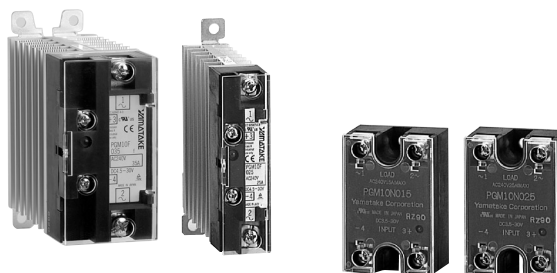


Heater Power Regulator Solid-State Relays PGM10N/F

■ 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

● Model with heat sink

Model No.	PGM10F015	PGM10F025	PGM10F035	PGM10F045
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	II	Contents
Basic model No.	Capacity	
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

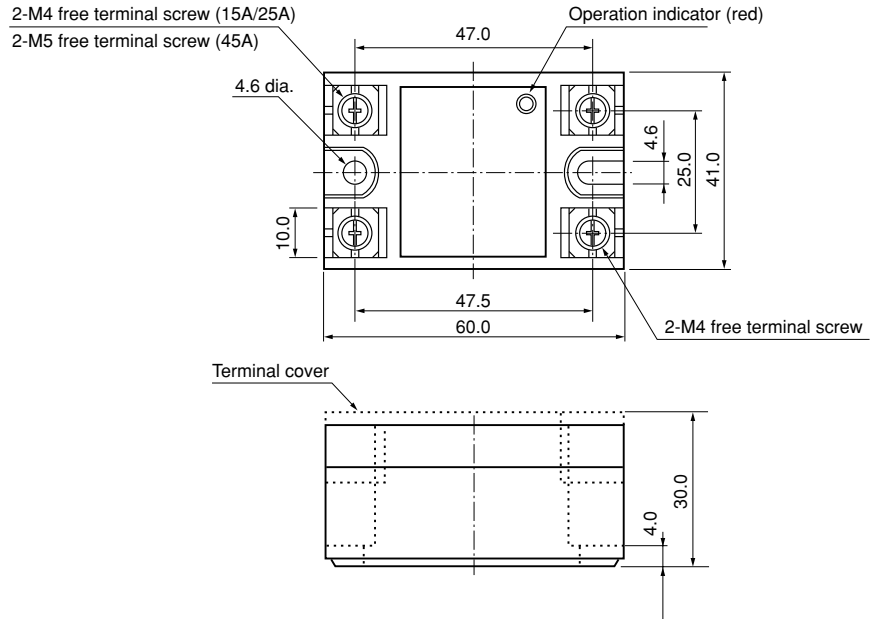
Example: PGM10F015

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

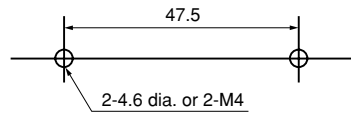
■ Dimensions

● Model without heat sink

(Unit: mm)

