

# Product Description

- MOSFET Output
- Low Impedance
- Control Voltage: 4~15VDC or 15~32VDC
- Internal Over-voltage Protection
- Photoelectric Isolation
- Dielectric Strength: 2500Vrms
- Panel Mount
- ◆ LED Indicator
- RoHS Compliant

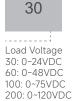






# **Product Selection**







Control Mode Load Current LD: 4~15 VDC HD: 15~32 VDC 10:10Amp 20:20Amp 40:40Amp 50:50Amp

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Customized Code

#### **Available Part Numbers**

Control Mode	Load Voltage	10A	20A	40A	50A
LD:4-15VDC	30VDC			 	KSJB30LD50
	60VDC			 	KSJB60LD50
	100VDC		KSJB100LD20	KSJB100LD40	 
	200VDC	KSJB200LD10		 	 
HD:15-32VDC	30VDC			 	KSJB30HD50
	60VDC			 	KSJB60HD50
	100VDC		KSJB100HD20	KSJB100HD40	
	200VDC	KSJB200HD10			

### **Technical Specifications**

Input Specifications (Ta=25°C)				
Control Vallere Description	LD	4~15VDC		
Control Voltage Range	HD	15~32VDC		
NA T Valtana	LD	4VDC		
Must Turn-on Voltage	HD	15VDC		
Must Turn-off Voltage		2VDC		
Maximum Input Current	LD	25mA@15VDC		
Maximum input current	HD	25mA@32VDC		
l Mariana Barana Vallana	LD	15VDC		
Maximum Reverse Voltage	HD	32VDC		









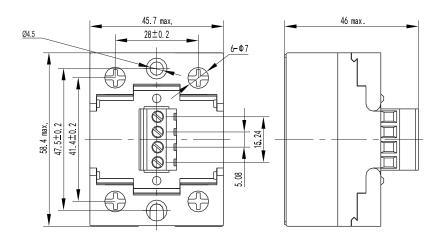
Output Specifications (Ta=25°C)					
Ordering Informationc	KSJB3050	KSJB6050	KSJ10020	KSJB10040	KSJB20010
Transistor Voltage (VDC)	55	100	; 150	150	250
Load Voltage Range(VDC)	0~24	0~48	0-75	0~75	0~120
TVS Breakdown Voltage Scope(V)	37.1~41	64.6~71.4	105~116	105~116	190~210
Maximum Load Current(A)	50	50	20	40	10
Maximum SurgeCurrent (Apk,@10ms)	150	150	60	120	30
Maximum On-State Resistance $(m\Omega)$	4.2	12	6.2	6.2	60
Maximum Off-State Leakage Curre	je (mA)	0.1			
Minimum Load Current (mA)		2			
Maximum Turn-on Time (ms)		0.3			
Maximum Turn-off Time (ms)			0.3		

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	2500Vrms
Dietectric Strength (50/00112)	Input, output/Base	2500Vrms
Insulation Resistance (@500VDC)		1000ΜΩ
Operating Temperature Range		-30°C∼+80°C
Storage Temperature Range		-30°C∼+100°C
Wight (Typ)		150g

# Applications

 $\ensuremath{\mathsf{DC}}$  heating,  $\ensuremath{\mathsf{DC}}$  power supply,  $\ensuremath{\mathsf{DC}}$  valve,  $\ensuremath{\mathsf{DC}}$  motor, medical equipment, etc.

# **Outline Dimensions**



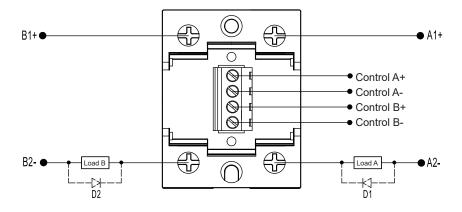








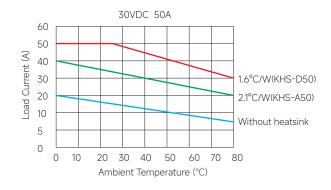
### Wiring Diagram

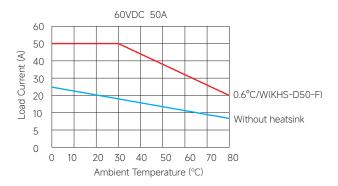


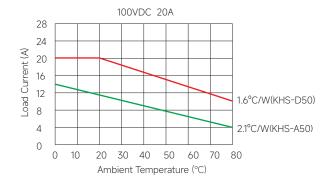
When the relay is used for inductive load control, please be sure to use a suppression circuit, just like the drawing above. Both load terminals are inverse parallelled with fly-wheel diodes D1, D2.

