

**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**

<b>KYR</b>	<b>P</b>	<b>240</b>	<b>L</b>	<b>25</b>	<b>P</b>	<b>M</b>	<b>(XXX)</b>
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	25Amp	Voltage Control: $U_{OUT} = U_{ac} \times V$ CONTROL /5
		H : 0-10VDC	40Amp	Voltage Control: $U_{OUT} = U_{ac} \times V$ CONTROL /10
		I : 4-20mA	60Amp 80Amp	Current Control: $U_{OUT} = U_{ac} \times (I_{CON-4})/16$

	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°C)				
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.
			H	0.2VDC max.
		Turn-off Voltage	L	0.05VDC Min.
			H	0.1VDC Min.
		Input Impedance	L	30kΩ Typical.
	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. <sup>(1)</sup>		

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

Output Specifications (Ta=25°C)		
Load Voltage Range	240	176-280VAC
	480	300-530VAC
Maximum Surge Current (@10ms)	25A	250A
	40A	400A
	60A	600A
	80A	800A
Maximum I <sup>2</sup> t(@10ms)	25A	312A <sup>2</sup> s
	40A	800A <sup>2</sup> s
	60A	1800A <sup>2</sup> s
	80A	3200A <sup>2</sup> s
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	

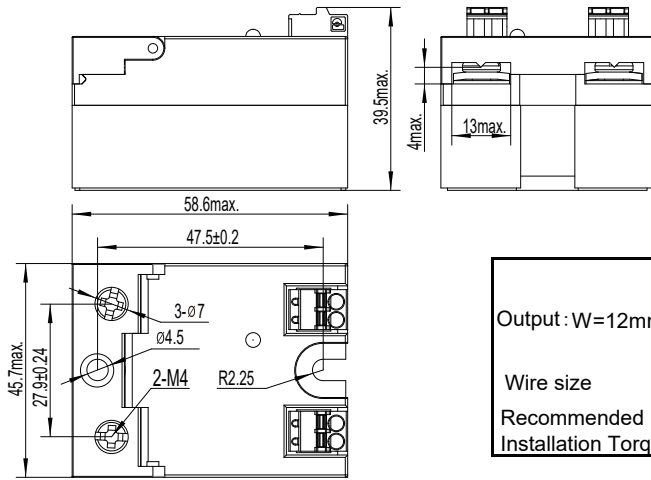
General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Ambient Temperature Range	-30°C ~ +80°C	
Storage Temperature Range	-30°C ~ +100°C	
Weight (Typical)	120g	
LED (Green)	When the product is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

**Applications**

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

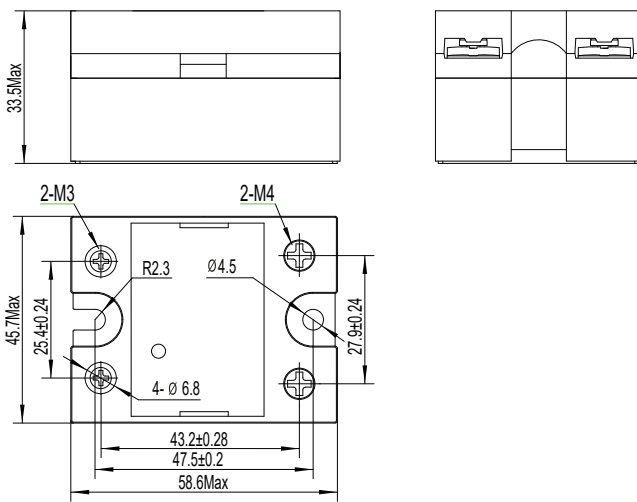
Outline Dimensions

Unit: mm



Current Control

Output : W=12mm max	
Wire size	Output : max.1.5mm <sup>2</sup>
Recommended Installation Torque	Input : max. 7mm <sup>2</sup> Output : 0.98 - 1.37 N·m



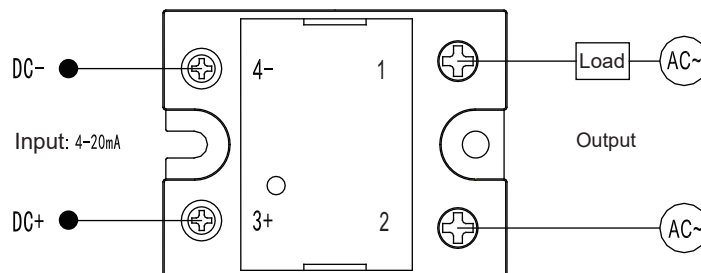
Current Control

	Ring terminal dimensions	Wire Dimension	Input : max.3mm <sup>2</sup> Output: max.7mm <sup>2</sup>
Input: W=9.5mm max.	Output: W=12mm max.	Torque	Input: 0.58 - 0.98 N·m Output: 0.98 - 1.37 N·m

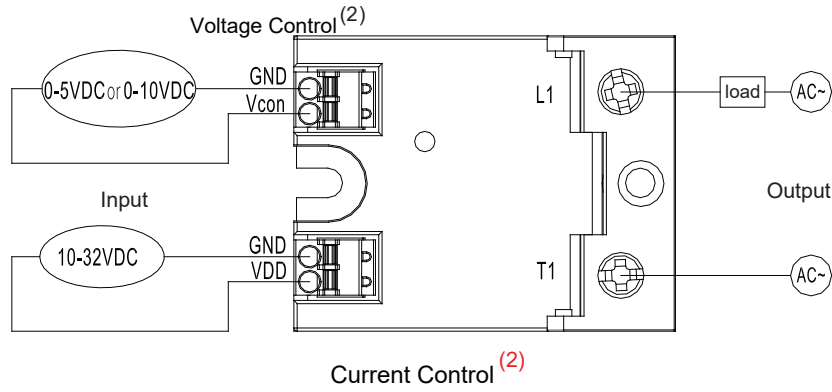
Note: Use M4 screws when mounting to heat sink.

