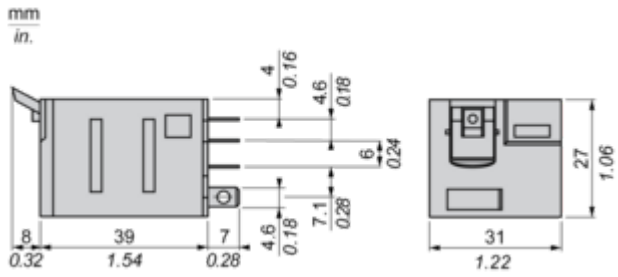
Lifetime extension	
Repair	No

Use Again

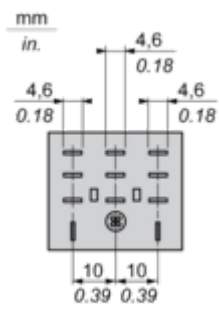
Repack and remanufacture	
Circularity Profile	No need of specific recycling operations

Dimensions Drawings

Dimensions

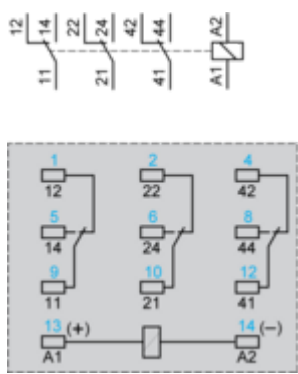


Pin Side View



Connections and Schema

Wiring Diagram

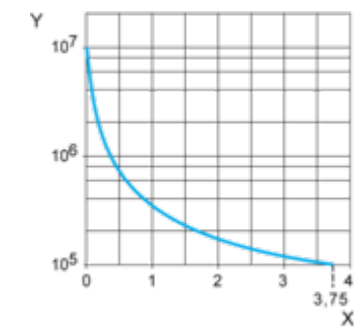


Symbols shown in blue correspond to Nema marking.

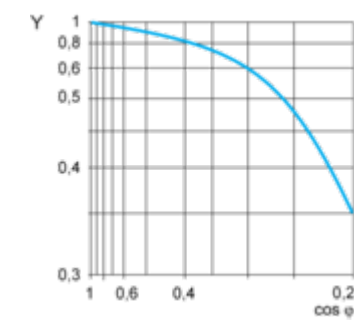
Performance Curves

Electrical Durability of Contacts

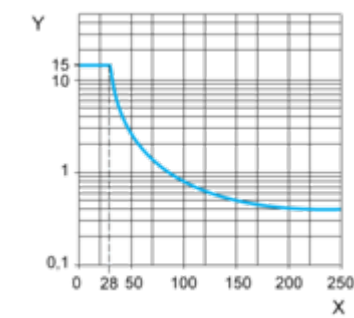
Durability (inductive load) = durability (resistive load) x reduction coefficient.
Resistive AC load



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.

