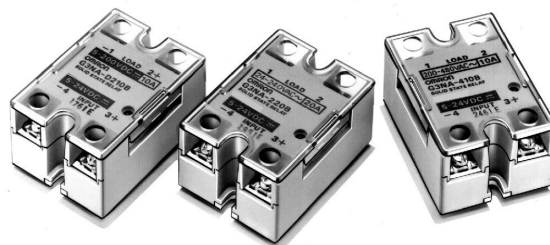


Solid State Relay G3NA

New Models with 75-A and 90-A Output Join the Previous Models with 5- to 50-A Output.

- AC Output Relays with 75-A and 90-A output added.
- All models feature a uniform mounting pitch.
- Built-in varistor effectively absorbs external surges. (except G3NA-D210B)
- Operation indicator enables monitoring operation.
- Protective cover for greater safety.
- Standard models certified by UL and CSA and -UTU models by VDE (TÜV). (except G3NA-410B, G3NA-420B, and G3NA-440B(-2))



Ordering Information

To Order: Select the part number and add the desired rated input voltage, (e.g., G3NA-240B-100 to 120 VAC)

Isolation	Zero cross function	Indicator	Rated output load (applicable output load)	Rated input voltage	Model
Phototriac	Yes	Yes	5 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-205B
Photocoupler				100 to 120 VAC	
	200 to 240 VAC				
Phototriac			10 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-210B
Photocoupler				100 to 120 VAC	
				200 to 240 VAC	
Phototriac			20 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-220B
Photocoupler				100 to 120 VAC	
				200 to 240 VAC	
			25 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-225B
				100 to 120 VAC	
				200 to 240 VAC	
			25 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	G3NA-425B
				100 to 240 VAC	

(Table continued on next page.)

Isolation	Zero cross function	Indicator	Rated output load (applicable output load)	Rated input voltage	Model
Phototriac	Yes	Yes	40 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-240B
Photocoupler				100 to 120 VAC	
				200 to 240 VAC	
Phototriac	—	—	75 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-275B-UTU-2
Photocoupler				100 to 240 VAC	
Phototriac	—	—	90 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-290B-UTU-2
Photocoupler				100 to 240 VAC	
	—	—	10 A at 5 to 200 VDC (4 to 220 VDC)	5 to 24 VDC 100 to 240 VAC	G3NA-D210B
	Yes	—	10 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC 100 to 240 VAC	G3NA-410B
			20 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC 100 to 240 VAC	G3NA-420B
			40 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC 100 to 240 VAC	G3NA-440B-2
			50 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	G3NA-450B-2
			75 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC 100 to 240 VAC	G3NA-475B-UTU-2
			90 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	G3NA-490B-UTU-2

*Loss time increases under 75 VAC.

Note: 1. Standard models are certified by UL and CSA.

2. When ordering a UL, CSA and TÜV-approved model, add “-UTU” to the model number as shown below:

Example: G3NA-210B-UTU.

3. The applicable load is the value for when the SSR is used with silicon grease applied to the specified heat sink. The applicable load depends upon the ambient temperature. Refer to *Load Current vs. Ambient Temperature* charts in the Engineering Data section.

■ Accessories

Heat Sinks

Types	Applicable solid-state relays	Model
Standard mount	G3NA-205B, G3NA-210B, G3NA-D210B, G3NA-220B, G3NA-410B, G3NA-420B	Y92B-A100
	G3NA-225B, G3NA-240B-2, G3NA-425B, G3NA-440B-2	Y92B-A150N
	G3NA-440B-2	Y92B-A250
Track mount	G3NA-205B, G3NA-210B, G3NA-D210B, G3NA-410B	Y92B-N50
	G3NA-220B, G3NA-420B	Y92B-N100
	G3NA-225B, G3NA-240B, G3NA-425B, G3NA-440B-2	Y92B-N150
	G3NA-450B-2	Y92B-P250
	G3NA-275B-UTU-2, G3NA-290B-UTU-2, G3NA-475B-UTU-2, G3NA-490B-UTU-2	Y92B-P250NF

Mounting Track and Accessories

Description	Model
Mounting bracket for G3NA-240B and G3NA-440B-2. Changes pitch to 56 mm (2.21 in.) from 47.5 mm (1.73 in.), the same pitch as G3N-240B.	R99-11
DIN Rail Track, 50 cm (1.64 feet) length; use with Y92B-N□□□ heat sinks	PPF-50N
DIN Rail Track, 1 m (3.28 feet) length; use with Y92B-N□□□ heat sinks	PPF-100N
Spacer	PPF-S
End cap	PPF-M
One-touch mounting plate	R99-12 FOR G3NA

Specifications

Input Ratings

(Ambient temperature: 25°C [77°F])

