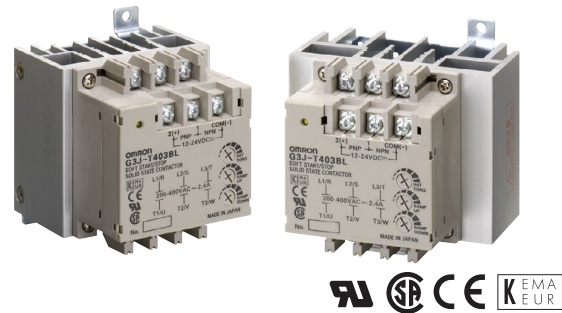



Soft-start/stop Function Starts and Stops Three-phase Motors Smoothly and Economically

- Function like an inverter by holding down the starting current.
- Harmonized protection with thermal overload relays complying with IEC 947-4-1 (Class 10A/10); can be used like a standard contactor.
- Comply with UL, CSA, IEC (400-V models only), and JEM requirements.
- Mount with screws or to DIN tracks.
- Compact monoblock construction for the G3J-T217BL (W: 100 × H: 100 × D: 110 mm) with a heat sink.
- Snubber circuit and varistor are built-in.
- Operation indicator.



 Refer to *Safety Precautions for All Solid State Relays*.

Model Number Structure

Model Number Legend

G3J-□□□□□□
1 2 3 4 5 6 7

1. Basic Model Name

G3J: Solid State Contactor

2. Load Power Supply

Blank: AC output

3. Functions

T: Soft-start/stop function

4. Rated Load Power Supply Voltage

2: 200 VAC

4: 400 VAC

5. Rated Load Current

17: 17.4 A (200-V models)

11: 11.1 A (200-V models)

05: 4.8 A (200-V models), 5.5 A (400-V models)

03: 2.4 A (400-V models)

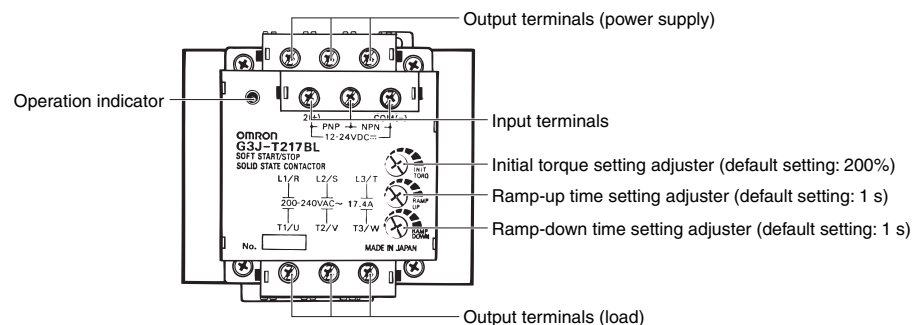
6. Terminal Type

B: Screw terminals

7. Zero Cross Function

L: Not equipped with zero cross function

Appearance



Ordering Information

■ List of Models

| Number of elements | Insulation method | Rated supply voltage | Input method | Applicable motor | | Model |
|--------------------|-------------------|----------------------|---|------------------|----------------|------------|
| 3 | Phototriac | 12 to 24 VDC | No-voltage input (open and short-circuit input) | 2.2 kW (5.5 A) | 380 to 400 VAC | G3J-T405BL |
| | | | | 0.75 kW (2.4 A) | | G3J-T403BL |
| | | | | 3.7 kW (17.4 A) | 200 to 220 VAC | G3J-T217BL |
| | | | | 2.2 kW (11.1 A) | | G3J-T211BL |
| | | | | 0.75 kW (4.8 A) | | G3J-T205BL |

Note: When ordering, specify the rated supply voltage.

■ Accessories (Order Separately)

Mounting Bracket

| Model |
|----------------------------|
| R99-14 FOR G3J (See note.) |

Note: Use this Bracket when mounting Thermal Relay to a G3J-series SSR.

