

Product Description

- ◆ Phase-Shift Control Output
- ◆ SCR Output
- ◆ Control Signal: 0-5VDC, 0-10VDC or 4-20mA
- ◆ Load Current: 25A, 40A, 60A , 80A
- ◆ LED Indicator
- ◆ RoHS Compliant



Ordering Information

KYR	P	240	L	25	P	M	(XXX)
KYR Series	Output Type P: Power Proportional Output	Load Voltage 240: 176~280VAC 480: 300~530VAC	L : 0-5VDC H : 0-10VDC I : 4-20mA	Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp	P: IP20 Safety Cover	M: MOV(Optional)	Customized Code

Note: Can be customized according to customer requirements for special models of products.

Model

	Output Type	Control Mode	Load Current	Output Type
KYR Series	Power Proportional Output	L : 0-5VDC H : 0-10VDC I : 4-20mA	25Amp 40Amp 60Amp 80Amp	Voltage Control: $U_{OUT}^2 = U_{ac}^2 \times V$ CONTROL /5 Voltage Control: $U_{OUT}^2 = U_{ac}^2 \times V$ CONTROL/10 Current Control: $U_{OUT}^2 = U_{ac}^2 \times (I_{CON-4})/16$

	25A	40A	60A	80A
L:0-5VDC	KYRP240L25P KYRP480L25P	KYRP240L40P KYRP480L40P	KYRP240L60P KYRP480L60P	KYRP240L80P KYRP480L80P
H:0-10VDC	KYRP240H25P KYRP480H25P	KYRP240H40P KYRP480H40P	KYRP240H60P KYRP480H60P	KYRP240H80P KYRP480H80P
I :4-20mA	KYRP240I25P KYRP480I25P	KYRP240I40P KYRP480I40P	KYRP240I60P KYRP480I60P	KYRP240I80P KYRP480I80P

General Specifications

Input Specifications (Ta=25℃)

Input Control	Voltage Control	Auxiliary Power Supply Voltage Range		10-32VDC
		Control Voltage Range	L	0-5VDC
			H	0-10VDC
		Open Voltage	L	0.1VDC Max.
		Open Voltage	H	0.2VDC Max.
		Turn-off Voltage	L	0.05VDC Min.
		Turn-off Voltage	H	0.1VDC Min.
		Input Impedance	L	30kΩ Typical.
		Input Impedance	H	60kΩ Typical.
	Current Control	Control Current Range		4-20mA
		Open Current		4.6mA Max.
		Turn-off Current		3.8mA Min.
		Input Impedance		200Ω Typical. ⁽¹⁾

Note: (1) When "I" option is used, the drive voltage should be more than 10V.

Output Specifications (Ta=25℃)

Load Voltage Range	240	176-280VAC
	480	300-530VAC
Maximum Surge Current (@10ms)	25A	250A
	40A	500A
	60A	700A
	80A	1000A
Maximum I ² t (@10ms)	25A	312A ² s
	40A	1250A ² s
	60A	2450A ² s
	80A	5000A ² s
Maximum Transient Overvoltage	KYR240xxxP Series	600Vpk
	KYR480xxxP Series	1200Vpk
Maximum Voltage Permissible for Voltage Sensitivity	KYR240xxxPM Series	420VAC
	KYR480xxxPM Series	550VAC
MOV Protection Voltage Range	KYR240xxxPM Series	612~748V
	KYR480xxxPM Series	819~1001V
Output Power	0-99%	
Operational Frequency Range	47-63Hz	
Maximum Off-State Leakage Current@Rated Load Voltage	5mA(@220VAC/50Hz)	
Minimum Off-State dv/dt@Maximum Rated Voltage	500V/μs	

General Specifications (Ta=25℃)

