

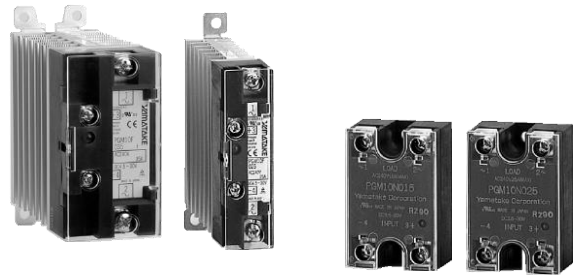


Heater Power Regulator Solid-State Relays PGM10N/F

■ Features

PGM10N/F solid-state relays have zero-cross functions for single phase power. They are used to control heating in conjunction with time proportioning voltage pulse output controllers.

- Models with or without heat sink are available. Either model can be selected according to the application.
- All models without heat sink (15A, 25A and 45A) have identical mounting dimensions and external dimensions.
- Models with a heat sink have a thin profile and can be mounted on a DIN rail.
- Gang-mounting is possible, saving considerable space.
- The following items are provided as standard features or functions on all models with and without heat sink:
 - Terminal cover
 - Operation indicator
 - Built-in varistor
- A wide range of voltage input signals is accepted.



PGM10F

PGM10N

■ Specifications

(at ambient temperature of 25°C)

● Model without heat sink

Model No.	PGM10N015	PGM10N025	PGM10N045
Maximum load current	15A	25A	45A
Input voltage range	3.5 to 30V		
Input current	10mA max.		
Pick-up voltage	3.5Vdc max.		
Drop-out voltage	1Vdc min.		
Load voltage range	35 to 264Vac		
Maximum surge current	150A (1 cycle)	225A (1 cycle)	440A (1 cycle)
Turn-on time	1/2 cycle+1ms max.		
Turn-off time	1/2 cycle+1ms max.		
Output ON voltage drop	1.5V max.		
Leakage current	12mA max.		
Dielectric strength	3000Vac		
Operating ambient temperature	-20 to +80°C		
Applicable standards	UL, cUL		
Weight	65g		100g



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● Model with heat sink

Model No.	PGM 10F0 15	PGM10F025	PGM10F0 35	PGM10F0 45
Maximum load current	15A	25A	35A	45A
Input voltage range	4.5 to 30V			
Input current	12mA max.			
Pick-up voltage	4.5Vdc max.			
Drop-out voltage	1Vdc min.			
Load voltage range	60 to 280Vac			
Maximum surge current	150A (1 cycle)	250A (1 cycle)	350A (1 cycle)	450A (1 cycle)
Turn-on time	1/2 cycle+1ms max.			
Turn-off time	1/2 cycle+1ms max.			
Output ON voltage drop	1.6V max.			
Leakage current	9mA max.			
Dielectric strength	2500Vac			
Operating ambient temperature	-20 to +80°C			
Applicable standards	UL, cUL, CE, TÜV			
Weight	220g		390g	

■ Model Selection Guide

● Model without heat sink I II Example: PGM10N015

I Basic model No.	II Capacity	Contents
PGM10N		Solid-state relay, model without heat sink
	015	Load current: 15A
	025	Load current: 25A
	045	Load current: 45A

● Model with heat sink I II Example: PGM10F015

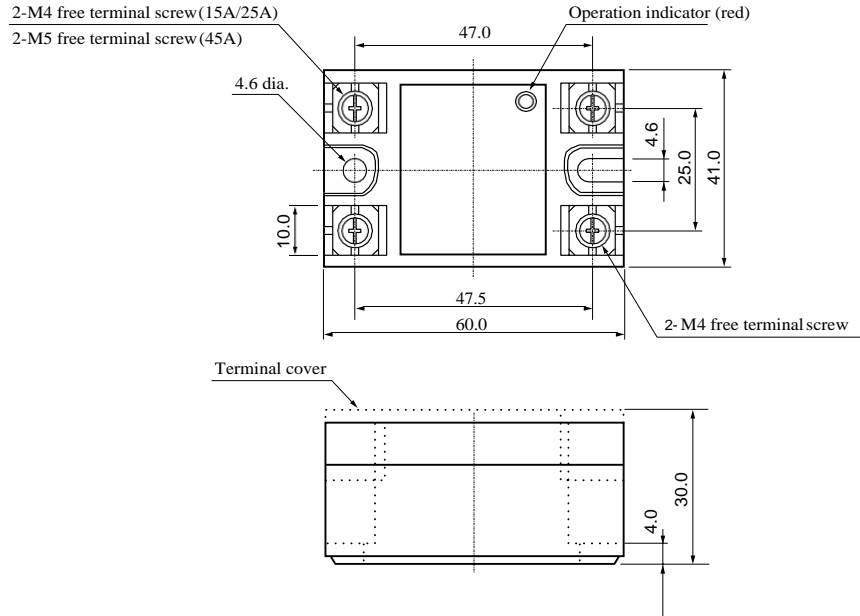
I Basic model No.	II Capacity	Contents
PGM10F		Solid-state relay, model with heat sink
	015	Load current: 15A
	025	Load current: 25A
	035	Load current: 35A
	045	Load current: 45A



