

Product Description

- ◆ Load Current: 25A、40A、60A、80A、100A、125A
- ◆ SCR Output or TRIAC Output
- ◆ Control Mode: 4-20mA
- ◆ Phase-Shift Control Output
- ◆ LED Indicator
- ◆ RoHS Compliant



Product Selection

CRA	380	I	25	P	(XXX)
CRA Series	Load Voltage 380: 176~440VAC 480: 300~530VAC	Control Mode I : 4-20mA	Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp 100: 100Amp 125: 125Amp	Output Type P: Power Proportional Output	Customized

Note: CRA380I25P and CRA380I40P are TRIAC outputs, while other models are SCR outputs.

Model Selection

	Output Type	Control Mode	Load Current	Output Type ⁽¹⁾
CRA Series:	Power Proportional Output	I: 4-20mA	25Amp 40Amp 60Amp 80Amp 100Amp 125Amp	Current Control: $U_{load}^2 = U_{ac}^2 \times (I_{con} - 4) / 16$

Note: (1) U_{load} indicates the voltage at both ends of the load, and U_{ac} indicates the power grid voltage, I_{con} indicates the input analog quantity.

	25A	40A	60A	80A	100A	125A
I: 4-20mA	CRA380I25P	CRA380I40P	CRA380I60P	CRA380I80P	CRA380I100P	CRA380I125P
			CRA480I60P	CRA480I80P	CRA480I100P	CRA480I125P

Technical Specification

Input parameters (Ta=25℃)		
Input Control ⁽²⁾	Control Current Range	4~20mA
	Open Current	4.6mA Max.
	Turn-off Current	3.8mA Min.
	Input Impedance	400Ω Typical.

Note: (2) The drive voltage should be greater than 10V.

Output Parameters (Ta=25℃)		
Load Voltage Range	380	176~440VAC
	480	300~530VAC
Maximum Surge Current (@10ms)	25A	250A
	40A	400A
	60A	700A
	80A	800A
	100A	1500A
	125A	2250A
Maximum I ² t(@10ms)	25A	312A ² s
	40A	800A ² s
	60A	2450A ² s
	80A	3200A ² s
	100A	11250A ² s
	125A	25000A ² s
Maximum Transient Overvoltage	CRA380xxxP series	800Vpk
	CRA480xxxP series	1200Vpk
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

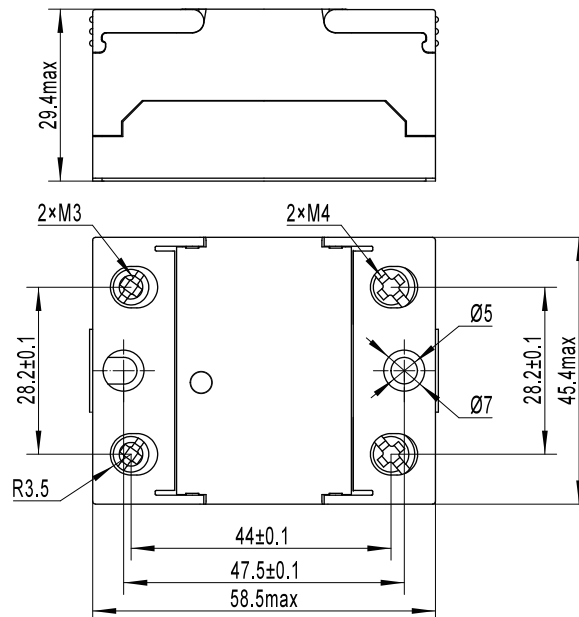
General Specifications (Ta=25℃)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, Output/Base	2500Vrms
Insulation Resistance (@500VDC)		1000MΩ
Ambient Operating Temperature Range		-30℃ ~ +80℃
Ambient Storage Temperature Range		-30℃ ~ +100℃
Weight (Typical)		80g
LED Indicator		Connection indication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

