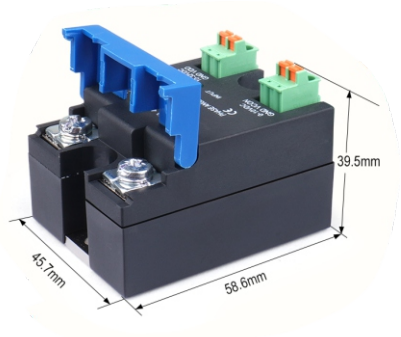
Product Description

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



Ordering Information

SCR	P	240	L	25	P	M	(XXX)
SCR Series	Output T ype P: Power Proportional Output	Load V oltage 240:176~280V AC 480:300~530V AC	L : 0-5VDC H: 0-10VDC I : 4-20mA W: PWM	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 T ype	Control Mode	Load Cu rrent	Output T ype(1)
SCR Series	Power Proportional Output	L: 0-5VDC H: 0-10VDC I : 4-20mA W : PWM(@100ms cycle)U_{ac}	25Amp 40Amp 60Amp 80Amp	V oltage Control: $U_{load}^2 = {}^2x V_{CONTROL}/5\ U_{ac}$ V oltage Control: $U_{load}^2 = {}^2x V_{CONTROL}/10$ Current Control: $U_{load}^2 = U_{ac}{}^2x (I_{CON}*4)/16$ PWM Control: $U_{load}^2 = U_{ac}^2$ x Duty cycle

NOTE:(1) U_{load} indicates the voltage at both ends of the load, and U_{ac} indicates the power grid voltage.

	25A	40A	60A	80A
L:0-5VDC	SCRP240L25P	SCRP240L40P	SCRP240L60P	SCRP240L80P
	SCRP480L25P	SCRP480L40P	SCRP480L60P	SCRP480L80P
H:0-10VDC	SCRP240H25P	SCRP240H40P	SCRP240H60P	SCRP240H80P
	SCRP480H25P	SCRP480H40P	SCRP480H60P	SCRP480H80P
I :4-20mA	SCRP240I25P	SCRP240I40P	SCRP240I60P	SCRP240I80P
	SCRP480I25P	SCRP480I40P	SCRP480I60P	SCRP480I80P
W: PWM	SCRP240W25P	SCRP240W40P	SCRP240W60P	SCRP240W80P
	SCRP480W25P	SCRP480W40P	SCRP480W60P	SCRP480W80P

General Specifications

Input Specifications (Ta=25℃)				
Auxiliary Power Supply Voltage Range				10-32VDC
Auxiliary Power Supply Current				≤25mA
Input Control	Voltage Control	Control Voltage Range	L	0-5VDC
			H	0-10VDC
		Open Voltage	L	0.15VDC Max.
			H	0.25VDC Max.
		Turn-off Voltage	L	0.05VDC Min.
			H	0.1VDC Min.
		Input Impedance	L	30kΩ Typical
			H	60kΩ Typical
	Current Control(2)	Control Current Range		4-20mA
		Open Current		4.6mA Max.
		Turn-off Current		3.8mA Min.
		Input Impedance		400Ω Typical(1)
	PWM Control (3)	Period		100ms
		Amplitude		4-32VDC
		Input Current		≤15mA

Note: (2) When "I" option is used, the drive voltage should be more than 10V .

(3) Control mode such as other cycles of PWM requirements, can be customized.

Load Voltage Range	240	176-280V AC
	480	300-530V AC
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	SCR240xxxP Series	600Vpk
	SCR480xxxP Series	1200Vpk
MOV Varistor Voltage Range	SCR240xxxPM Series	423~517V
	SCR480xxxPM Series	819~1001V
Output Power	0-99%	
Operational Frequency Range	47-63Hz	
Maximum Off-State Leakage Current@Rated Load Voltage	5mA(@220V AC/50Hz)	
Minimum Off-State dv/dt@Maximum Rated Voltage	500V/μs	

