

# PGM10N/F

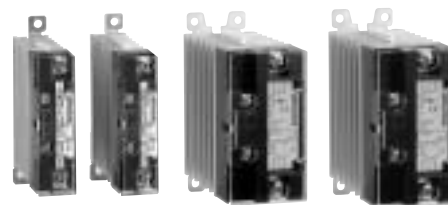
## Solid State Relays

The PGM10N and PGM10F are 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.



PGM10N



PGM10F

### Specifications

| Model No.                                   | Model without heat sink |                   |                   | Model with heat sink |                   |                   |                   |
|---------------------------------------------|-------------------------|-------------------|-------------------|----------------------|-------------------|-------------------|-------------------|
|                                             | PGM10N015               | PGM10N025         | PGM10N045         | PGM10F015            | PGM10F025         | PGM10F035         | PGM10F045         |
| Maximum load current                        | 15A                     | 25A               | 45A               | 15A                  | 25A               | 35A               | 45A               |
| Input voltage range                         | 3.5 to 30Vdc            |                   |                   | 4.5 to 30Vdc         |                   |                   |                   |
| Input current                               | 10mA max.               |                   |                   | 12mA max.            |                   |                   |                   |
| Pick-up voltage                             | 3.5Vdc max.             |                   |                   | 4.5Vdc max.          |                   |                   |                   |
| Drop-out voltage                            | 1Vdc min.               |                   |                   |                      |                   |                   |                   |
| Load voltage range                          | 35 to 264Vac            |                   |                   | 60 to 280Vac         |                   |                   |                   |
| Max. surge current for 1 cycle (peak value) | 150A<br>(1 cycle)       | 225A<br>(1 cycle) | 440A<br>(1 cycle) | 150A<br>(1 cycle)    | 250A<br>(1 cycle) | 350A<br>(1 cycle) | 450A<br>(1 cycle) |
| Turn-on time                                | 1/2 cycle + 1ms max.    |                   |                   |                      |                   |                   |                   |
| Turn-off time                               | 1/2 cycle + 1ms max.    |                   |                   |                      |                   |                   |                   |
| Output ON voltage drop                      | 1.5V(RMS) max.          |                   |                   | 1.6V(RMS) max.       |                   |                   |                   |
| Leakage current                             | 12mA max.               |                   |                   | 9mA max.             |                   |                   |                   |
| Ambient temperature                         | -20 to +80°C            |                   |                   |                      |                   |                   |                   |
| Approval                                    | CSA, cUL, CE, TÜV       |                   |                   | UL, cUL              |                   |                   |                   |
| Mass                                        | 65g                     |                   | 100g              | 220g                 |                   | 390g              |                   |

### Selection Guide

I II Example: PGM10N015

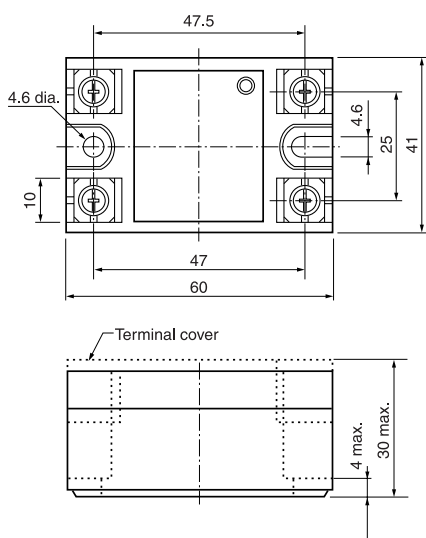
| Segment | Model No. selection |        |        | Description           |
|---------|---------------------|--------|--------|-----------------------|
|         | Basic No.           | PGM10N | PGM10F |                       |
| I       | Capacity            | 015    | ○      | SSR without heat sink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

• A circle (○) denotes availability.

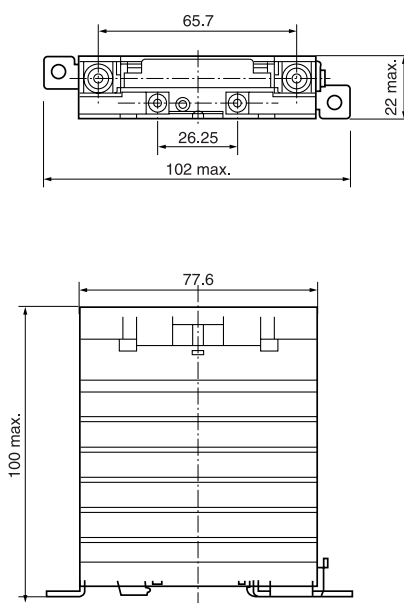
### Dimensions

(Unit: mm)

#### • PGM10N



#### • PGM10F015/025



#### • PGM10F035/045

