

Panel Mount

KIS75

Single-phase AC Voltage Regulating Module

CE



DESCRIPTION

KIS75, the single-phase AC voltage regulating module, is specially designed for the application on industrial control occasions with high power and changeable output voltage. The module offers 4-20mA input voltage option and SCR output with high dv/dt capability, and it provides output current ratings from 25A to 80A and output voltage range 48~600VAC with photoelectric isolation between input and output. And its dielectric strength can reach 4000VAC. The module is epoxy resin encapsulated with overall dimensions 58.6mmX45.7mmX26.5mm.

FEATURES

- ◆ Photoelectric isolation
- ◆ Removable protective cover
- ◆ Dielectric strength 4000V
- ◆ Random turn-on
- ◆ DC control
- ◆ SCR output

PRECAUTIONS

1. Please pay special attention to the actual load current and the ambient temperature when doing the type selection. And the module requires proper heat sinking for heat dissipation in full load. When the ambient temperature is high, the load current must be derated. Please refer to the curve of Max. Load Current vs. Ambient Temperature for derating.
2. The heat produced by the module during the working process must be dissipated via the metal base of the module. Please coat the module metal base with some thermal grease or a thermal pad, and then firmly press the module against the heatsink to ensure the full adherence.
3. Tighten the module screw terminals properly. If the screws are loose, the module would be damaged by heat generated from connection. Also excessive screw mounting torque may damage the module's internal components. Please refer to the recommended screw mounting torque as follows: the M4 screw mounting torque range is 0.98~1.37N·m, and the M3 screw mounting torque range is 0.58~0.98N·m.
4. It is recommended to use the matched heatsink made by Keysolu. If the user needs to use the home-made heatsinks, please ensure that the temperature of the module base must not exceed 85°C.
5. This product is only suitable for resistive loads.
6. The specified specifications are based on resistive loads. Please do not use the module exceeding the limitation which is specified on this datasheet.

SELECTION GUIDE

| | | | | | | | |
|----------------|--------------|--|----------------|--|----------------------------------|----------------------------------|-----------------------|
| KIS75 / | I- | 24 | P | 40 | -Y | L | (XXX) |
| Type | Control mode | Load voltage | Switching mode | Load current | Overvoltage protection | LED indicator | Customer special code |
| | I: 4-20mA | 24: 240VAC 38: 380VAC 48: 480VAC 60: 600VAC | P: Random | 25: 25A 40: 40A 50: 50A 60: 60A 70: 70A 80: 80A | Y: Included Nil: Not included | L: Included Nil: Not included | |

Notes: (1) The module is not suitable for inductive loads;
(2) Available parts are as below:

| | | | | |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| KIS75/I-24P□□□□ | KIS75/I-38P□□□□ | KIS75/I-48P40□□ | KIS75/I-48P50□□ | KIS75/I-48P60□□ |
| KIS75/I-48P70□□ | KIS75/I-48P80□□ | KIS75/I-60P40□□ | KIS75/I-60P50□□ | KIS75/I-60P60□□ |
| KIS75/I-60P70□□ | KIS75/I-60P80□□ | | | |

INPUT SPECIFICATIONS (Ta = 25°C)

| | |
|---------------------|-----------------------|
| Input current range | 4 ~ 20mA (4 ~ 7.5VDC) |
| Reverse protection | Included |
| Input LED indicator | Red |

OUTPUT SPECIFICATIONS (Ta = 25°C)

| | I-24 | I-38 | I-48 | I-60 | | |
|--|-------------|-------------|-------------|-------------|--------|--------|
| Load voltage range | 48 ~ 280VAC | 48 ~ 440VAC | 48 ~ 530VAC | 48 ~ 660VAC | | |
| Maximum transient voltage | 600Vpk | 800Vpk | 1200Vpk | 1600Vpk | | |
| Load current | 25A | 40A | 50A | 60A | 70A | 80A |
| Max. surge current (10ms) | 300Apk | 400Apk | 500Apk | 600Apk | 700Apk | 800Apk |
| Max. I ² t (10ms, A ² s) | 450 | 800 | 1250 | 1800 | 2450 | 3200 |
| Max. off-state leakage current | 10mA | | | | | |
| Operating frequency range | 47 ~ 63Hz | | | | | |
| Min. off-state dv/dt | 500V/μs | | | | | |

GENERAL SPECIFICATIONS (TA = 25°C)

| | |
|-----------------------|---|
| Dielectric strength | 4000VAC, 50Hz/60Hz, 1min, input/output 2500VAC, 50Hz/60Hz, 1min, input/output/base |
| Insulation resistance | 1000MΩ (500VDC) |
| Max. capacitance | 8pF |
| Operating temperature | -30 ~ 80°C |
| Storage temperature | -30 ~ 100°C |
| Ambient humidity | 45% ~ 85% RH |

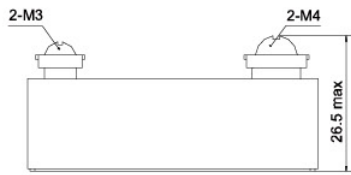
GENERAL SPECIFICATIONS (Ta = 25°C)

| | |
|-------------|-------------------------|
| Unit weight | 25A Type Approx. 80g |
| | 40~80A Type Approx. 95g |

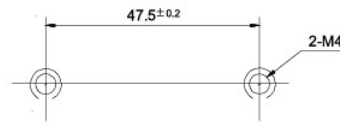
OUTLINE DIMENSIONS & WIRING DIAGRAM

Unit: mm

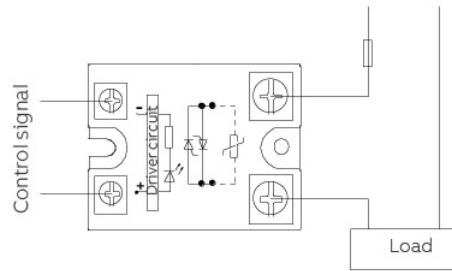
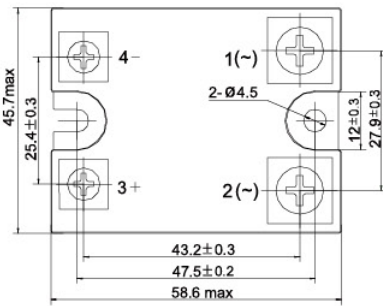
Outline Dimensions



Mounting Holes

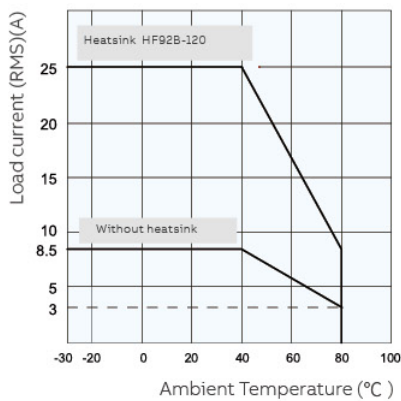


Wiring Diagram

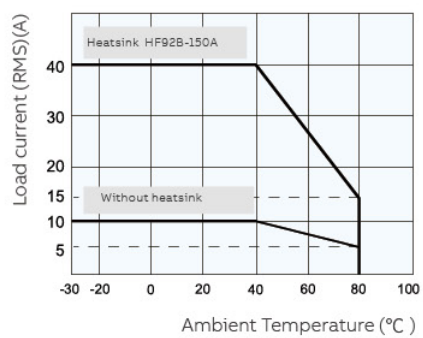


PERFORMANCE CURVES

Max. Load Current vs. Ambient Temperature (25A)



Max. Load Current vs. Ambient Temperature (40A)



PERFORMANCE CURVES

