JGX-31F

ISO 9001 Certified

# Solid State Relay

AC250/380V 10/20Amp

JGX-31F

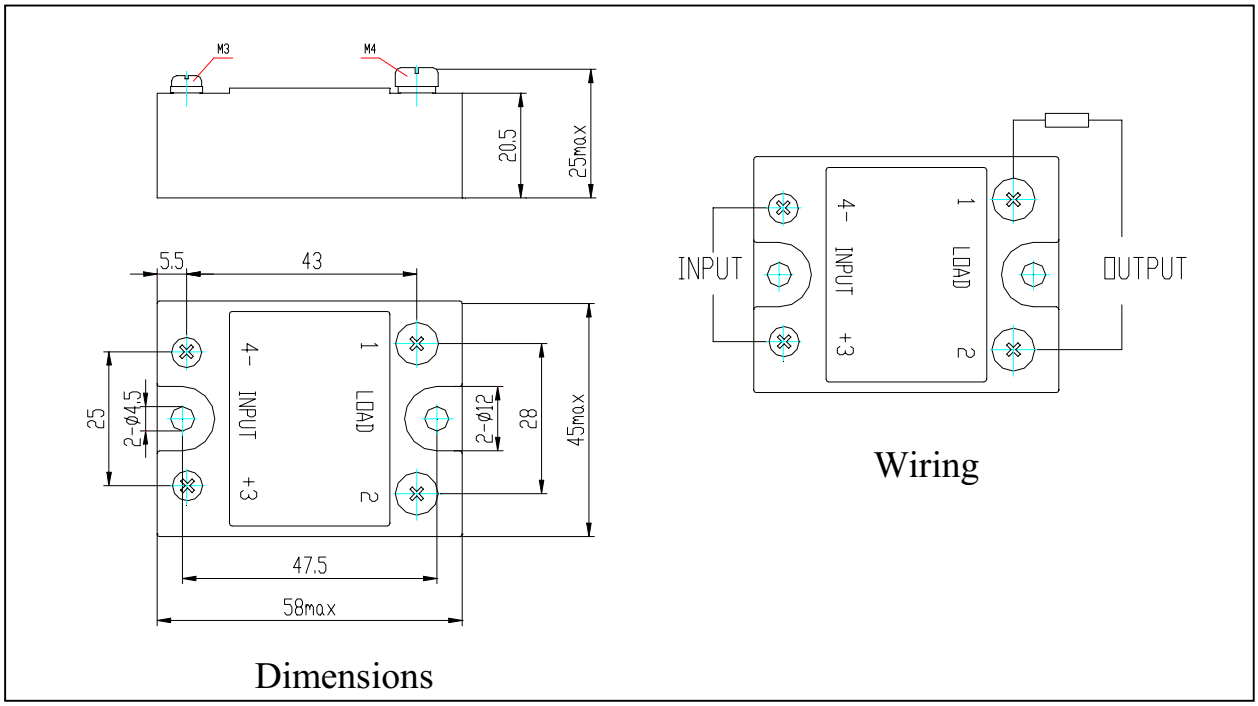
- *Photo isolation*
- *600V /800V blocking voltage*
- *Both "Zero Voltage" & phase controllable "Random" Switching versions*
- *Built-in RC snubber*
- *Screw terminal*

| | | | | | |
|---|---|---|---|---|---|
| INPUT | Voltage | 5 to 32 VDC | | | |
| | Current | 15 mA | | | |
| | Turn-on voltage | 3 to 32 VDC | | | |
| | Turn-off voltage | 1 VDC | | | |
| OUTPUT | Voltage Range | 50 to 250 VAC | | 50 to 440 VAC | |
| | Current Rating(with heat sink) | 10A | 20A | 10A | 20A |
| | Surge(Non repetitive) | 150A | 200A | 150A | 200A |
| | Voltage Drop | 1.5VAC | 1.6VAC | 1.5VAC | 1.6VAC |
| | Leakage current | 3mA | 5mA | 5mA | 8mA |
| | Minimum Load Current | 100 mA | | | |
| | Zero voltage switching | Yes | | | |
| | Dv/Dt | 100 v/us | | | |
| | Frequency Range | 47 to 70 Hz | | | |
| | Time turn-on | 1/2 of cycle+1ms | | | |
| | Time turn-off | 1/2 of cycle+1ms | | | |
| General Characteristics | Dielectric strength | 4000 VAC,1min | | | |
| | Insulation resistance | 1000MΩ min. At 500VDC | | | |
| | Ambient temp.range(Operating) | -30 to +80℃ | | | |
| | Termination | Screw terminal | | | |
| | Weight | Approx. 90g | | | |
| | Construction | Fully-sealed | | | |

