

Product Description

- ◆ Zero Crossing or Random-on Switching
- ◆ Load Current: 20A, 30A@24-660VAC
- ◆ SCR Output
- ◆ DC Input
- ◆ With Integrated Heatsink, Width 35mm
- ◆ Dielectric Strength 4000VACrms
- ◆ LED Indication
- ◆ Built-in RC Snubber Circuit
- ◆ On Panel or 35mm Rail DIN(EN50022)



Ordering Information

| | | | | | | | | | |
|---------------------------|--|---------------------------------|--------------------------------------|---|-------|---|---|---|------------|
| KST | 480 | D | 20 | R | -L | M | H | S | (XXX) |
| KST Series ⁽¹⁾ | Load Voltage 240:240VAC 480:480VAC 600:600VAC | Control Voltage D:DC Control | Load Current 20:20Amp 30:30Amp | Switching Mode None:Zero Crossing R:Random-on | L:LED | M:MOV T:TVS Without: No Protection (Optional) | Control Types H: Two Poles Single Control Without: Two Poles Dual Control | Heatsink type without: KHS-H90 Series S: KHS-P90 Series | Customized |

(1) The part number selection is subject to the following list.

| | 20A | 30A |
|--------------------------|----------------|----------------|
| Two Poles Dual Control | KST240D20-L | KST240D30-L |
| | KST240D20-LM | KST240D30-LM |
| | KST240D20-LT | KST240D30-LT |
| | KST240D20R-L | KST240D30R-L |
| | KST240D20R-LM | KST240D30R-LM |
| | KST240D20R-LT | KST240D30R-LT |
| | KST480D20-L | KST480D30-L |
| | KST480D20-LM | KST480D30-LM |
| | KST480D20-LT | KST480D30-LT |
| | KST480D20R-L | KST480D30R-L |
| | KST480D20R-LM | KST480D30R-LM |
| | KST480D20R-LT | KST480D30R-LT |
| | KST600D20-L | KST600D30-L |
| | KST600D20-LM | KST600D30-LM |
| KST600D20-LT | KST600D30-LT | |
| Two Poles Single Control | KST240D20-LH | KST240D30-LH |
| | KST240D20-LMH | KST240D30-LMH |
| | KST240D20-LTH | KST240D30-LTH |
| | KST240D20R-LH | KST240D30R-LH |
| | KST240D20R-LMH | KST240D30R-LMH |
| | KST240D20R-LTH | KST240D30R-LTH |
| | KST480D20-LH | KST480D30-LH |
| | KST480D20-LMH | KST480D30-LMH |
| | KST480D20-LTH | KST480D30-LTH |
| | KST480D20R-LH | KST480D30R-LH |
| | KST480D20R-LMH | KST480D30R-LMH |
| | KST480D20R-LTH | KST480D30R-LTH |
| | KST600D20-LH | KST600D30-LH |
| | KST600D20-LMH | KST600D30-LMH |
| KST600D20-LTH | KST600D30-LTH | |
| KST600D20R-LH | KST600D30R-LH | |
| KST600D20R-LMH | KST600D30R-LMH | |
| KST600D20R-LTH | KST600D30R-LTH | |

| General Specifications | | |
|---|--------------------------|---------------------|
| Input Specifications (Ta=25°C) | | |
| Control Voltage Range | | 4-32VDC |
| Must Turn-on Voltage | | 4VDC |
| Must Turn-off Voltage | | 1VDC |
| Maximum Input Current | two poles dual control | 18mA@32VDC |
| | two poles single control | 35mA@32VDC |
| Output Specifications (Ta=25°C) | | |
| Load Voltage Range [47Hz~63Hz] | 240V | 24-280VAC |
| | 480V | 24-530VAC |
| | 600V | 24-660VAC |
| Maximum Turn-on Time | Random-on | 1ms |
| | Zero Crossing | 10ms |
| Maximum Turn-off Time | | 10ms |
| Maximum Surge Current[@10ms] | 20A | 250A |
| | 30A | 400A |
| Maximum I ² t For Fusing [@10ms] | 20A | 312A ² s |
| | 30A | 800A ² s |
| Transient Overvoltage | 240V | 600Vpk |
| | 480V/600V | 1200Vpk |
| Internal MOV Protection ⁽²⁾ | 240V | 300V |
| | 480V | 550V |
| | 600V | 680V |
| Internal MOV Protection ⁽³⁾ | 240V | 480V |
| | 480V | 960V |
| | 600V | 1200V |
| Maximum Off-state Leakage Current [@ Rated Voltage] | | 5mA |
| Maximum On-state Voltage Drop [@ Rated Current] | | 1.6Vrms |
| Minimum Off-state dv/dt [@ Maximum Rated Voltage] | | 500V/μs |

Note:

