Product data sheet

Specifications

universal plug in relay, Harmony Electromechanical Relays, 10A, 3CO, lockable test button, 110V DC

RUMC31FD

Product availability: Non-Stock - Not normally stocked in distribution facility

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	110 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	88...121 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 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
Average resistance	7300 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

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

Utilisation coefficient	20 %
Compatibility code	RUM
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
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
Product 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	IEC 61810-1 CSA C22.2 No 14 UL 508
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

Ordering and shipping details

Category	US10CP221127
Discount Schedule	0CP2
GTIN	3606480626869
Returnability	Yes
Country of origin	CN

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.38 in (3.500 cm)
Package 1 Width	2.72 in (6.900 cm)
Package 1 Length	1.42 in (3.600 cm)
Package weight(Lbs)	3.139 oz (89.000 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10

Package 2 Height	1.57 in (4.000 cm)
Package 2 Width	5.79 in (14.700 cm)
Package 2 Length	7.83 in (19.900 cm)
Package 2 Weight	33.439 oz (948.000 g)
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	5.91 in (15.000 cm)
Package 3 Width	11.81 in (30.000 cm)
Package 3 Length	15.75 in (40.000 cm)
Package 3 Weight	13.700 lb(US) (6.214 kg)

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

Carbon footprint (kg CO2 eq, Total Life cycle)	18

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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

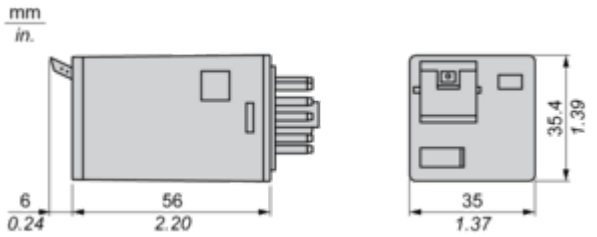
Use Again

Repack and remanufacture

Circularity Profile	No need of specific recycling operations
Take-back	No

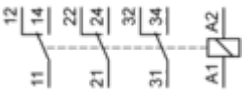
Dimensions Drawings

Dimensions

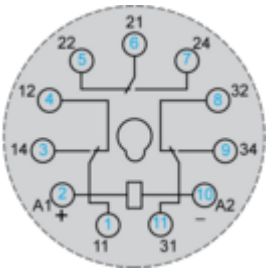


Connections and Schema

Wiring Diagram



Wiring Diagram

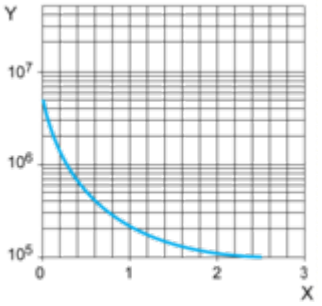


Symbols shown in blue correspond to Nema marking.

Performance Curves

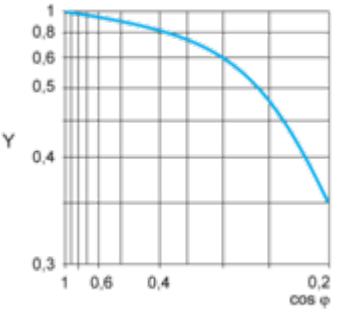
Electrical Durability of Contacts

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



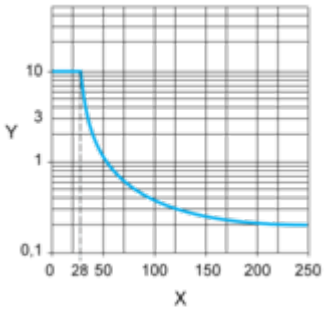
X Switching capacity (kVA)
Y Durability (Number of operating cycles)

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

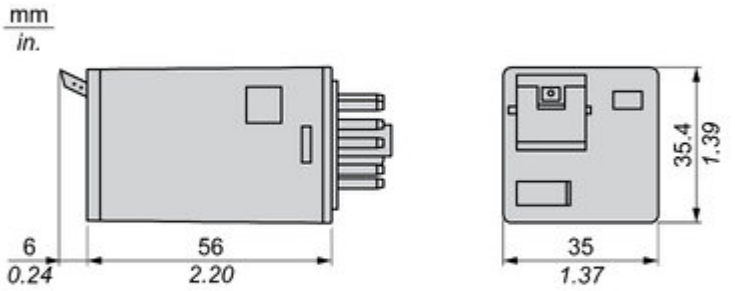


Image of product in real life situation