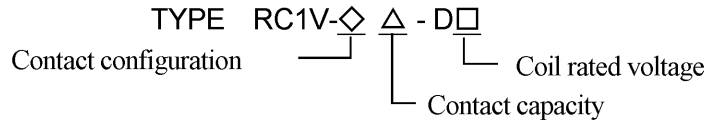


RC SERIES PC BOARD RELAY



1. Applicable standard

IEC61810-1
 EN61810-1(TÜV SÜD Approval)
 UL508 (c-UL Recognition)
 CSA C22.2 No.14 (c-UL Approval)
 CQC GB/T21711.1, GB/T15092.1, GB/T15092.101

2. Operating conditions

- | | |
|---------------------------|------------------------------|
| (1) Operating temperature | -40 to +85°C (no freezing) |
| (2) Operating humidity | 5 to 85%RH (no condensation) |
| (3) Storage temperature | -40 to +85°C (no freezing) |
| (4) Storage humidity | 5 to 85%RH (no condensation) |

3. Ratings

3. 1 Rated insulation voltage 250V

3. 2 Coil rating (at 20°C)

- (1) Rated voltage(DC)— (□)
- (2) Rated current (approx.)
- (3) Coil resistance (±10%)
- (4) Maximum allowable voltage

5V	12V	24V	48V
81mA	33mA	17mA	9mA
62Ω	360Ω	1440Ω	5360Ω
12.3V	29.4V	58.8V	117.6V

110V
4mA
28800Ω
269.5V

- (5) Minimum pickup voltage (initial value) 70% maximum
- (6) Dropout voltage (initial value) 10% minimum
- (7) Power consumption (approx.) 5~24V DC : 400mW
 48V DC : 430mW
 110V DC : 420mW

3. 3 Switching ratings

- (1) Contact ratings
- (a) Allowable switching power

Standard : Resistive load 3000VA AC, 288W DC
 High capacity : Resistive load 4000VA AC, 384W DC

- (b) Rated load

	Voltage	Resistive load
Standard	250VAC, 24V DC	12A
High capacity	250VAC, 24V DC	16A

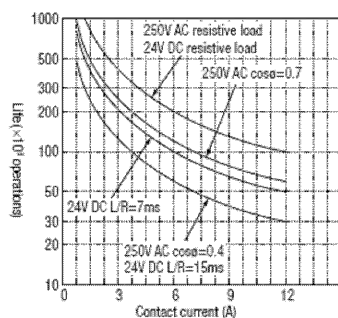
- (2) Allowable contact current

Standard : 14A, High capacity : 20A

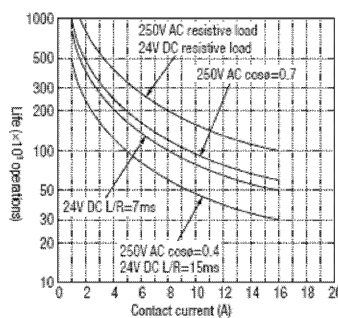
- When the maximum current flow exceeds 10A, take into consideration the heat generated by the PC board wiring. Check the operation using the actual load.

- | | |
|--|------------------|
| (3) Allowable contact voltage | 440V AC, 330V DC |
| (4) Minimum applicable load(reference value) | 5V DC · 100mA |
4. Constructions
- | | |
|---------------------------------|-----------------------------------|
| (1) Outside view | See attached sheet |
| (2) Degree of protection | Flux-resistant type (RTII) |
| (3) Contact configuration — (◇) | 1a(A), 1c(C) |
| (4) Contact capacity — (△) | Standard(blank), High capacity(H) |
| (5) Contact material | AgSnO ₂ |
| (6) Terminal style | PCB terminal |
| (7) Weight (approx.) | 13g |
5. Characteristics
- | | |
|---------------------------------------|--|
| (1) Contact resistance | 100mΩ maximum
(Note: Measured using 6V DC, 1A voltage drop method.) |
| (2) Operate time | 15 ms max. (at the rated voltage) |
| (3) Release time | 5 ms max. (at the rated voltage) |
| (4) Insulation resistance | 1000MΩ minimum (measured with a 500V DC megger) |
| (5) Impulse voltage | |
| (a) Between contact circuit and coil | 10,000V (impulse wave form 1.2 × 50 μs) |
| (6) Dielectric strength | |
| (a) Between contact circuit and coil | 5000V AC for 1min. |
| (b) Between contacts of the same pole | 1000V AC for 1min. |
| (7) Vibration resistance | |
| (a) Operating extremes | Frequency 10 to 55Hz, Amplitude 0.35mm |
| (b) Damage limits | Frequency 10 to 55Hz, Amplitude 0.75mm |
| (8) Shock resistance | |
| (a) Operating extremes | 100 m/s ² |
| (b) Damage limits | 1000 m/s ² |
6. Life
- | | |
|------------------------------------|--|
| (1) Electrical life (rated load) | |
| (a) Standard | 100,000 operations min. (250V AC/24V DC, 12A) |
| (b) High capacity | RC1V-AH: 100,000 operations min. (250V AC /24V DC · 16A)
RC1V-CH: 50,000 operations min. (250V AC · 16A)
30,000 operations min. (24V DC · 16A)
(Operating frequency 600 times/hour) |
| (2) Mechanical life (without load) | 20,000,000 operations min. (Operating frequency: 18,000 times/ hour) |
- Various Characteristic Charts (Reference)
◇ Electric life curves

