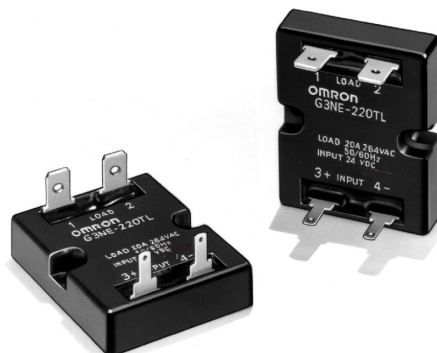


Solid State Relays G3NE

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

- Wide load voltage range: 75 to 264 VAC. Both 100-V and 200-V loads can be handled with the same model.
- 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 and #250 output connections are available.)
- “-US” models certified by UL, CSA, and IEC/EN (TÜV).



Model Number Structure

Model Number Legend

G3NE-□□□□-□-□
1 2 3 4 5 6 7

- Basic Model Name**
G3NE: Solid State Relay
- Rated Load Power Supply Voltage**
2: 200 VAC
- Rated Load Current**
05: 5 A
10: 10 A
20: 20 A
- Terminal Type**
T: Quick-connect terminals
- Zero Cross Function**
Blank: Equipped with zero cross function
L: Not equipped with zero cross function
- Special Specifications**
Blank: Standard models
2: #187 input terminals
- Certification**
US: Certified by UL, CSA, and TÜV

По вопросам продаж и поддержки обращайтесь:

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Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
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Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
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Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
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Саратов (845)249-38-78
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Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
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Таджикистан (992)427-82-92-69

Эл. почта: orm@nt-rt.ru || Сайт: <http://omron.nt-rt.ru>

SSR

Ordering Information

■ List of Models

| Isolation | Zero cross function | Indicator | Rated output load | Rated input voltage | Model |
|------------|---------------------|-----------|------------------------|---------------------|----------------------------------|
| Phototriac | Yes | No | 5 A at 100 to 240 VAC | 5, 12, 24 VDC | G3NE-205T-US G3NE-205T-2-US |
| | | | 10 A at 100 to 240 VAC | | G3NE-210T-US G3NE-210T-2-US |
| | | | 20 A at 100 to 240 VAC | | G3NE-220T-US G3NE-220T-2-US |
| | No | | 5 A at 100 to 240 VAC | | G3NE-205TL-US G3NE-205TL-2-US |
| | | | 10 A at 100 to 240 VAC | | G3NE-210TL-US G3NE-210TL-2-US |
| | | | 20 A at 100 to 240 VAC | | G3NE-220TL-US G3NE-220TL-2-US |

Note: When ordering, specify the input voltage.

■ Accessories (Order Separately)

Heat Sinks

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

| Model | Applicable SSR |
|-----------|-------------------------------------|
| Y92B-N50 | G3NE-205T(L)(-2)-US/-210T(L)(-2)-US |
| Y92B-N100 | G3NE-220T(L)(-2)-US |

Specifications

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

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±20% | 300 Ω±20% |
| 12 VDC | 9.6 to 14.4 VDC | 9.6 VDC max. | | 600 Ω±20% | 800 Ω±20% |
| 24 VDC | 19.2 to 28.8 VDC | 19.2 VDC max. | | 1.6 kΩ±20% | |

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

Output

| Model | Applicable load | | | | |
|---------------------|--------------------|--------------------|------------------------------|-------------------|------------------------|
| | Rated load voltage | Load voltage range | Load current (See note 1.) | | Inrush current |
| | | | With heat sink | Without heat sink | |
| G3NE-205T(L)(-2)-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)(-2)-US | | | 0.1 to 10 A (See note 2.) | 0.1 to 5 A | 150 A (60 Hz, 1 cycle) |
| G3NE-220T(L)(-2)-US | | | 0.1 to 20 A (See note 2.) | 0.1 to 5 A | 220 A (60 Hz, 1 cycle) |

Note: 1. The load current varies depending on the ambient temperature. Refer to *Load Current vs. Ambient Temperature* under *Engineering Data* for details.

