

# Product datasheet

Specifications



## Universal plug-in relay, 10 A, 3 CO, 24 V AC

RUMC31B7

### Main

Range of product	Harmony Electromechanical Relays
Series name	Universal
Product or component type	Plug-in relay
Device short name	RUM
Contacts type and composition	3 C/O
[Uc] control circuit voltage	24 V AC 50/60 Hz
[Ithe] conventional enclosed thermal current	10 A at -40...55 °C
Status LED	Without
Control type	Lockable test button
Utilisation coefficient	20 %

### Complementary

Shape of pin	Cylindrical
[U] 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 (1.2/50 µs)
Contacts material	AgNi
[Ie] rated operational current	10 A at 277 V AC conforming to UL 10 A at 30 V DC conforming to UL 10 A at 277 V AC (same polarity) conforming to CSA 10 A at 30 V DC conforming to CSA 5 A at 250 V AC (NC) conforming to IEC 5 A at 28 V DC (NC) conforming to IEC 10 A at 250 V AC (NO) conforming to IEC 10 A at 28 V DC (NO) conforming to IEC
Maximum switching voltage	250 V conforming to IEC
Resistive rated load	10 A at 250 V AC 10 A at 28 V DC
Maximum switching capacity	2500 VA/280 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	5000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption in VA	3 at 60 Hz

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

<b>Drop-out voltage threshold</b>	>= 0.15 U <sub>c</sub> AC
<b>Operate time</b>	20 ms at nominal voltage
<b>Release time</b>	20 ms at nominal voltage
<b>Average coil resistance</b>	72 Ohm at 20 °C +/- 15 %
<b>Rated operational voltage limits</b>	19.2...26.4 V AC
<b>Protection category</b>	RT I
<b>Test levels</b>	Level A group mounting
<b>Safety reliability data</b>	B10d = 100000
<b>Operating position</b>	Any position
<b>Net weight</b>	0.086 kg
<b>Device presentation</b>	Complete product

## Environment

<b>Dielectric strength</b>	1500 V AC between contacts with micro disconnection 2500 V AC between coil and contact with reinforced 2000 V AC between poles with basic
<b>product certifications</b>	CSA EAC UL
<b>Standards</b>	CSA C22.2 No 14 UL 508 IEC 61810-1
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Ambient air temperature for operation</b>	-40...55 °C
<b>Vibration resistance</b>	3 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles in operation 4 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles not operating
<b>IP degree of protection</b>	IP40
<b>Shock resistance</b>	10 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to IEC 60068-2-27
<b>Pollution degree</b>	2

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.6 cm
<b>Package 1 Width</b>	3.5 cm
<b>Package 1 Length</b>	6.9 cm
<b>Package 1 Weight</b>	89 g
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	10
<b>Package 2 Height</b>	4 cm
<b>Package 2 Width</b>	14.6 cm
<b>Package 2 Length</b>	20 cm
<b>Package 2 Weight</b>	961 g
<b>Unit Type of Package 3</b>	S02

<b>Number of Units in Package 3</b>	60
<b>Package 3 Height</b>	15 cm
<b>Package 3 Width</b>	30 cm
<b>Package 3 Length</b>	40 cm
<b>Package 3 Weight</b>	6.36 kg

## 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<sub>2</sub> 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](#)

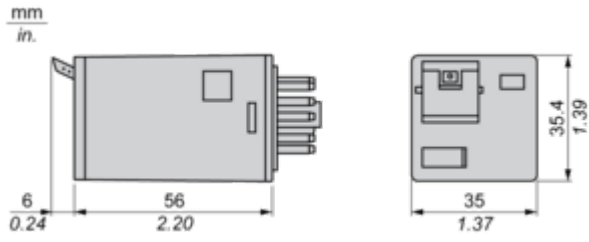
Environmental Disclosure [Product Environmental Profile](#)

Circularity Profile No need of specific recycling operations

Dimensions Drawings

Dimensions

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Connections and Schema

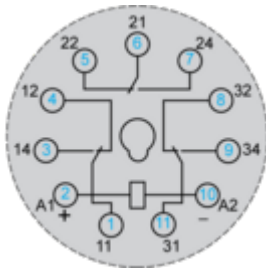
Wiring Diagram

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Wiring Diagram

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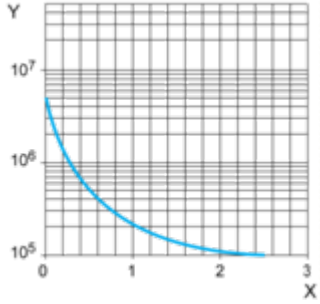
Symbols shown in blue correspond to Nema marking.

Performance Curves

**Electrical Durability of Contacts**

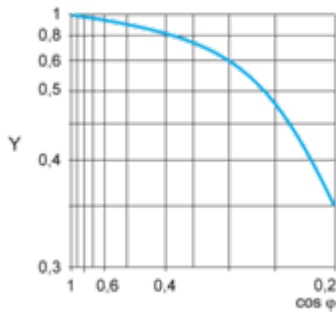
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**Durability (inductive load) = durability (resistive load) x reduction coefficient.**  
 Resistive AC load

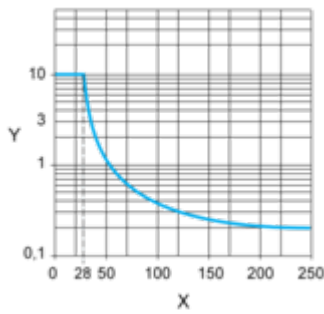


X Switching capacity (kVA)  
 Y Durability (Number of operating cycles)

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

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