Product Description

- Zero Cross or Random-on Switching
- Load Current: 25A，50A，75A
- Load Voltage: 240VAC，600VAC
- Control Voltage Range: 3~32VDC，4~32VDC，18~30VAC/15~30VDC
- SCR Output
- Internal RC Protection Circuit
- IP20 Touch-safe Housing
- Integrated with Heatsink
- Available with Thermal Protector Option
- EN50022 35mm DIN Rail Mount

Product Selection

KSK	240	D	25	R	T	(XXX)
KSK Series	Load Voltage 240: 240VAC 600: 600VAC	Control Mode D: DC Control E: 24VAC Control	Load Current 25: 25Amp 50: 50Amp 75: 75Amp	Switching Mode Blank: Zero Crossing R: Random-on	Protection Type T: TVS Protection Blank: Without Protection	Customized Code

-K	F24DC
Heatsink(1) K:KHS-K90 L:KHS-L90 I:KHS-I93	Fan(1) Blank: No Fan F24DC:24VDC Fan (Only for KHS-I93)

Note: (1)The code for heatsink will not display on the product marking.

Available Part Numbers

Load Voltage	Blocking Voltage	Control Voltage	Zero Crossing		Random-on	
			-	With TVS	-	With TVS
240:240VAC	800Vpk	D：3～32VDC	KSK240D#	KSK240D#-T	KSK240D#R	KSK240D#R-T
		E：24VAC	KSK240E#	KSK240E#-T	KSK240E#R	KSK240E#R-T
600:600VAC	1200Vpk	D：4～32VDC	KSK600D#	KSK600D#-T	KSK600D#R	KSK600D#R-T
		E：24VAC	KSK600E#	KSK600E#-T	KSK600E#R	KSK600E#R-T

Note: 1. For products with TVS, the blocking voltage refers to SCR chip and optocoupler.
2. # Represents the rated load current, which is 25, 50 or 75.

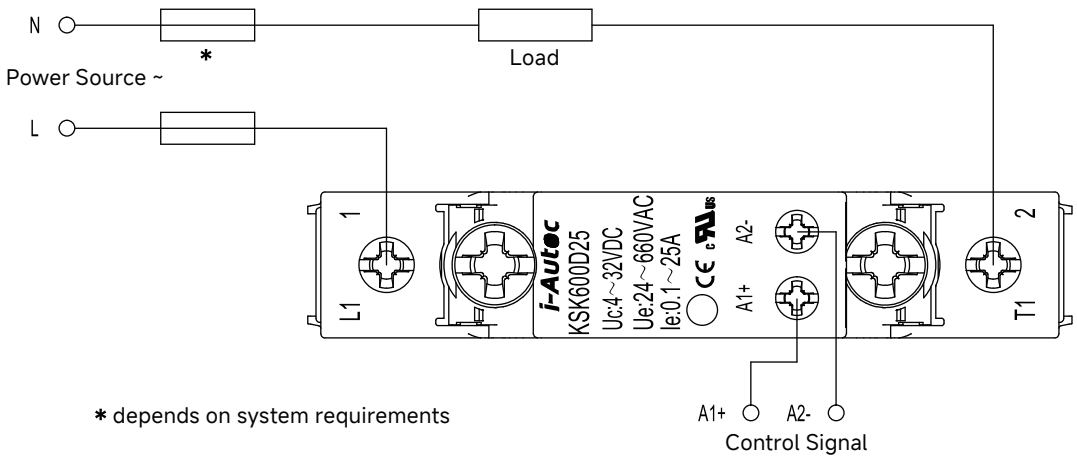
Technical Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	KSK240D... Series	3～32VDC
	KSK600D... Series	4～32VDC
	KSK...E... Series	18~30VAC/15~30VDC
Maximum Input Current	KSK...D... Series	20mA (@32VDC)
	KSK...E... Series	20mA (@30VDC/30VAC)
Must Turn-on Voltage	KSK240D... Series	3VDC
	KSK600D... Series	4VDC
	KSK...E... Series	18VAC/15VDC
Must Turn-off Voltage	KSK240D... Series	1VDC
	KSK600D... Series	5VAC/VDC
Maximum Reverse Voltage	KSK...E... Series	-32VDC

