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	KYRP240L40P	KYRP240L60P	KYRP240L80P
	KYRP480L25P	KYRP480L40P	KYRP480L60P	KYRP480L80P
H:0-10VDC	KYRP240H25P	KYRP240H40P	KYRP240H60P	KYRP240H80P
	KYRP480H25P	KYRP480H40P	KYRP480H60P	KYRP480H80P
I :4-20mA	KYRP240I25P	KYRP240I40P	KYRP240I60P	KYRP240I80P
	KYRP480I25P	KYRP480I40P	KYRP480I60P	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
Maximun I^2t(@10ms)	25A	312A^2s
	40A	1250A^2s
	60A	2450A^2s
	80A	5000A^2s
Maximum Transient Overvoltage	KYR240xxxP Series	600Vpk
	KYR480xxxP Series	1200Vpk
Maximum Voltage Permissible for Voltage Sensitivity	KYR240xxxPM Series	420VAC
	KYR480xxxPM Series	550VAC
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	

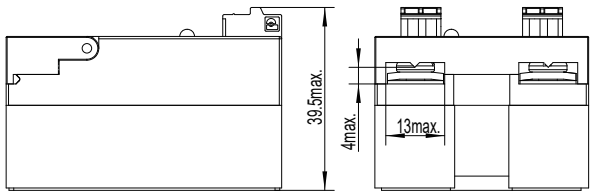
General Specifications（Ta=25℃）		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Ambient Temperature Range	-30°C ~ +80°C	
Storage Temperature Range	-30°C ~ +100°C	
Weight (Typical)	120g	
LED (Green)	When the product is connected, LED lights up.	

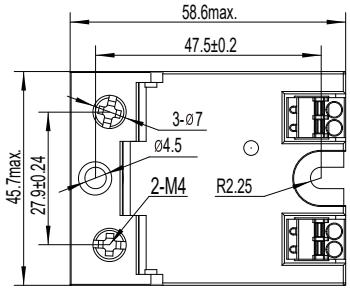
Applications

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

Outline Dimensions

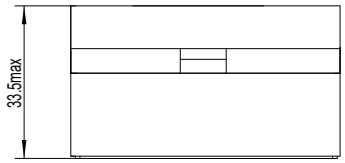
Unit：mm

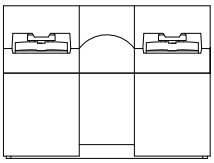


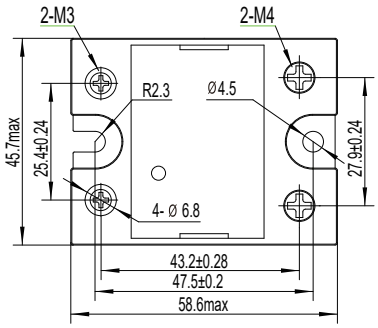


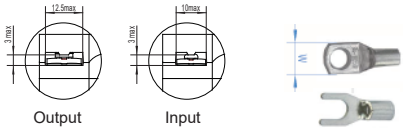
Output：W=12mm max	
Wire size	Output：max.1. 5mm²
	Input：max. 7mm²
Recommended Installation Torque	Output：0.98 - 1.37 N·m

Current Control









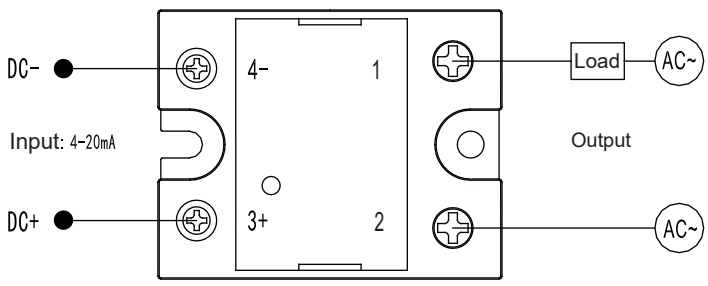
Ring terminal dimensions	Wire Dim ension	Input : max.3mm²
Input: W=9.5mm max.		Output: max.7mm²
Output: W=12mm max.	Torque	Input: 0.58 - 0.98 N·m
		Output: 0.98 - 1.37 N·m

Current Control

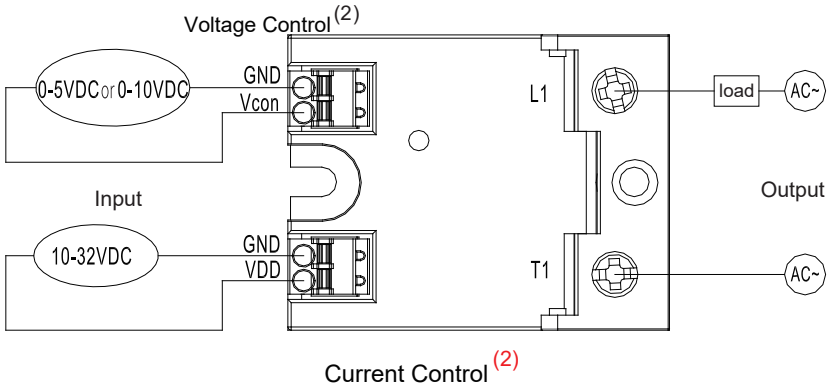
Note: Use M4 screws when mounting to heat sink.

