

Product Description

- ◆ Zero-crossing Switching
- ◆ SCR Inverse Parallel Output
- ◆ SCR Short Circuit, Open Circuit and Error Self-Inspection Functions
- ◆ Load Current: 25A-100A
- ◆ Dielectric Strength: 4000Vrms
- ◆ Internal RC/MOV Protection Circuit
- ◆ LED Indicator
- ◆ RoHS Compliant



Ordering Information

| | | | | | | | |
|-------------|---|-------------------------------|---|--|---------------|-----------------------------------|---------------|
| KSIA | 480 | D | 25 | P | -L | M | (XXX) |
| KSIA Series | Load Voltage 240: 240VAC 480: 480VAC 600: 600VAC | Control Mode D: DC Control | Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp 100: 100Amp | Trigger Mode Blank: Negative Trigger P: Positive Trigger | LED Indicator | M: MOV None: No MOV Protect | LED Indicator |

| | | 25A | 40A | 60A | 80A | 100A |
|------------------|-----|---------------|---------------|---------------|---------------|----------------|
| Negative Trigger | 240 | KSIA240D25-L | KSIA240D40-L | KSIA240D60-L | KSIA240D80-L | KSIA240D100-L |
| | 480 | KSIA480D25-L | KSIA480D40-L | KSIA480D60-L | KSIA480D80-L | KSIA480D100-L |
| | 600 | KSIA600D25-L | KSIA600D40-L | KSIA600D60-L | KSIA600D80-L | KSIA600D100-L |
| Positive Trigger | 240 | KSIA240D25P-L | KSIA240D40P-L | KSIA240D60P-L | KSIA240D80P-L | KSIA240D100P-L |
| | 480 | KSIA480D25P-L | KSIA480D40P-L | KSIA480D60P-L | KSIA480D80P-L | KSIA480D100P-L |
| | 600 | KSIA600D25P-L | KSIA600D40P-L | KSIA600D60P-L | KSIA600D80P-L | KSIA600D100P-L |

General Specifications

| Input Specifications (Ta=25°C) | | |
|------------------------------------|------------------|--------------|
| Control Voltage Range | 18VDC ~ 32VDC | |
| Control Voltage Range (@VCC=24VDC) | Negative Trigger | 0~12VDC |
| | Positive Trigger | 18~32VDC |
| Must Turn-on Voltage (@VCC=24VDC) | Negative Trigger | 12VDC (max.) |
| | Positive Trigger | 18VDC (min.) |
| Must Turn-off Voltage (@VCC=24VDC) | Negative Trigger | 18VDC (min.) |
| | Positive Trigger | 12VDC (max.) |
| Maximum Power Current (@VCC=24VDC) | 40mA | |
| Maximum Input Current | 4mA | |

General Specifications

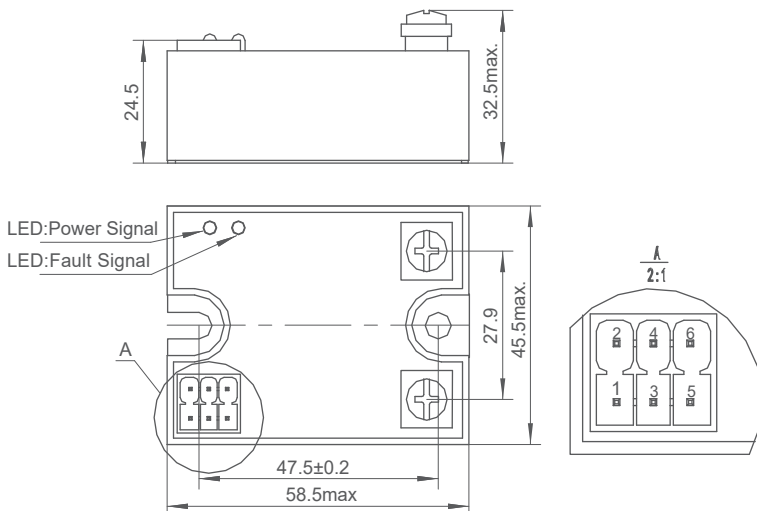
| Output Specifications (Ta=25°C) | | |
|--|---------|----------------------|
| Load Voltage Range | 240VAC | 150-280VAC |
| | 480VAC | 150-530VAC |
| | 600VAC | 300-660VAC |
| Maximum Surge Current (@10ms) | 25A | 250A |
| | 40A | 400A |
| | 60A | 600A |
| | 80A | 800A |
| | 100A | 1000A |
| Maximum Turn-on Time | 10ms | |
| Maximum Turn-Off Time | 10ms | |
| Maximum I ² t for Fusing (@10ms) | 25A | 312A ² s |
| | 40A | 800A ² s |
| | 60A | 1800A ² s |
| | 80A | 3200A ² s |
| | 100A | 5000A ² s |
| Transient Overvoltage | 240VAC | 600Vpk |
| | 480VAC | 1200Vpk |
| | 600VAC | 1600Vpk |
| Maximum Off-State Leakage Current@Rated Load Voltage | 5mA | |
| Maximum On-State Voltage Drop@Rated Current | 1.6Vrms | |
| Minimum Off-State dv/dt@Maximum Rated Voltage | 500V/μs | |

