

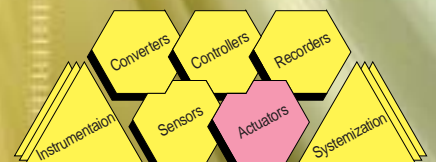
## Solid-State Relays

# PGM10N/F

Superior Heat Control  
Compact Body



Lineup newly  
enhanced with 35A/45A load current  
models with heat sink.



# High quality, compact, robust models in a wide variety are available to deliver highly reliable and maintenance-free temperature control.

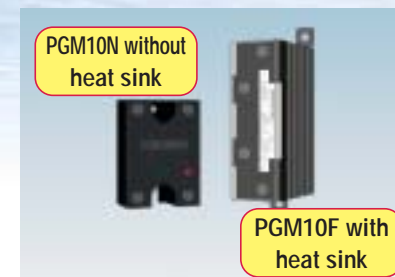


Newly expanded lineup of models with heat sink.  
Choose the optimal model for your application needs.

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

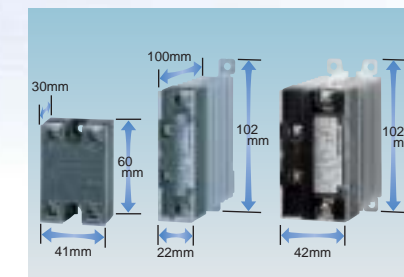
### Wide variation

Two series of models are available, the PGM10N without heat sink and the PGM10F with heat sink.



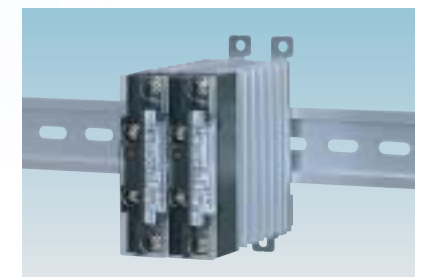
### Compact & slim body

The PGM10N/F is compact but offers temperature control. Mounting is easy even in a restricted space. In keeping with current trends in equipment, the PGM10N/F does more with less.



### Easy mounting

The PGM10F body with heat sink is thin and can be easily mounted on a DIN rail. This model can also be gang-mounted to save space. PGM10N models without heat sink all have identical mounting dimensions.



## Solid-State Relays PGM10N/F

# COMPACT WITH A WIDE SELECTION

### Lineup

Type	Models without heat sink			Models with heat sink			
Appearance							
Model No.	PGM10N015	PGM10N025	PGM10N045	PGM10F015	PGM10F025	PGM10F035	PGM10F045
Maximum load current	15A	25A	45A	15A	25A	35A	45A
Input voltage range	3.5 to 30V	○	○	○	○	○	○
	4.5 to 30V	—	—	—	○	○	○
Mounting	Screw	○	○	○	○	○	○
	DIN rail	—	—	—	○	○	○
Operation indicator	○	○	○	○	○	○	○
Varistor	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
Terminal cover	Attached	Attached	Attached	Attached	Attached	Attached	Attached

### Wide input voltage range

The PGM10N/F offers a wide voltage range for the input signal, and it can be easily connected to Yamatake's SDC Series controllers (voltage pulse output type).

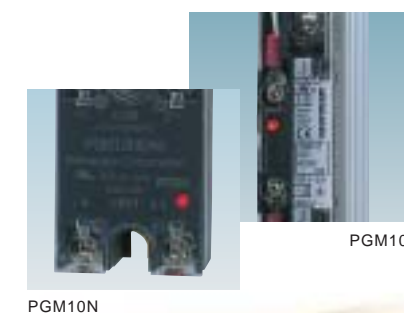


● Number of units connectable in parallel (for one output)

Model No. of Yamatake's controller	Model No. of Yamatake's solid state relay (SSR)	
SDC15/25/26/35/36 SDC40A	PGM10N015	PGM10F015
	PGM10N025	PGM10F025
	PGM10N045	PGM10F035 PGM10F045
DCP551/552 DCP31/32	2 units	1 units
DMC10	3 units	2 units

### At-a-glance easy confirmation of operation

An operation indicator is provided on all PGM10N/F models (with/without heat sink), so operation status can be checked quickly.