2. These values apply when using a dedicated heat sink or a radiation plate of specified size.

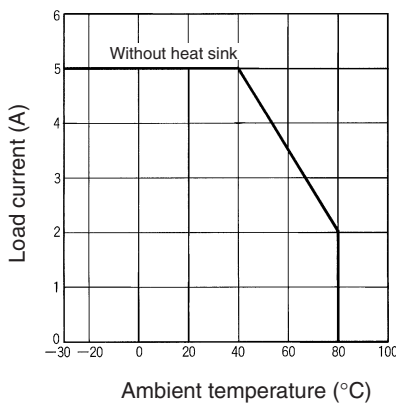
Characteristics

| Item | G3NE-2□□T(-2)-US | G3NE-2□□TL(-2)-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 | 2 mA max. (at 100 VAC) 5 mA max. (at 200 VAC) | |
| Insulation resistance | 100 MΩ min. (at 500 VDC) | |
| Dielectric strength | 2,000 VAC, 50/60 Hz for 1 min | |
| Vibration resistance | Destruction: 10 to 55 to 10 Hz, 0.75-mm single amplitude | |
| Shock resistance | Destruction: 1,000 m/s ² | |
| Ambient temperature | Operating: -30°C to 80°C (with no icing or condensation) Storage: -30°C to 100°C (with no icing or condensation) | |
| Ambient humidity | Operating: 45% to 85% | |
| Certified standards | UL508 File No.E64562/CSA C22.2 (No.0, No.14) File No. LR35535 TUV R9051064 (VDE0435) (EN60950) | |
| Weight | Approx. 37 g | |

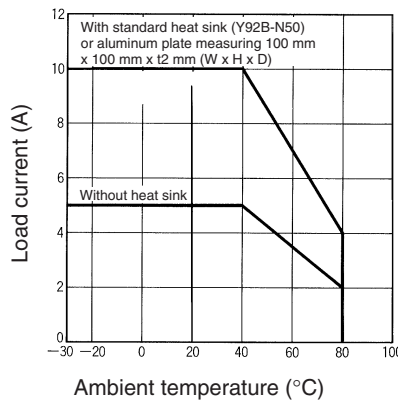
Engineering Data

Load Current vs. Ambient Temperature

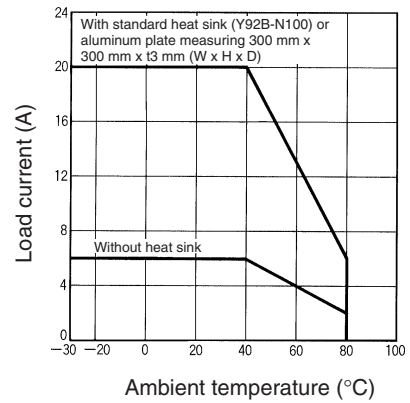
G3NE-205T(L)(-2)-US



G3NE-210T(L)(-2)-US



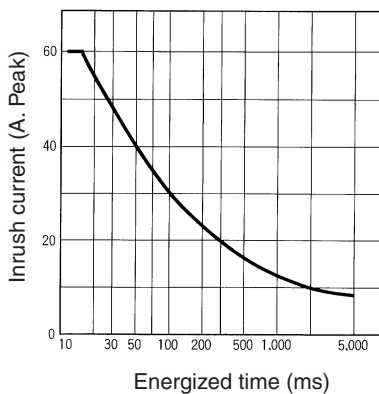
G3NE-220T(L)(-2)-US



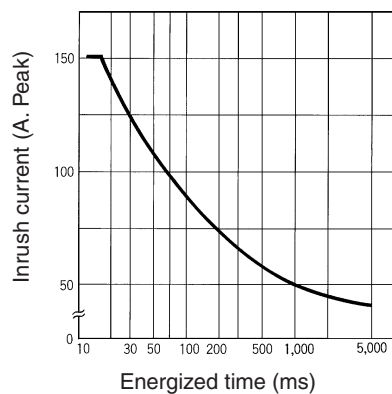
One Cycle Surge Current: Non-repetitive

Note: Keep the inrush current to half the rated value if it occurs repetitively.