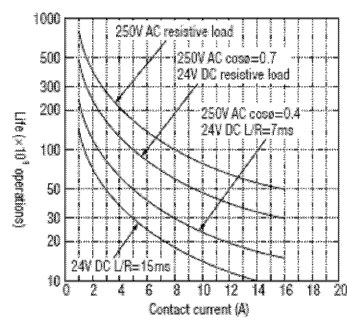
RC1V (standard)



RC1V-AH (high capacity)

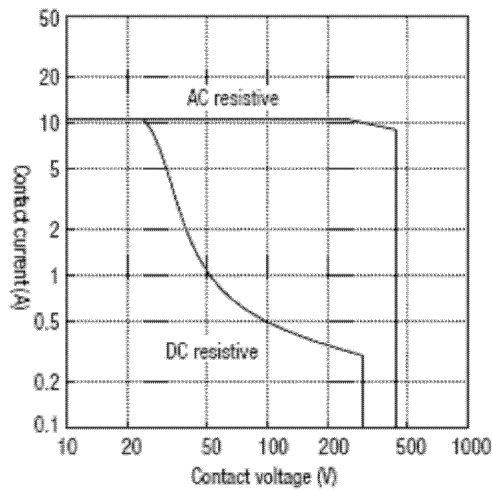


RC1V-CH (high capacity)

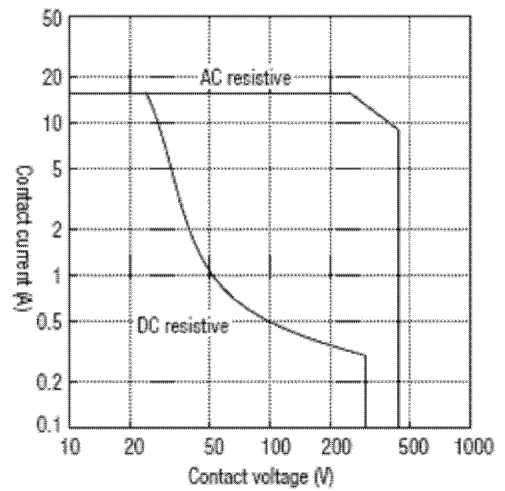


◇Maximum operating frequency (Electric life is not satisfied)

RC1V (standard)

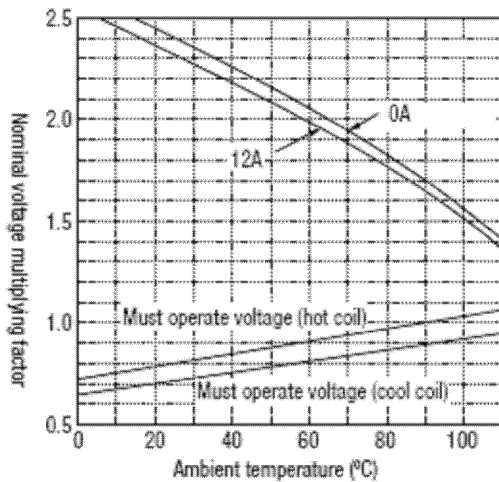


RC1V (high capacity)

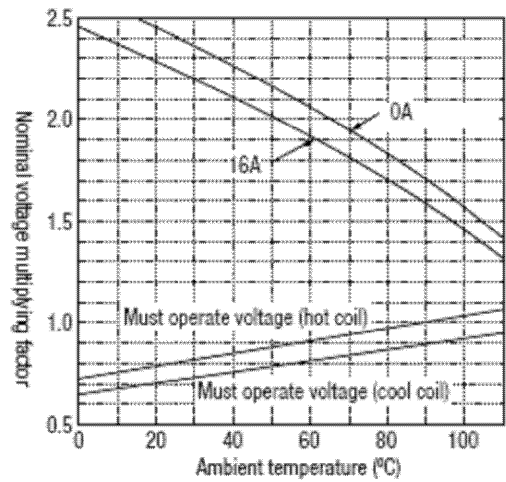


◇Operating range

RC1V (standard)

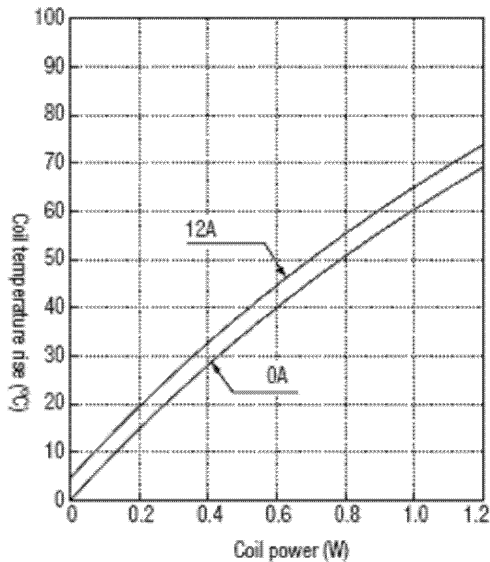


RC1V (high capacity)



◇Coil temperature rise

RC1V (standard)



RC1V (high capacity)