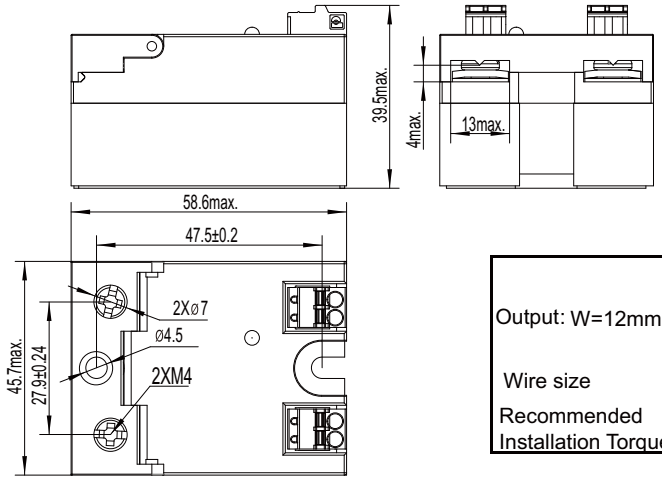
General Specifications (Ta=25℃)		
Dielectric Strength (50/60Hz)	Input/Output	4000V rms
	Input, output/Base	2500V rms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Ambient Temperature Range	-30℃ ~ +80℃	
Storage Temperature Range	-30℃ ~ +100℃	
Weight (Typical)	120g	
LED (Green)	When the product is connected,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

Applications

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

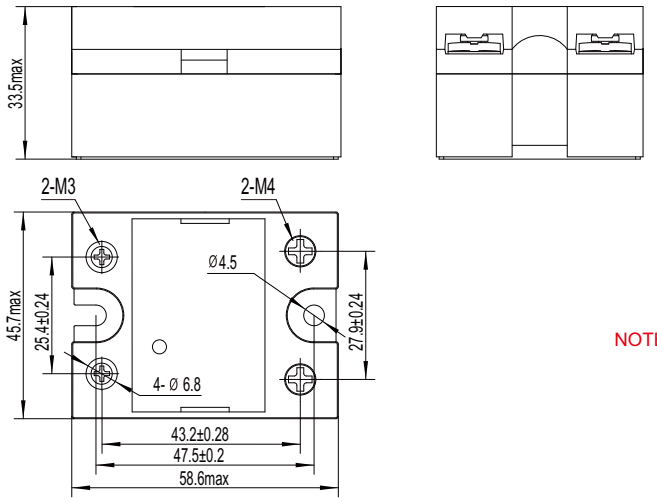
Outline Dimensions

Unit：mm

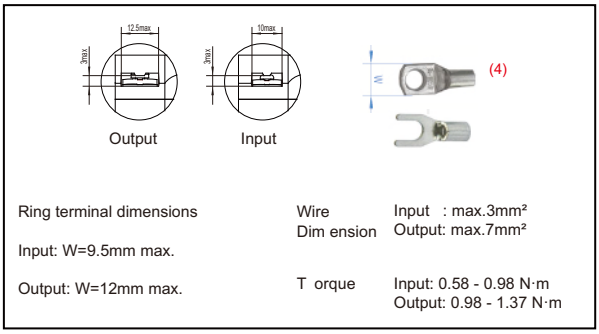


Voltage Control

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



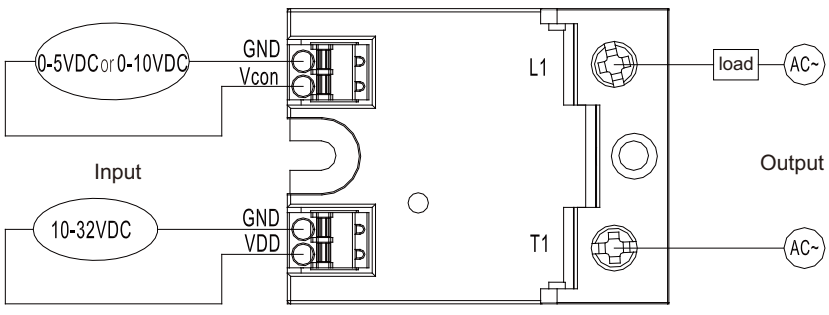
Current Control



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

NOTE: (4)When SSR is connected to the cold rolled copper nose of TYPE T O1, the IP20 protection cover shall be removed first.After wiring is completed, install the IP20 protection cover .