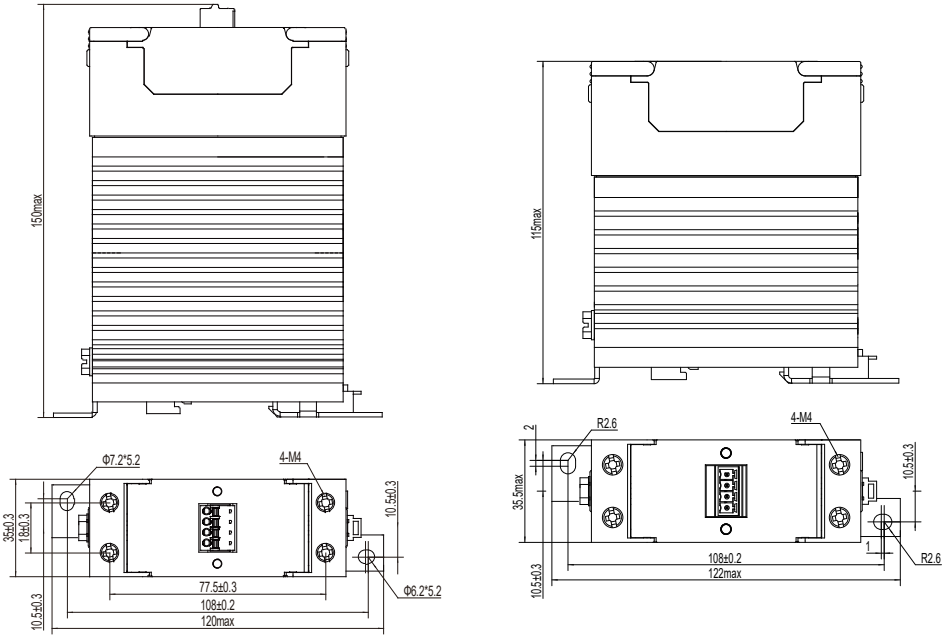
- (2) For the products with built-in varistors, it is rated as the maximum AC voltage Vrms allowed by built-in varistors.
 (3) For the products with built-in TVS, it is rated as the typical operating voltage VBR of built-in TVS.

| General Specifications (Ta=25°C) | | |
|---|-------------------|----------------|
| Dielectric Strength (50/60Hz) | Input/Output | 4000Vrms |
| | Input,Output/Base | 2500Vrms |
| Minimum Insulation Resistance (@500VDC) | Input/Output | 1000MΩ |
| | Input,Output/Base | |
| Min.power factor | | 0.5 |
| Ambient Operating Temperature Range | | -30°C ~ +80°C |
| Ambient Storage Temperature Range | | -30°C ~ +100°C |
| Weight [Typical] | | 553g |

Application

Plastic machinery, electric injection molding machine, packaging machine.

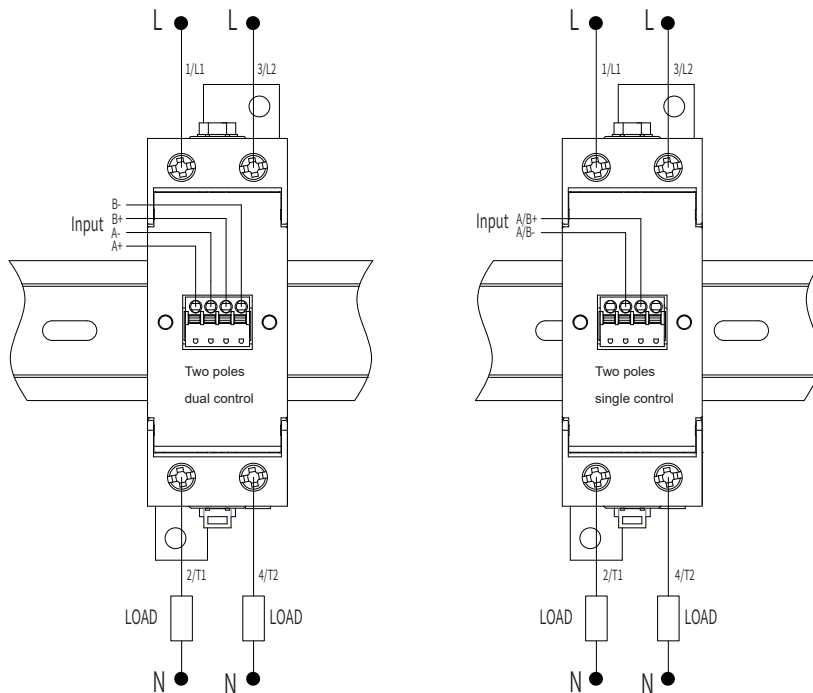
Outline Dimensions



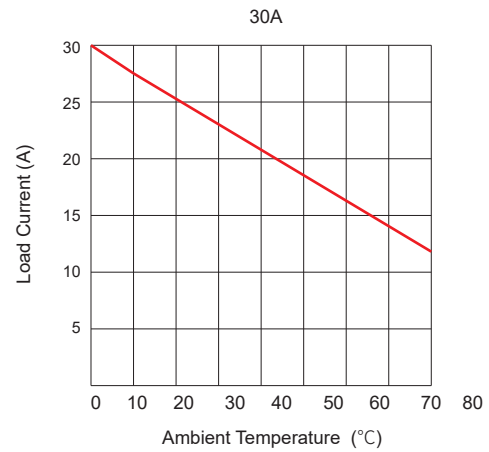
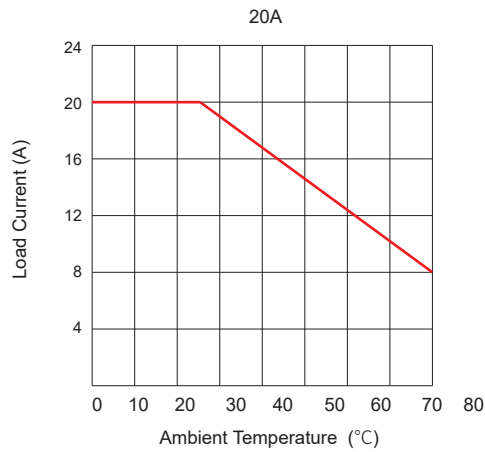
with KHS-P90 heat sink

with KHS-H90 heat sink

Wiring Diagram



Thermal Derating Curve



General Note

1. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, when there are many pieces SSR installed closely, please refer to the Thermal Derating Curve for derating.
2. When connection wiring to SSR, please ensure screws are torqued down properly. Recommended torque for input screw is (18-20)/(2.0-2.2) in-lb/Nm, output screw is (18-20)/(2.0-2.2) in-lb/Nm).