



## DESCRIPTION

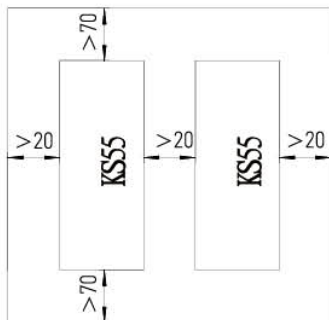
KS55 is a DIN-rail mount type SSR with heatsink integrated in one slim package. The SSR is equipped with rail clips and it can be either installed on the 35mm rails (DIN EN50022) or screwed to the panel. KS55 offers four input voltage options 4~32VDC, 90~140VAC, 180~280VAC and AC/DC 24V, and it also has four output voltage options 240VAC, 380VAC, 480VAC and 600VAC as well as four output current ratings from 10A to 40A. The product outline dimensions are 100mmX22.4mmX96mm for 10A, 100mmX22.4mmX126mm for 20A/30A, and 100mmX44.8mmX126mm for 40A.

## FEATURES

- ◆ SCR output
- ◆ LED status indicator
- ◆ DC or AC control
- ◆ Photoelectric isolation
- ◆ Dielectric strength 4000V
- ◆ Built-in RC snubber circuit
- ◆ Heatsink integrated in one slim package
- ◆ DIN-rail mount or panel mount

## PRECAUTIONS

1. Please leave enough space between the SSRs during installation (refer to below diagram).



2. The SSR requires proper installation environment for heat dissipation. Please ensure that the heatsink temperature must not exceed 90°C under any circumstances.

3. The rails or the heatsink must be grounded.

4. Please select proper screwdrivers and wires for correct wiring according to below instructions:

		Input terminals (3, 4)		Output terminals (1, 2)
		Screw type	Spring type	Screw type
Screwdriver Specifications		Straight, 0.6x3.5mm	-	Cross 2#, 0.8x5.5mm
Recommended Torque		0.6N·m	-	1N·m
Stripping length		7cm	10cm	10cm
Optional wire	Single core cable	1x0.5 ~ 2.5mm <sup>2</sup> 2x0.5 ~ 1mm <sup>2</sup>	1x0.5 ~ 2.5mm <sup>2</sup>	2x1.5 ~ 6mm <sup>2</sup>
	Multi-core cable (with ferrule)	1x0.5 ~ 2.5mm <sup>2</sup> 2x0.5 ~ 1mm <sup>2</sup>	1x0.5 ~ 2.5mm <sup>2</sup>	1x1.5 ~ 10mm <sup>2</sup> 2x1.5 ~ 6mm <sup>2</sup>
AWG		1x20 to 12		2x14 to 10

5. Please do not use the SSR exceeding the limitation which is specified on this datasheet.

## SELECTION GUIDE

KS55	D-	24	Z	10	-S	(XXX)
Type	Control voltage	Load voltage	Switching mode	Load current	Termination	Customer special code
	D: 4~32VDC 110A: 90~140VAC 220A: 180~280VAC E: AC/DC 24V	24: 240VAC 38: 380VAC 48: 480VAC 60: 600VAC	Z: Zero-cross P: Random	10: 10A 20: 20A 30: 30A 40: 40A	Nil: Screw S: Spring	

## INPUT SPECIFICATIONS (Ta = 25°C)

Control voltage range	D-□□□-□□	4 ~ 32VDC
	110A-□□□-□□	90 ~ 140VAC
	220A-□□□-□□	180 ~ 280VAC
	E-□□□-□□	19.2 ~ 28.8VDC/VAC
Must turn-on voltage	D-□□□-□□	4VDC
	110A-□□□-□□	90VAC
	220A-□□□-□□	180VAC
	E-□□□-□□	19.2VDC/VAC
Must turn-off voltage	D-□□□-□□	1VDC
	110A-□□□-□□	10VAC
	220A-□□□-□□	10VAC
	E-□□□-□□	2VDC/VAC
Max. input current		25mA
Reverse protection voltage	D-□□□-□□	-32VDC

