

Surge voltage Min. 10,000V, Slim type Power RPG RELAYS

1/2

Features

- ◇Single pole, slim type relay.
- ◇Low power consumption : 200mW.
- ◇Surge voltage between contacts and coil Min.
- ◇No cadmium is used for contacts.
- ◇Approved by UL / C-UL , TÜV



Actual size

Applications

- ◇Hot water units, Air conditioner, Microwave ovens, Refrigerator.

UL / C-UL , TÜV Rating

UL/C-UL :3A 1/10HP 250VAC, 3A 30VDC (UL/C-UL File No.E171049)

TÜV :3A 250VAC(Ohm ballast), 3A 30VDC(Ohm ballast) (TÜV File No.B101023811014)

Model Number

RPG —

Coil voltage (3,5,6,9,12,24VDC)

Products Line(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
RPG-3	3	75% Max .of nominal voltage	10% Min .of nominal voltage	45	66.7	200	130% of nominal voltage
RPG-5	5			125	40.0		
RPG-6	6			180	33.3		
RPG-9	9			405	22.2		
RPG-12	12			720	16.7		
RPG-24	24			2,880	8.3		

Typical Specifications

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Item		Specifications	
Contact	Arrangement		1a
	Initial contact resistance max.		Max.100 milliohm (By voltage drop 6VDC 1A)
	Material		Ag alloy
Rating	Nominal Switching capacity		3A125VAC* , 3A250VAC* , 3A30VDC
	Max .switching power		750VA , 150W
	Max .switching voltage		250VAC , 30VDC
	Max .switching current		5A
Electrical specification	Initial insulation resistance		Min. 1,000 megohm (at 500VDC)
	Withstanding voltage (Initial)	Between open contacts	AC750V (1 minute)
		Between contacts and coil	AC4,000V(1 minute)
	Surge voltage(between contacts and coil)		10,000Vrms (1.2 x 50 microseconds)
	Coil Temperature rise(at nominal voltage)		Max. 45 degree Celsius (at20 degree Celsius , No contact carrying current)
	Operate time(at nominal voltage)		Approx. 3msec
	Release time(at nominal voltage)		Approx. 1msec
Mechanical specification	Shock resistance	Functional	Min. 98m/s ² (10G)
		Destruction	Min. 980 m/s ² (100G)
	Vibration resistance	Functional	10 to 55Hz at double amplitude of 1.5mm
		Destruction	10 to 55Hz at double amplitude of 1.5mm
Life expectancy	Mechanical life		5,000,000 operations (at 180cpm)
	Electrical life(at rating)		200,000 operations (3A125VAC* , 3A30VDC) 100,000 operations (3A250VAC*) 50,000 operations (5A125VAC* , 5A30VDC) (at 20cpm)
Ambient temperature	Operating		-40 to +70 degree Celsius (Without being frozen)
Unit weight			Approx. 5g

*These AC ratings are under random phase-control. In driving AC load, life expectancy so greatly depends on the phase at turning on or off so that user should check selected relays with actual load

Dimensions

Unit:mm

Dimensions	PC board pattern (Bottom view)	Schematics (Bottom view)

Note

- The appearance and specifications of the product may be modified without prior notice to improve its performance.
- This catalog shows only outline specifications. When using the product, please obtain formal specifications for supply.
- Please see appendix "Technical Definitions" and "Technical Notes".
- Please feel free to contact us for relays with the specifications not shown in this catalogue.
- Please confirm the performance on actual operation by simulation with actual environments for high reliability.