

RPM12ED

power plug-in relay - Zelio RPM - 1 C/O - 48 V
DC - 15 A - with LED



Main

Range of product	Zelio Relay
Series name	Power
Product or component type	Plug-in relay
Device short name	RPM
Contacts type and composition	1 C/O
Control circuit voltage	48 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	300 V conforming to UL 300 V conforming to CSA 250 V conforming to IEC
[Uimp] rated impulse withstand voltage	4 kV for 1.2/50 µs
Contacts material	AgNi
[Ie] rated operational current	7.5 A at 28 V DC (NC) conforming to IEC 7.5 A at 250 V AC (NC) conforming to IEC 15 A at 28 V DC (NO) conforming to IEC 15 A at 250 V AC (NO) conforming to IEC 15 A at 28 V DC conforming to UL 15 A at 277 V AC conforming to UL
Maximum switching voltage	250 V conforming to IEC
Resistive load current	15 A at 28 V DC 15 A at 250 V AC
Maximum switching capacity	420 W 3750 VA
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption	1.1 W
Drop-out voltage threshold	>= 0.1 Uc DC
Operate time	20 ms at nominal voltage
Release time	20 ms at nominal voltage
Rated operational voltage limits	38.4...52.8 V DC
Protection category	RT I
Operating position	Any position
Safety reliability data	B10d = 100000
Product weight	0.026 kg

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Environment

Dielectric strength	2000 V AC between coil and contact with reinforced insulation 1500 V AC between contacts with micro disconnection insulation
Standards	EN/IEC 61810-1 UL 508 CSA C22.2 No 14
Product certifications	CSA RoHS UL REACH EAC
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-40...55 °C
Vibration resistance	5 gn (f = 10...150 Hz), amplitude +/- 1 mm (on 5 cycles not operating) 3 gn (f = 10...150 Hz), amplitude +/- 1 mm (on 5 cycles in operation)
Degree of protection (Housing only)	IP40 conforming to EN/IEC 60529
Shock resistance	30 gn not operating 15 gn in operation
Pollution degree	3

Technical drawing of the 100-pin connector showing top and side views with dimensions in mm and in.

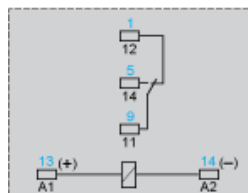
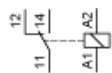
Top View Dimensions:

- Overall width: 40 mm (1.58 in.)
- Distance from left edge to first pin: 3 mm (0.12 in.)
- Distance between pins: 6 mm (0.24 in.)
- Distance from last pin to right edge: 7 mm (0.28 in.)
- Pin pitch: 0.25 mm (0.01 in.)
- Pin diameter: 0.2 mm (0.008 in.)
- Pin length: 3.5 mm (0.14 in.)
- Pin spacing from centerline: 5 mm (0.2 in.)
- Pin spacing from centerline: 6.5 mm (0.26 in.)

Side View Dimensions:

- Overall height: 27 mm (1.06 in.)
- Width of connector body: 14 mm (0.55 in.)

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.