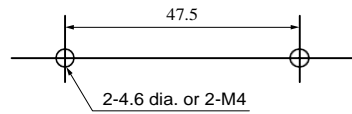
■ Dimensions

● Model without heat sink

(Unit: mm)

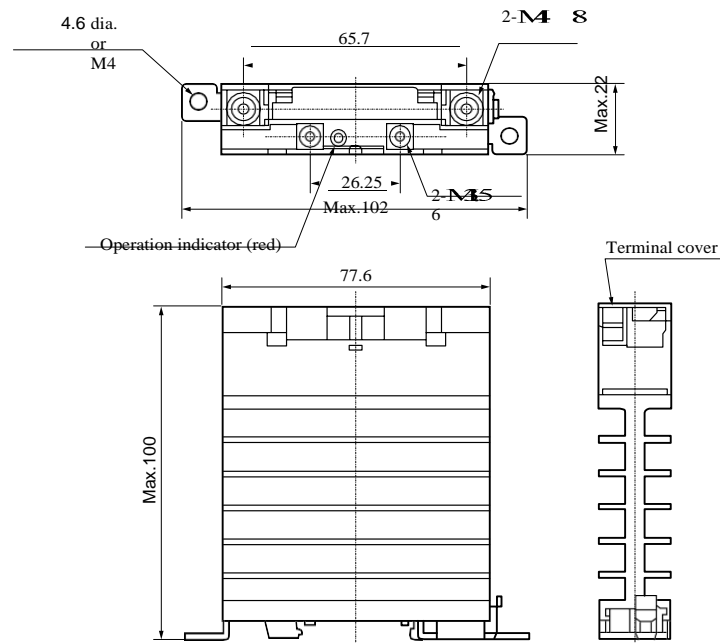


● Mounting hole position

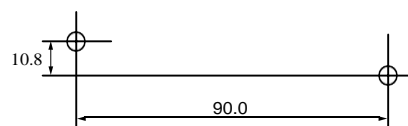


● Model with heat sink

● PGM10F015/025



● Mounting hole position



35mm DIN rail mounting or 2-4.6 dia. or M4



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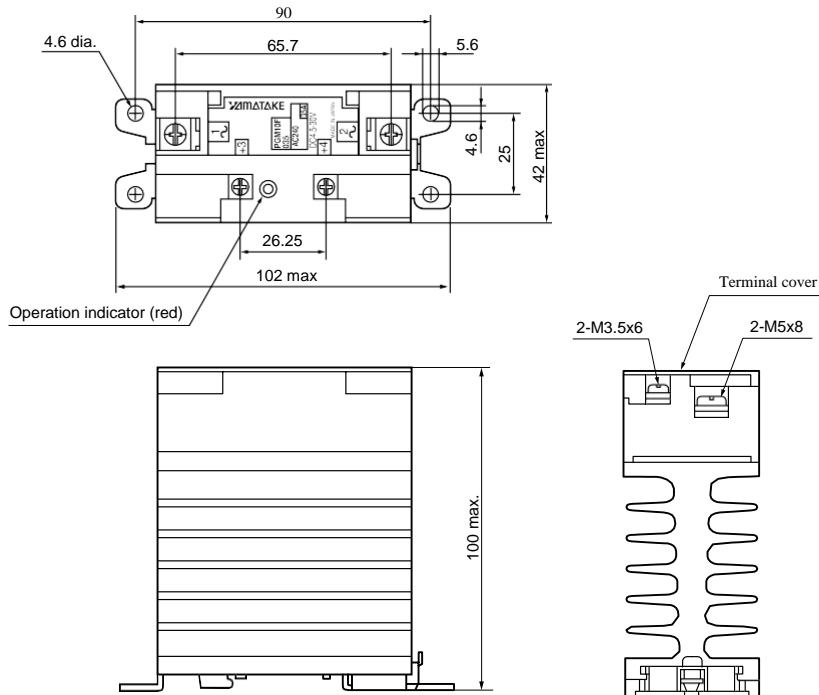
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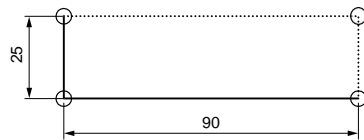
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●PGM10F015/025