Applications

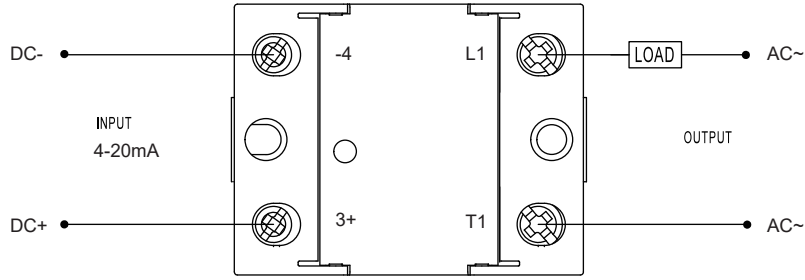
Temperature chamber, plastic machinery, incubator, dimmer, solar panel welding machine, and etc.

Outline Dimensions

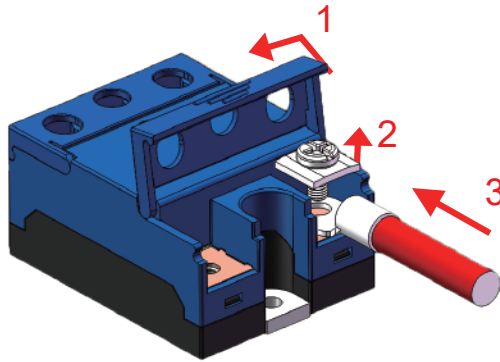
Unit:mm



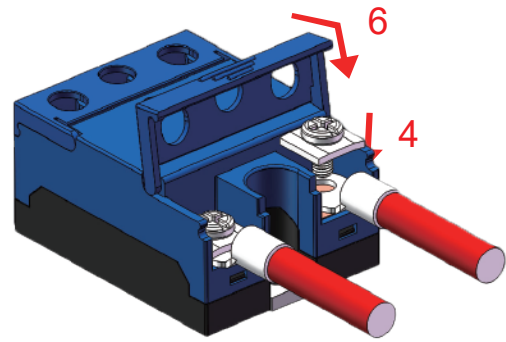
Wiring Diagram



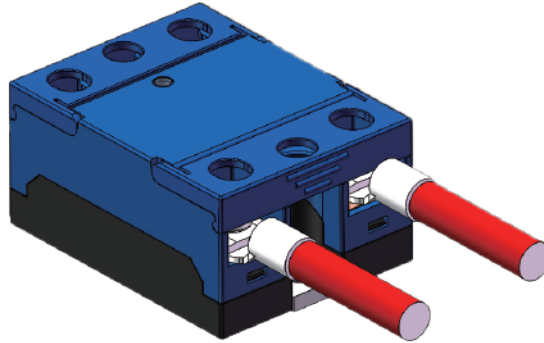
Wiring instruction:



Step 1



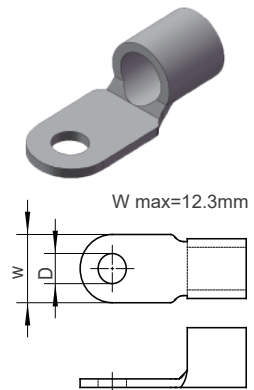
Step 2



Step 3

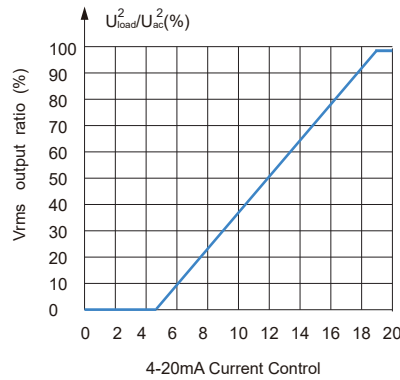
Recommendation for wiring:

