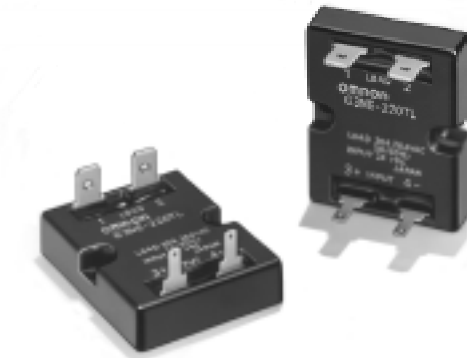


Compact, Low-cost, SSR Switching
5 to 20 A

- Wide load voltage range: 75 to 264 VAC
- Dedicated, compact aluminum PCB and power elements used
- Built-in varistor effectively absorbs external surges.
- Quick-connect #110 input terminals and #250 output connections. (#187 input terminals available)
- Approved by UL and CSA



Ordering Information

To order: Select the part number and add the desired coil voltage rating, (e.g., G3NE-205T-US DC24)

| Isolation | Zero cross function | Indicator | Rated output load (applicable output load) | Rated input voltage | Part number |
|------------|---------------------|-----------|---|---------------------|----------------------|
| Phototriac | Yes | No | 5 A at 100 to 240 VAC (5 A at 75 to 264 VAC) | 5, 12, 24 VDC | G3NE-205T-US |
| | | | 10 A at 100 to 240 VAC (10 A at 75 to 264 VAC) | | G3NE-210T-US |
| | | | 20 A at 100 to 240 VAC (20 A at 75 to 264 VAC) | | G3NE-220T-US |
| | No | | 5 A at 100 to 240 VAC (5 A at 75 to 264 VAC) | | G3NE-205TL-US |
| | | | 10 A at 100 to 240 VAC (10 A at 75 to 264 VAC) | | G3NE-210TL-US |
| | | | 20 A at 100 to 240 VAC (20 A at 75 to 264 VAC) | | G3NE-220TL-US |

Note: For information on ordering #187 input terminals contact your local Omron representative

■ ACCESSORIES (ORDER SEPARATELY)

Heat Sink

The following heat sinks are thin and can be track-mounted.
See *Dimensions* for details.

| Part number | Applicable SSR |
|------------------|-----------------------|
| Y92B-N50 | G3NE-205T(L)/-210T(L) |
| Y92B-N100 | G3NE-220T(L) |

Specifications

■ RATINGS

Input

| Rated voltage | Operating voltage | Voltage level | | Input impedance | |
|---------------|-------------------|---------------|--------------|--------------------------|-----------------------------|
| | | Must operate | Must release | With zero cross function | Without zero cross function |
| 5 VDC | 4 to 6 VDC | 4 VDC max. | 1 VDC min. | 250 Ω \pm 20% | 300 k Ω \pm 20% |
| 12 VDC | 9.6 to 14.4 VDC | 9.6 VDC max. | | 600 Ω \pm 20% | 800 k Ω \pm 20% |
| 24 VDC | 19.2 to 28.8 VDC | 19.2 VDC max. | | 1.6 k Ω \pm 20% | |

Note: Each model has 5-VDC, 12-VDC, and 24-VDC input versions.

Output

| Part number | Applicable load | | | | |
|-----------------|--------------------|--------------------|---------------------------|-------------------|------------------------|
| | Rated load voltage | Load voltage range | Load current | | Inrush current |
| | | | With heat sink | Without heat sink | |
| G3NE-205T(L)-US | 100 to 240 VAC | 75 to 264 VAC | 0.1 to 5 A | 0.1 to 5 A | 60 A (60 Hz, 1 cycle) |
| G3NE-210T(L)-US | | | 0.1 to 10 A (see note) | 0.1 to 5 A | 150 A (60 Hz, 1 cycle) |
| G3NE-220T(L)-US | | | 0.1 to 20 A (see note) | 0.1 to 5 A | 220 A (60 Hz, 1 cycle) |

Note: These values apply when using a dedicated radiator or a radiation plate of specified size.

