

Ordering Information

■ List of Models

Isolation	Zero cross function	Indicator	Applicable output load (See note 1.)	Rated input voltage	Model
Phototriac	Yes	Yes	5 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-205B DC5-24
Photocoupler				100 to 120 VAC	G3NA-205B AC100-120
	200 to 240 VAC	G3NA-205B AC200-240			
Phototriac	---	Yes	10 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-210B DC5-24
Photocoupler				100 to 120 VAC	G3NA-210B AC100-120
				200 to 240 VAC	G3NA-210B AC200-240
Phototriac			20 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-220B DC5-24
Photocoupler				100 to 120 VAC	G3NA-220B AC100-120
				200 to 240 VAC	G3NA-220B AC200-240
Phototriac			40 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-240B DC5-24
Photocoupler				100 to 120 VAC	G3NA-240B AC100-120
				200 to 240 VAC	G3NA-240B AC200-240
Phototriac			75 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-275B-UTU DC5-24
Photocoupler				100 to 240 VAC	G3NA-275B-UTU AC100-240
Phototriac			90 A at 24 to 240 VAC (See note 2.)	5 to 24 VDC	G3NA-290B-UTU DC5-24
Photocoupler	100 to 240 VAC	G3NA-290B-UTU AC100-240			
	Yes	10 A at 5 to 200 VDC	5 to 24 VDC	G3NA-D210B DC5-24	
			100 to 240 VAC	G3NA-D210B AC100-240	
		10 A at 200 to 480 VAC	5 to 24 VDC	G3NA-410B DC5-24	
			100 to 240 VAC	G3NA-410B AC100-240	
		20 A at 200 to 480 VAC	5 to 24 VDC	G3NA-420B DC5-24	
			100 to 240 VAC	G3NA-420B AC100-240	
		40 A at 200 to 480 VAC	5 to 24 VDC	G3NA-440B DC5-24	
			100 to 240 VAC	G3NA-440B AC100-240	
		50 A at 200 to 480 VAC (See note 2.)	5 to 24 VDC	G3NA-450B DC5-24	
			100 to 240 VAC	G3NA-450B AC100-240	
		75 A at 200 to 480 VAC (See note 2.)	5 to 24 VDC	G3NA-475B-UTU DC5-24	
			100 to 240 VAC	G3NA-475B-UTU AC100-240	
	90 A at 200 to 480 VAC (See note 2.)	5 to 24 VDC	G3NA-490B-UTU DC5-24		
		100 to 240 VAC	G3NA-490B-UTU AC100-240		

*The standard models are certified by UL and CSA. To order a TÜV-certified model, add "-UTU" to the model number.

- Note:** 1. 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 on the ambient temperature. Refer to *Load Current vs. Ambient Temperature in Engineering Data* on page 5.
2. Loss time increases under 75 VAC. (Refer to page 14.) Confirm operation with the actual load.

■ Accessories (Order Separately)

One-touch Mounting Plates

Model
R99-12 FOR G3NA

Mounting Bracket

Model	Applicable SSR
R99-11	G3NA-240B, G3NA-440B

Heat Sinks

Slim Models Enabling DIN-track Mounting

Model	Applicable SSR
Y92B-N50	G3NA-205B, G3NA-210B, G3NA-D210B, G3NA-410B, G3NA-210T(L)
Y92B-N100	G3NA-220B, G3NA-420B, G3NA-220T(L)
Y92B-N150	G3NA-240B, G3NA-440B
Y92B-P250	G3NA-450B
Y92B-P250NF (See note.)	G3NA-275B-UTU, G3NA-290B-UTU, G3NA-475B-UTU, G3NA-490B-UTU