Load current (A)	Wire size (AWG)	Cross section area of wire (mm ²)	DIN 46234 terminal model	Terminal mounting hole size D (mm)	Terminal width W(mm)
15-20	12	2.5	4-6	4.3	8
			5-6	5.3	10
20-35	10	4	4-6	4.3	8
			5-6	5.3	10
25-32	10	6	4-6	4.3	8
			5-6	5.3	10
32-50	8	10	5-10	5.3	10
50-65	6	16	5-16	5.3	11
65-85	4	25	5-25	5.3	12

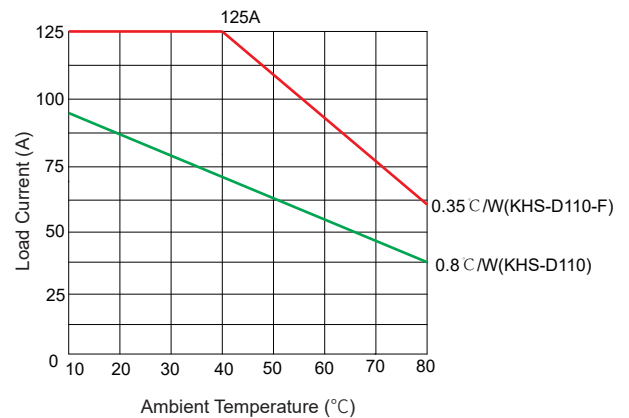
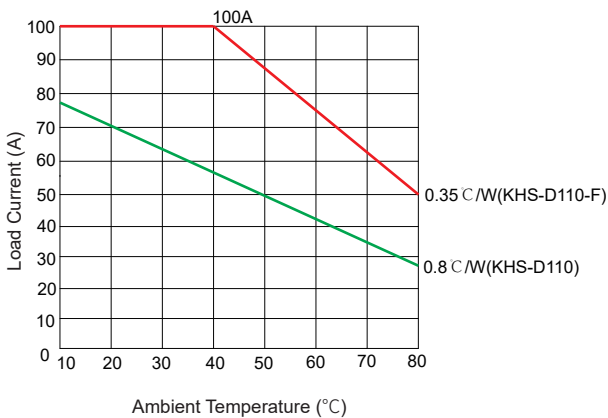
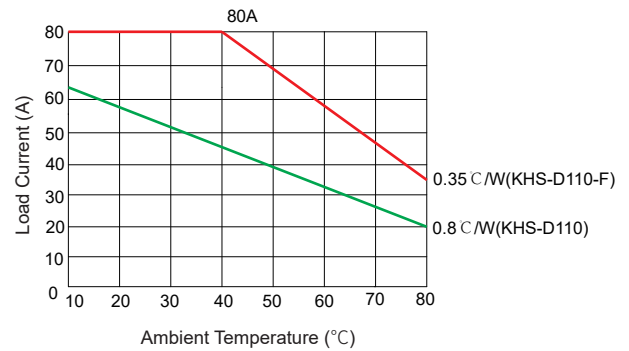
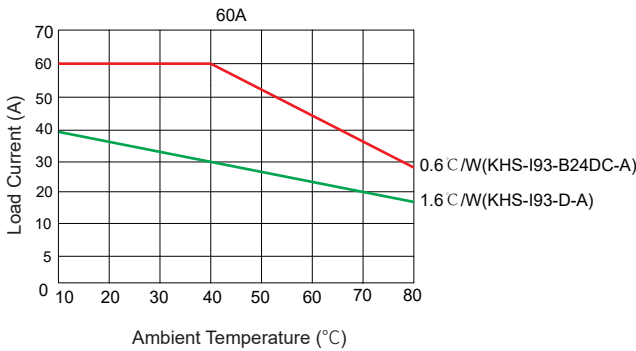
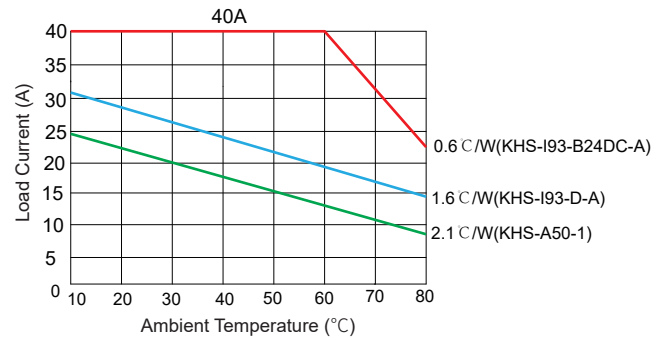
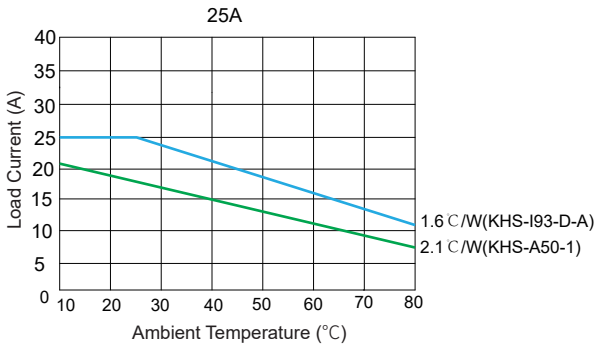