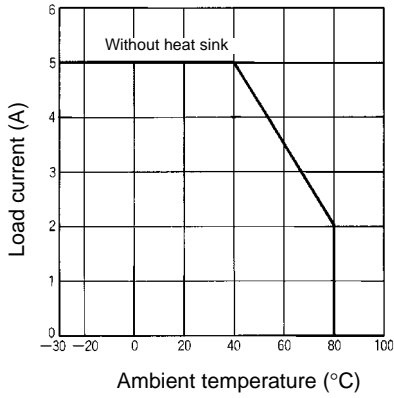
■ CHARACTERISTICS

| Item | G3NE-2□□T-US | G3NE-2□□TL-US |
|------------------------|---|---------------|
| Operate time | 1/2 of load power source cycle + 1 ms max. | 1 ms max. |
| Release time | 1/2 of load power source cycle + 1 ms max. | |
| Output ON voltage drop | 1.6 V (RMS) max. | |
| Leakage current | 5 mA max. (at 100 VAC) 10 mA max. (at 200 VAC) | |
| Insulation resistance | 100 M Ω min. (at 500 VDC) | |
| Dielectric strength | 2,000 VAC, 50/60 Hz for 1 min | |
| Vibration resistance | Malfunction: 10 to 55 Hz, 1.5-mm double amplitude | |
| Shock resistance | Malfunction: 1,000 m/s ² {approx. 100G} | |
| Ambient temperature | Operating: -30°C to 80°C (with no icing nor condensation) Storage: -30°C to 100°C (with no icing nor condensation) | |
| Ambient humidity | Operating: 45% to 85% | |
| Approved standards | UL508 File No.E64562/CSA C22.2 (No.0, No.14) File No. LR35535 TÜV R9051064 (VDE0435) (EN60950) | |
| Weight | Approx. 37 g | |

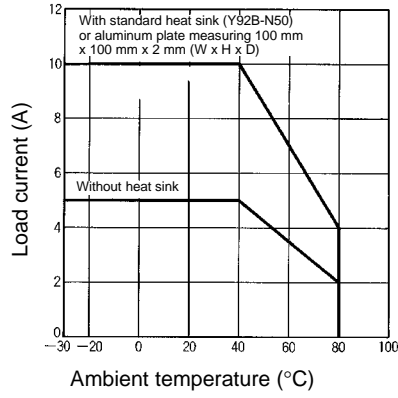
Engineering Data

Load Current vs. Ambient Temperature Characteristics

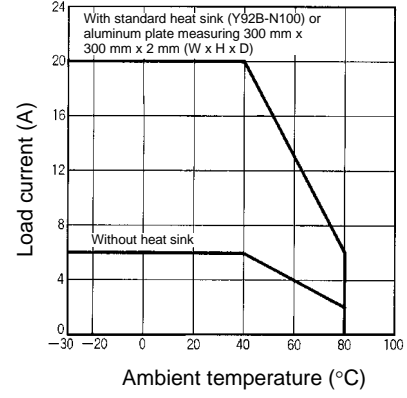
G3NE-205T(L)-US



G3NE-210T(L)-US



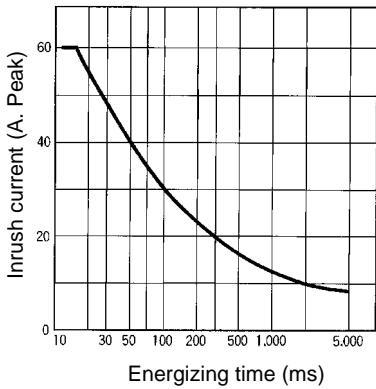
G3NE-220T(L)-US



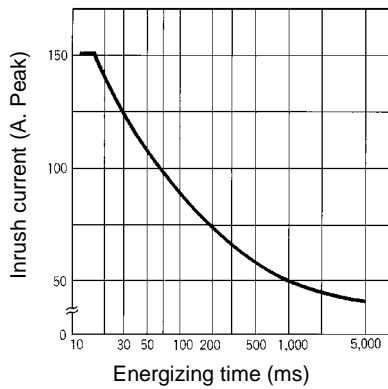
Inrush Current Resistivity

Non-repetitive (Keep the inrush current to half the rated value if it occurs repetitively.)