Output Specifications (Ta=25°C)			
Load Voltage Range	KSK240... Series		24～280VAC
	KSK600... Series		24～660VAC
Blocking Voltage	KSK240... Series		800Vpk
	KSK600... Series		1200Vpk
Load Current	KSK...25... Series		25A
	KSK...50... Series		50A
	KSK...75... Series		75A
Miximum Load Current			100mA
Maximum Surge Current (@10ms)	KSK...25... Series		800Apk
	KSK...50... Series		850Apk
	KSK...75... Series		900Apk
Maximum I^2t for Fusing (@10ms)	KSK...25... Series		3200A^2s
	KSK...50... Series		3612A^2s
	KSK...75... Series		4050A^2s
Maximum Turn-on Time	KSK...D... Series	Random-on	1ms
		Zero Crossing	1/2cycle+1ms
	KSK...E... Series		30ms
Maximum Turn-off Time	KSK...D... Series		1/2cycle+1ms
	KSK...E... Series		30ms
TVS Breakdown Voltage	KSK240...T... Series		480V
	KSK600...T... Series		1100V
Maximum Off-State Leakage Current (@Rated Voltage)			5mA
Maximum On-State Voltage Drop (@Rated Current)			1.5Vrms
Minimum Off-State (dv/dt)			1000V/μs

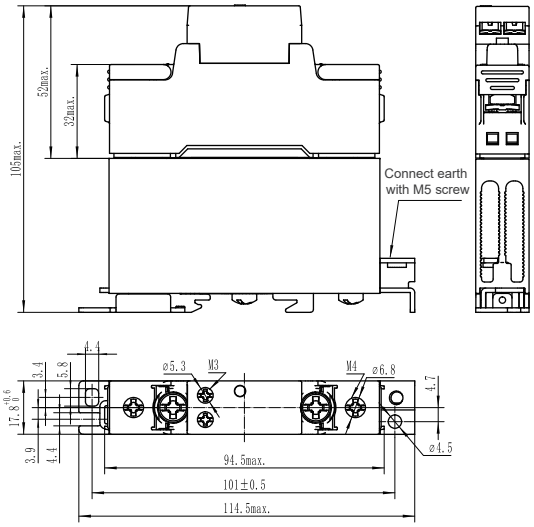
General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input,Output/Heatsink	4000Vrms
Minimum Insulation Resistance (@500VDC)		1000mΩ
Ambient Temperature Range		-30°C ～ +80°C
Storage Temperature Range		-30°C ～ +100°C
Weight (Typical)	KSK...25...-K Series	190g
	KSK...25...-L Series	260g
	KSK...50...-L Series	260g
	KSK...50...-I Series	420g
	KSK...75...-IF24DC Series	470g
Fan Voltage		24VDC

Wiring Diagram

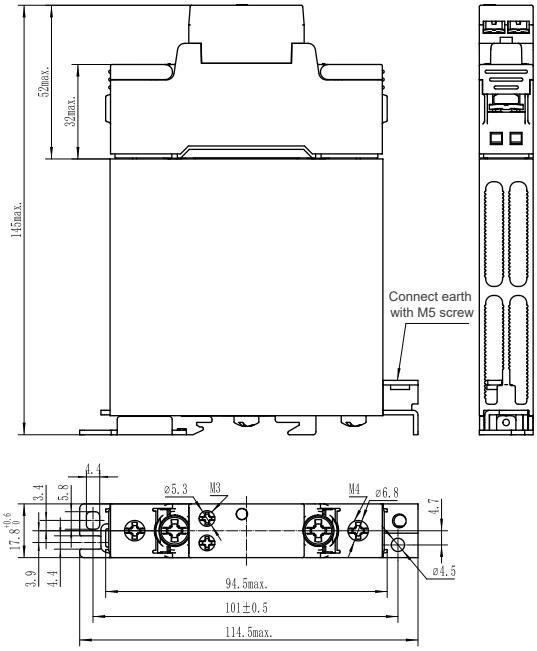


Note: For the KSK...D... series, the control signal is A1+&A2-, and for the KSK...E... series, the control signal is A1&A2.