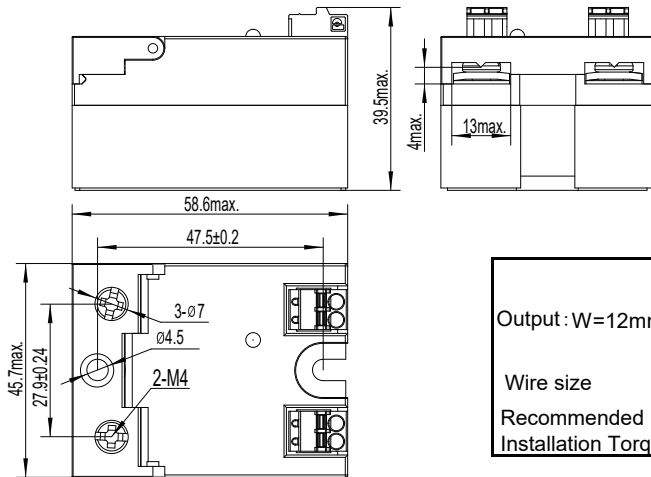
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Ambient Temperature Range	-30℃ ~ +80℃	
Storage Temperature Range	-30℃ ~ +100℃	
Weight (Typical)	120g	
LED (Green)	When the product is connected, LED lights up.	

Applications

Temperature chamber, plastic machinery, incubator, dimmer, solar panel welding machine, and etc.

Outline Dimensions

Unit: mm



Voltage Control

Output : W=12mm max

Wire size

Recommended

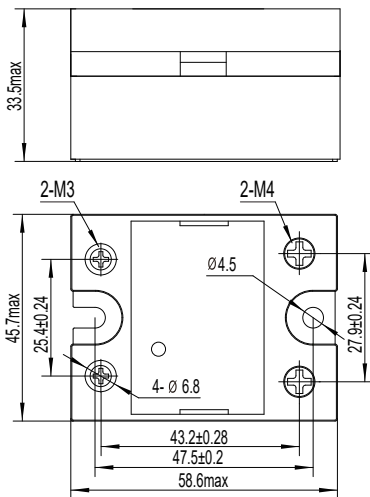
Installation Torque



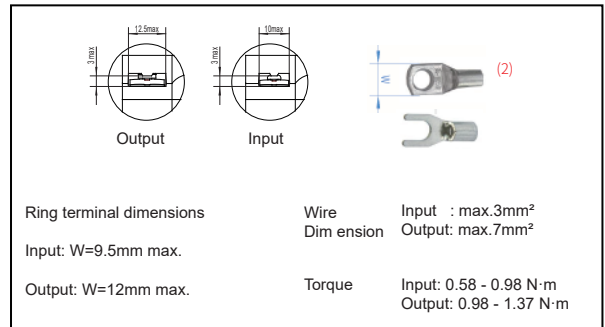
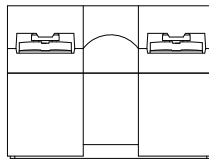
Output : max.1.5mm²

Input : max. 7mm²

Output : 0.98 - 1.37 N·m



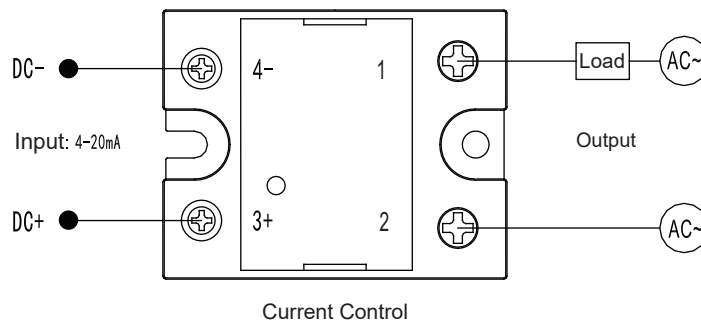
Current Control



NOTE: (2) When SSR is connected to the cold rolled copper nose of TYPE TO1, the IP20 protection cover shall be removed first. After wiring is completed, install the IP20 protection cover.

