

# RUMF31B7

Harmony, Universal plug-in relay, 10 A, 3 CO, with lockable test button, flat (faston) terminals, 24 V AC



## 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 -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	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 IEC
Resistive rated load	10 A 250 V AC 10 A 28 V DC
Maximum switching capacity	2500 VA/280 W
Minimum switching capacity	170 mW 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	5000000 cycles
Electrical durability	100000 cycles resistive
Average coil consumption in VA	3 60 Hz
Drop-out voltage threshold	>= 0.15 U <sub>c</sub> AC
Operate time	20 ms at nominal voltage
Release time	20 ms at nominal voltage
Average coil resistance	72 Ohm 20 °C +/- 15 %
Rated operational voltage limits	19.2...26.4 V AC
Protection category	RT I
Test levels	Level A
Safety reliability data	B10d = 100000
Operating position	Any position

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Net Weight	0.19 lb(US) (0.086 kg)
Device presentation	Complete product

## Environment

Dielectric strength	1500 V AC between contacts with micro disconnection 2500 V AC between coil and contact with reinforced 2000 V AC between poles with basic
Product Certifications	EAC UL CSA
Standards	CSA C22.2 No 14 UL 508 EN/IEC 61810-1
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 4 gn +/- 1 mm 10...150 Hz)5 cycles not operating
IP degree of protection	IP40
Shock resistance	10 gn 11 ms) in operation EN/IEC 60068-2-27 10 gn 11 ms) not operating EN/IEC 60068-2-27
Pollution degree	3

## Ordering and shipping details

Category	21127-ZELIO ICE CUBE RELAYS
Discount Schedule	CP2
GTIN	3606480627361
Nbr. of units in pkg.	1
Package weight(Lbs)	3.25 oz (92.0 g)
Returnability	No
Country of origin	CN

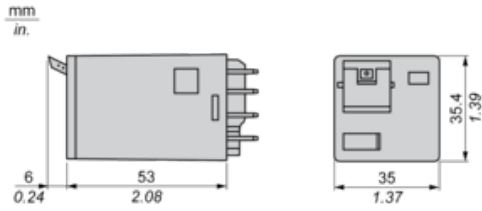
## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.46 in (3.7 cm)
Package 1 width	1.50 in (3.8 cm)
Package 1 Length	2.83 in (7.2 cm)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Weight	31.60 oz (896.0 g)
Package 2 Height	1.50 in (3.8 cm)
Package 2 width	5.20 in (13.2 cm)
Package 2 Length	7.87 in (20 cm)
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Weight	13.17 lb(US) (5.972 kg)
Package 3 Height	5.91 in (15 cm)
Package 3 width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)

## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

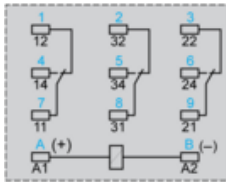
Dimensions



## Wiring Diagram



## Wiring Diagram



Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

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

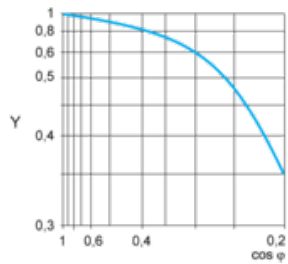
Resistive AC load



X Switching capacity (kVA)

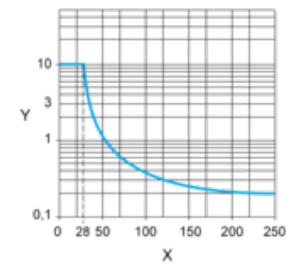
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor  $\cos \phi$ )



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.