

Product data sheet

Specifications



universal plug in relay, Harmony
Electromechanical Relays, 10A,
3CO, without LED, lockable test
button, cylindrical, 60V DC

RUMC31ND

Main

Range of product	Harmony Electromechanical Relays
Series name	RUM series
Product or component type	Plug-in relay
Relay type	Universal relay
Contacts type and composition	3 C/O
status LED	Without
Control type	Lockable test button
[Uc] control circuit voltage	60 V DC
[Ithe] conventional enclosed thermal current	10 A -40...131 °F (-40...55 °C)

Complementary

[Uimp] rated impulse withstand voltage	4 kV 1.2/50 µs)
Minimum switching capacity	170 mW 10 mA, 17 V
Electrical durability	100000 cycles resistive
Operating time	20 ms at nominal voltage
Rated operational voltage limits	48...66 V DC
[UI] rated insulation voltage	250 V IEC 300 V CSA 300 V UL
Reset time	20 ms at nominal voltage
Maximum switching voltage	250 V IEC
Drop-out voltage threshold	>= 0.1 Uc DC
[Ie] rated operational current	10 A 277 V AC UL 10 A 30 V DC UL 10 A 277 V AC same polarity)CSA 10 A 30 V DC CSA 5 A 250 V AC NC)IEC 5 A 28 V DC NC)IEC 10 A 250 V AC NO)IEC 10 A 28 V DC NO)IEC
Average resistance	2790 Ohm 20 °C +/- 15 %
Maximum switching capacity	2500 VA/280 W
Mechanical durability	5000000 cycles
Safety reliability data	B10d = 100000
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under 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 %
Compatibility code	RUM
Dielectric strength	1500 V AC between contacts micro disconnection 2500 V AC between coil and contact reinforced 2000 V AC between poles basic
Protection category	RT I
Pollution degree	2
Operating position	Any position
Test levels	Level A group mounting
Device presentation	Complete product
Contacts material	AgNi
Shape of pin	Cylindrical
Net weight	0.190 lb(US) (0.086 kg)

Environment

Ambient air temperature for operation	-40...131 °F (-40...55 °C)
IP degree of protection	IP40
Standards	UL 508 CSA C22.2 No 14 IEC 61810-1
Product certifications	CSA UL 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 4 gn +/- 1 mm 10...150 Hz)5 cycles not operating
Shock resistance	10 gn 11 ms) in operation IEC 60068-2-27 10 gn 11 ms) not operating IEC 60068-2-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.756 in (7.000 cm)
Package 1 Width	1.378 in (3.500 cm)
Package 1 Length	1.378 in (3.500 cm)
Package 1 Weight	3.316 oz (94.000 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.535 in (3.900 cm)
Package 2 Width	5.827 in (14.800 cm)
Package 2 Length	7.795 in (19.800 cm)
Package 2 Weight	35.132 oz (996.000 g)
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	5.906 in (15.000 cm)

Package 3 Width	11.811 in (30.000 cm)
Package 3 Length	15.748 in (40.000 cm)
Package 3 Weight	14.304 lb(US) (6.488 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 >](#)



Environmental footprint

Total lifecycle Carbon footprint	21 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	4 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	16 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.2 kg CO2 eq.

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

Use Longer



Lifetime extension

Repair	No
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Use Again

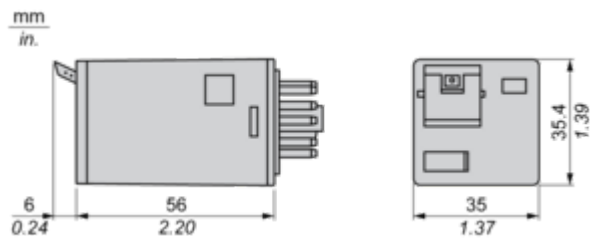


Repack and remanufacture

Recyclability potential, in %	58
Circularity Profile	No need of specific recycling operations
Take-back	No

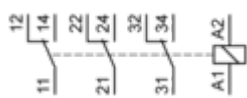
Dimensions Drawings

Dimensions

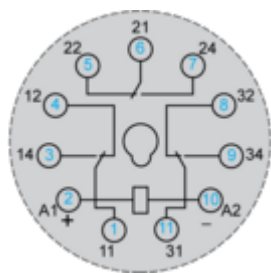


Connections and Schema

Wiring Diagram



Wiring Diagram

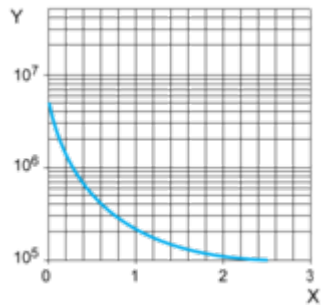


Symbols shown in blue correspond to Nema marking.

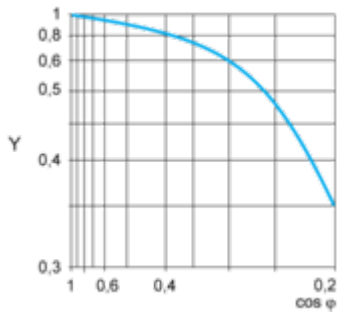
Performance Curves

Electrical Durability of Contacts

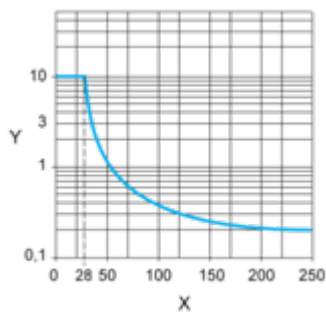
Durability (inductive load) = durability (resistive load) x reduction coefficient.
Resistive AC load



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

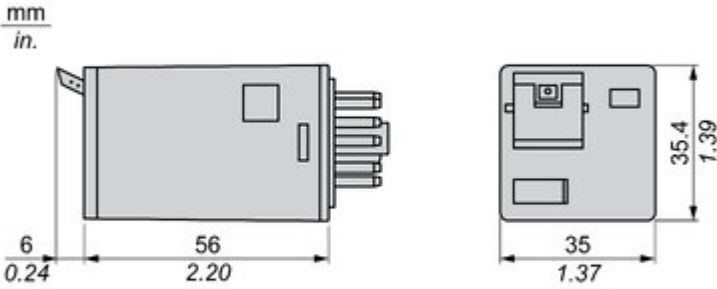


Image of product in real life situation