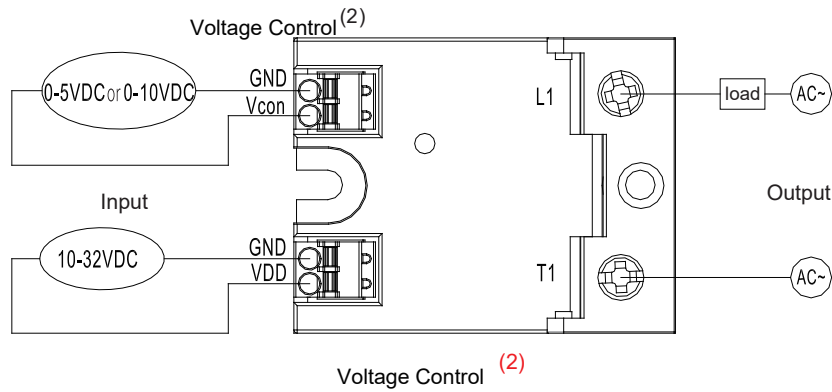
Note: Use M4 screws when mounting to heat sink.

Wiring Diagram



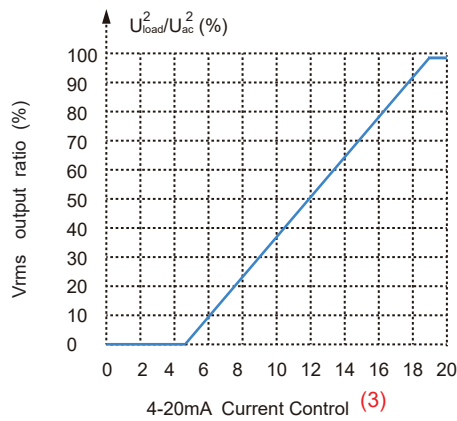
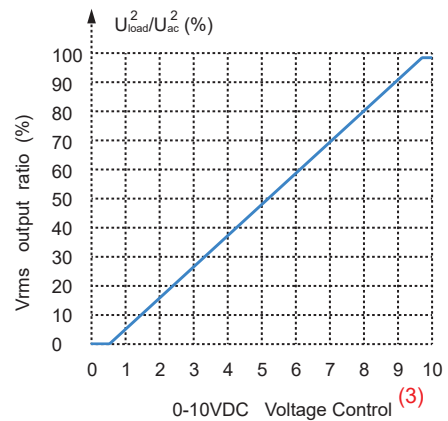
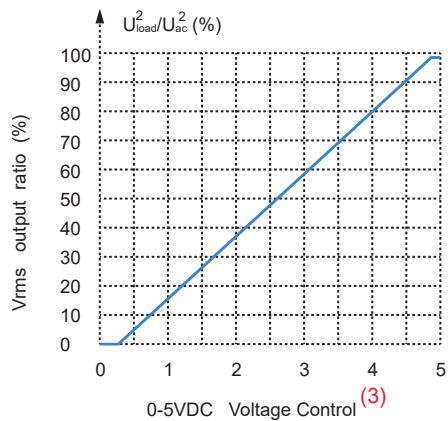
Current Control