Specifications

■ Ratings (at an Ambient Temperature of 25°C)

Power Supply

| | |
|-------------------------|------------------------------|
| Rated supply voltage | 12 to 24 VDC |
| Operating voltage range | 10.2 to 26.4 VDC |
| Current consumption | 50 mA max. (at 12 to 24 VDC) |

Operation Circuit

| | |
|--|---|
| Input current | 10 mA max. (at 12 to 24 VDC) |
| Input method No-voltage input (short-circuiting and opening inputs) (See note.) | Short-circuiting or opening terminals 1 and COM or 2 (+) and 1 SSR input turned ON:A maximum residual voltage of 2 V between short-circuited terminals SSR input turned OFF:A maximum leakage current of 0.15 mA Relay input: For minute signals |

Note: Refer to *Safety Precautions for the G3J-T, G3J-S, and G3J*.

Main Circuit

| Item | G3J-T405BL | G3J-T403BL | G3J-T217BL | G3J-T211BL | G3J-T205BL | |
|------------------------------------|---|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Rated load voltage | 200 to 400 VAC (50/60 Hz) | | 200 to 240 VAC (50/60 Hz) | | | |
| Load voltage range | 180 to 440 VAC (50/60 Hz) | | 180 to 264 VAC (50/60 Hz) | | | |
| Rated carry current (See note 1.) | 5.5 A (Ta = 40°C) | 2.4 A (Ta = 40°C) | 17.4 A (Ta = 40°C) | 11.1 A (Ta = 40°C) | 4.8 A (Ta = 40°C) | |
| Min. load current | 0.5 A | | | | | |
| Peak-value current resistivity | 220 A, 60 Hz, 1 cycle | 96 A, 60 Hz, 1 cycle | 500 A, 60 Hz, 1 cycle | 350 A, 60 Hz, 1 cycle | 150 A, 60 Hz, 1 cycle | |
| Overload resistance | Refer to <i>Information Common to the G3J, G3J-T, and G3J-S</i> . | | | | | |
| Closed current (effective value) | AC3 | 55 A | 24 A | 174 A | 111 A | 48 A |
| | AC4 | 66 A | 28.8 A | 208.8 A | 133.2 A | 57.6 A |
| Breaking current (effective value) | AC3 | 44 A | 19.2 A | 139.2 A | 88.8 A | 38.4 A |
| | AC4 | 55 A | 24 A | 174 A | 111 A | 48 A |
| Applicable load | 3-phase inductive motor (AC3 AC4 AC53-a) | 380 to 400 VAC, 2.2 kW, 5.5 A | 380 to 400 VAC, 0.75 kW, 2.4 A | 200 to 220 VAC, 3.7 kW, 17.4 A | 200 to 220 VAC, 2.2 kW, 11.1 A | 200 to 220 VAC, 0.75 kW, 4.8 A |
| | Resistive load (AC1) (See note 2.) | 200 to 400 VAC, 5.5 A | 200 to 400 VAC, 2.4 A | 200 to 240 VAC, 17.4 A | 200 to 240 VAC, 11.1 A | 200 to 240 VAC, 4.8 A |

Note: 1. The rated carry current varies depending on the ambient temperature. Refer to *Load Current vs. Ambient Temperature* under *Engineering Data* in the *Information Common to the G3J-T, G3J-S, and G3J* for details.

2. No single-phase load can be connected.

■ Characteristics

| Item | G3J-T405BL | G3J-T403BL | G3J-T217BL | G3J-T211BL | G3J-T205BL |
|-------------------------------|--|------------|---------------------------|------------|------------|
| Ramp-up time | Set within a range from 1 to 25 s. | | | | |
| Ramp-down time | Set within a range from 1 to 25 s. | | | | |
| Starting torque | Set within a range from 200% to 450% In. | | | | |
| Output ON-voltage drop | 1.8 V _{RMS} max. | | 1.6 V _{RMS} max. | | |
| Leakage current | 20 mA max. (at 400 VAC) | | 10 mA max. (at 200 VAC) | | |
| Insulation resistance | 100 MΩ min. (at 500 VDC) | | | | |
| Dielectric strength | 2,500 VAC, 50/60 Hz for 1 min | | | | |
| Vibration resistance | Destruction: 10 to 55 to 10 Hz, 0.75-mm single amplitude | | | | |
| Shock resistance | Destruction: 294 m/s ² | | | | |
| Ambient temperature | Operating: -20°C to 60°C (with no icing or condensation) Storage: -30°C to 70°C (with no icing or condensation) | | | | |
| Ambient humidity | Operating: 45% to 85% | | | | |
| Weight | 730 g max. | | 800 g max. | 730 g max. | |
| Standards | UL508 File No. E64562 CSA22.2 No. 14 File No. LR35535 | | | | |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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