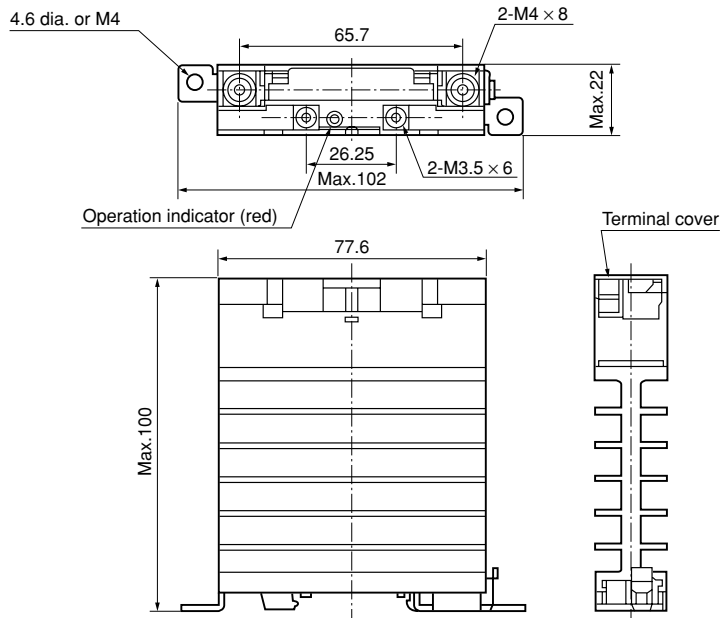


• Mounting hole position

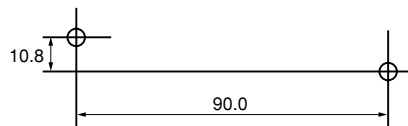


● Model with heat sink

• PGM10F015/025

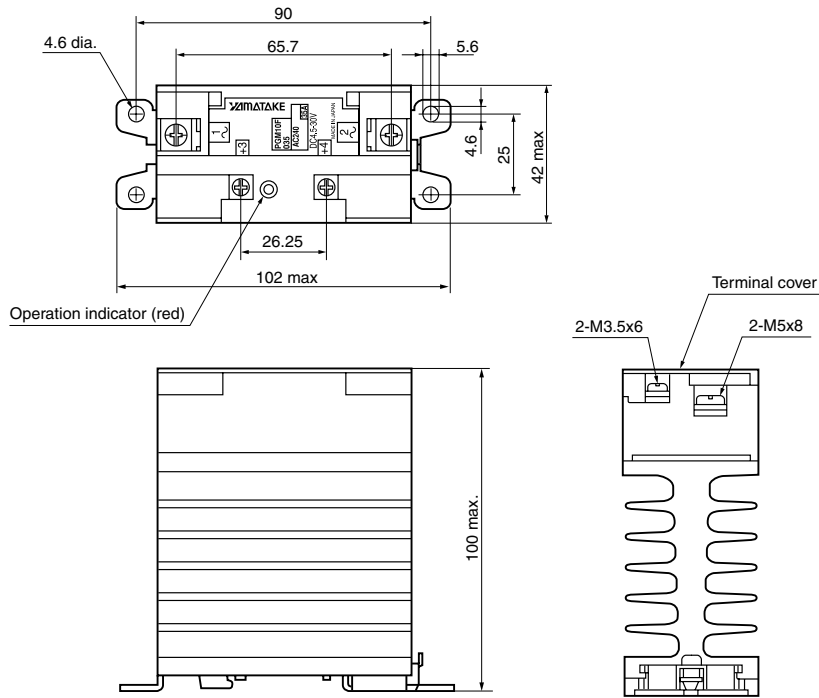


• Mounting hole position

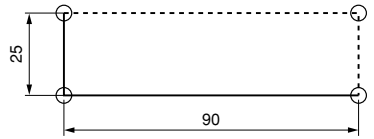


35mm DIN rail mounting or 2-4.6 dia. or M4

• PGM10F015/025

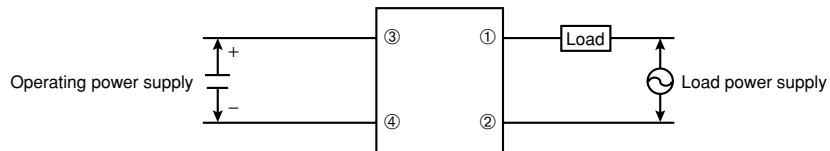


• Mounting hole position



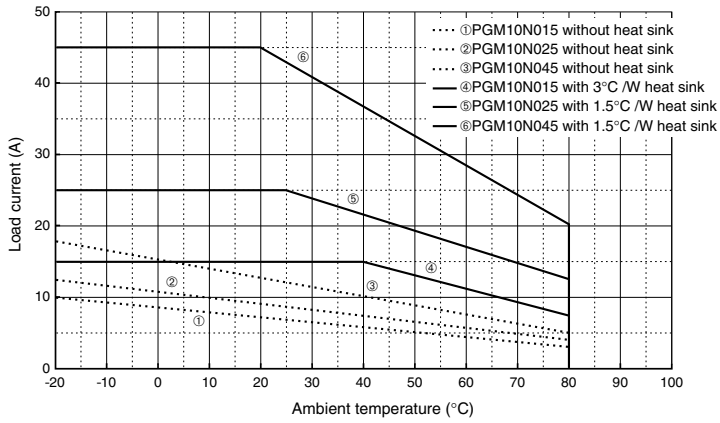
35mm DIN rail mounting or 2-4.6 dia. or M4

