

Product Description

- ◆ Load Current: 25A, 50A, 75A
- ◆ SCR Output
- ◆ Control Signal: 4-20mA
- ◆ Phase-shift Control Output
- ◆ LED Indicator
- ◆ RoHS Compliant



Product Selection

KRF	240	I	25	P	(XXX)	-P
KRF Series	Load Voltage 240: 176~280VAC 480: 300~530VAC	Control Mode I: 4-20mA	Load Current 25: 25Amp 50: 50Amp 75: 75Amp	Output Type P: Phase-shift Output	Customer Code	Heat Sink P: KHS-P90 H: KHS-H90 IF24DC: KHS-I93-B24DC

Load Voltage Calculation Formula

Control Mode	Load Voltage ⁽¹⁾
I: 4-20mA	$U_{LOAD} = U_{AC} \sqrt{2} \times (I_{CON} - 4) / 16$

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 control current.

Available Part Numbers

Control Mode	25A	50A	75A
I: 4-20mA	KRF240I25P-P	KRF240I50P-H	KRF240I75P-IF24DC
	KRF480I25P-P	KRF480I50P-H	KRF480I75P-IF24DC

Technical Specifications

Input Specifications (Ta=25°C)	
Control Current Range	4~20mA
Turn-on Current	4.8mA Max.
Turn-off Current	3.6mA Min.
Input Impedance	400Ω (Typ) ⁽²⁾

Note: (2) The drive voltage should be more than 10V(@20mA).

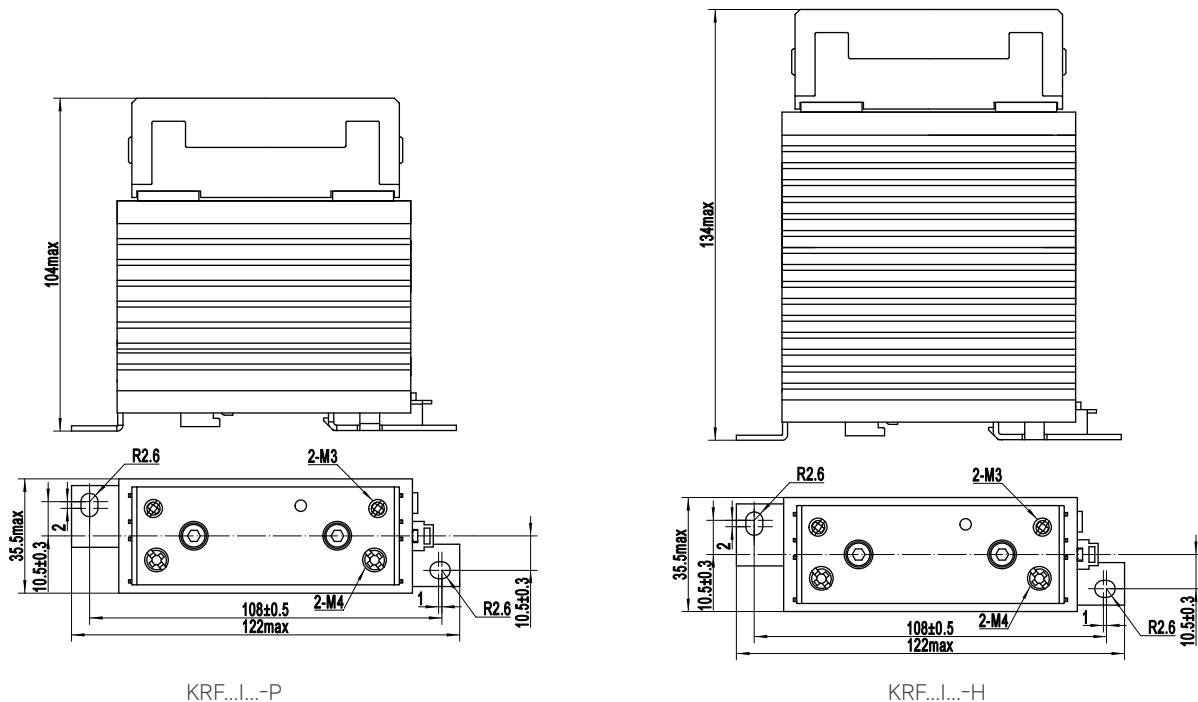
Output Specifications (Ta=25°C)		
Load Power Supply Voltage Range	240	176~280VAC
	480	300~530VAC
Maximum Surge Current (@10ms)	25A	250A
	50A	800A
	75A	800A
Maximum I ² t (@10ms)	25A	312A ² s
	50A	3200A ² s
	75A	3200A ² s
Maximum Transient Voltage	240	600Vpk
	480	1200Vpk
Output Power		0~99%
Operating Frequency Range		47~63Hz
Maximum Off-State Leakage Current		5mA(@220VAC/50Hz)
Minimum Off-State dv/dt		500V/μs