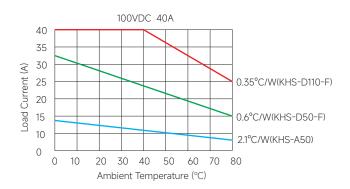
D1, D2: Fast Recovery Diode

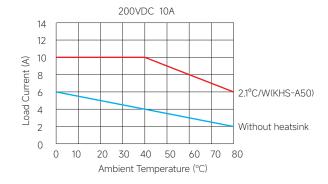
### Thermal Derating Curve











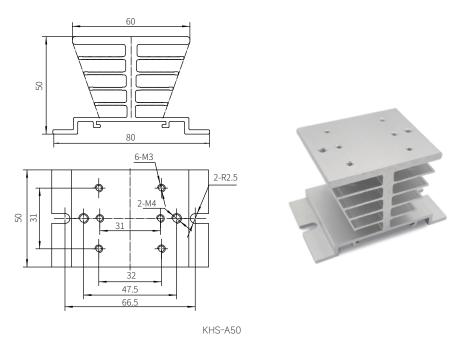




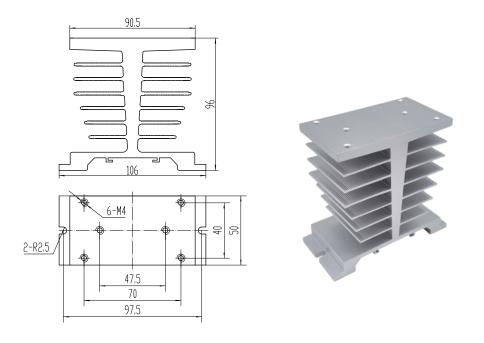




The above temperature curve is configured with radiator models as follows:



(Note: The recommended mounting hole size is 68mm)



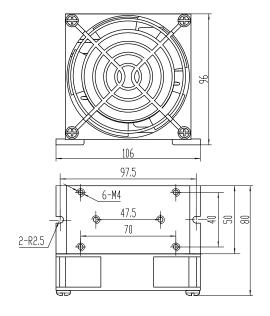
KHS-D50





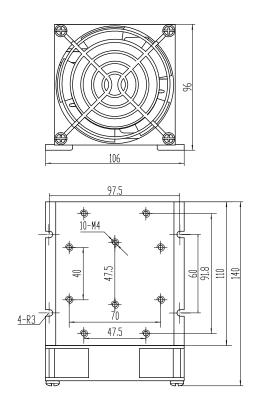








KHS-D50-F





KHS-D110-F









#### **General Notes**

- 1. The heat generated by the relay needs to be dissipated through the bottom plate, and it is necessary to ensure that the relay base plate is in close contact with the heat sink and installed firmly, and the contact surface needs to be covered with thermal pad or thermal grease.
- 2. The relay terminal should ensure that the wiring is firm because the loose wiring will cause the product to heat up abnormally and damage the product. The recommended installation torque for M3 terminals is (0.2~0.5)N·m, and for M4 terminals the recommended installation torque is (0.98~1.37) N·m.
- 3. When the ambient temperature is high, please refer to the temperature curve to derate.
- 4. For the capacitive load, at the moment of turning on, an extremely high inrush current will happen, which may cause SSR to be damaged due to excessive inrush current. Therefore, if the load is a capacitive load, or if the load is equipped with a large capacitor in parallel, it is strongly recommended to connect the NTC in series in the load circuit to suppress the inrush current to avoid damage to the product.

# ! Warnings

- 1. The product may be hot, allow the product to cool before touching.
- 2. Disconnect all power before installing or working with this equipment.
- 3. Verify all connections and replace all covers before turning on power.





