

**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	H	(XXX)
KST Series <sup>(1)</sup>	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 <sup>2</sup> t For Fusing [@10ms]	20A	312A <sup>2</sup> s
	30A	800A <sup>2</sup> s
Transient Overvoltage	240V	600Vpk
	480V/600V	1200Vpk
Internal MOV Protection <sup>(2)</sup>	240V	300V
	480V	550V
	600V	680V
Internal MOV Protection <sup>(3)</sup>	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:**

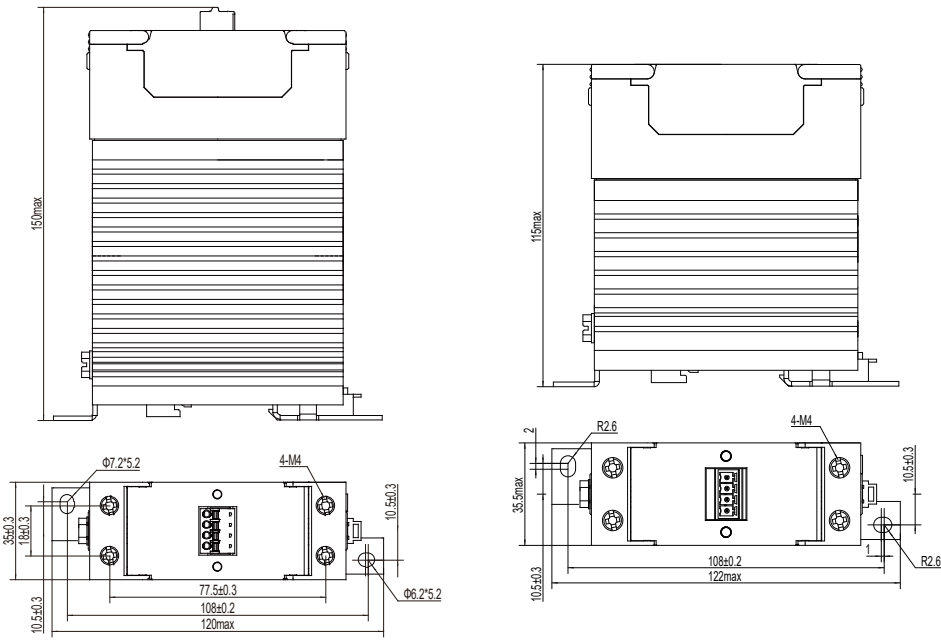
- (2) For the products with built-in varistors, it is rated as the maximum AC voltage Vrms allowed by built-in varistors.  
 (3) For the products with built-in TVS, it is rated as the typical operating voltage VBR of built-in TVS.

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.

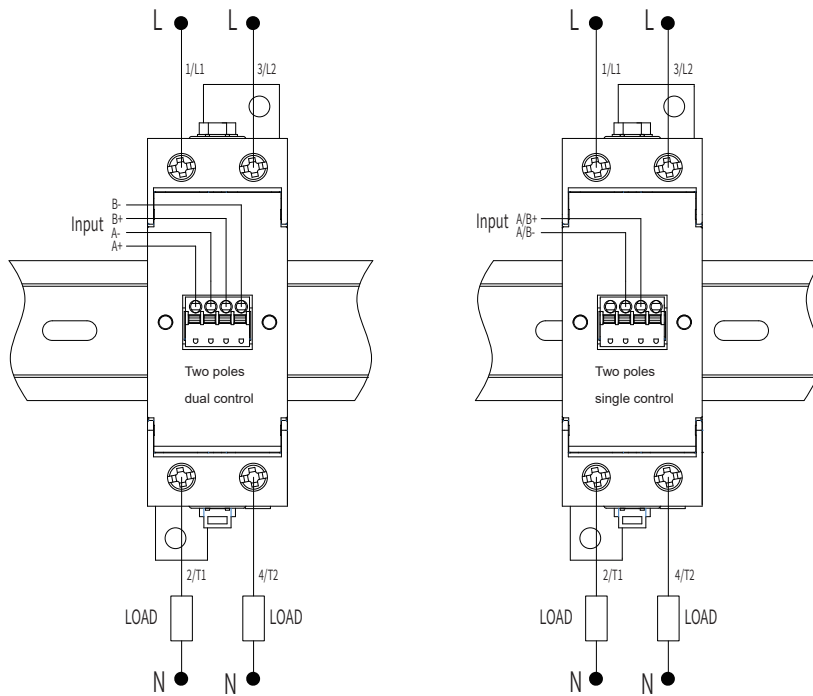
Outline Dimensions



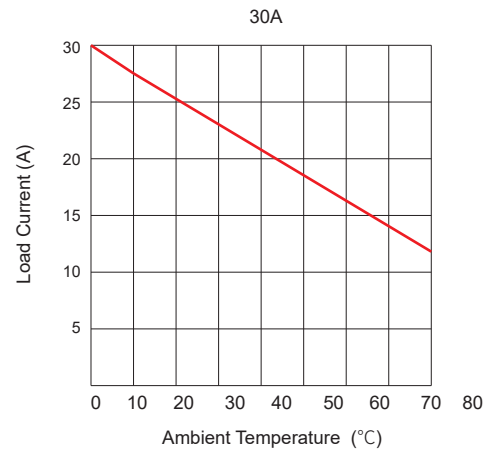
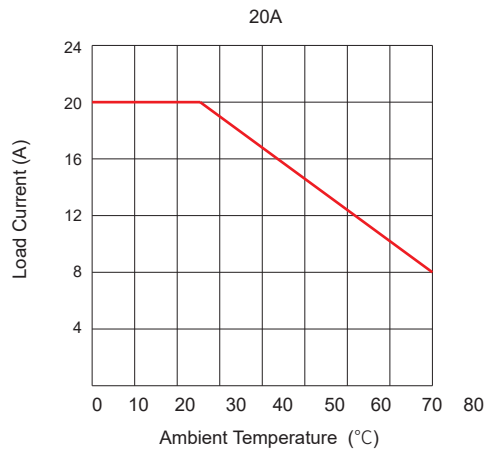
with KHS-P90 heat sink

with KHS-H90 heat sink

Wiring Diagram



Thermal Derating Curve



General Note

When the operation temperature is high, please consider the derating as per the thermal curve.