| General Specifications (Ta=25°C) | | |
|---|--------------------|----------|
| Dielectric Strength (50/60Hz) | Input/Output | 4000Vrms |
| | Input, output/Base | 2500Vrms |
| Minimum Insulation Resistance (@500VDC) | 1000MΩ | |
| Ambient Temperature Range | -30°C ~ +80°C | |
| Storage Temperature Range | -30°C ~ +100°C | |
| Weight (Typical) | 25A, 40A, 60A | 100g |
| | 80A, 100A | 140g |

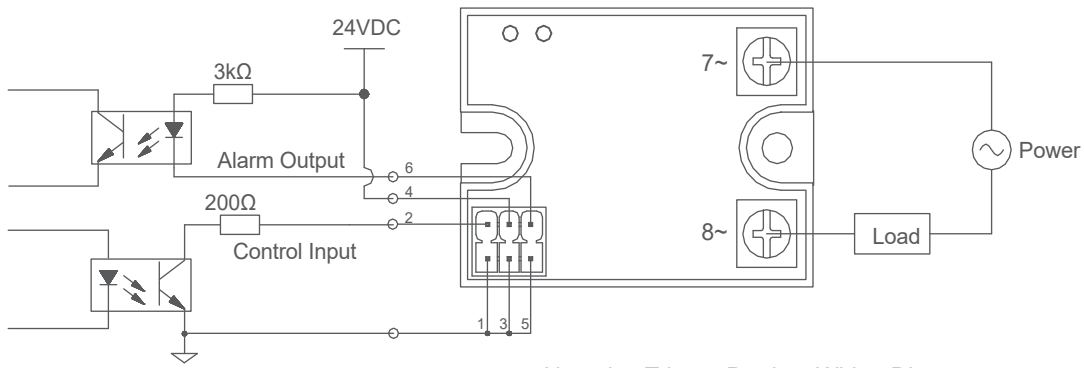
Applications

Temperature Chamber, Plastics Machinery, Food Processing Machinery, Incubator, Oiling machines, HVAC, Lighting, Fountain Controller and etc.