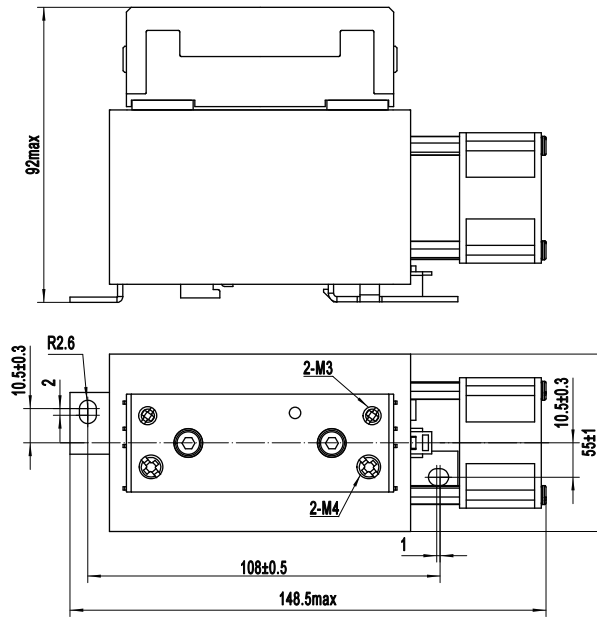
General Information (Ta=25°C)		
Dielectric Strength (50Hz/60Hz)	Input/Output	4000Vrms
	Input, output/Base	2500Vrms
Insulation Resistance (@500VDC)		1000MΩ
Ambient Operating Temperature Range		-30°C ~ +80°C
Ambient Storage Temperature Range		-30°C ~ +100°C
Weight (typical)	25A	308g
	50A	390g
	75A	485g
LED Indicator	Green	When the product is connected, this LED lights up

Applications

High and low temperature cabinet, plastic machinery, incubator, dimming, solar panel string welding machine.