Technical Illustration

Dimensions

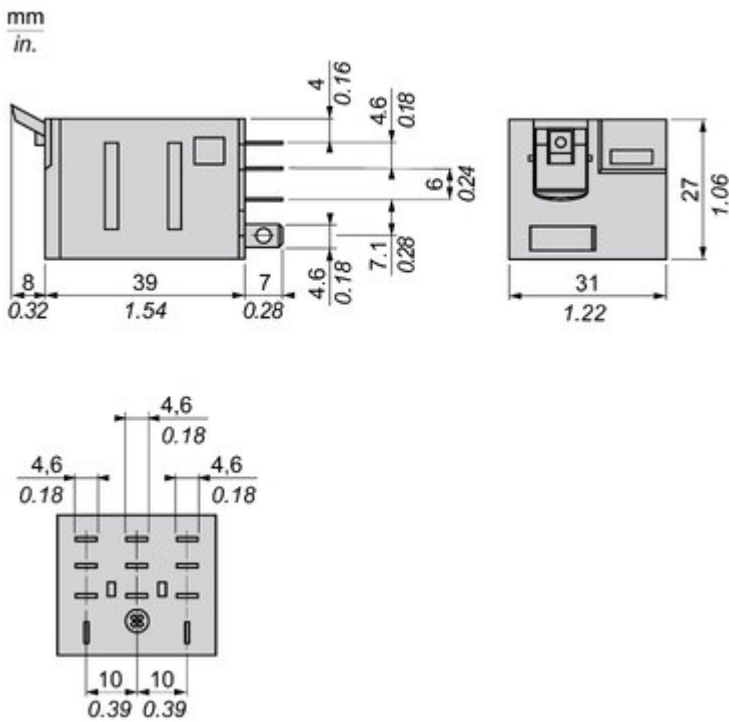
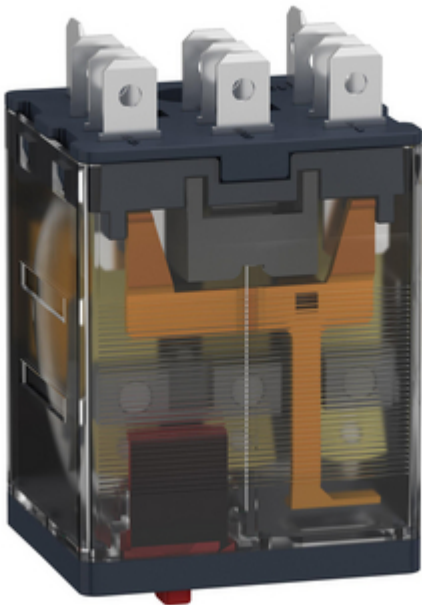
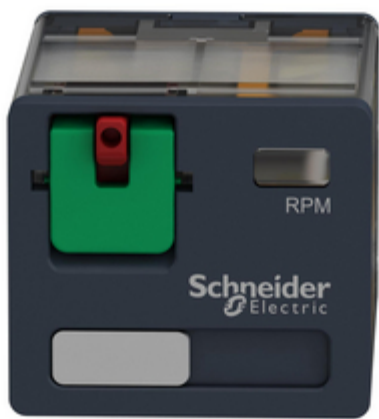


Image of product / Alternate images

Alternative





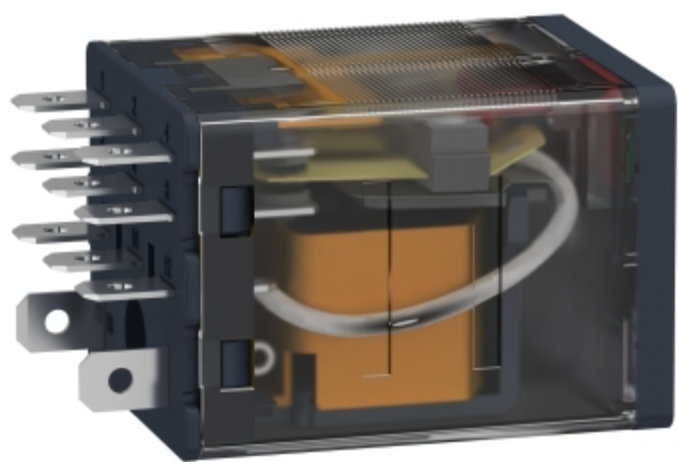
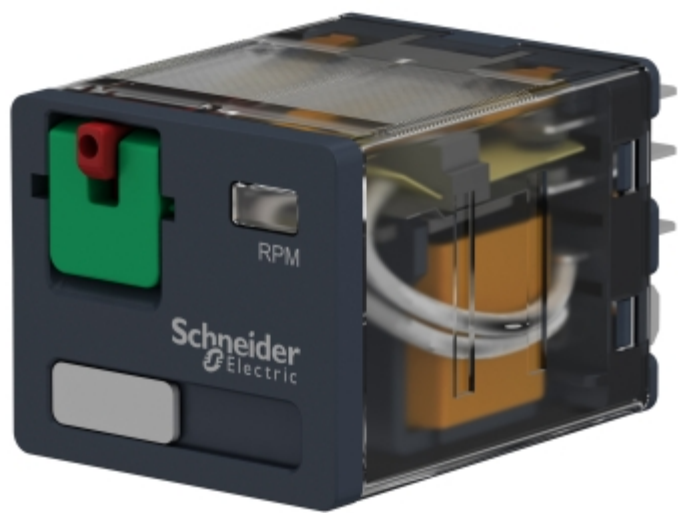


Image of product in real life situation