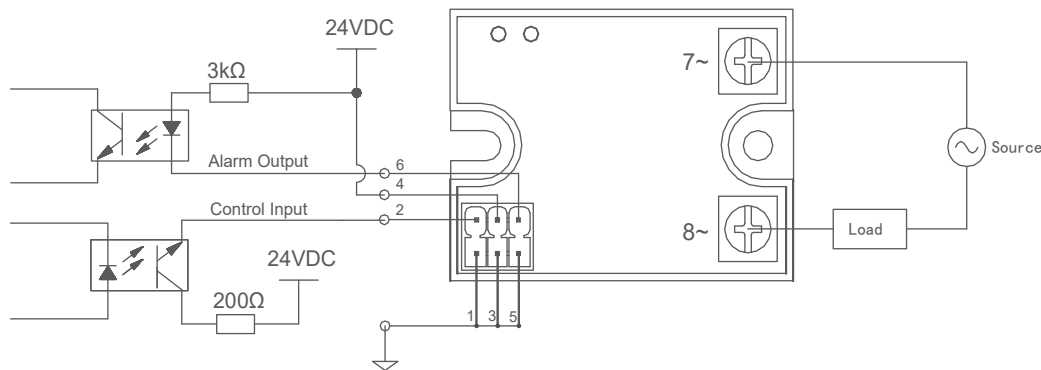
Outline Dimensions



Wiring Diagram

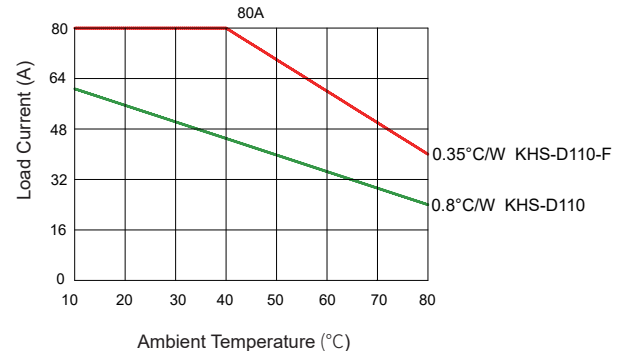
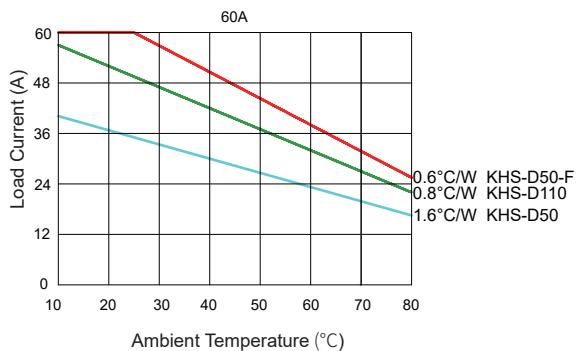
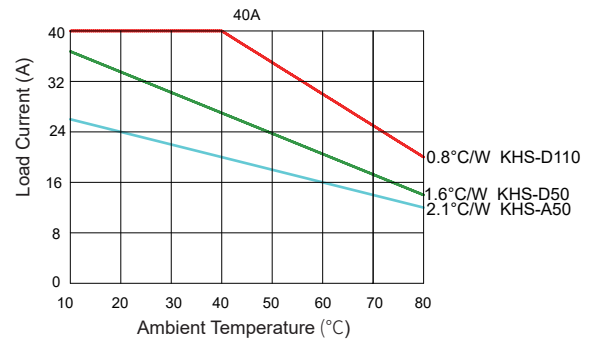
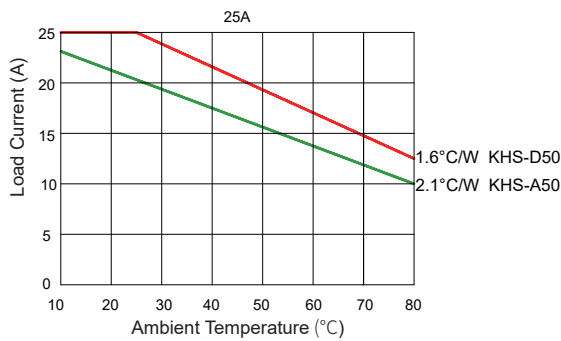


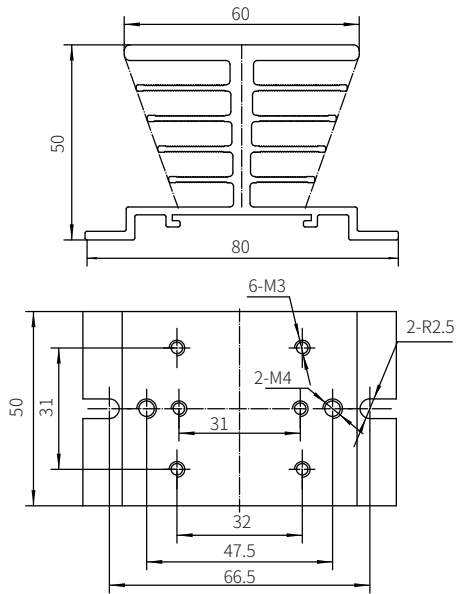
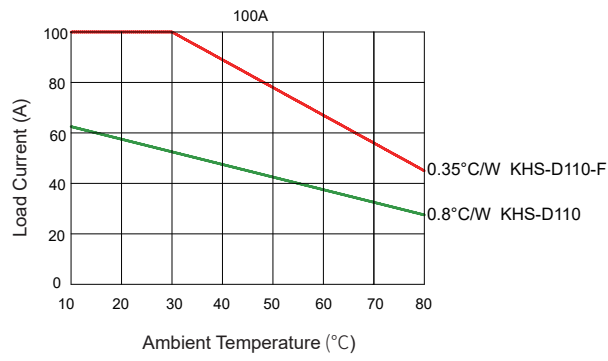
Negative Trigger Product Wiring Diagram