Wiring Diagram



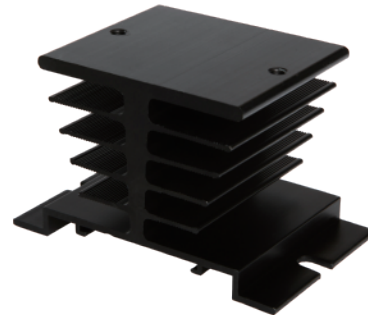
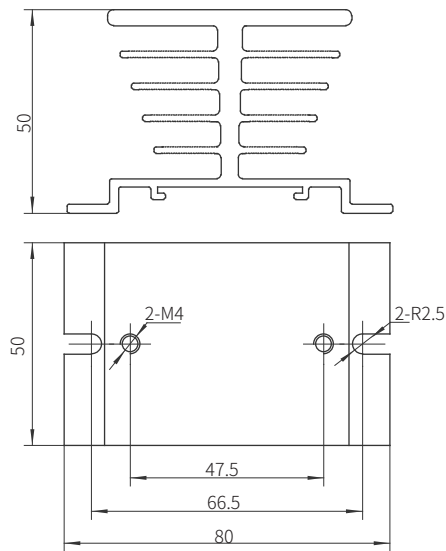
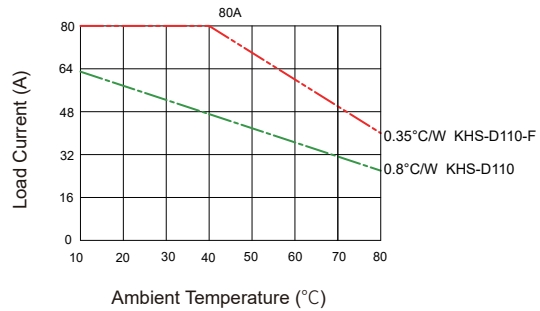
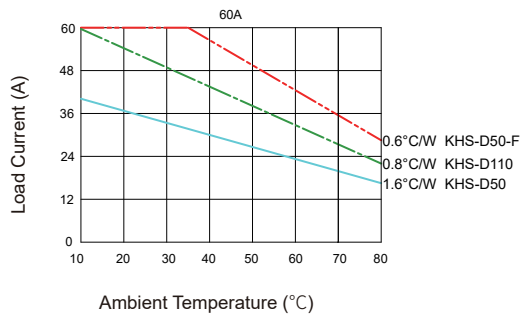
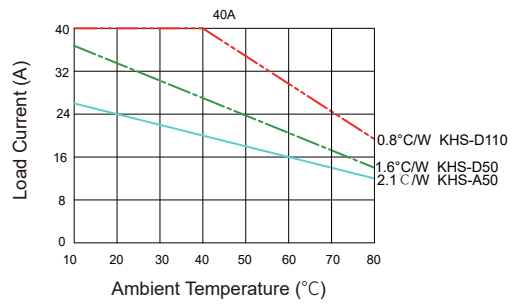
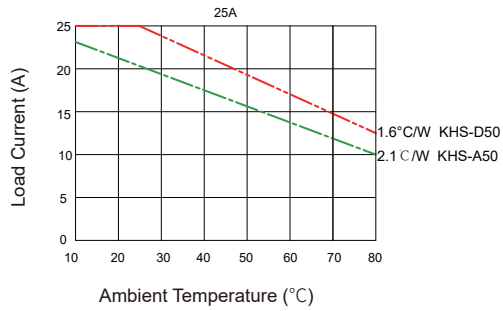
Note: (2) The auxiliary power supply GND and the input control GND should be connected internally to the earth ground; if the external control signal and the power supply are not connected together to the earth ground, then both should be connected to each GND respectively.

Output/Proportional Control Features

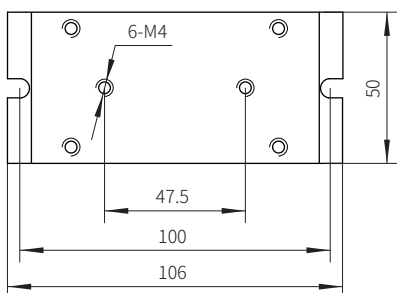
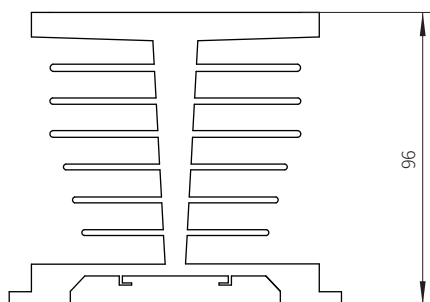


Note: (3) The output curves were measured at 50HZ.