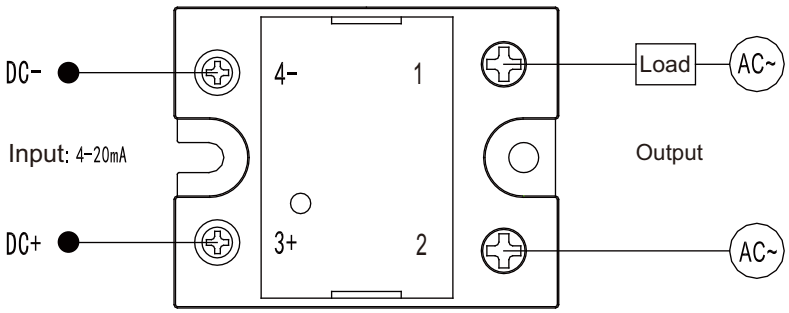
Wiring Diagram



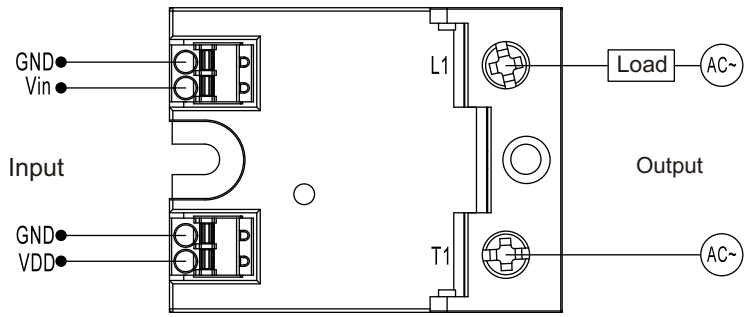
Voltage Control (5)

Note: (5) 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.

Wiring Diagram



Current Control



VDD: connects to the positive terminal of the auxiliary power supply ranging from 10 to 32VDC

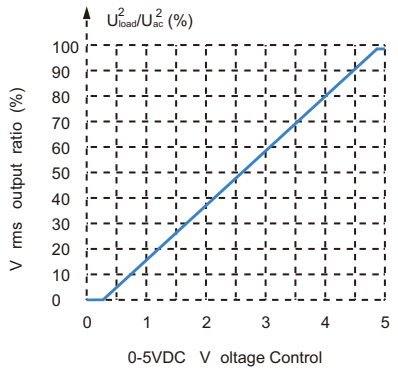
V in: Connect to PWM output positive terminal

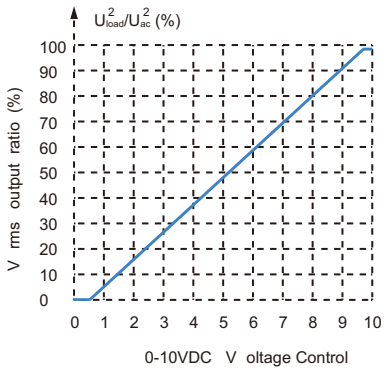
GND: The auxiliary power supply GND and the control signal GND are shorted in common ground, for example, the external control signal and the power supply are not in common ground

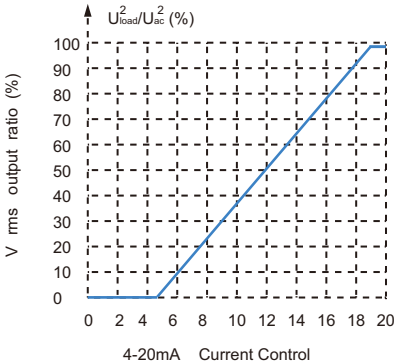
If yes, connect the GND signals of the two devices respectively .

