



## DESCRIPTION

KS15 is an AC output panel mount type SSR with alternative DC or AC control. The DC input voltage range is 3~12VDC (without LED indicator) or 4~12VDC (with LED indicator). And the AC input voltage offers three options: 24VAC, 110VAC and 220VAC. Five output current ratings from 10A to 40A are available for selection as well as two output voltage options 240VAC and 380VAC. The SSR is epoxy resin encapsulated with built-in RC snubber and it provides photoelectric isolation between input and output with dielectric strength 4000V.

## FEATURES

- ◆ Built-in RC snubber circuit
- ◆ Photoelectric isolation
- ◆ TRIAC output
- ◆ Removable protective cover
- ◆ Dielectric strength 4000V
- ◆ Zero-cross or random turn-on
- ◆ Optional LED status indicator

## PRECAUTIONS

1. Please pay special attention to the actual load current and the ambient temperature when doing the type selection. And the SSR requires proper heat sinking for heat dissipation in full load. For ambient temperature above 40°C, 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 SSR during the working process must be dissipated via the metal base of the SSR. Please coat the SSR metal base with some thermal grease or a thermal pad, and then firmly press the SSR against the heatsink to ensure the full adherence.
3. 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 SSR base must not exceed 85°C.

4. Tighten the SSR screw terminals properly. If the screws are loose, the SSR would be damaged by heat generated from connection. Also excessive screw mounting torque may damage the SSR'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.
5. Please do not use the SSR exceeding the limitation which is specified on this datasheet.

## SELECTION GUIDE

KS15 /	D-	24	Z	10	-L	Q	(XXX)
Type	Control voltage	Load voltage	Switching mode	Load current	LED indicator	Termination	Customer special code
	D: 3 ~ 32VDC (Without LED)	24: 240VAC 38: 380VAC	Z: Zero-cross P: Random	10: 10A 15: 15A 20: 20A 25: 25A 40: 40A	L: Included  Nil: Not Included	Nil: Screw  Q: Quick connection	
	4 ~ 32VDC (With LED)						
	24A: 24VAC 110A: 110VAC 220A: 220VAC						

## INPUT SPECIFICATIONS (Ta = 25°C)

Control voltage range (DC input)	3~32VDC (without LED)
	4~32VDC (with LED)
Control voltage range (AC input)	85 ~ 132 VAC (110V input)
	175 ~ 264 VAC (220V input)
	19.2 ~ 28.8 VAC (24V input)
Must turn-on voltage (DC input)	3VDC (without LED)
	4VDC (with LED)
Must turn-on voltage (AC input)	85VAC (110V input)
	175VAC (220V input)
	19.2VAC (24V input)
Must turn-off voltage (DC input)	1VDC
Must turn-off voltage (AC input)	10VAC (110V, 220V input)
	2VAC (24V input)
Max. input current	25mA (DC)
	15mA (AC)
Max. reverse protection voltage (DC input)	- 32VDC

## OUTPUT SPECIFICATIONS (Ta = 25°C)

	□-□□10-□	□-□□15-□	□-□□20-□	□-□□25-□	□-□□40-□
Load voltage range	□-24□□		48 ~ 280VAC		
	□-38□		48 ~ 440VAC		
Max. transient voltage	□-24□□		600Vpk		
	□-38□□		800Vpk		
Load current range	0.1~10A	0.1~15A	0.1~20A	0.1 to 25	0.1 ~ 40A
Max. I <sup>2</sup> t (10ms, A <sup>2</sup> s)	50	112	200	312	800
Max. surge current (10ms)	100Apk	150Apk	200Apk	250Apk	400Apk

## OUTPUT SPECIFICATIONS (Ta = 25°C)

Max. off-state leakage current	10mA
Max. on-state voltage drop	1.5Vr.m.s.
Max. turn-on time (DC input)	Zero-cross: 1/2 Cycle + 1ms, Random: 1ms
Max. turn-on time (AC input)	30ms
Max. turn-off time	AC Input: 40ms, DC Input: 1/2 cycle + 1ms
Min. off-state dv/dt	200V/μs
Min. power factor	0.5

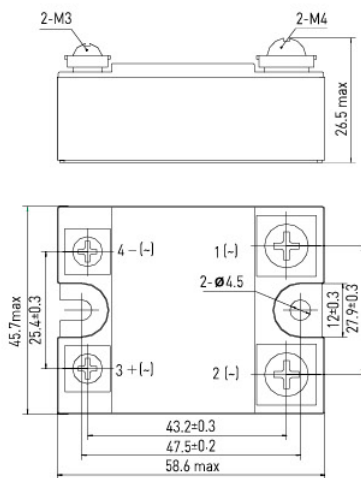
## GENERAL SPECIFICATIONS (Ta = 25°C)

Dielectric strength	2500VAC, 50~60Hz, 1min, input,output/base 4000VAC, 50~60Hz, 1min, input/output
Insulation resistance	1000MΩ (500VDC)
Operating temperature	-30 ~ 80°C
Storage temperature	-30 ~ 100°C
Unit weight	Approx . 70g

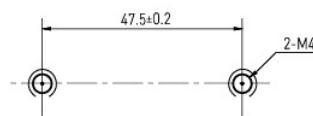
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND MOUNTING HOLES

Unit: mm

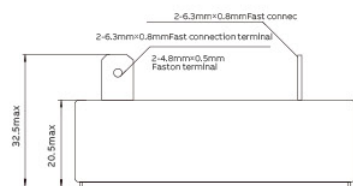
Outline Dimensions



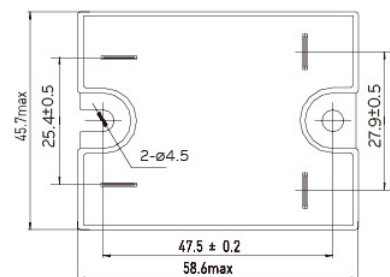
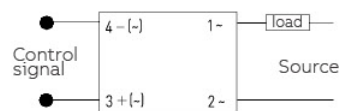
Mounting Holes



Faston Terminal



Wiring Diagram



## CHARACTERISTIC CURVES