Type	Rated voltage	Operating voltage range	Impedance (See note 1)	Voltage level	
				Must operate voltage	Must release voltage
G3NA-2□□B	5 to 24 VDC	4 to 32 VDC	7 mA max. (see note 2)	4 VDC max.	1 VDC min.
	100 to 120 VAC	75 to 132 VAC	36 kΩ ±20% (see note 4)	75 VAC max. (see note 3)	20 VAC min. (see note 3)
	200 to 240 VAC	150 to 264 VAC	72 kΩ ±20%	150 VAC max. (see note 3)	40 VAC min. (see notes 3 and 5)
G3NA-4□□B	5 to 24 VDC	4 to 32 VDC	5 mA max. (see note 2)	4 VDC max.	1 VDC min.
	G3NA-D210B	100 to 240 VAC	75 to 264 VAC	72 kΩ ±20%	75 VAC max.
G3NA-275B-UTU-2	5 to 24 VDC	4 to 32 VDC	15 mA max. (see note 6)	4 VDC max.	1 VDC min.
G3NA-290B-UTU-2					
G3NA-475B-UTU-2	100 to 240 VAC	75 to 264 VAC	72 kΩ ±20%	75 VAC max.	20 VAC min.
G3NA-490B-UTU-2					

Note: 1. The input impedance is measured at the maximum value of the rated supply voltage (for example, with the model rated at 100 to 120 VAC, the input impedance is measured at 120 VAC).

2. With constant current input circuit system, the impedance for the G3NA-2□□B-UTU is 15mA max.

3. Refer to the "Characteristic Data" for further details.

4. The G3NA-240B(-UTU) is 72kΩ ±20%

5. The G3NA-240B(-UTU) is 20 VAC min.

6. The impedance for G3NA-475B-UTU-2 and G3NA-490B-UTU-2 is 7 mA max.

Output Ratings

Type	Applicable load					Surge current	V _{DRM} , V _{CEO} (Ref. Value)
	Rated load voltage	Load voltage range	Load current				
			With heat sink*	Without heat sink			
G3NA-205B	24 to 240 VAC	19 to 264 VAC	0.1 to 5 A (at 40°C)	0.1 to 3 A (at 40°C)	60 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-210B	24 to 240 VAC	19 to 264 VAC	0.1 to 10 A (at 40°C)	0.1 to 4 A (at 40°C)	150 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-410B	200 to 480 VAC	180 to 528 VAC	0.2 to 10 A (at 40°C)	0.2 to 4 A (at 40°C)		1,200V (V _{DRM})	
G3NA-220B	24 to 240 VAC	19 to 264 VAC	0.1 to 20 A (at 40°C)	0.1 to 4 A (at 40°C)	220 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-420B	200 to 480 VAC	180 to 528 VAC	0.2 to 20 A (at 40°C)	0.2 to 4 A (at 40°C)		1,200V (V _{DRM})	
G3NA-240B	24 to 240 VAC	19 to 264 VAC	0.1 to 40 A (at 40°C)	0.1 to 6 A (at 40°C)	440 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-440B-2	200 to 480 VAC	180 to 528 VAC	0.2 to 40 A (at 40°C)	0.2 to 6 A (at 40°C)		1,200V (V _{DRM})	
G3NA-450B	200 to 480 VAC	180 to 528 VAC	0.2 to 50 A (at 40°C)	0.2 to 6 A (at 40°C)			
G3NA-D210B	5 to 200 VDC	4 to 220 VDC	0.1 to 10 A (at 40°C)	0.1 to 4 A (at 40°C)	20 A (10 ms)	400V (V _{CEO})	
G3NA-275B-UTU-2	24 to 240 VAC	19 to 264 VAC	1 to 75 A (at 40°C)	1 to 7 A (at 40°C)	800 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-475B-UTU-2	200 to 480 VAC	180 to 528 VAC	1 to 75 A (at 40°C)	1 to 7 A (at 40°C)	800 A (60 Hz, 1 cycle)	1,200V (V _{DRM})	
G3NA-290B-UTU-2	24 to 240 VAC	19 to 264 VAC	1 to 90 A (at 40°C)	1 to 7 A (at 40°C)	1,000 A (60 Hz, 1 cycle)	600V (V _{DRM})	
G3NA-490B-UTU-2	200 to 480 VAC	180 to 528 VAC	1 to 90 A (at 40°C)	1 to 7 A (at 40°C)	1,000 A (60 Hz, 1 cycle)	1,200V (V _{DRM})	

*When the appropriate size OMRON heat sink is used.

Note: The load current varies depending on the ambient temperature. Refer to *Load Current vs. Ambient Temperature* charts in the Engineering Data section.