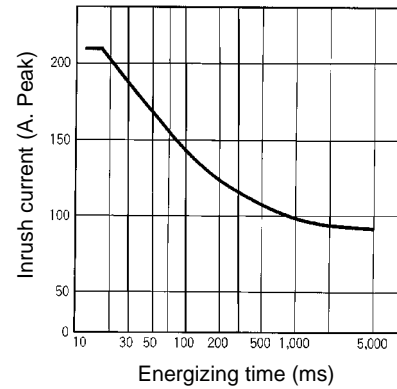
G3NE-205T(L)-US



G3NE-210T(L)-US



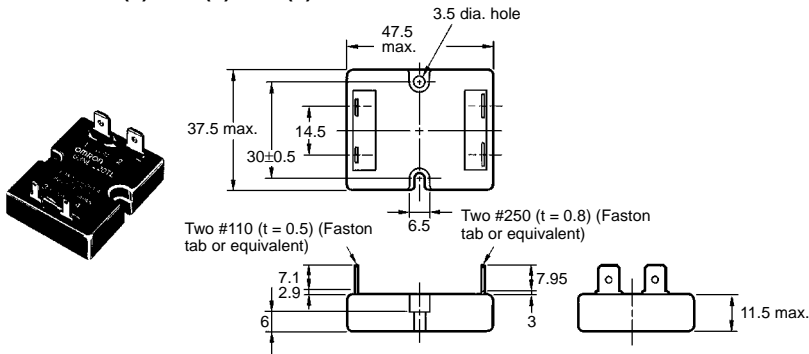
G3NE-220T(L)-US



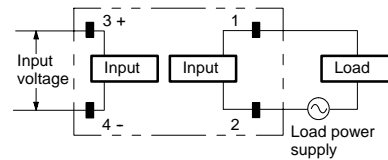
Dimensions

Unit: mm (inch)

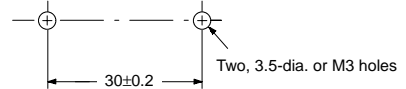
G3NE-205T(L)/210T(L)/220T(L)-US



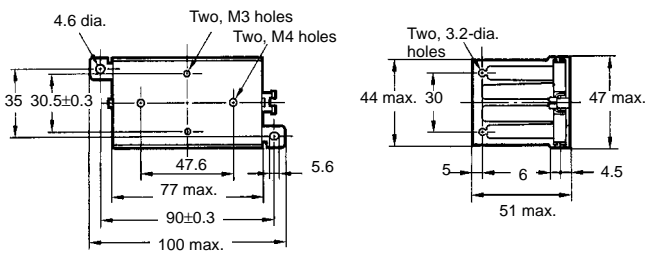
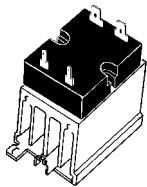
Terminal Arrangement/ Internal Connections (Top View)



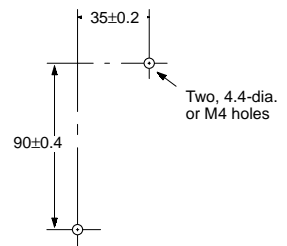
Mounting Holes



Heat Sink Y92B-N50

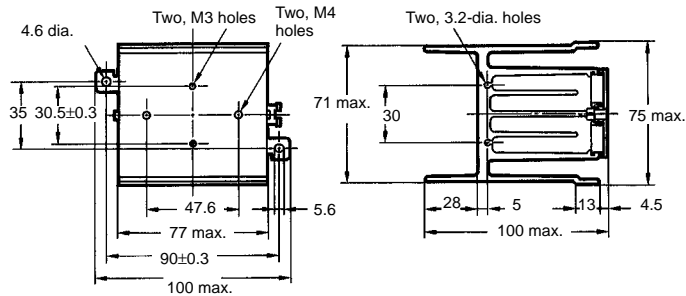
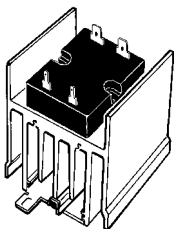


Mounting Holes

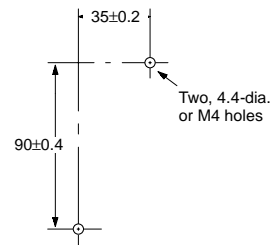


Weight: approx. 200 g

Y92B-N100



Mounting Holes



Weight: approx. 400 g

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON®
OMRON ELECTRONICS, INC.
One East Commerce Drive
Schaumburg, IL 60173
1-800-55-OMRON

OMRON CANADA, INC.
885 Milner Avenue
Scarborough, Ontario M1B 5V8
416-286-6465