Wiring Diagram

Current Control

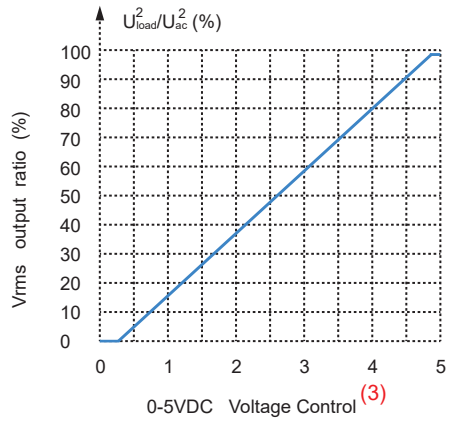


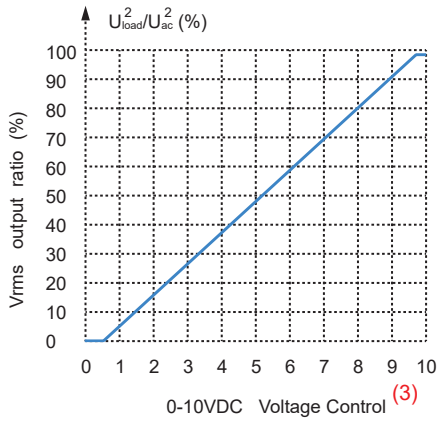
Wiring Diagram

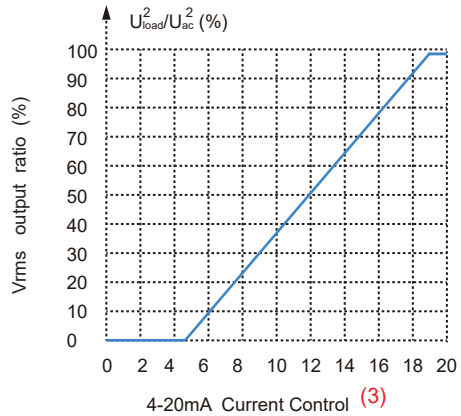


Note: (2) The auxiliary power supply GND and the input control GND should be connected internally to the earth ground; if the external control signal and the power supply are not connected together to the earth ground, then both should be connected to each GND respectively.

Output/Proportional Control Features

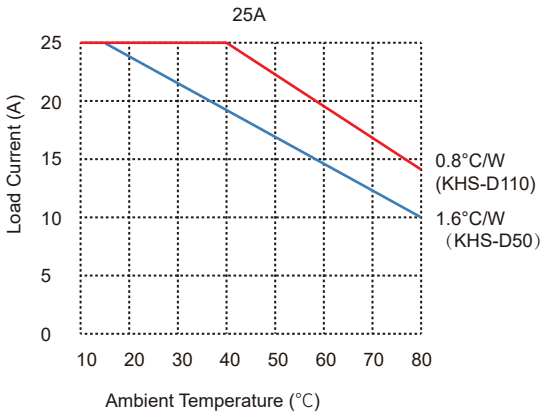


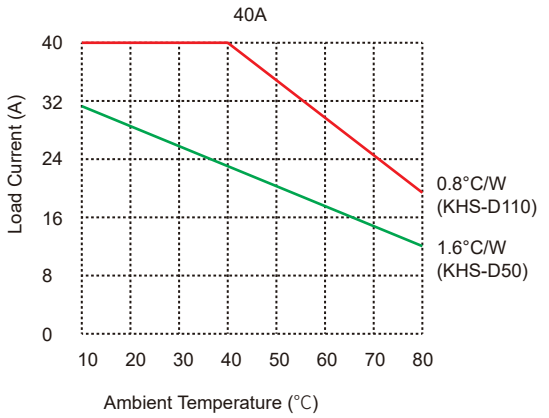


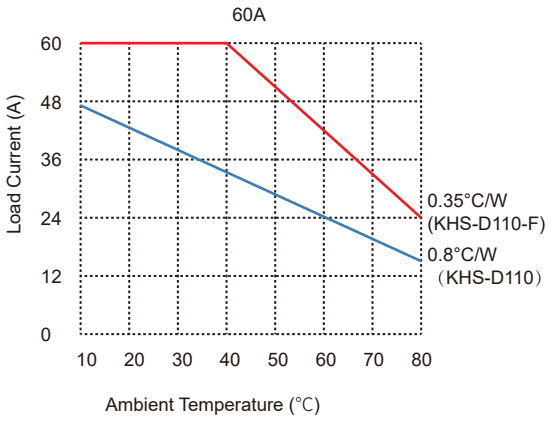


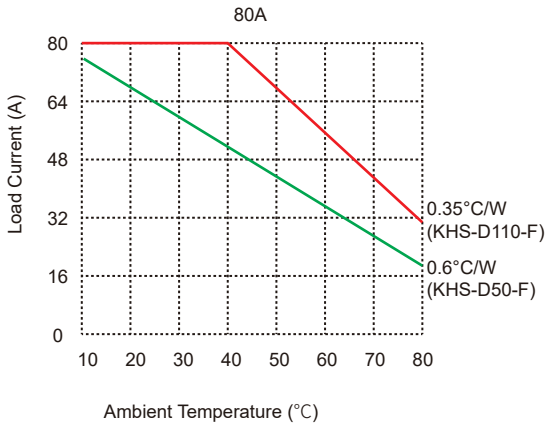
Note: (3) The output curves were measured at 50HZ.

Thermal Derating Curve









General Notes

1. Relay must be mounted to proper sized heat sink badsed 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.