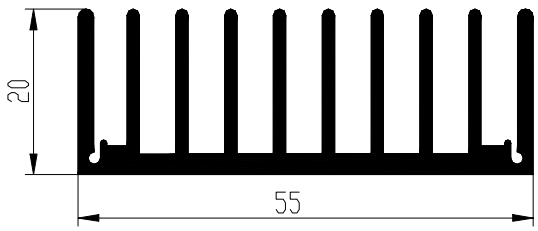
## ■ORDER DESIGNATION

| JGX-31F / | D | 22 | 10 | P |
|---|---|---|---|---|
| Model | Input Form | Load Voltage | Load Current | Trigger Form |
| | D:DC | 22:50 to 250VAC<br>38:50 to 440VAC | 10:10AMP<br>20:20AMP | No Code:zero-cross<br>P:phase |

## ■ OUTLINE DIMENSIONS , MOUNTING AND WIRING




## ■ SRX-YAS HEAT-SINK SECTION DIMENSIONS




## ■ INSTALLATION

CLOSE MOUNTING

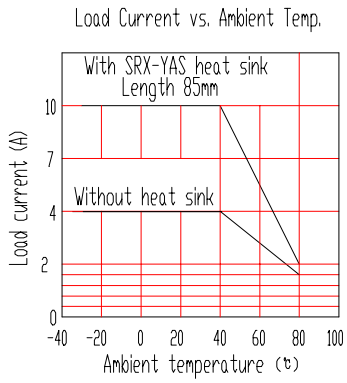
When mounting Solid-state relays(SSRs)side by side, provide a space equivalent to the width of a single SSR between two adjacent SSRs.Other,reduce the current flow to 1/2 to 1/3 of the rated current.

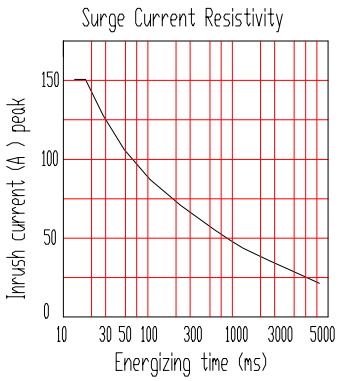
HEAT SINK MOUNTING

To mount an SSR in a heat sink, apply a heat conductive grease to the metal back surface of the SSR.Press the SSR firmly onto the heat sink to ensure a good seal.Screw the SSR down to the heat sink.

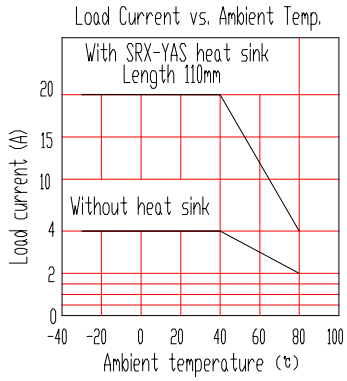
## ■ JGX-31F CHARACTERISTIC DATA

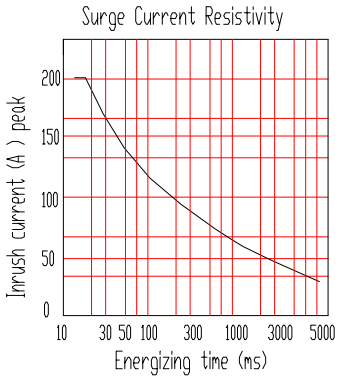
■ JGX-31F 10A CHARACTERISTIC DATA




■ JGX-31F 20A CHARACTERISTIC DATA




## ■ PRECAUTIONS

### LOAD CONNECTION

Before connecting a load that generates a high surge current,such as a lamp load, to the SSR,make sure that the SSR can withstand the surge current of the load.

The product data sheet shows the non-repetitive peak value of the surge current that flows through the SSR. Normally,use 1/2 the non-repetitive peak surge current as the standard value.If a surge current exceeding that value is expected,connect a quick-blowing fuse to protect the SSR.

For an AC load,use a power supply rated at 50 or 60 Hz. The maximum input frequency is 10 Hz.

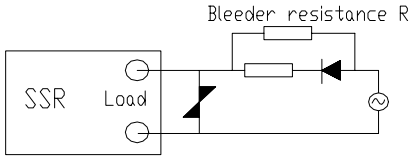
CAPACITIVE LOADS

The supply voltage plus the charge voltage of the capacitor is applied to both ends of the SSR when it is OFF.Therefore,use an SSR model with an input voltage rating twice the size of the supply voltage.

Limit the charge current of the capacitor to less than half the peak surge current value allowed for the SSR.

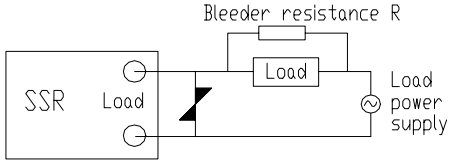
HALF-WAVE RECTIFIER LOADS

If the SSR is not provided with a zero cross function,a half-wave rectifier load can be switched with no problem.If the SSR is equipped with a zero cross function,allow about 20% of the load current to flow through the SSR.




Note: Connect bleeder resistor R.

LOW-CAPACITY LOADS




Note: connect bleeder resistor R.

When testing dielectric strength,apply voltage between input and output(input and output terminals shall be shorted respectively).