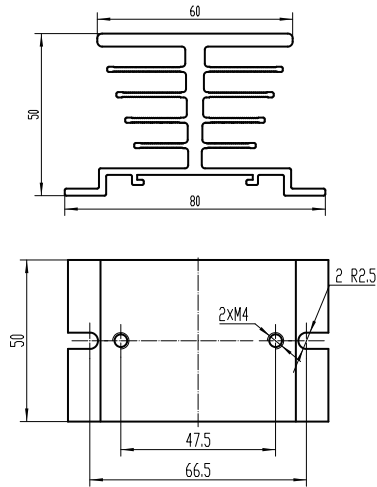
Note: When use the wire cross-sectional area greater than 25mm², we suggest to break it in to two smaller wires and connect them back to back superimposed.

Output/Proportional Control Features

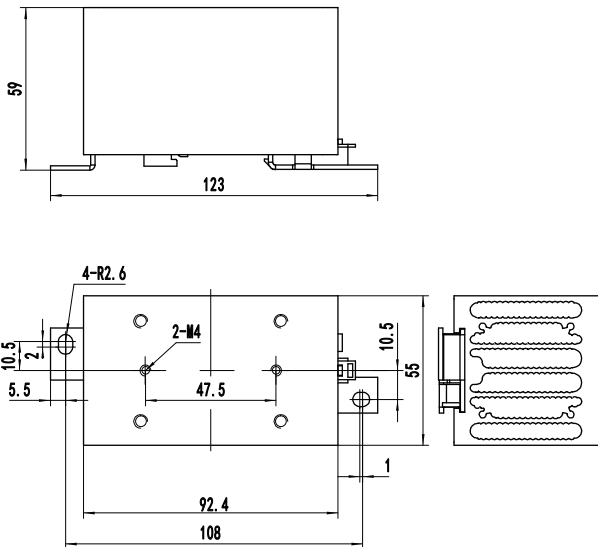


Thermal Derating Curve

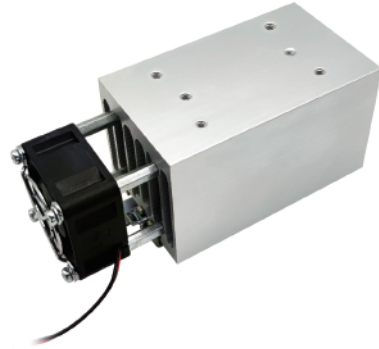
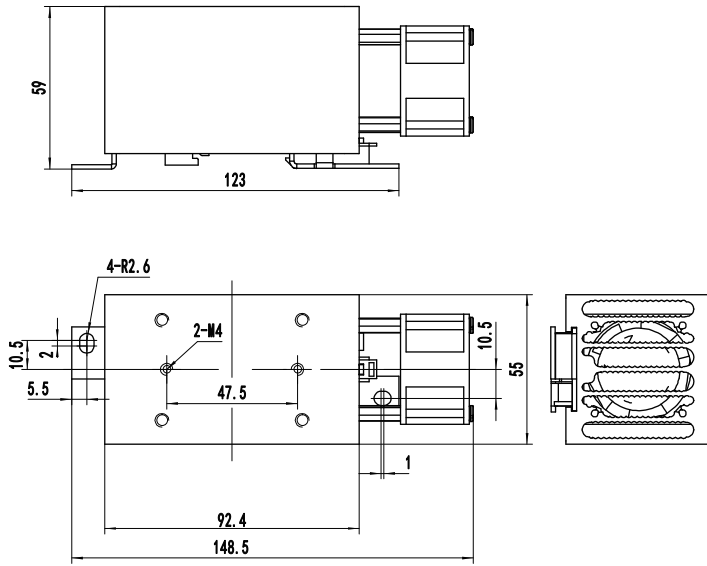




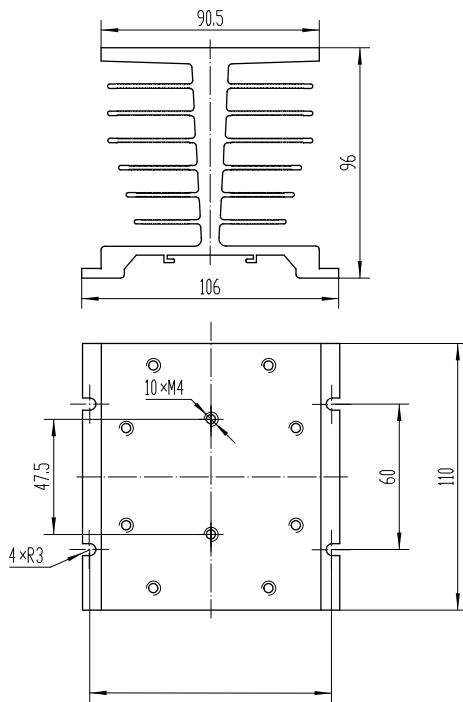
KHS-A50-1



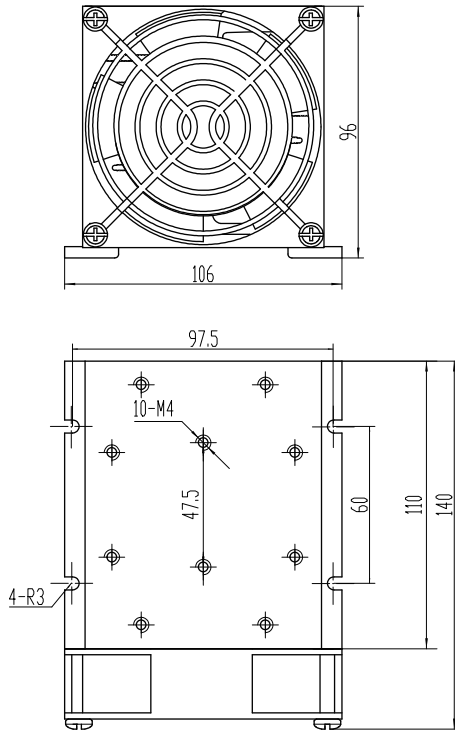
KHS-I93-D-A



KHS-I93-B24DC



KHS-D110



KHS-D110-F

General Notes

1. Relay must be mounted to proper sized heatsink based on thermal curves. Thermal grease or a thermal pad must be used between relay and heatsink.
2. When connection wiring to SSR, please ensure screws are torqued down properly (input 13-15/1.5-1.7in/lb/Nm, output 18-20/2.0-2.2 in-lb/Nm).
3. The relay terminal should ensure reliable connection. Otherwise, it may lead the damage to the relay because of the overheating.
4. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, please refer to the Thermal Derating Curve for derating.
5. Use M4 screws when assembling relays and heatsinks

! Warnings

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. Verify all connections and replace all covers before turning on power.