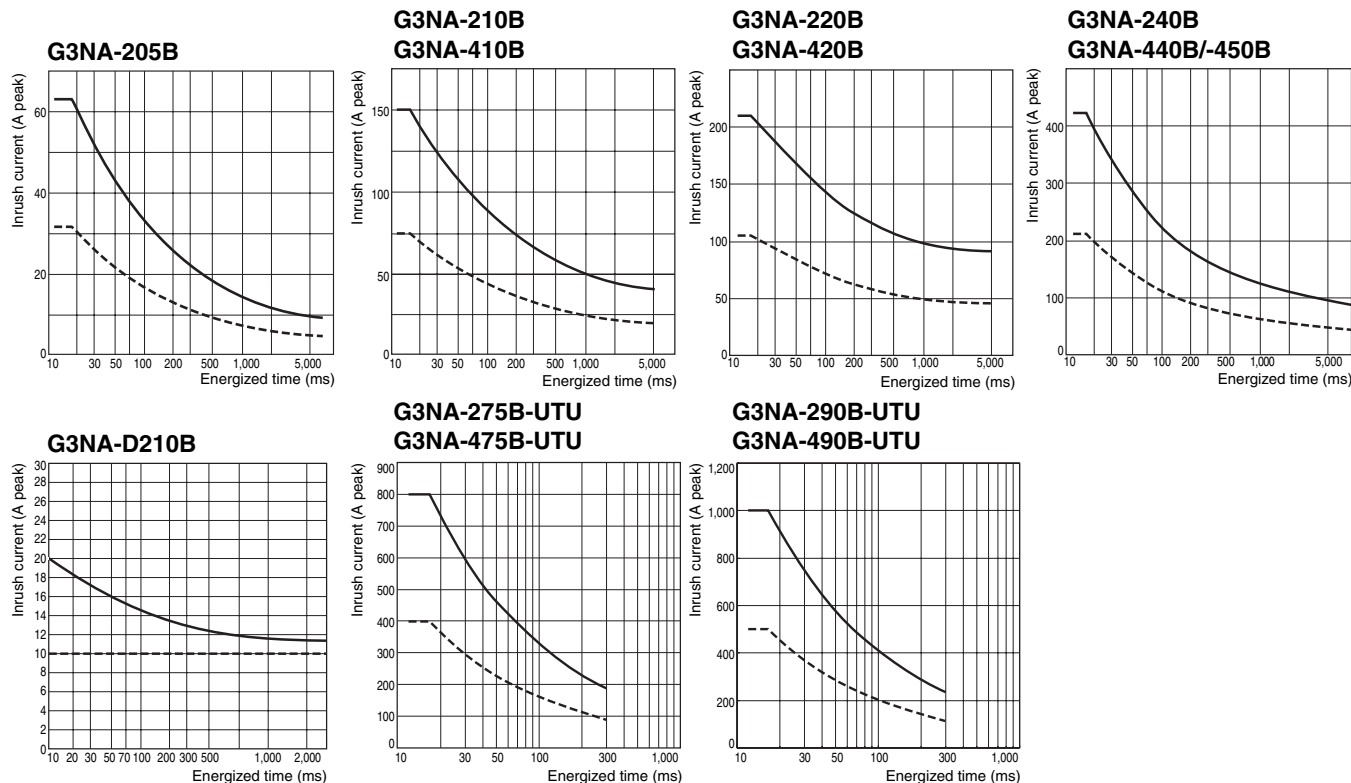
Note: The Y92B-P250NF is scheduled for release on May 1, 2004.

Low-cost Models

Model	Applicable SSR
Y92B-A100	G3NA-205B, G3NA-210B, G3NA-D210B, G3NA-220B, G3NA-410B, G3NA-420B
Y92B-A150N	G3NA-240B, G3NA-440B
Y92B-A250	G3NA-440B

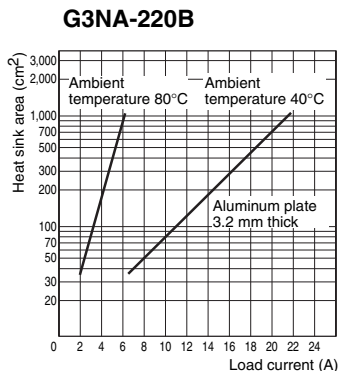
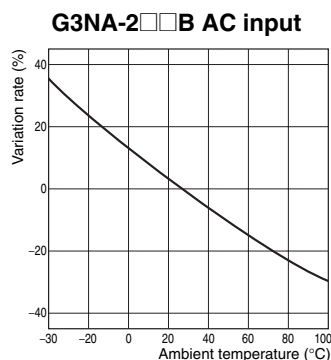
One Cycle Surge Current

The values shown by the solid line are for non-repetitive inrush currents. Keep the inrush current below the values shown by the dotted line if it occurs repetitively.



Temperature Characteristics (for Must Operate Voltage and Must Release Voltage)

Heat Sink Area vs. Load Current



Note: The heat sink area refers to the combined area of the sides of the heat sink that radiate heat. For example, when a current of 18 A is allowed to flow through the SSR at 40°C, the graph shows that the heat sink area is about 450 cm². Therefore, if the heat sink is square, one side of the heat sink must be 15 cm ($\sqrt{450 \text{ (cm}^2\text{)}/2}$) or longer.

