



## DESCRIPTION

KS53 is an AC output panel mount type SSR. It offers 3~32VDC input voltage option and two AC output voltage options 240VAC and 380VAC as well as three output current ratings 10A, 15A and 20A for selection. The SSR provides photoelectric isolation between input and output with dielectric strength 4000V and offers two alternative output switching modes: zero-cross turn-on and random turn-on. KS53 has the built-in RC snubber circuit and is epoxy resin encapsulated.

## FEATURES

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

## 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. 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. The recommended mounting torque range for M3 screw is 0.58~0.98N·m.
4. Please do not use the SSR exceeding the limitation which is specified on this datasheet.

## SELECTION GUIDE

KS53 /	D-	24	Z	10	-L	Q	(XXX)
Type	Control voltage D: 3~32 VDC	Load voltage 24: 240V 38: 380V	Switching mode Z: Zero-cross P: Random	Load current 10: 10A 15: 15A 20: 20A	LED indicator L: Included Nil: Not included	Termination Q: Quick connection Nil: Screw	Customer special code`

**INPUT SPECIFICATIONS (Ta = 25°C)**

Control voltage range	3 ~ 32VDC (Without LED)
	4 ~ 32VDC (With LED)
Must turn-on voltage	3VDC
Must turn-off voltage	1VDC
Max. input current	25mA
Max. reverse protection voltage	-32VDC

**OUTPUT SPECIFICATIONS (Ta = 25°C)**

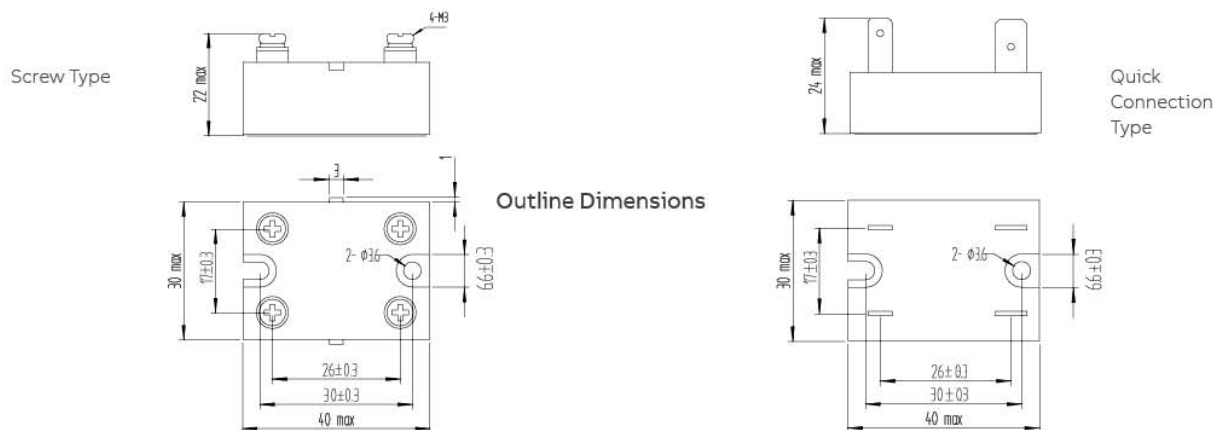
	□-□□10	□-□□15	□-□□20
Load voltage range	□-24□□	48 ~ 280VAC	
	□-38□□	48 ~ 440VAC	
Max. transient voltage	□-24□□	600Vpk	
	□-38□□	800Vpk	
Load current range (A)	0.1 ~ 10	0.1 ~ 15	0.1 ~ 20
Max. I <sup>2</sup> t (10ms, A <sup>2</sup> s)	78	144	312
Max. surge current (10ms)	100Apk	150Apk	200Apk
Max. off-state leakage current	5mA		
Max. on-state voltage drop	1.5Vr.m.s.		
Max. turn-on time	1/2 Cycle + 1ms, Random:1ms		
Max. turn-off time	1/2 Cycle + 1ms		
Min. off-state dv/dt	200V/μS		

**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. 35g

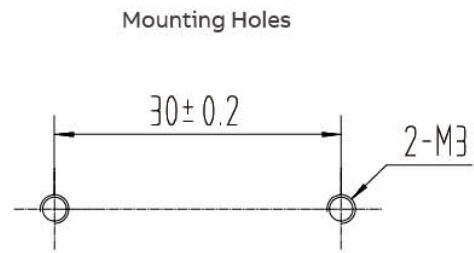
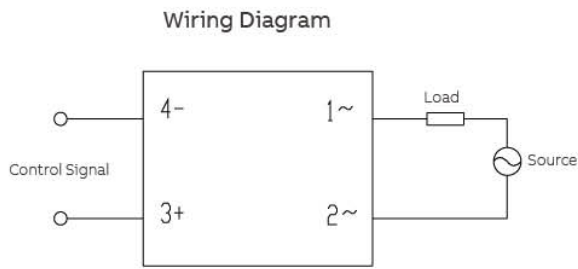
**OUTLINE DIMENSIONS, WIRING DIAGRAM AND MOUNTING HOLES**

Unit: mm



## OUTLINE DIMENSIONS, WIRING DIAGRAM AND MOUNTING HOLES

Unit: mm



## CHARACTERISTIC CURVES