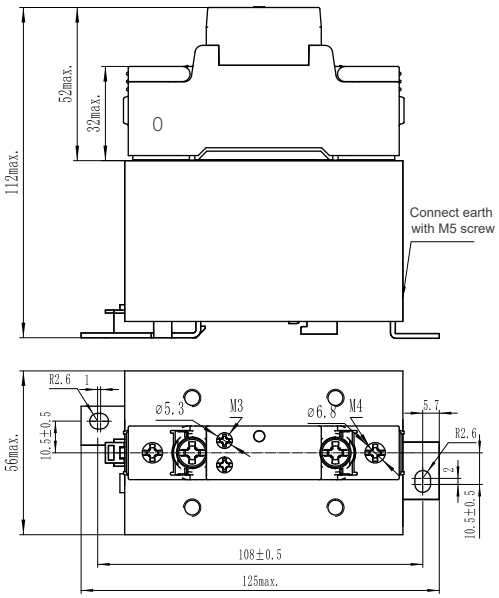
Outline Dimensions



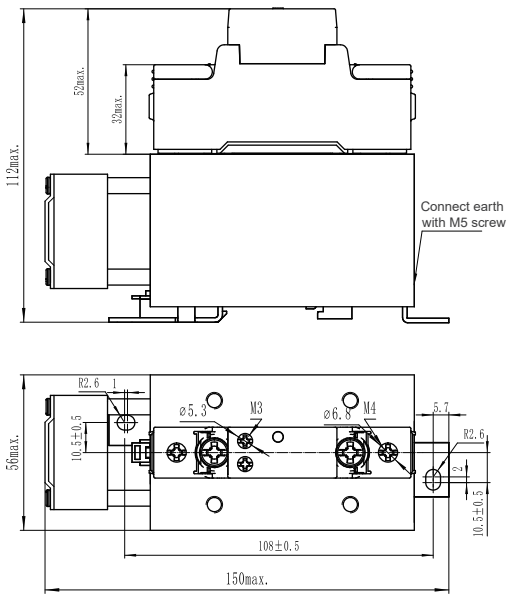
KSK…25…-K Series



KSK…25/50…-L Series

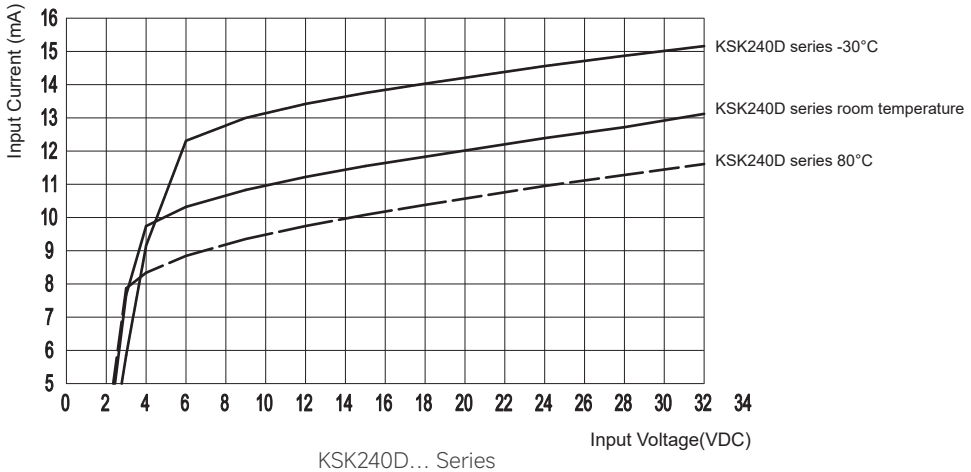


KSK…50…-I Series

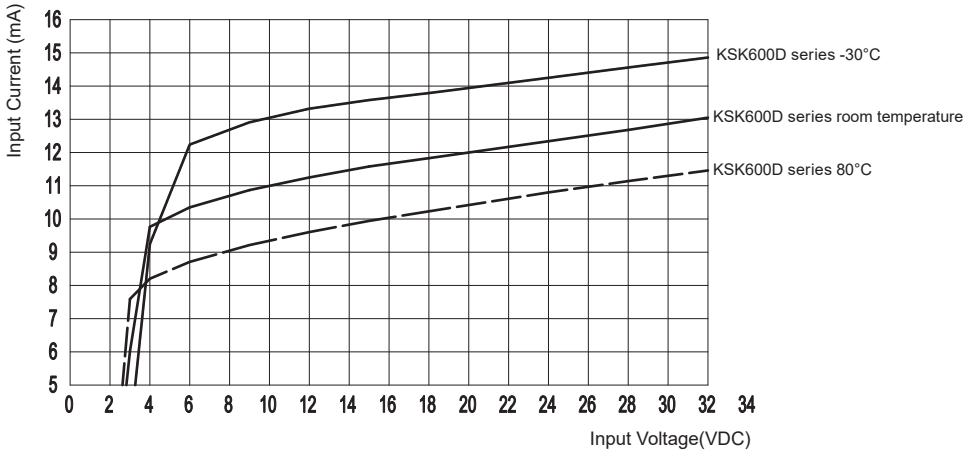


KSK…75…-IF24DC Series

Input Current vs. Input Voltage

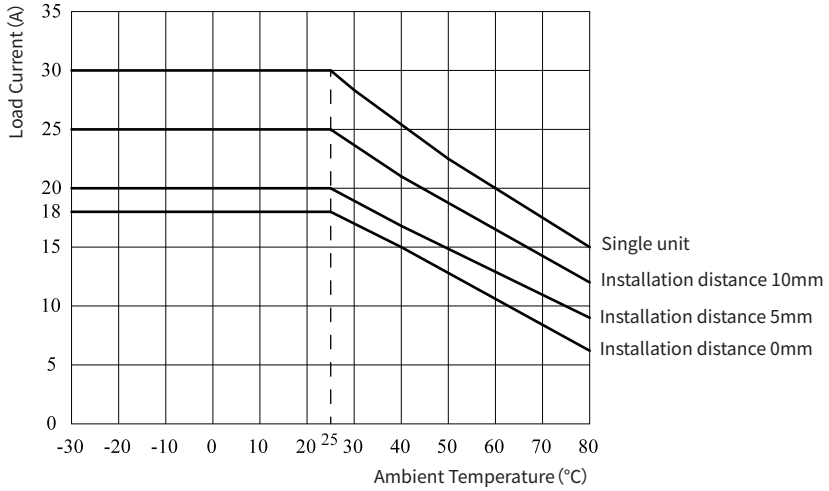


KSK240D… Series

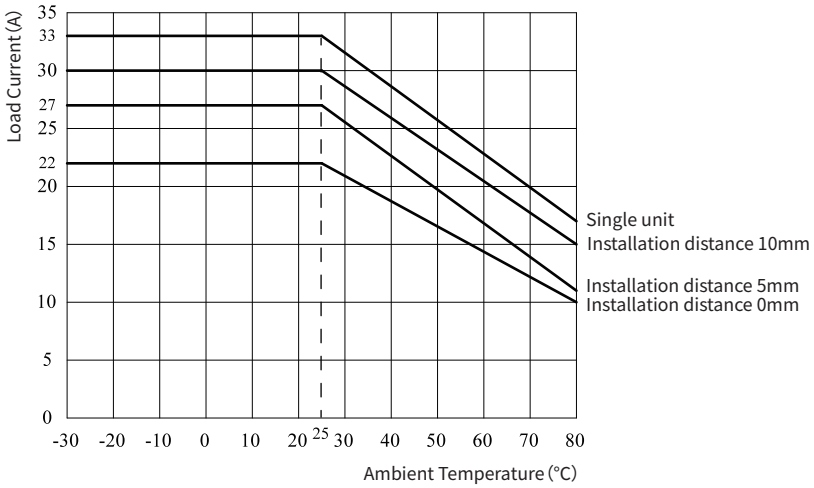


KSK600D… Series

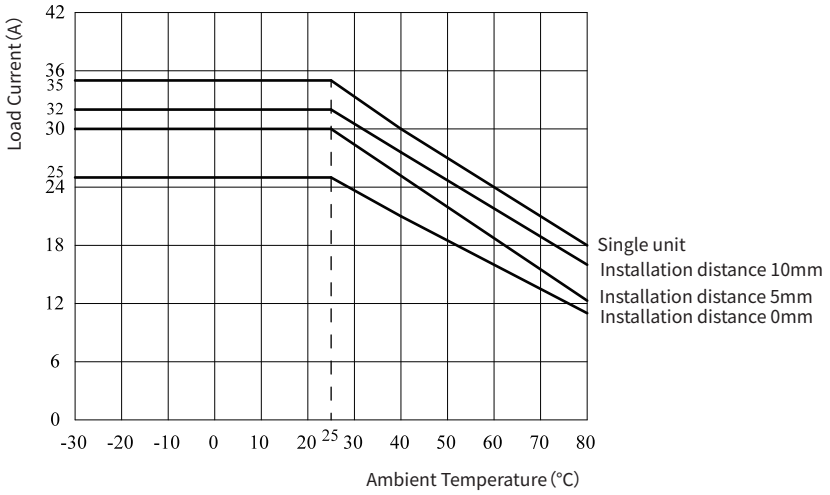
Thermal Derating Curve



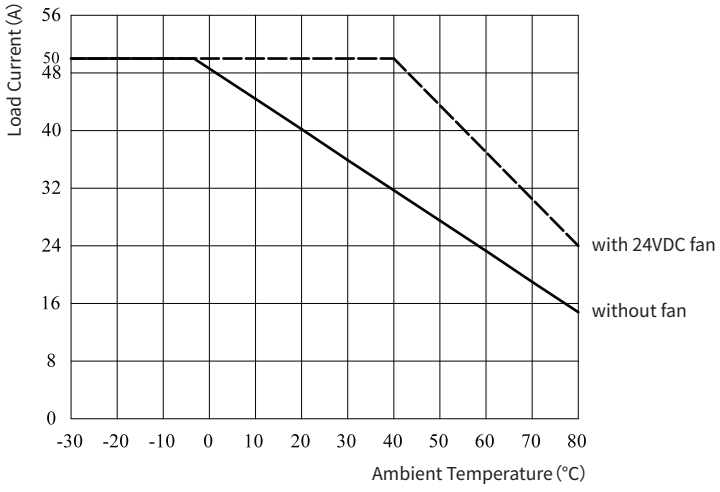
KSK…25…-K Series



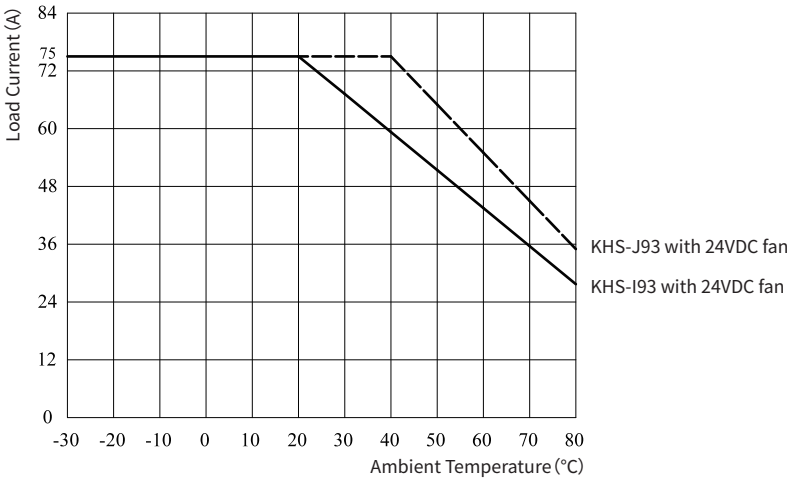
KSK…25…-L Series



KSK…50…-L Series



KSK…50…-I Series



KSK…75... Series

Note: The curve above shows the heatsink capability under the worst case (100% continuous operation) for a solid state relay. If your application involves intermitent operation, please contact us with your actual operating conditions (load current, on/off time, ambient temperature, etc.), and we will recommend the most suitable solution for you.

General Notes

1. When the temperature of the product is high, please refer to the temperature curve.
2. The recommended mounting torque for the input M3 terminal, when using screw driver head of PH2, is (0.35~0.5)N · m or (3.1~4.4) in.-lbs. For the output M4 terminal, when using screw driver heads of PZ2, the recommended torque is (0.98~1.37)N · m or (8.7~12.1)in.-lbs.
3. The relay terminal should ensure a reliable connection, poor connection may lead to the product overheating and damaging it.
4. The cabinet where the product is installed should be equipped with a fan, and the air duct should be optimized to effectively cool the solid-state relay product. Sufficient space should be reserved for product installation to prevent overheating and ensure proper ventilation.
5. If a thermal protector is required, please contact us for technical support.

! Warnings

1. The product may be hot during use, 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.

