

■ Characteristics

Contact resistance (See note 2.)	50 mΩ max.
Operate time (See note 3.)	60 ms max.
Max. operating frequency	Mechanical: 1,200 operations/hr Electrical: 1,200 operations/hr (under rated load)
Insulation resistance (See note 4.)	100 MΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC, 50/60 Hz for 1 min between coil and contact (1,000 VAC, 50/60 Hz for 1 min between contacts of same polarity) (2,000 VAC between contacts of different polarities)
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.5 mm single amplitude (1.0 mm double amplitude)
Shock resistance	Destruction: 500 m/s ² Malfunction: 100 m/s ²
Endurance	Mechanical: 5,000,000 operations min. (at operating frequency of 1,200 operations/hr) Electrical: 500,000 operations min. (under rated load and at operating frequency of 1,200 operations/hr) (See note 5.)
Error rate (See note 6.)	1 A at 5 VDC (0.1 A at 5 VDC)
Ambient temperature	Operating: -10°C to 55°C (with no icing or no condensation)
Ambient humidity	Operating: 5% to 85%
Weight	Open model: Approx. 240 g; cased model: Approx. 340 g

Note: 1. The data shown above are initial values.

2. The contact resistance was measured with 0.1 A at 5 VDC using the voltage drop method.

3. The operate time was measured with the rated voltage imposed with any contact bounce ignored at an ambient temperature of 23°C.

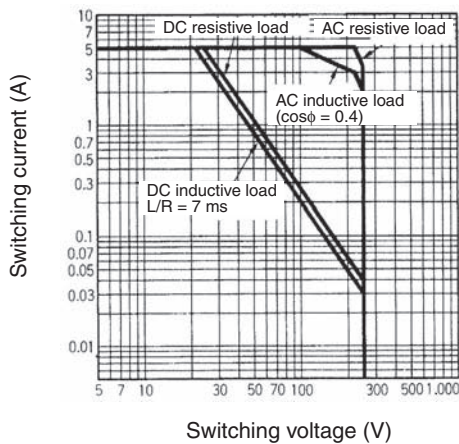
4. The insulation resistance was measured with a 500-VDC megger applied to the same places as those used for checking the dielectric strength.

5. The electrical endurance was measured at an ambient temperature of 23°C.

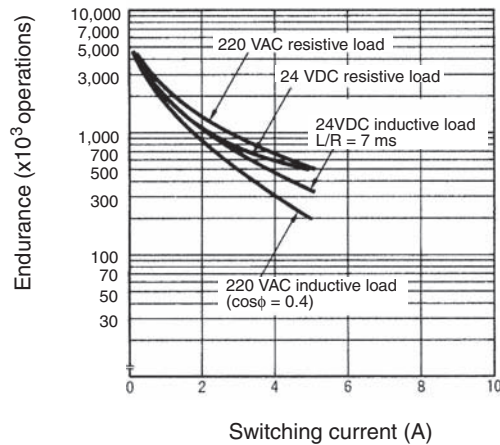
6. This value was measured at a switching frequency of 60 operations per minute. The value in parentheses is for the cased model.

Engineering Data

Maximum Switching Power

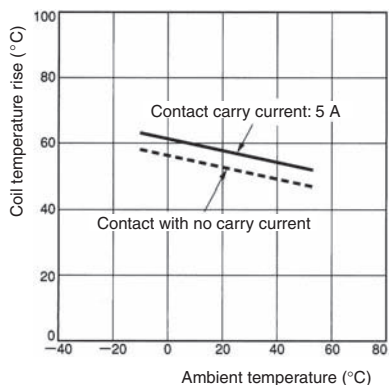


Electrical Endurance

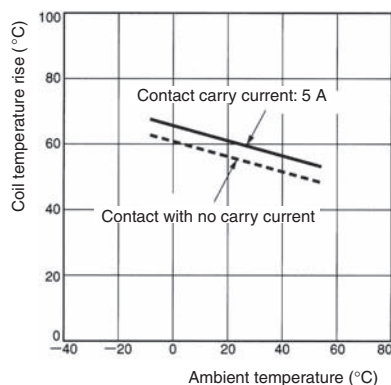


Ambient Temperature vs. Coil Temperature Rise

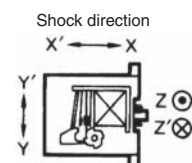
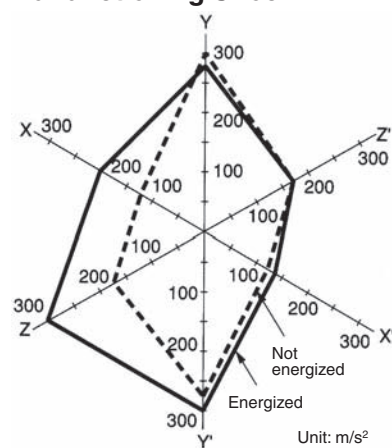
100 VAC 50 Hz



24 VDC



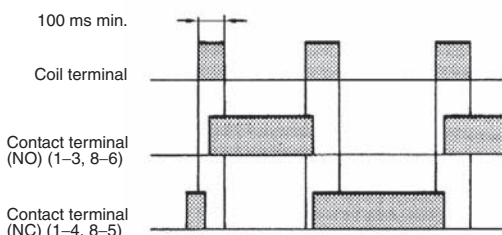
Malfunctioning Shock



Number of samples: 5
 Measurement conditions:
 Impose a shock of 100 m/s² in the ±X, ±Y, and ±Z directions three times each with the Relay energized and not energized to check the shock values that cause the Relay to malfunction.

Operation

Operation Timing Chart

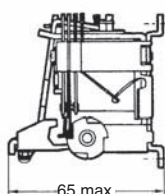
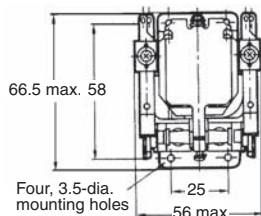
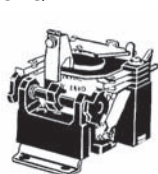


Note: When a pulse for application to the coil is used, such a pulse should have a width of 100 ms or more. If a pulse is applied with a width less than the operate time, the cam may fail to rotate fully.

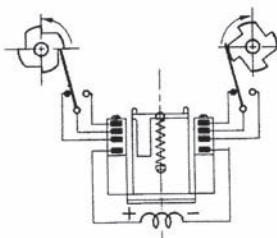
Dimensions

Note: All units are in millimeters unless otherwise indicated.

Open Model G4Q-211A



Terminal Arrangement/ Internal Connections



Mounting Holes

