

## Specifications

### ■ Coil Ratings

Rated voltage		Rated current	Coil resistance	Must operate voltage	Must release voltage	Max. voltage	Power consumption (approx.)
AC (~)	12 V	142 mA	---	75% max. of rated voltage	15% min. of rated voltage	110% of rated voltage	1.7 to 2.5 VA (60 Hz)
	24 V	71 mA	---				
	50 V	34 mA	---				
	100 to 120 V	17.0 to 20.4 mA	---	75 V	18 V	132 V	
	200 to 240 V	8.5 to 10.2 mA	---	150 V	36 V	264 v	
DC (=)	6 V	317 mA	18.9 Ω	75% max. of rated voltage	15% min. of rated voltage	110% of rated voltage	1.9 W
	12 V	158 mA	75 Ω				
	24 V	79 mA	303 Ω				
	48 V	40 mA	1220 Ω				
	100 V	19 mA	5260 Ω				

- Note:**
1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/–20% for AC rated current and ±15% for DC coil resistance.
  2. Performance characteristic data are measured at a coil temperature of 23°C.
  3. ~ indicates AC and = indicates DC (IEC417 publications).

### ■ Contact Ratings

Model	G7L-1A-Tj /G7L-1A-Bj		G7L-2A-Tj /G7L-2A-Bj		G7L-1A-P/G7L-2A-P	
	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4)	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4)	Resistive load (cosφ = 1)	Inductive load (cosφ = 0.4)
Rated load	30 A, 220 VAC (~)	25 A, 220 VAC (~)	25 A, 220 VAC (~)		20 A, 220 VAC (~)	
Rated carry current	30 A		25 A		20 A	
Max. switching voltage	250 VAC (~)					
Max. switching current	30 A		25 A		20 A	
Max. switching power	6,600 VAC (~)	5,500 VAC (~)	5,500 VAC (~)		4,400 VAC (~)	
Min. permissible load*	100 mA, 5 VDC (=)					

\*Note: P level:  $\lambda_{60} = 0.1 \times 10^{-6}/\text{operation}$

## ■ Characteristics

<b>Contact resistance</b>	50 mΩ max.
<b>Operate time</b>	30 ms max.
<b>Release time</b>	30 ms max.
<b>Max. operating frequency</b>	Mechanical: 1,800 operations/hr Electrical: 1,800 operations/hr (under rated load)
<b>Insulation resistance</b>	1,000 MΩ min. (at 500 VDC)
<b>Dielectric strength</b>	4,000 VAC min., 50/60 Hz for 1 min between coil and contacts 2,000 VAC, 50/60 Hz for 1 min between contacts of same polarity 2,000 VAC, 50/60 Hz for 1 min between contacts of different polarity (DPST-NO model)
<b>Impulse withstand voltage</b>	10,000 V between coil and contact (with 1.2 x 50 μs impulse wave)
<b>Vibration resistance</b>	Destruction: 10 to 55 Hz, 1.5-mm double amplitude Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 100 m/s <sup>2</sup>
<b>Life expectancy</b>	Mechanical: 1,000,000 operations min. (at 1,800 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)
<b>Ambient temperature</b>	Operating: -25°C to 60°C (with no icing)
<b>Ambient humidity</b>	Operating: 35% to 85%
<b>Weight</b>	Quick-connect terminal models: approx. 90 g PCB terminal models: approx. 100 g Screw terminal models: approx. 120 g

**Note:** The values given above are initial values.