

Product datasheet

Characteristics

RPM32BD

power plug-in relay - Zelio RPM - 3 C/O - 24 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	3 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 UL 300 V conforming to CSA
[Uimp] rated impulse withstand voltage	4 kV for 1.2/50 µs
Contacts material	AgNi
[Ie] rated operational current	15 A at 277 V AC conforming to UL 7.5 A at 28 V DC (NC) conforming to IEC 15 A at 250 V AC (NO) 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 28 V DC conforming to UL
Maximum switching voltage	250 V conforming to IEC
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	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption	1.5 W
Drop-out voltage threshold	>= 0.1 Uc DC
Operating time	20 ms at nominal voltage
Reset time	20 ms at nominal voltage
Average resistance	320 Ohm +/- 10 % at 20 °C
Rated operational voltage limits	19.2...26.4 V DC
Protection category	RT I
Operating position	Any position
Safety reliability data	B10d = 100000
Product weight	0.054 kg
Device presentation	Complete product

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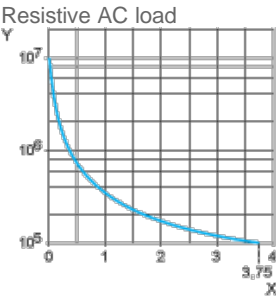
dielectric strength	2000 V AC between coil and contact with reinforced insulation 2000 V AC between poles with basic insulation 1500 V AC between contacts with micro disconnection insulation
standards	EN/IEC 61810-1 UL 508 CSA C22.2 No 14
product certifications	CSA RoHS UL REACH EAC
ambient air temperature for storage	-40...85 °C
ambient air temperature for operation	-40...55 °C
vibration resistance	3 gn (f = 10...150 Hz), amplitude +/- 1 mm (on 5 cycles in operation) 5 gn (f = 10...150 Hz), amplitude +/- 1 mm (on 5 cycles not operating)
IP degree of protection	IP40 conforming to EN/IEC 60529
shock resistance	30 gn not operating 15 gn in operation
pollution degree	3

Warranty period	18 months
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The diagram illustrates a 12-to-4 decoder. The top part shows the truth table with inputs 12, 14, 22, 24, 42, 44, and 41, and outputs A1 and A2. The bottom part shows the internal logic with three 3-to-2 decoders. The first decoder has inputs 1, 5, 9, 13 and outputs 12, 14, 21, 24. The second decoder has inputs 2, 6, 10, 14 and outputs 22, 24, 41, 44. The third decoder has inputs 4, 8, 12, 16 and outputs 42, 44, 41, 44. The outputs are connected to A1 and A2 via a 2-to-1 multiplexer.

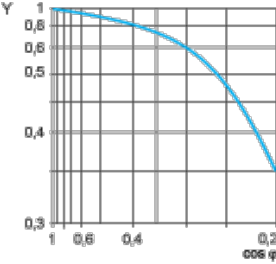
Electrical Durability of Contacts

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



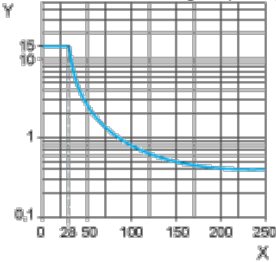
- X Switching capacity (kVA)
Y Durability (Number of operating cycles)

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.