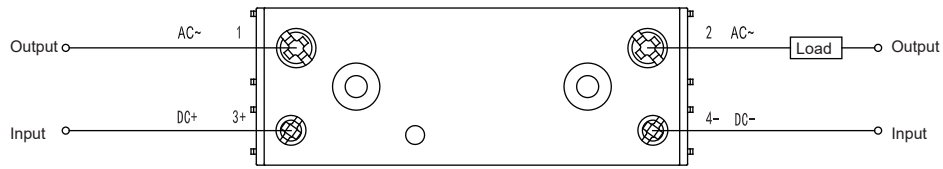
Outline Dimensions



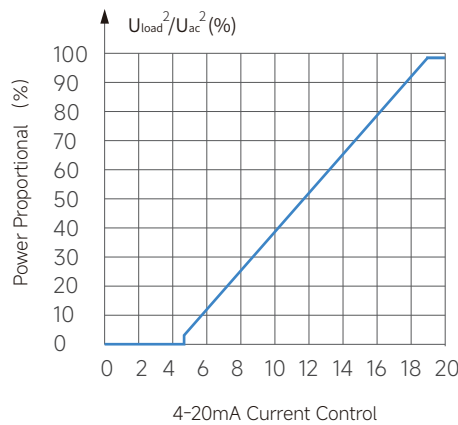


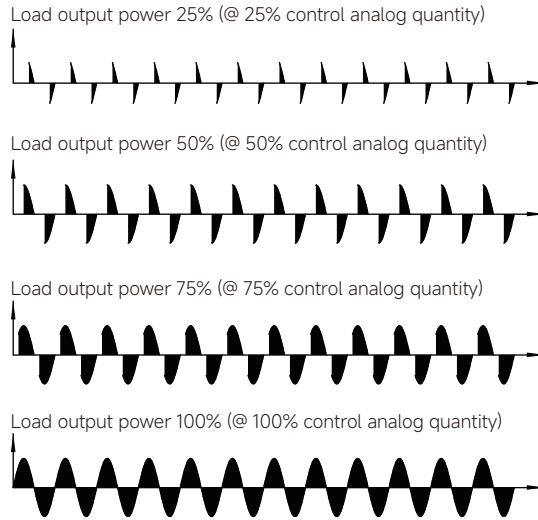
KRF...I...-IF24DC

Wiring Diagram



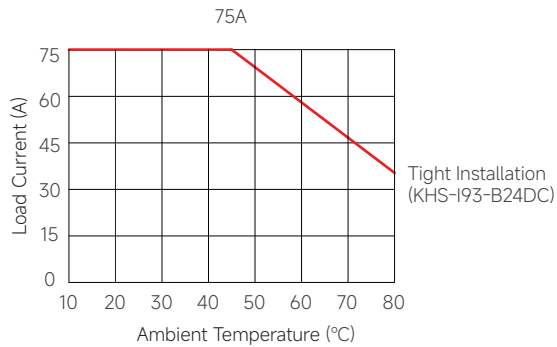
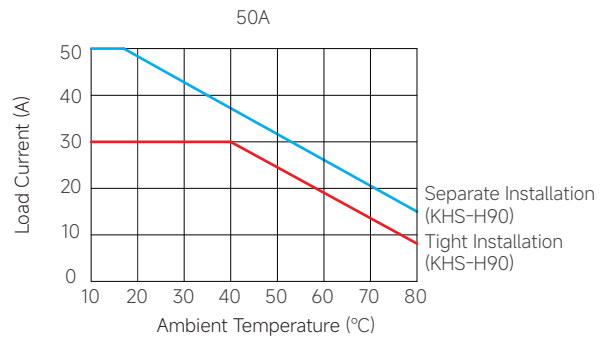
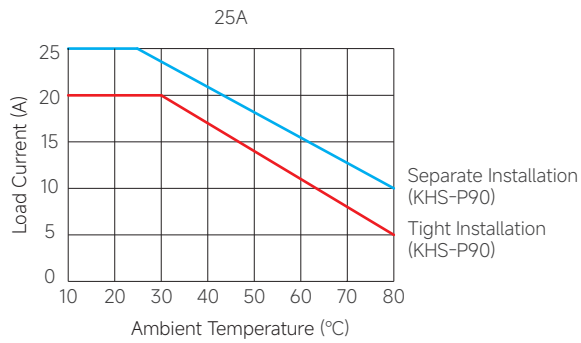
Output / Proportional Control Features





Analog quantity and waveform diagram of voltage at both ends of the load

Thermal Derating Curve



General Notes

1. The relay terminal should ensure reliable connection. Otherwise, it may cause the overheating of relay and lead to the damage.
2. The recommended installation torque of the input M3 terminal of the current controlled type is (0.58~ 0.98) N·m, and the recommended installation torque of the output M4 terminal is (0.98~ 1.37) N·m.
3. When the operation temperature is high, please consider the derating as per the thermal curve.

! Warnings

1. The product 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.