



\* Not applicable to model numbers that end in -VD-X.


## Extremely Thin Relays Integrated with Heat Sinks

- Downsizing achieved through optimum design of heat sink.
  - Mounting possible via screws or via DIN track.
  - Close mounting possible for linking terminals. (Except for G3PA-260B-VD and G3PA-450B-VD-2.)
  - Applicable with 3-phase loads.
  - Replaceable power element cartridges.
  - Comply with VDE 0160 (finger protection), with a dielectric strength of 4,000 V between input and load.
  - Certified by UL, CSA, and VDE (reinforced insulation). \*
- \* Only UL and CSA certification applies to model numbers that end in -VD-X.



**Note:** Manufacture of the following models will be discontinued at the end of March 2017: G3PA-210B-VD, G3PA-220B-VD, G32A-A10-VD, and G32A-A20VD.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

 Refer to *Safety Precautions for All Solid State Relays.*

## Model Number Structure

### ■ Model Number Legend

G3PA-□□□□-□-□  
 1 2 3 4 5 6 7

- 1. Basic Model Name**  
G3PA: Solid State Relay
- 2. Rated Load Power Supply Voltage**  
2: 200 VAC  
4: 400 VAC
- 3. Rated Load Current**  
10: 10 A  
20: 20 A  
30: 30 A  
40: 40 A  
50: 50 A  
60: 60 A
- 4. Terminal Type**  
B: Screw terminals
- 5. Zero Cross Function**  
Blank: Equipped with zero cross function  
L: Not equipped with zero cross function
- 6. Certification**  
VD: Certified by UL, CSA, and VDE
- 7. Special Specifications**  
Blank: Standard models  
2: 480-V models  
X: Non-compliant of EN standard (CE mark)

# Ordering Information

## List of Models

Model	Isolation	Zero cross function	Indicator	Rated output load	Rated input voltage	
G3PA-210B-VD-X	Phototriac coupler	Yes	Yes	10 A at 24 to 240 VAC	5 to 24 VDC	
G3PA-210B-VD *				20 A at 24 to 240 VAC		
G3PA-220B-VD-X				40 A at 24 to 240 VAC		
G3PA-220B-VD *				60 A at 24 to 240 VAC		
G3PA-240B-VD				10 A at 24 to 240 VAC		
G3PA-260B-VD				20 A at 24 to 240 VAC		
G3PA-210BL-VD		No		40 A at 24 to 240 VAC		
G3PA-220BL-VD				60 A at 24 to 240 VAC		
G3PA-240BL-VD				10 A at 24 to 240 VAC		
G3PA-260BL-VD				20 A at 24 to 240 VAC		
G3PA-210B-VD		Yes		Yes	40 A at 24 to 240 VAC	24 VAC
G3PA-220B-VD					60 A at 24 to 240 VAC	
G3PA-240B-VD					10 A at 24 to 240 VAC	
G3PA-260B-VD					20 A at 24 to 240 VAC	
G3PA-420B-VD					40 A at 24 to 240 VAC	
G3PA-430B-VD					60 A at 24 to 240 VAC	
G3PA-420B-VD-2	12 to 24 VDC	Yes	20 A at 180 to 400 VAC			
G3PA-430B-VD-2			30 A at 180 to 400 VAC			
G3PA-450B-VD-2			20 A at 200 to 480 VAC			
G3PA-450B-VD-2			30 A at 200 to 480 VAC			
G3PA-450B-VD-2			50 A at 200 to 480 VAC			

**Note:** When ordering, specify the rated input voltage.

\* Manufacture will be discontinued at the end of March 2017.

