Product data sheet Characteristics

RPM42BD

Power plug in relay, Harmony, 15A, 4CO, with LED, lockable test button, 24V DC





Main	
Range of product	Harmony Electromechanical Relays
Series name	Power
Product or component type	Plug-in relay
Device short name	RPM
Contacts type and composition	4 C/O
[Uc] control circuit voltage	24 V DC
[Ithe] conventional enclosed thermal current	15 A at -40…55 °C
Status LED	With
Control type	Lockable test button
Utilisation coefficient	20 %

Complementary

Shape of pin	Flat
[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 during 1.2/50 μs
Contacts material	AgNi
[le] rated operational current	15 A at 277 V (AC) conforming to UL 15 A at 28 V (DC) conforming to UL 15 A at 250 V (AC) NO conforming to IEC 15 A at 28 V (DC) NO conforming to IEC 7.5 A at 250 V (AC) NC conforming to IEC 7.5 A at 28 V (DC) NC conforming to IEC
Maximum switching voltage	250 V conforming to IEC
Resistive load current	15 A at 250 V AC 15 A at 28 V DC
Maximum switching capacity	3750 VA 420 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	1000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption	1.6 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	303 Ohm at 20 °C +/- 10 %
Rated operational voltage limits	19.226.4 V DC
Protection category	RTI
Test levels	Level A group mounting
Operating position	Any position
Pollution degree	3
Safety reliability data	B10d = 100000



Product weight	0.071 kg
Device presentation	Complete product

Environment

Dielectric strength	1500 V AC between contacts with micro disconnection
	2000 V AC between coil and contact with reinforced
	2000 V AC between poles with basic
	2000 V AC between poles with basic
Standards	EN/IEC 61810-1
	CSA C22.2 No 14
	UL 508
Product certifications	EAC
	CSA
	UL
Ambient air temperature for storage	-4085 °C
Ambient air temperature for operation	-4055 °C
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles in operation
	5 gn, amplitude = +/- 1 mm (f = 10150 Hz)5 cycles not operating
Degree of protection (Housing only)	IP40 conforming to EN/IEC 60529
Shock resistance	15 gn for in operation
	30 gn for not operating

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.8 cm
Package 1 Width	4.0 cm
Package 1 Length	4.7 cm
Package 1 Weight	72.0 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	3.0 cm
Package 2 Width	10.5 cm
Package 2 Length	22.5 cm
Package 2 Weight	765.0 g
Unit Type of Package 3	S02
Number of Units in Package 3	120
Package 3 Height	15.0 cm
Package 3 Width	30.0 cm
Package 3 Length	40.0 cm
Package 3 Weight	9.671 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) delta BoHS
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	₫ Yes
Environmental Disclosure	Product Environmental Profile

WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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

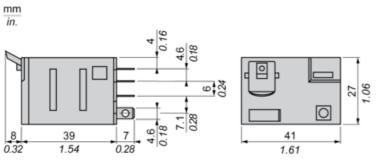
Contractual warranty

Warranty

18 months

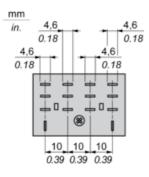
Product data sheet Dimensions Drawings

Dimensions



RPM42BD

Pin Side View



Product data sheet Connections and Schema RPM42BD

Wiring Diagram





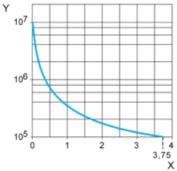
Symbols shown in blue correspond to Nema marking.

Product data sheet Performance Curves RPM42BD

Electrical Durability of Contacts

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

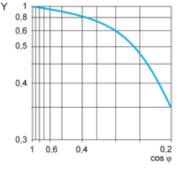
Resistive AC load



X Switching capacity (kVA)

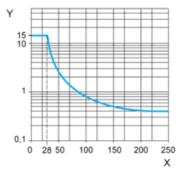
Y Durability (Number of operating cycles)

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.