Thermal Resistance Rth (Back of Junction SSR) (Examples)

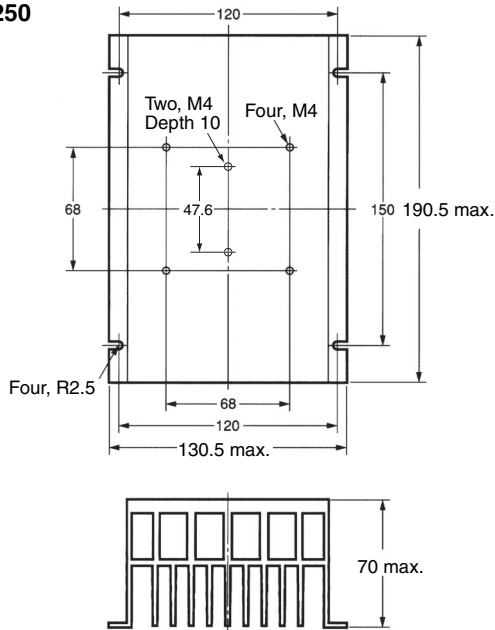
Model	Rth (°C/W)
G3NA-205B	3.22
G3NA-210B	2.62
G3NA-220B	1.99
G3NA-240B	0.45
G3NA-275B-UTU G3NA-475B-UTU G3NA-290B-UTU G3NA-490B-UTU	0.45
G3NA-D210B	2.62

Thermal Resistance Rth of Heat Sinks (Examples)

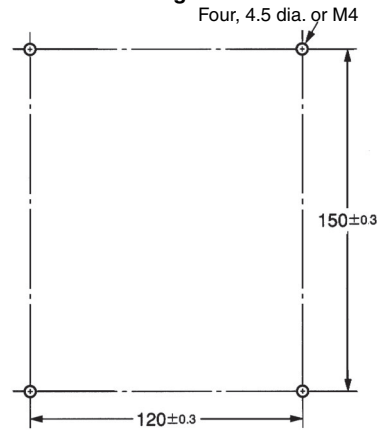
Model	Rth (°C/W)
Y92B-N50	2.8
Y92B-N100	1.63
Y92B-N150	1.38
Y92B-A100	1.63
Y92B-A150N	1.37
Y92B-A250	1.00
Y92B-P250NF	0.46

Note: When using a commercially available heat sink, use one with a thermal resistance equal to or less than the OMRON Heat Sink.

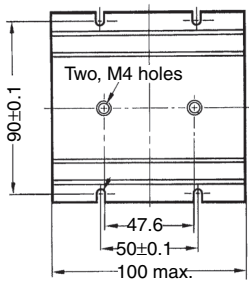
Y92B-P250



Mounting Holes

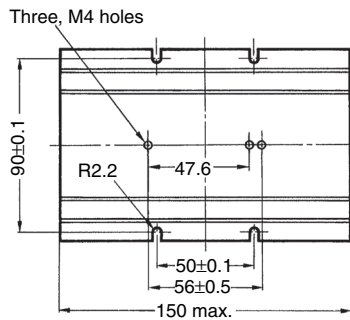


Y92B-A100 Heat Sink (for the G3NA-205B, G3NA-210B, G3NA-220B, G3NA-410B, G3NA-420B, G3NA-D210B)



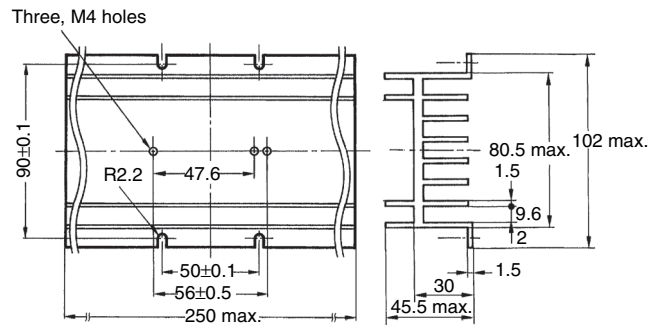
Weight: approx. 210 g

Y92B-A150N Heat Sink (for the G3NA-240B, G3NA-440B)



Weight: approx. 310 g

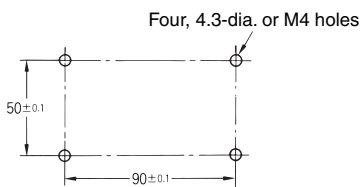
Y92B-A250 Heat Sink (for the G3NA-440B)



Weight: approx. 510 g

Mounting Holes

Y92B-A100
Y92B-A150
Y92B-A250



For surface mounting, a 30% derating of the load current is required (from the *Load Current vs. Ambient Temperature* graphs). The orientation indicated by the external dimensions is not the correct mounting orientation. When opening mounting holes, refer to the mounting hole dimensions.