### Surge absorption by a built-in varistor

A varistor is incorporated as a standard feature in the PGM10N/F. The varistor is effective for absorbing a surge coming from an external circuit protecting the PGM from damage.



## Specifications

### Model without heat sink

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		
Max. surge current for 1 cycle	150A	225A	440A
Dielectric strength	3000Vac		
Operating temperature range	-20 to +80°C		
Applicable standards	UL, cUL		
Mass	Approx. 65g		Approx. 100g

### Model with heat sink

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			
Max. surge current for 1 cycle	150A	250A	350A	450A
Dielectric strength	2500Vac			
Operating temperature range	-20 to +80°C			
Applicable standards	UL, cUL, CE, TUV			
Mass	Approx. 220g		Approx. 390g	

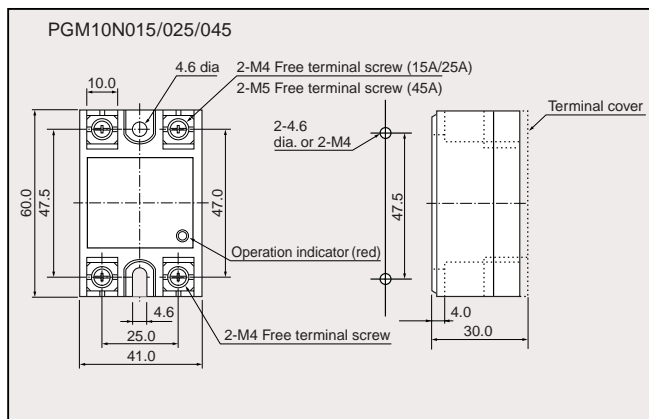
## Selection Guide

Example: PGM10N015

Segment	Model No. selection			Description
I	Basic No.	PGM10N	↓	SSR without heat sink
		PGM10F	↓	SSR with heat sink
II	Capacity	015	○ ○	Load current: 15A
		025	○ ○	Load current: 25A
		035	— ○	Load current: 35A
		045	○ ○	Load current: 45A

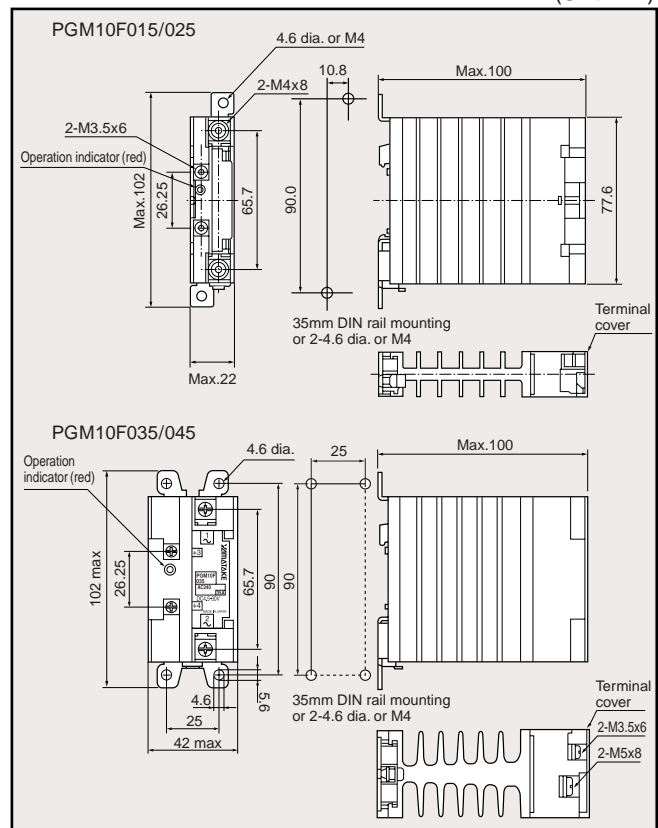
## Dimensions

### Model without heat sink



### Model with heat sink

(Unit: mm)



### RESTRICTIONS ON USE

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment. Accordingly, when used in 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.

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