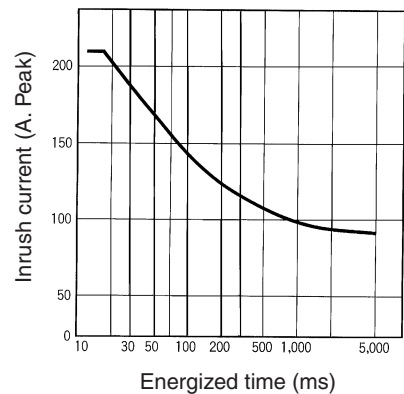
G3NE-205T(L)(-2)-US



G3NE-210T(L)(-2)-US



G3NE-220T(L)(-2)-US

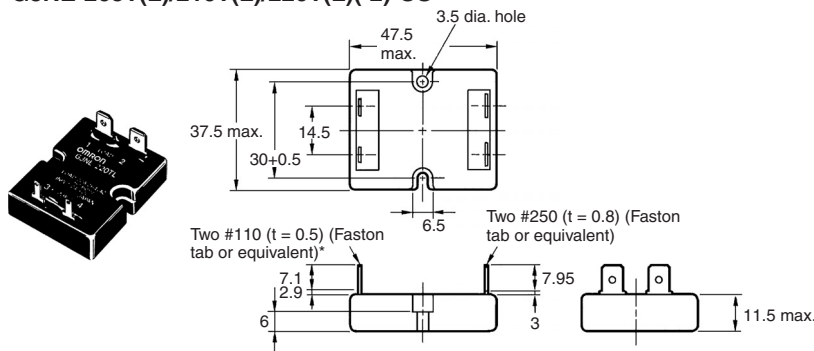


SSR

Dimensions

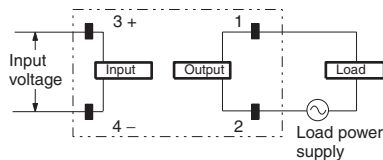
Note: All units are in millimeters unless otherwise indicated.

G3NE-205T(L)/210T(L)/220T(L)(-2)-US

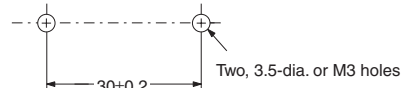


* G3NE-2□□T(L)-2-US: Two, #187 (t=0.5) (Faston tab or equivalent)

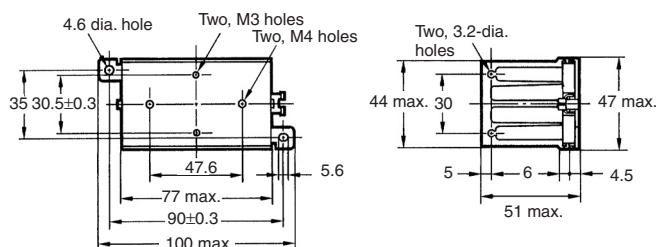
Terminal Arrangement/ Internal Connections (Top View)



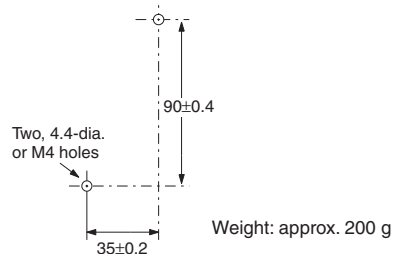
Mounting Holes



Heat Sink Y92B-N50

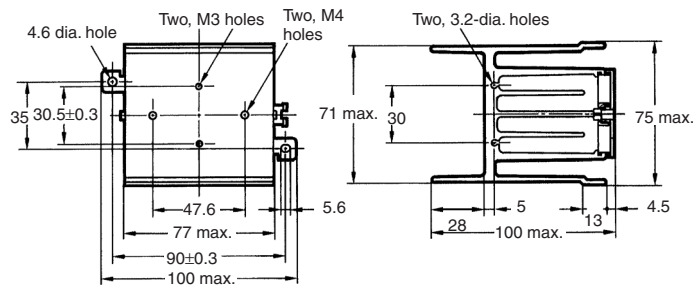


Mounting Holes

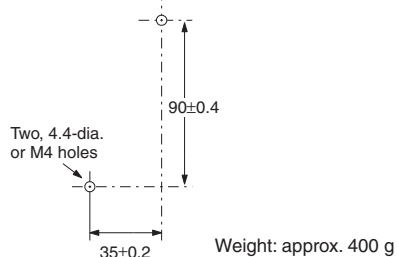


Weight: approx. 200 g

Y92B-N100



Mounting Holes



Weight: approx. 400 g

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