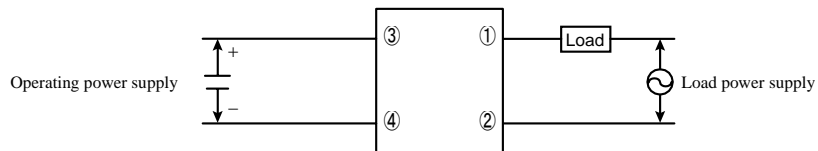


• Mounting hole position



35mm DIN rail mounting or 2-4.6 dia. or M4

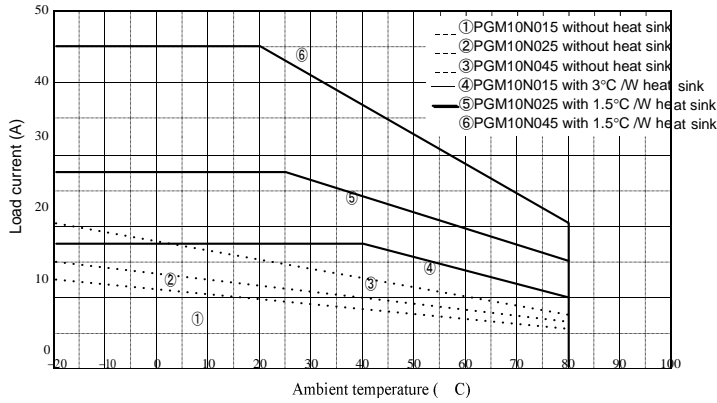
■ Wiring





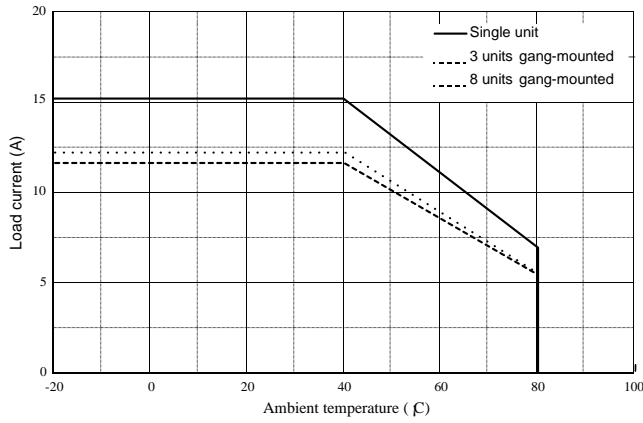
■ Load current vs. Ambient temperature rating

● PGM10N Series

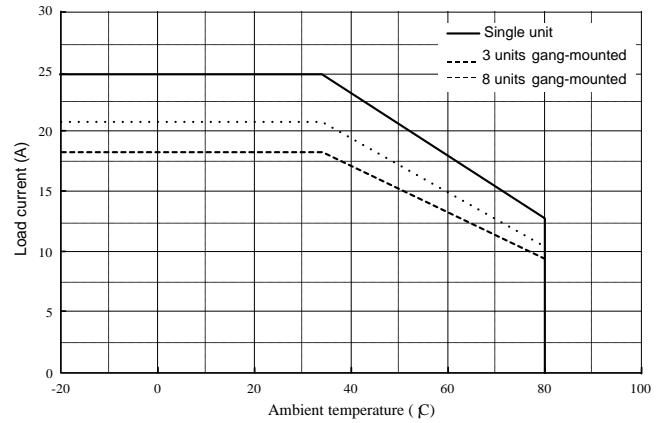


● PGM10F Series

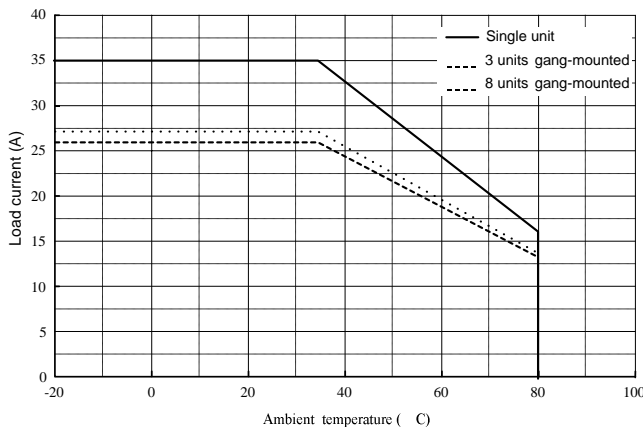
● PGM10F015



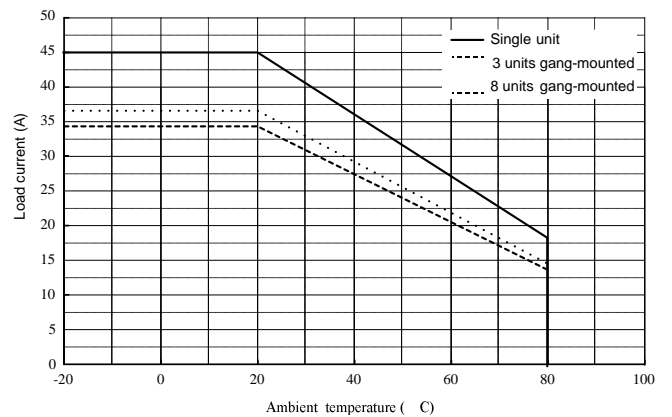
● PGM10F025



● PGM10F035



● PGM10F045





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RESTRICTIONS ON USE

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment. Accordingly, when used in the applications outlined below, special care should be taken to implement a fail-safe and/or redundant design concept as well as a periodic maintenance program.

- **Safety devices for plant worker protection**
- **Start/stop control devices for transportation and material handling machines**
- **Aeronautical/aerospace machines**
- **Control devices for nuclear reactors**

Never use this product in applications where human safety may be put at risk.

Specifications are subject to change without notice.

azbil

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