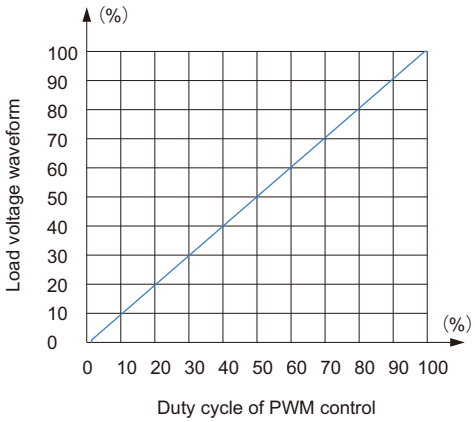
PWM Control

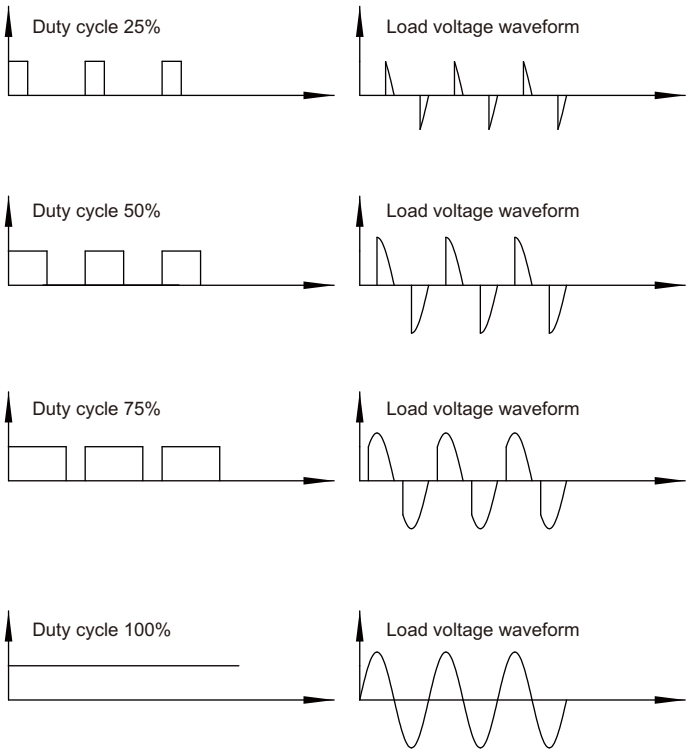
Output/Proportional Control Features





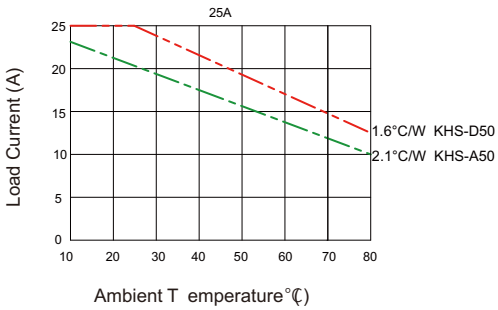


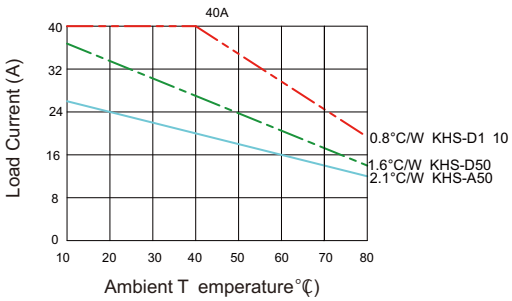


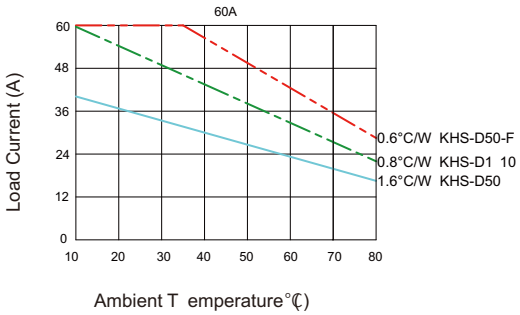


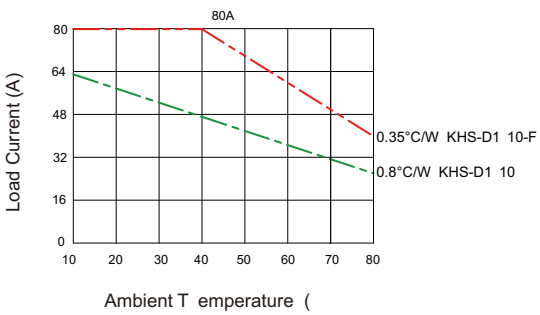
PWM W aveforms

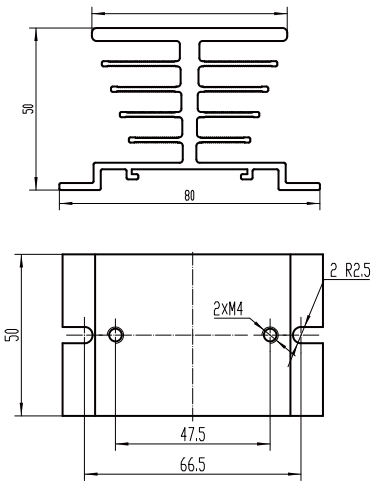
Thermal Derating Curve



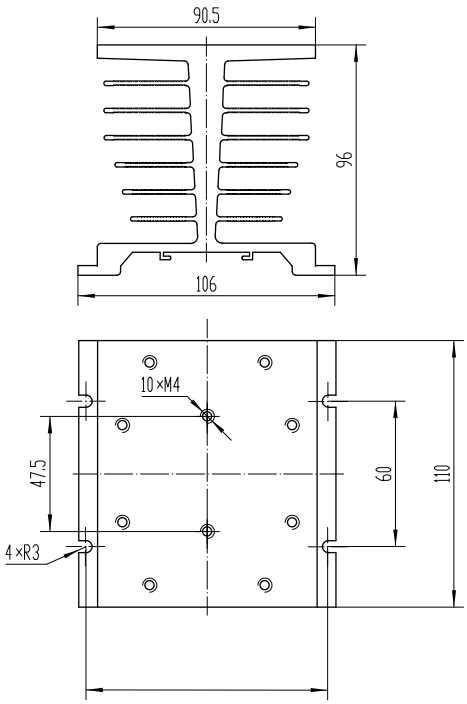




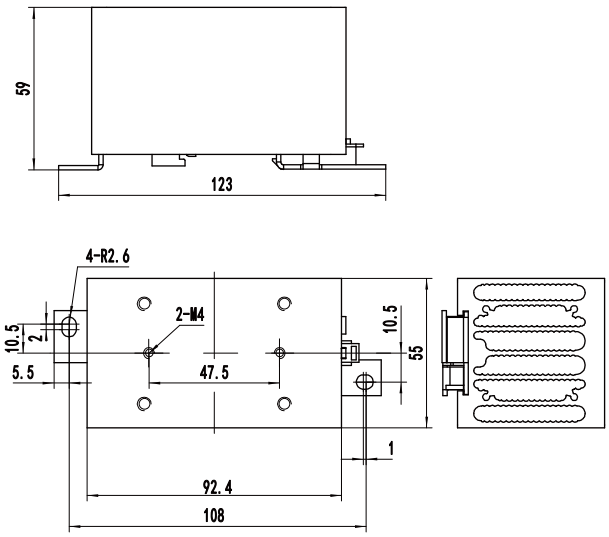




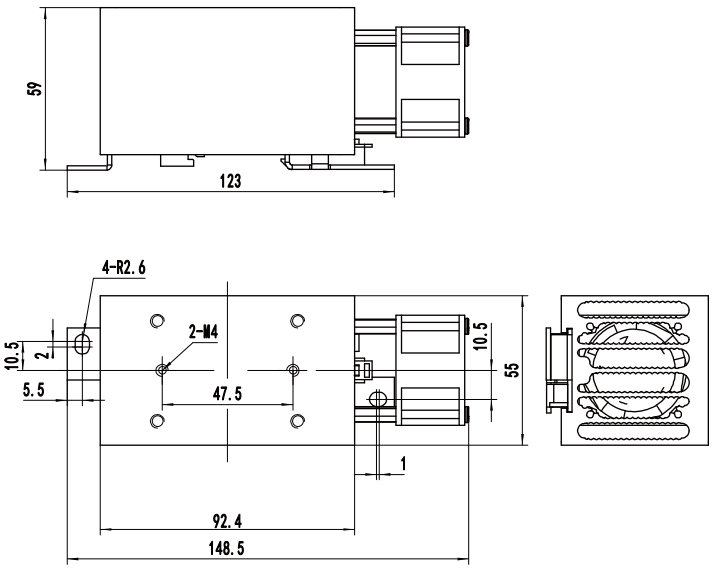
MW-A50-1

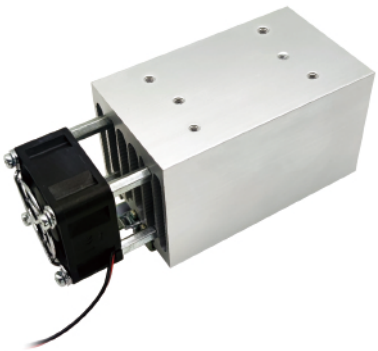


MW-D1 10



MW-I93-D-A





MW-I93-B24DC

General Notes

1. When the operation temperature is above 25℃, please consider the derating as per the Thermal Derating Curve.
2. The relay terminal should ensure reliable connection. Otherwise, it may lead the damage to the relay because of the overheating. 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. Please ensure reliable grounding when using the SSR.

! W arnings

1. The product's side panels may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. V erify all connections and replace all covers before turning on power .