

# Product data sheet

Specifications



universal plug in relay, Harmony Electromechanical Relays, 10A, 3CO, lockable test but to n, 120V AC

RUMC31F7

**Product availability:** Stock - 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	120 V AC 50/60 Hz
[Ithe] conventional enclosed thermal current	10 A -40...131 °F (-40...55 °C)

## Complementary

[Uiimp] rated impulse withstand voltage	4 kV 1.2/50 µs
Minimum switching capacity	170 mW 10 mA, 17 V
Electrical durability	100000 cycles resistive
Average coil consumption in VA	3.60 Hz
Operating time	20 ms at nominal voltage
Rated operational voltage limits	96...132 V AC
[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	>= 0.15 Uc AC
[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	1700 Ohm 20 °C +/- 15 %
Maximum switching capacity	2500 VA/280 W
Mechanical durability	5000000 cycles

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

<b>Safety reliability data</b>	B10d = 100000
<b>Operating rate</b>	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
<b>Utilisation coefficient</b>	20 %
<b>Compatibility code</b>	RUM
<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>Protection category</b>	RT I
<b>Pollution degree</b>	2
<b>Operating position</b>	Any position
<b>Test levels</b>	Level A group mounting
<b>Device presentation</b>	Complete product
<b>Contacts material</b>	AgNi
<b>Shape of pin</b>	Cylindrical
<b>Product Weight</b>	0.190 lb(US) (0.086 kg)

## Environment

<b>Ambient air temperature for operation</b>	-40...131 °F (-40...55 °C)
<b>IP degree of protection</b>	IP40
<b>Standards</b>	UL 508 IEC 61810-1 CSA C22.2 No 14
<b>Product Certifications</b>	EAC UL CSA
<b>Ambient Air Temperature for Storage</b>	-40...185 °F (-40...85 °C)
<b>Vibration resistance</b>	3 gn +/- 1 mm 10...150 Hz)5 cycles in operation 4 gn +/- 1 mm 10...150 Hz)5 cycles not operating
<b>Shock resistance</b>	10 gn 11 ms) in operation IEC 60068-2-27 10 gn 11 ms) not operating IEC 60068-2-27

## Ordering and shipping details

<b>Category</b>	US10CP221127
<b>Discount Schedule</b>	0CP2
<b>GTIN</b>	3606480626852
<b>Returnability</b>	Yes
<b>Country of origin</b>	CN

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	1.38 in (3.500 cm)
<b>Package 1 Width</b>	1.38 in (3.500 cm)
<b>Package 1 Length</b>	2.76 in (7.000 cm)
<b>Package weight(Lbs)</b>	3.224 oz (91.400 g)

<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	10
<b>Package 2 Height</b>	1.50 in (3.800 cm)
<b>Package 2 Width</b>	5.71 in (14.500 cm)
<b>Package 2 Length</b>	7.87 in (20.000 cm)
<b>Package 2 Weight</b>	34.603 oz (981.000 g)
<b>Unit Type of Package 3</b>	S02
<b>Number of Units in Package 3</b>	60
<b>Package 3 Height</b>	5.91 in (15.000 cm)
<b>Package 3 Width</b>	11.81 in (30.000 cm)
<b>Package 3 Length</b>	15.75 in (40.000 cm)
<b>Package 3 Weight</b>	13.550 lb(US) (6.146 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)

31

## 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](http://www.P65Warnings.ca.gov)

## Use Again

### Repack and remanufacture

Circularity Profile

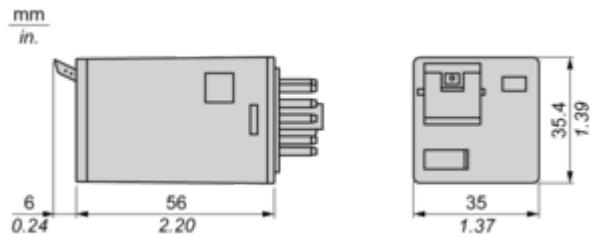
No need of specific recycling operations

Take-back

No

## Dimensions Drawings

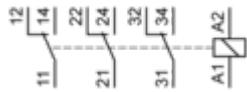
## Dimensions

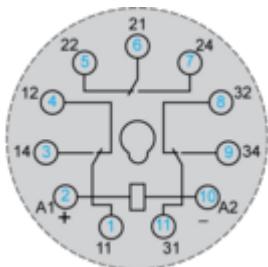


Connections and Schema

Wiring Diagram

---



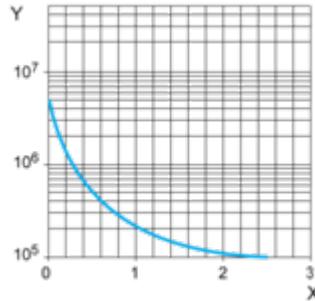
Wiring Diagram

Symbols shown in blue correspond to Nema marking.

## Performance Curves

Electrical Durability of Contacts

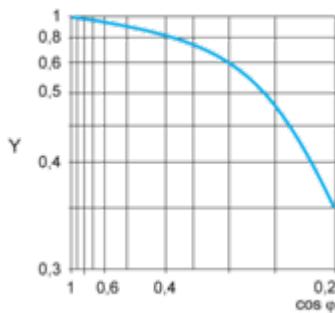
Durability (inductive load) = durability (resistive load) x reduction coefficient.  
Resistive AC load



X Switching capacity (kVA)

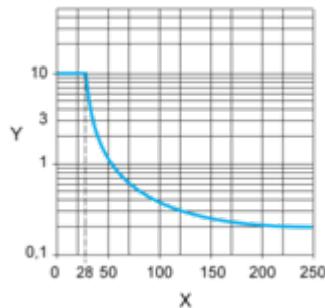
Y Durability (Number of operating cycles)

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



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.

## Technical Illustration

## Dimensions

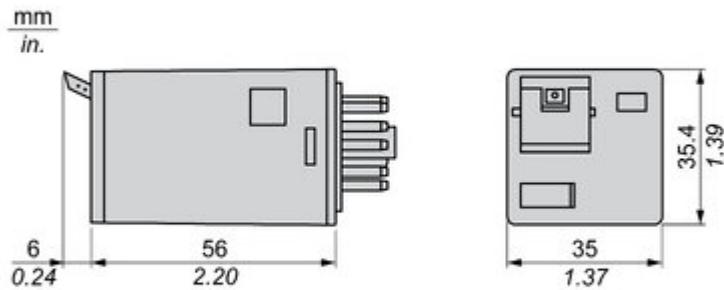


Image of product in real life situation