## Replacement Parts

Name	Carry current	Load voltage range	Model	Applicable SSR	VDE certification		
Power Device Cartridge	10 A	19 to 264 VAC	G32A-A10-VD-X DC5-24	G3PA-210B-VD DC5-24 G3PA-210B-VD-X DC5-24	No		
			G32A-A10-VD DC5-24 *	G3PA-210B-VD DC5-24	Yes		
			G32A-A10L-VD DC5-24	G3PA-210BL-VD DC5-24	No		
			G32A-A10-VD AC24	G3PA-210B-VD AC24			
			20 A	G32A-A20-VD-X DC5-24	G3PA-220B-VD DC5-24 G3PA-220B-VD-X DC5-24	No	
				G32A-A20-VD DC5-24 *	G3PA-220B-VD DC5-24	Yes	
	G32A-A20L-VD DC5-24			G3PA-220BL-VD DC5-24			
	G32A-A20-VD AC24			G3PA-220B-VD AC24			
	40 A			G32A-A40-VD DC5-24	G3PA-240B-VD DC5-24		No
				G32A-A40L-VD DC5-24	G3PA-240BL-VD DC5-24		
			G32A-A40-VD AC24	G3PA-240B-VD AC24			
			60 A	G32A-A60-VD DC5-24	G3PA-260B-VD DC5-24	Yes	
				G32A-A60L-VD DC5-24	G3PA-260BL-VD DC5-24		
				G32A-A60-VD AC24	G3PA-260B-VD AC24		
	20 A			150 to 440 VAC	G32A-A420-VD DC12-24		G3PA-420B-VD DC12-24
					G32A-A430-VD DC12-24		G3PA-430B-VD DC12-24
					30 A		180 to 528 VAC
	G32A-A430-VD-2 DC12-24		G3PA-430B-VD-2 DC12-24				
50 A	G32A-A450-VD-2 DC12-24	G3PA-450B-VD-2 DC12-24					

\* Manufacture will be discontinued at the end of March 2017.

## Other Units (Order Separately)

### Units that Enable 2-line Switching of 3-phase Power

Name	Current flow	Model	Applicable SSR
Short-circuit Unit	10 A	G32A-D20	G3PA-210B-VD-X, G3PA-210BL-VD
	20 A		G3PA-220B-VD-X, G3PA-220BL-VD G3PA-420B-VD, G3PA-420B-VD-2
	30 A	G32A-D40	G3PA-430B-VD, G3PA-430B-VD-2
	40 A		G3PA-240B-VD, G3PA-240BL-VD

**Note:** Refer to *List of Certified Models* for a list of products that comply with safety standards.

# Specifications

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

### Input

Model	Rated voltage	Operating Voltage range	Input current impedance	Voltage level	
				Must operate voltage	Must release voltage
G3PA-210B-VD-X	5 to 24 VDC	4 to 30 VDC	7 mA max.	4 VDC max.	1 VDC min.
G3PA-220B-VD-X					
G3PA-240B-VD					
G3PA-260B-VD					
G3PA-210BL-VD	5 to 24 VDC	4 to 30 VDC	20 mA max.	4 VDC max.	1 VDC min.
G3PA-220BL-VD					
G3PA-240BL-VD					
G3PA-260BL-VD					
G3PA-210B-VD	24 VAC	19.2 to 26.4 VAC	1.4 kΩ±20%	19.2 VAC max.	4.8 VAC min.
G3PA-220B-VD					
G3PA-240B-VD					
G3PA-260B-VD					
G3PA-420B-VD	12 to 24 VDC	9.6 to 30 VDC	7 mA max.	9.2 VDC max.	1 VDC min.
G3PA-430B-VD					
G3PA-420B-VD-2					
G3PA-430B-VD-2					
G3PA-450B-VD-2					

### Output

Model	Rated load voltage	Load voltage range	Load current	Inrush current	V <sub>DRM</sub> (reference value)
G3PA-210B(L)-VD(-X)	24 to 240 VAC (50/60 Hz)	19 to 264 VAC (50/60 Hz)	0.1 to 10 A at 40°C	150 A (60 Hz, 1 cycle)	600 V (V <sub>DRM</sub> )
G3PA-220B(L)-VD(-X)			0.1 to 20 A at 40°C	220 A (60 Hz, 1 cycle)	
G3PA-240B(L)-VD			0.5 to 40 A at 40°C	440 A (60 Hz, 1 cycle)	
G3PA-260B(L)-VD			0.5 to 60 A at 40°C	440 A (60 Hz, 1 cycle)	
G3PA-420B-VD	180 to 400 VAC (50/60 Hz)	150 to 440 VAC (50/60 Hz)	0.5 to 20 A at 30°C	220 A (60 Hz, 1 cycle)	1,000 V (V <sub>DRM</sub> )
G3PA-430B-VD			0.5 to 30 A at 30°C	440 A (60 Hz, 1 cycle)	
G3PA-420B-VD-2	200 to 480 VAC (50/60 Hz)	180 to 528 VAC (50/60 Hz)	0.5 to 20 A at 30°C	220 A (60 Hz, 1 cycle)	1,200 V (V <sub>DRM</sub> )
G3PA-430B-VD-2			0.5 to 30 A at 30°C	440 A (60 Hz, 1 cycle)	
G3PA-450B-VD-2			0.5 to 50 A at 30°C	440 A (60 Hz, 1 cycle)	

Refer to *Engineering Data* for further details.