■ Wiring



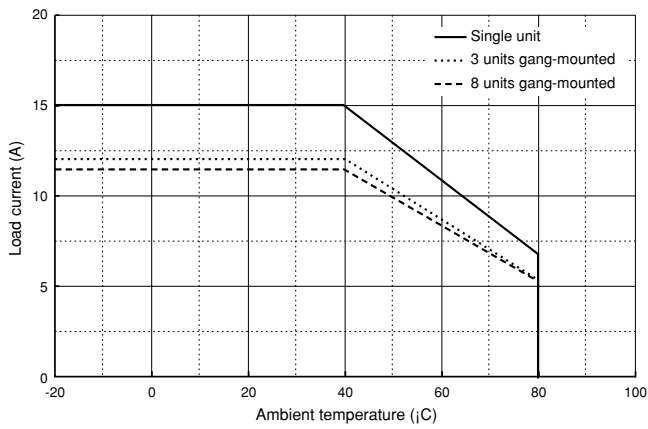
■ Load current vs. Ambient temperature rating

● PGM10N Series

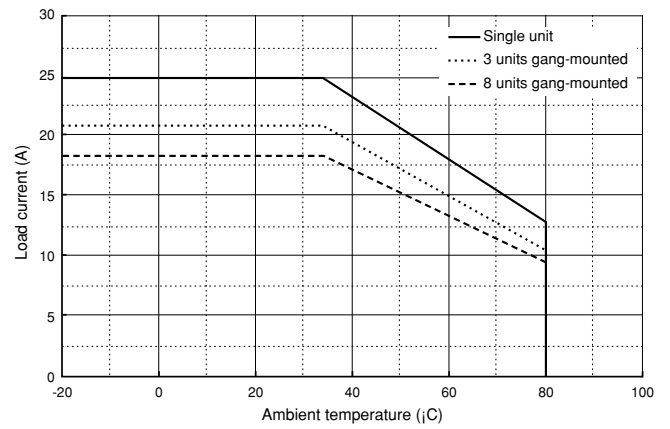


● PGM10F Series

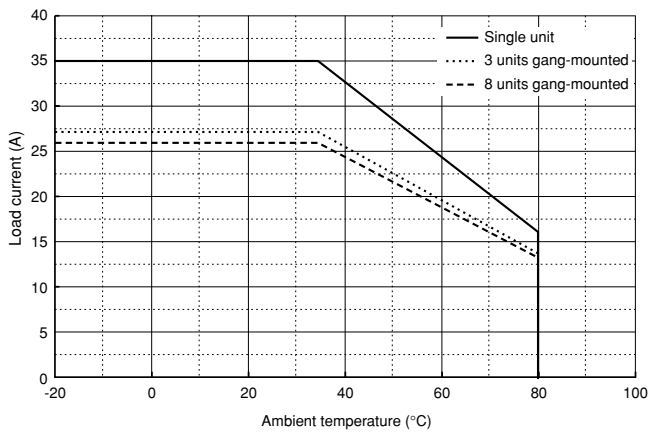
● PGM10F015



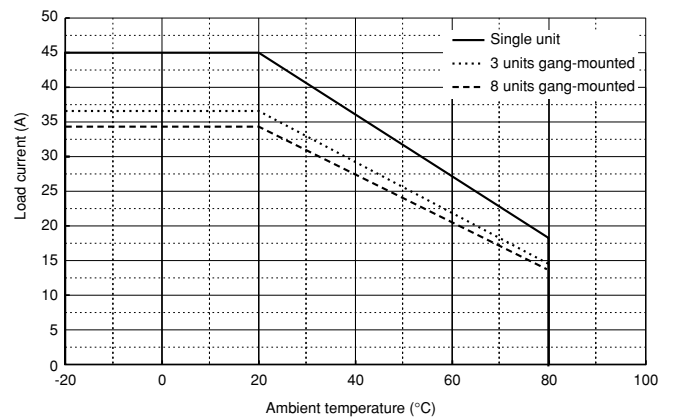
● PGM10F025



● PGM10F035



● PGM10F045





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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