Product datasheet

Specifications

Green Premium™

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

RPM31B7

Discontinued on: 30 June 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
[Uc] Control Circuit Voltage	24 V AC 50/60 Hz
[Ithe] Conventional Enclosed Thermal Current	15 A at -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 conforming to IEC 300 V conforming to CSA 300 V conforming to UL
[Uimp] Rated Impulse Withstand Voltage	4 kV during 1.2/50 µs
Contacts Material	AgNi
[Ie] Rated Operational Current	15 A at 277 V (AC) conforming to UL 15 A at 28 V (DC) conforming to UL 15 A at 250 V (AC) NO conforming to IEC 15 A at 28 V (DC) NO conforming to IEC 7.5 A at 250 V (AC) NC conforming to IEC 7.5 A at 28 V (DC) NC conforming to IEC
Maximum Switching Voltage	250 V conforming to IEC
Resistive Load Current	15 A at 250 V AC 15 A at 28 V DC
Maximum Switching Capacity	3750 VA 420 W
Minimum Switching Capacity	170 mW at 10 mA, 17 V
Operating Rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical Durability	10000000 cycles
Electrical Durability	100000 cycles for resistive load
Average Coil Consumption In Va	1.7 at 60 Hz

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

Drop-Out Voltage Threshold	>= 0.15 Uc AC
Operate Time	20 ms at nominal voltage
Release Time	20 ms at nominal voltage
Average Coil Resistance	110 Ohm at 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	0.054 kg
Device Presentation	Complete product

Environment

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 CSA EAC
Ambient Air Temperature For Storage	-40…85 °C
Ambient Air Temperature For Operation	-40…55 °C
Vibration Resistance	3 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles in operation 5 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles not operating
Degree Of Protection (Housing Only)	IP40 conforming to EN/IEC 60529
Shock Resistance	15 gn for in operation 30 gn for not operating

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	3 cm
Package 1 Width	3.3 cm
Package 1 Length	5 cm
Package 1 Weight	58 g
Unit Type Of Package 2	BB1
Number Of Units In Package 2	10
Package 2 Height	3.1 cm
Package 2 Width	10.4 cm
Package 2 Length	17.5 cm
Package 2 Weight	582 g
Unit Type Of Package 3	S01

Number Of Units In Package 3	80
Package 3 Height	15 cm
Package 3 Width	15 cm
Package 3 Length	40 cm
Package 3 Weight	4.881 kg

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

Reach Free Of Svhc

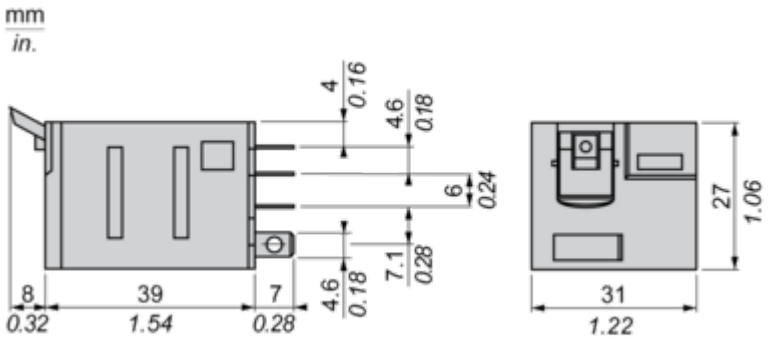
Rohs Exemption Information	Yes

Certifications & Standards

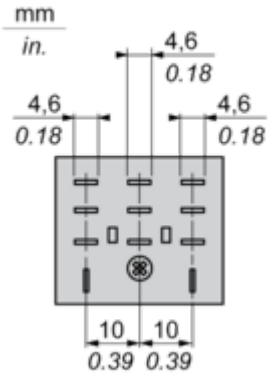
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	No need of specific recycling operations

Dimensions Drawings

Dimensions

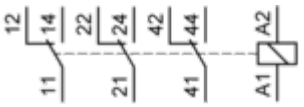


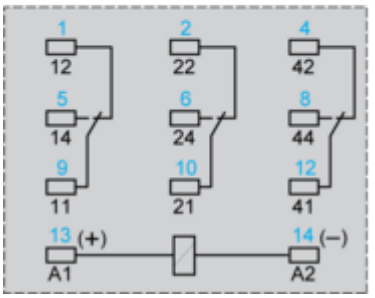
Pin Side View



Connections and Schema

Wiring Diagram



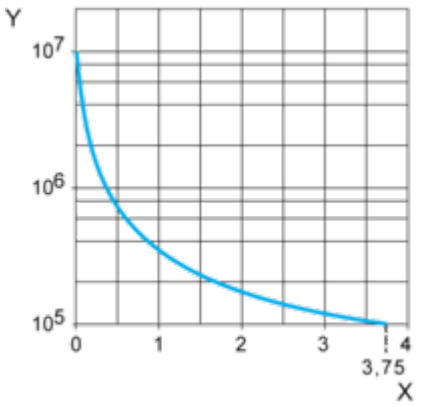


Symbols shown in blue correspond to Nema marking.

Performance Curves

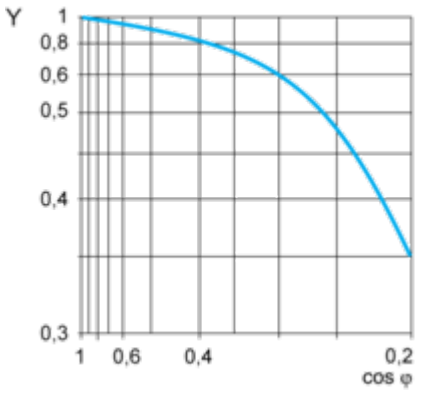
Electrical Durability of Contacts

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



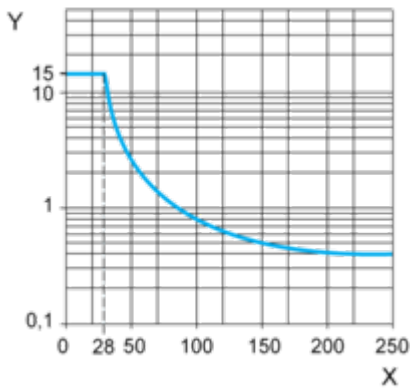
X Switching capacity (kVA)
Y Durability (Number of operating cycles)

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.