Product data sheet

Specifications

Universal plug in relay, Harmony, 10A, 3CO, lockable test button, 24V DC

RUMC31BD

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 DC
[Ithe] conventional enclosed thermal current	10 A at -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 conforming to IEC 300 V conforming to CSA 300 V conforming to 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 conforming to IEC
Resistive rated load	10 A at 250 V AC 10 A at 28 V DC
Maximum switching capacity	2500 VA/280 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	5000000 cycles

Electrical durability	100000 cycles for resistive load
Average coil consumption in W	1.4 W
Drop-out voltage threshold	>= 0.1 Uc DC
Operate time	20 ms at nominal voltage
Release time	20 ms at nominal voltage
Average coil resistance	470 Ohm at 20 °C +/- 15 %
Rated operational voltage limits	19.2...26.4 V DC
Protection category	RT I
Test levels	Level A group mounting
Safety reliability data	B10d = 100000
Operating position	Any position
Net weight	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	EN/IEC 61810-1 CSA C22.2 No 14 UL 508
Ambient air temperature for storage	-40…85 °C
Ambient air temperature for operation	-40…55 °C
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles in operation 4 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles not operating
IP degree of protection	IP40
Shock resistance	10 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27
Pollution degree	2

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.6 cm
Package 1 Width	3.5 cm
Package 1 Length	6.9 cm
Package 1 Weight	89 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	4 cm
Package 2 Width	14.6 cm
Package 2 Length	20 cm
Package 2 Weight	960 g
Unit Type of Package 3	S02

Number of Units in Package 3	60
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	6.179 kg

Offer Sustainability

Sustainable offer status	Green Premium product
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
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
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

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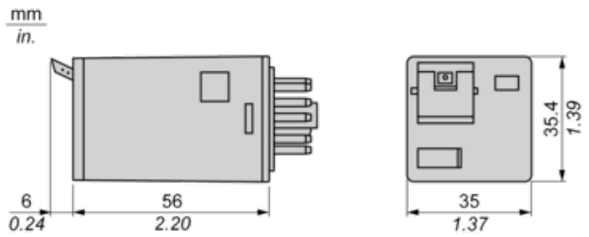
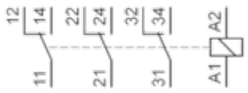
Dimensions Drawings

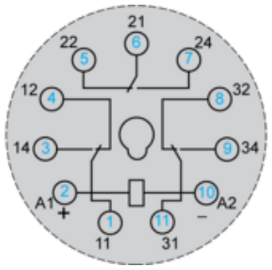
Dimensions



Wiring Diagram



Wiring Diagram

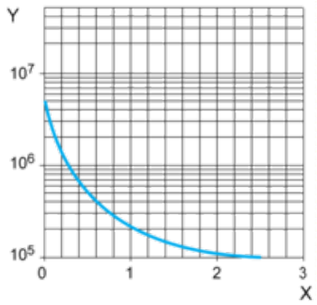


Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

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

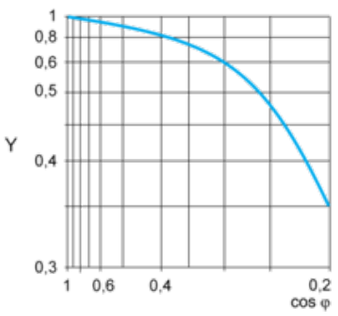
Resistive AC load



X Switching capacity (kVA)

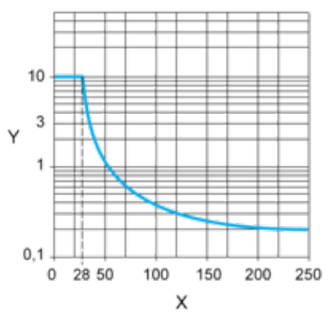
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor cos 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.

Recommended replacement(s)