

RUMC31FD

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



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	110 V DC
[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	Cylindrical
[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 W	1.4 W
Drop-out voltage threshold	>= 0.1 U _c DC
Operate time	20 ms at nominal voltage
Release time	20 ms at nominal voltage
Average coil resistance	7300 Ohm 20 °C +/- 15 %
Rated operational voltage limits	88...121 V DC
Protection category	RT I
Test levels	Level A group mounting
Safety reliability data	B10d = 100000

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Operating position	Any position
Net Weight	0.190 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	CSA[RETURN]UL[RETURN]EAC
Standards	IEC 61810-1 CSA C22.2 No 14 UL 508
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 IEC 60068-2-27 10 gn 11 ms) not operating IEC 60068-2-27
Pollution degree	2

Ordering and shipping details

Category	US10CP221127
Discount Schedule	OCP2
GTIN	3606480626869
Returnability	No
Country of origin	CN

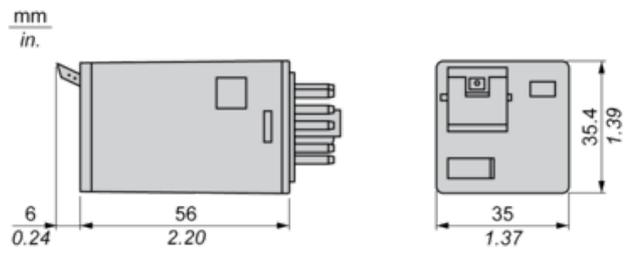
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.5 in (3.7 cm)
Package 1 Width	1.5 in (3.8 cm)
Package 1 Length	2.8 in (7.2 cm)
Package 1 Weight	3.4 oz (95.0 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.6 in (4.0 cm)
Package 2 Width	5.7 in (14.6 cm)
Package 2 Length	7.8 in (19.8 cm)
Package 2 Weight	34.04 oz (965.0 g)
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	5.9 in (15.0 cm)
Package 3 Width	11.8 in (30.0 cm)
Package 3 Length	15.7 in (40.0 cm)
Package 3 Weight	13.766 lb(US) (6.244 kg)

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 www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations

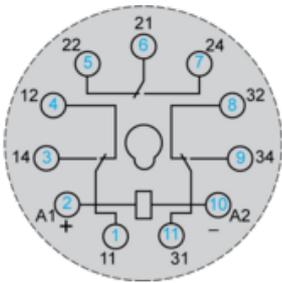
Dimensions



Wiring Diagram



Wiring Diagram

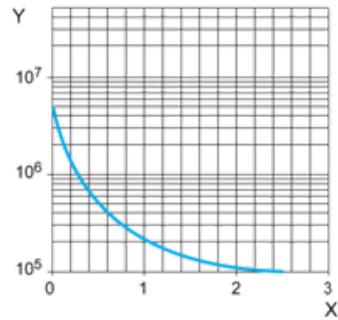


Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

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

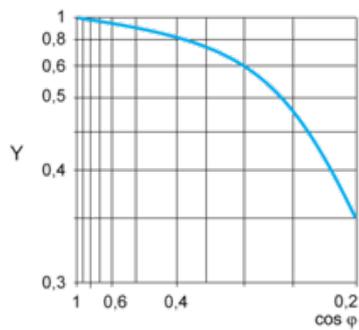
Resistive AC load



X Switching capacity (kVA)

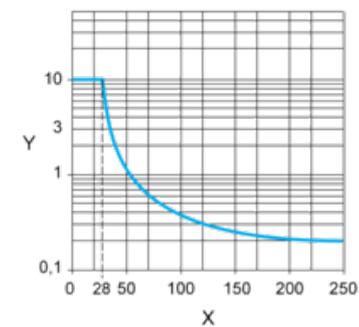
Y Durability (Number of operating cycles)

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.