

For Reference

Number: G2RL-0005075B  
 Date of Issue: Sep. 14, 2011

OMRON Corporation  
 OMRON Relay & Devices Corporation

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## PRODUCT SPECIFICATIONS

Name: POWER RELAY

Model: G2RL-1A-E-CF

Item: DC9V

Registration part number for Customer
Type name :
Type number :

Receipt Stamp (For receipt purpose only)
Please accept handling of this specification sheet as for reference use if no reply received.

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### Distribution

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Customer	
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### Revision Record

Mark	Date	Contents

## 1. Construction

- 1.1 Outline drawing Drawing No. 6 4 7 1 7 3 3 - 7
- 1.2 Construction drawing Drawing No. - - - - -
- 1.3 Contact configuration S P S T - N O
- 1.4 Contact material A g S n O<sub>2</sub>
- 1.5 Protective construction Flux protection

## 2. Standards

- 2.1 Approved by standards U L File No. : E41643  
 C S A File No. : 1033884(LR31928)  
 V D E Reg No. : 119650

Conforms to UL1447 class F Coil Insulation system.

## 3. Ratings

- 3.1 Coil ratings See table 1
- 3.2 Contact ratings
- (1) Rated load 1 6 A at 2 5 0 V A C , 2 4 V D C
- (2) Maximum operating current 1 6 A (High-capacity type)
- (3) Maximum operating voltage A C 4 4 0 V , D C 3 0 0 V
- (4) Minimum permissible load (reference value)  
 D C 2 4 V 4 0 m A (P level)  
 (  $\lambda_{60} = 0.1 \times 10^{-6}$  /ops.)

## 4. Characteristics (Initial value)

- 4.1 Contact resistance 1 0 0 m  $\Omega$  max.  
 Measured by the voltage drop method  
 with D C 5 V 1 A applied
- 4.2 Must operate voltage See table 1
- 4.3 Must release voltage See table 1
- 4.4 Operate time 1 5 ms Max. (at rated voltage)
- 4.5 Release time 5 ms Max. (at rated voltage)
- 4.6 Insulation resistance (at 5 0 0 V D C)
- (1) Between coil terminals and contact terminals 1 0 0 0 M  $\Omega$  Min.
- (2) Between contact terminals of the same polarity 1 0 0 0 M  $\Omega$  Min.
- 4.7 Dielectric strength(leakage current 3mA 50/60Hz for a minute)
- (1) Between coil terminals and contact terminals A C 5 0 0 0 V
- (2) Between contact terminals of the same polarity A C 1 0 0 0 V
- 4.8 Impulse withstand voltage  
 10KV (1.2 $\times$ 50  $\mu$ s)  
 between coil terminals and contact terminals

## 5. Temperature rise

## 5.1 Coil : 5 0 °C Max.

(coil applied voltage : rated voltage    contacts applied current : 16A)

## 5.2 Contact : 4 0 °C Max.

(coil applied voltage : rated voltage contacts applied current : 16A)

## 6. Endurance

## 6.1 Mechanical endurance

20,000,000 operations Min.  
(at 18,000 operations/hour)

6.2 Electrical endurance  
(Resistive load)

30,000 operations Min.  
(at 1,800 operations/hour) 16A at 250VAC, 24VDC

100,000 operations Min.  
(at 360 operations/hour)    16A at 250VAC

## 7. Storage conditions

Store in locations in normal temperature, humidity and atmosphere pressure.

## 8. Operating conditions

Use the product under the following conditions.

## 8.1 Ambient temperature

- 4 0 to + 8 5 °C (with no icing)

## 8.2 Relative humidity

5 to 8 5 %RH

## 9. Others

## 1 0. Coil rating (table 1)

Rated voltage (V)	Rated current (m A)	Coil resistance ( $\Omega$ )	Must operate voltage	Must release voltage	Rated power consumption (W)	Permissible voltage range
D C 9	4 4.4	2 0 2.5	70%max of rated voltage	10%min of rated voltage	Approx. 0.4	130% of rated voltage

The value of above list is measured at ambient temperature  $23^{\circ}\text{C}$  with the tolerances of coil resistance  $\pm 10\%$ .

