Product data sheet

Specifications



plug-in relay, Harmony electromechanical relays, 15A, 3CO, lockable test button, 120V AC

RPM31F7

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Electromechanical Relays
Series name	RPM series
Product or Component Type	Plug-in relay
Contacts type and composition	3 C/O
Relay Type	Power relay
Status LED	Without
[Uc] control circuit voltage	120 V AC 50/60 Hz
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

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 IEC 60529
Rated operational voltage limits	96...132 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
Average resistance	2880 Ohm at 68 °F (20 °C) +/- 15 %
Maximum switching capacity	3750 VA 420 W
Load current	15 A 250 V AC 15 A 28 V DC
Operating time	20 ms at nominal voltage
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles resistive

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Safety reliability data	B10d = 100000
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Utilisation coefficient	20 %
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
[Uimp] rated impulse withstand voltage	4 kV 1.2/50 µs
Protection category	RT I
Mounting Support	Plug-in
Operating position	Any position
Test levels	Level A group mounting
Device presentation	Complete product
Contacts material	AgNi
Shape of pin	Flat (faston type)
Net Weight	0.119 lb(US) (0.054 kg)

Environment

Average coil consumption in VA	1.7 60 Hz
Pollution degree	3
Standards	CSA C22.2 No 14 IEC 61810-1 UL 508
Product Certifications	UL EAC CSA
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

Ordering and shipping details

Category	US10CP221127
Discount Schedule	0CP2
GTIN	3389119402002
Returnability	Yes
Country of origin	CN

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.9 in (4.7 cm)
Package 1 Width	1.2 in (3.1 cm)
Package 1 Length	1.1 in (2.8 cm)
Package weight(Lbs)	1.9 oz (55 g)

Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.2 in (3 cm)
Package 2 Width	4.1 in (10.5 cm)
Package 2 Length	7.09 in (18 cm)
Package 2 Weight	20.07 oz (569 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	10.783 lb(US) (4.891 kg)

Contractual warranty

Warranty (in months)	18

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 >

Environmental footprint

Total lifecycle Carbon footprint	**23 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**0.5 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**23 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Compliant**
REACh Regulation	**Free of Substances of Very High Concern above the threshold**
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**

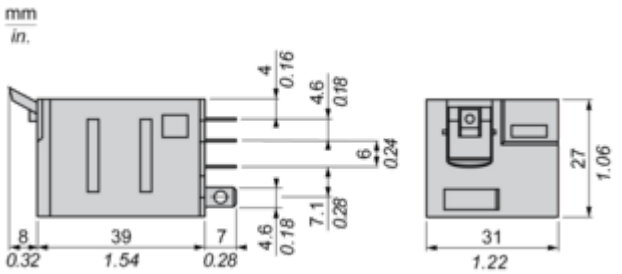
Use Again

Repack and remanufacture

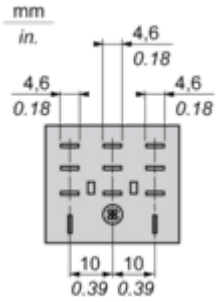
Recyclability potential, in %	**68**
Circularity Profile	**No need of specific recycling operations**
Take-back	**No**

Dimensions Drawings

Dimensions

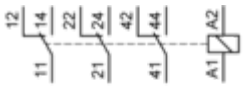


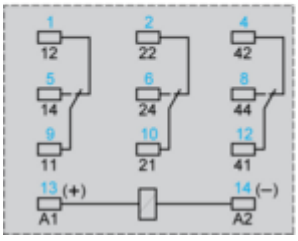
Pin Side View



Connections and Schema

Wiring Diagram



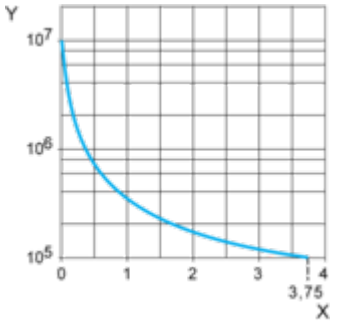


Symbols shown in blue correspond to Nema marking.

Performance Curves

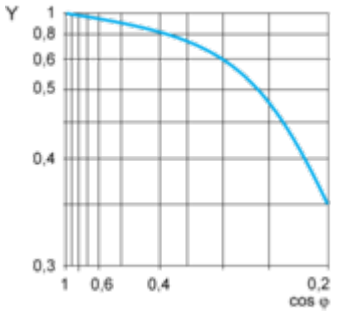
Electrical Durability of Contacts

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



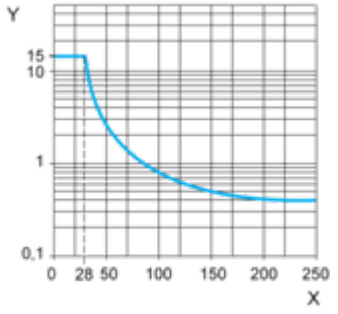
X Switching capacity (kVA)
Y Durability (Number of operating cycles)

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.

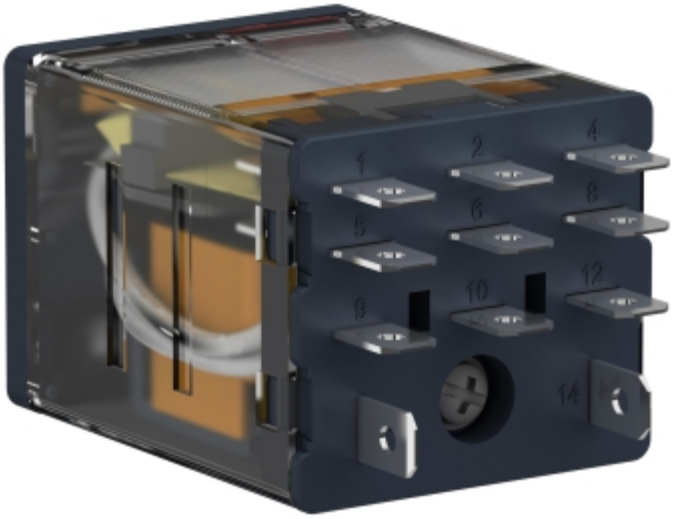
Image of product / Alternate images

Alternative






RPM
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