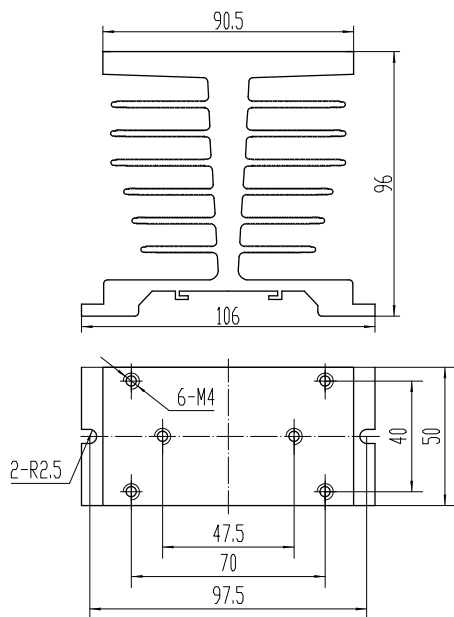
Positive Trigger Product Wiring Diagram

Thermal Derating Curve

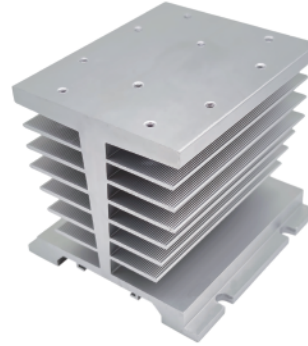
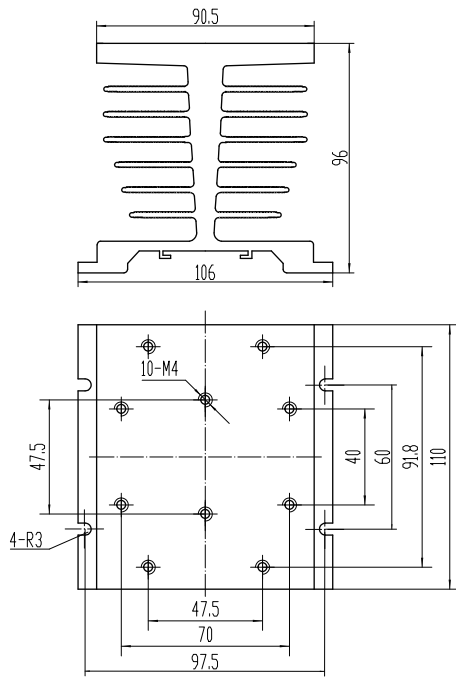




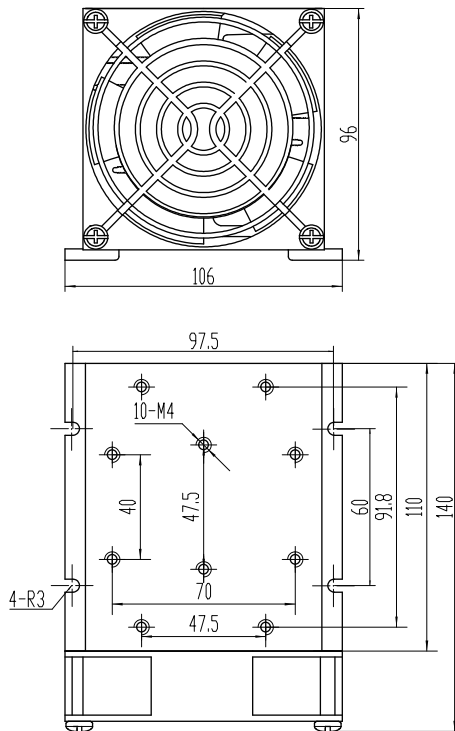
KHS-A50



KHS-D50



KHS-D110



KHS-D110-F

General Notes

1. Relay must be mounted to proper sized heat sink based on thermal curves. Thermal grease or a thermal pad must be used between relay and heat sink and be torqued down to 18-20/2.0-2.2in-lb/Nm.
2. When connection wiring to SSR, please ensure screws are torqued down properly (input 13-15/1.5-1.7in-lb/Nm, output 18-20/2.0-2.2 in-lb/Nm).
3. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, please refer to the Thermal Derating Curve for derating.