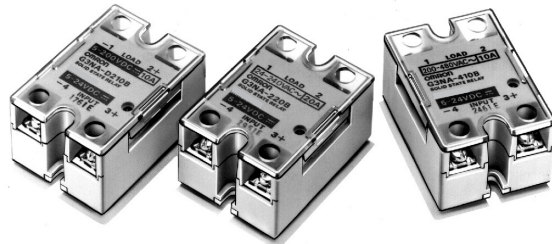


# Solid State Relay G3NA

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

- AC Output Relays with 75-A and 90-A output currents have been added to the G3NA Series. The standard versions of these models provide certification for international standards (-UTU).
- All models feature the same compact dimensions to provide a uniform mounting pitch.
- Built-in varistor effectively absorbs external surges.
- Operation indicator enables monitoring operation.
- Protective cover for greater safety.
- Standard models certified by UL and CSA and -UTU models by VDE (TÜV).



## 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	<b>G3NA-205B</b>
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	<b>G3NA-210B</b>
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	<b>G3NA-220B</b>
Photocoupler				100 to 120 VAC	
				200 to 240 VAC	
			25 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	<b>G3NA-225B</b>
				100 to 120 VAC	
				200 to 240 VAC	
			25 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	<b>G3NA-425B</b>
				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			—	Yes	75 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-275B-UTU		
Photocoupler						100 to 240 VAC			
Phototriac					90 A at 24 to 240 VAC* (19 to 264 VAC)	5 to 24 VDC	G3NA-290B-UTU		
Photocoupler						100 to 240 VAC			
					10 A at 5 to 200 VDC* (4 to 220 VDC)	5 to 24 VDC	G3NA-D210B		
						100 to 240 VAC			
					Yes	Yes	10 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	G3NA-410B
								100 to 240 VAC	
							20 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC	G3NA-420B
	100 to 240 VAC								
	40 A at 200 to 480 VAC* (180 to 528 VAC)	5 to 24 VDC					G3NA-440B		
		100 to 240 VAC							
	50 A at 200 to 480 VAC (180 to 528 VAC)	5 to 24 VDC	G3NA-450B						
		100 to 240 VAC							
	75 A at 200 to 480 VAC (180 to 528 VAC)	5 to 24 VDC	G3NA-475B-UTU						
		100 to 240 VAC							
	90 A at 200 to 480 VAC (180 to 528 VAC)	5 to 24 VDC	G3NA-490B-UTU						
		100 to 240 VAC							

\*Loss time increases under 75 VAC.

**Note:** 1. When ordering a TÜV-approved model, add “-UTU” to the model number as shown below:

Example: G3NA-210B-UTU.

2. G3NA-4 are not CE marked.
3. G3NA-2 with “-UTU” are CE marked.

## ■ 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, G3NA-425B, G3NA-440B	Y92B-A150N
	G3NA-440B	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	Y92B-N150
	G3NA-450B	Y92B-P250
	G3NA-275B-UTU, G3NA-290B-UTU, G3NA-475B-UTU, G3NA-490B-UTU	Y92B-P250NF

### Mounting Track and Accessories

Description	Model
Mounting bracket for G3NA-240B. 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	PFP-50N
DIN Rail Track, 1 m (3.28 feet) length; use with Y92B-N□□□ heat sinks	PFP-100N
Spacer	PFP-S
End cap	PFP-M
One-touch mounting plates	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%	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 note 3)
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.	20 VAC min.
G3NA-275B-UTU	5 to 24 VDC	4 to 32 VDC	15 mA max. (see note 2)	4 VDC max.	1 VDC min.
G3NA-290B-UTU	100 to 240 VAC	75 to 264 VAC	72 kΩ ±20%	75 VAC max.	20 VAC min.
G3NA-475B-UTU					
G3NA-490B-UTU					

**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.

## Output Ratings

Type	Applicable load				
	Rated load voltage	Load voltage range	Load current		Surge 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)
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)
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)	
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)
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)	
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)
G3NA-440B	200 to 480 VAC	180 to 528 VAC	0.2 to 40 A (at 40°C)	0.2 to 6 A (at 40°C)	
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)
G3NA-275B-UTU	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)
G3NA-475B-UTU	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)
G3NA-290B-UTU	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)
G3NA-490B-UTU	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)

\*When the appropriate size OMRON heat sink is used.