Wiring Diagram

Current Control

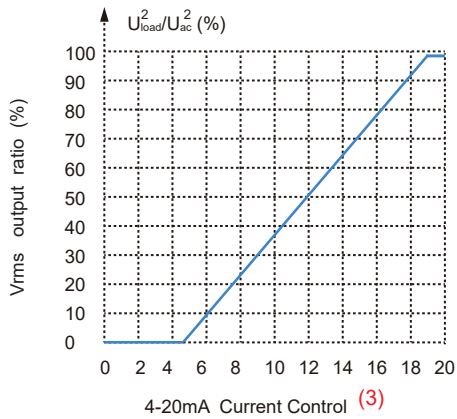
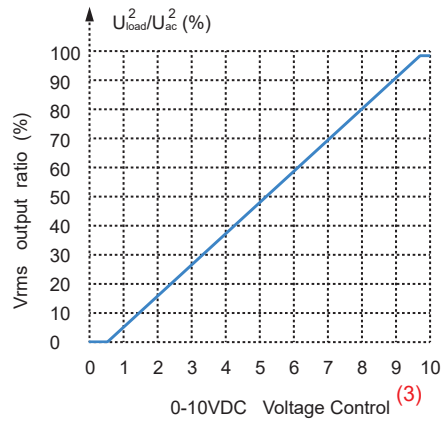
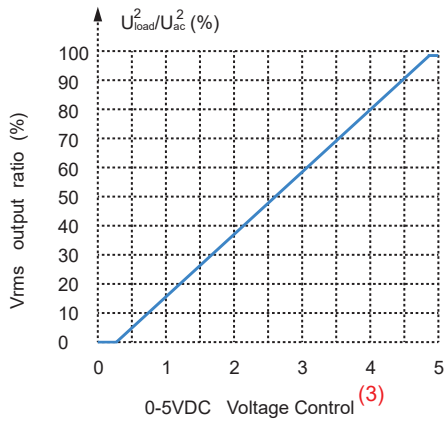


Wiring Diagram



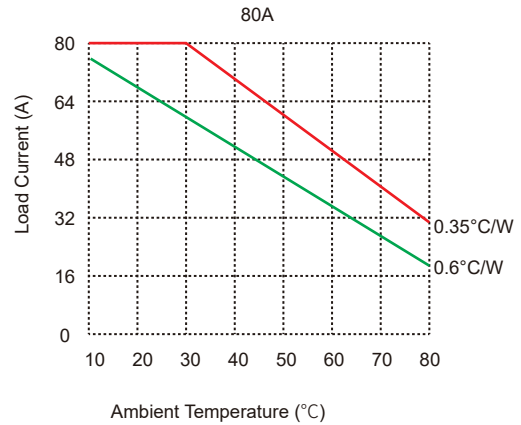
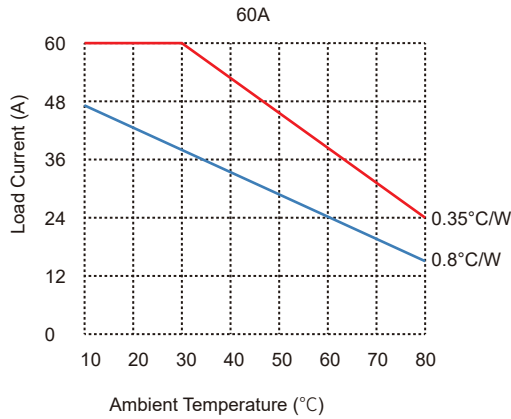
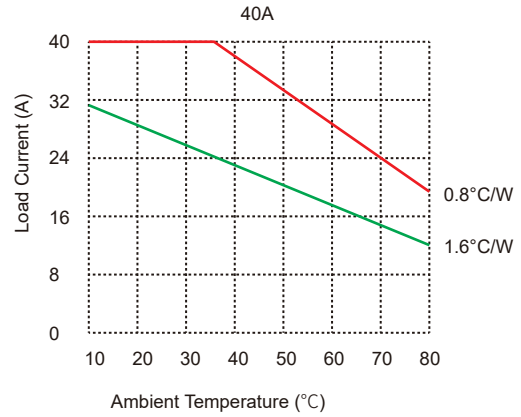
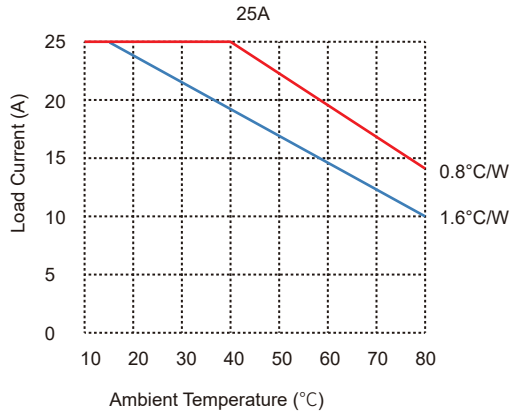
Note: (2) The auxiliary power supply GND and the input control GND should be connected internally to the earth ground; if the external control signal and the power supply are not connected together to the earth ground, then both should be connected to each GND respectively.

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 based on thermal curves. Thermal grease or a thermal pad must be used between relay and heat sink .
2. When connecting wiring to SSR please ensure screws are torqued down properly (input 4.43/0.5 lb-in/N·m M3 screws 5.13-8.67/0.58-0.98 lb-in/N·m, M4 screws 8.67 -12.13/0.98-1.37 lb-in/N·m)
3. When the operation temperature is high, please consider the derating as per the thermal curve.