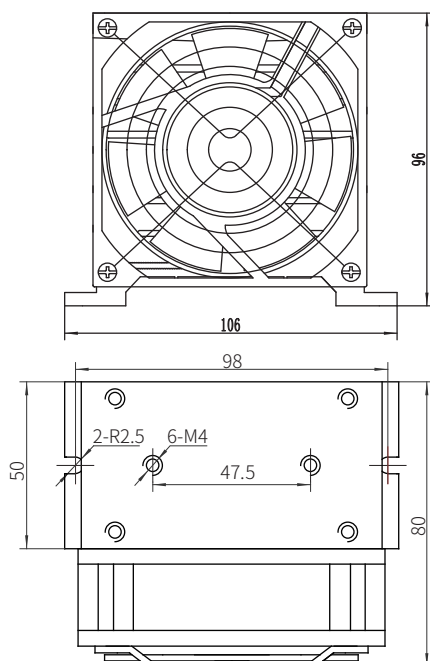
Thermal Derating Curve



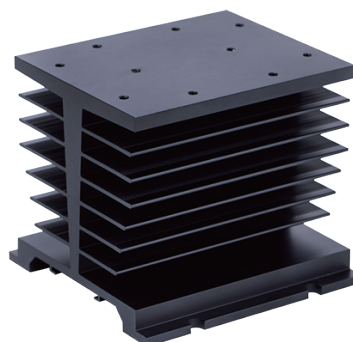
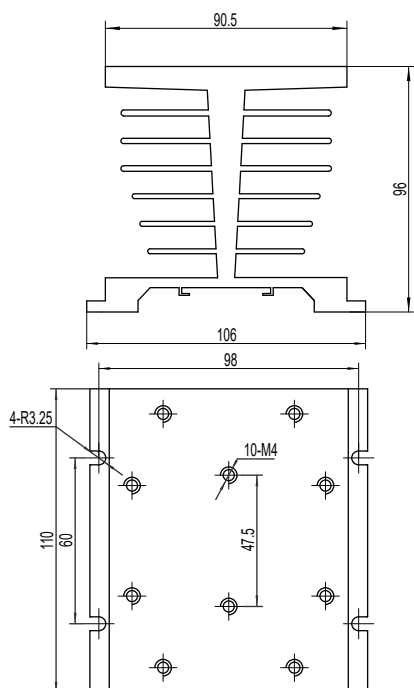
KHS-A50



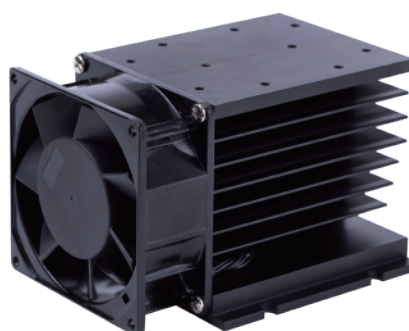
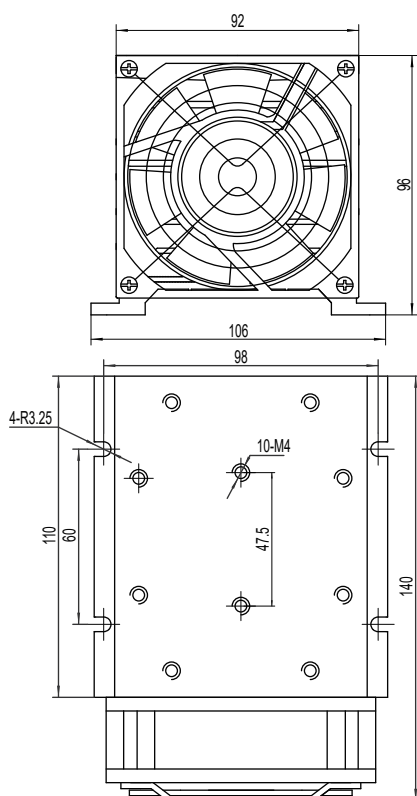
KHS-D50



KHS-D50-F



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 .
2. Relay terminals should ensure that the wiring is firm. Loose wiring will lead to abnormal heating and damage to the products.
The recommended installation torque for screw fast connection terminals is 0.5N·m, the recommended installation torque for M3 terminals is (0.58 ~ 0.98) N·m, and the recommended installation torque for M4 terminals is (0.98 ~ 1.37) N·m.
3. When the operation temperature is high, please consider the derating as per the thermal curve.