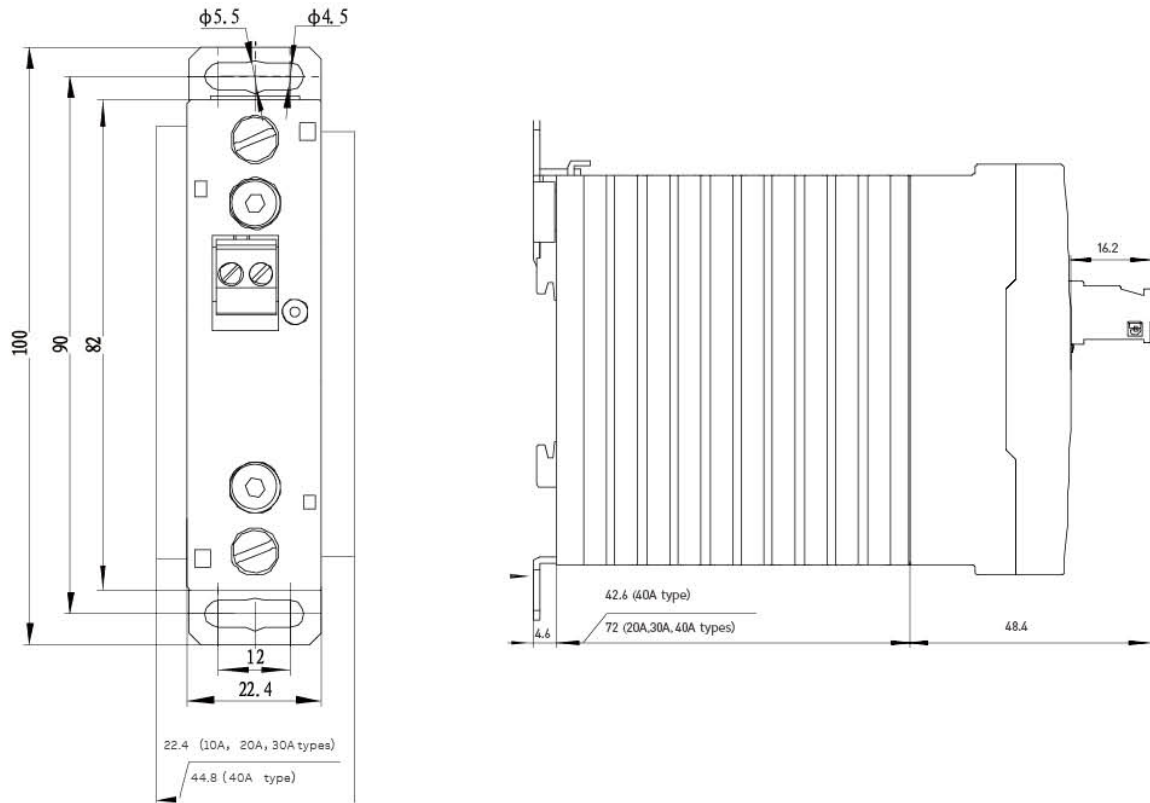
## OUTPUT SPECIFICATIONS (Ta = 25°C)

		□-□□10-□□	□-□□20-□□	□-□□30-□□	□-□□40-□□
Load voltage range	□-24□□-□□	48 ~ 280VAC			
	□-38□□-□□	48 ~ 440VAC			
	□-48□□-□□	48 ~ 530VAC			
	□-60□□-□□	48 ~ 660VAC			
Max. transient voltage	□-24□□-□□	600 Vpk			
	□-38□□-□□	800 Vpk			
	□-48□□-□□	1200 Vpk			
	□-60□□-□□	1600 Vpk			
Min. load current		100mA			
Max. surge current (10ms)		160Apk	500Apk	700Apk	1000Apk
Max. I <sup>2</sup> t (10ms, A <sup>2</sup> s)		128	1250	2450	5000
Max. off-state leakage current	□-24□□-□□	10mA			
	□-38□□-□□	10mA			
	□-48□□-□□	10mA			
	□-60□□-□□	0.1mA			
Max. on-state voltage drop (Under rated load current)		1.7Vr.m.s.			
Max. turn-on time	D-□Z□-□□	1/2 Cycle + 1ms			
	D-□P□-□□	1ms			
	110A-□□□-□□	40ms			
	220A-□□□-□□	40ms			
	E-□□□-□□	40ms			
Max. turn-off time	D-□□□-□□	1/2 Cycle + 1ms			
	110A-□□□-□□	40ms			
	220A-□□□-□□	40ms			
	E-□□□-□□	40ms			
Frequency range		47 ~ 63Hz			
Min. power factor		0.5			
Min. off-state dv/dt		500V/μs			

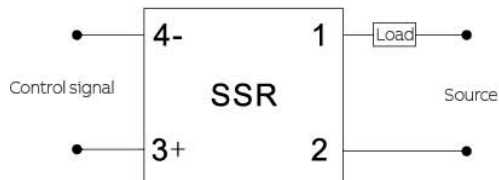
## GENERAL SPECIFICATIONS (Ta = 25°C)

Dielectric strength	4000VAC, 1 minute, Input/Output
	2500VAC, 1 minute, Input/Output/Base
Insulation resistance	1000MΩ (500VDC)
Operating temperature	-30 ~ 80°C
Storage temperature	-30 ~ 100°C
Unit weight	170g (□-□□10-□) 240g (□-□□20-□□, □-□□30-□□) 400g (□-□□40-□□)

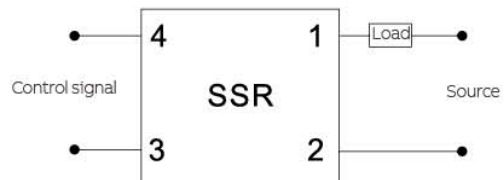
Outline Dimensions



Wiring Diagram



DC input type

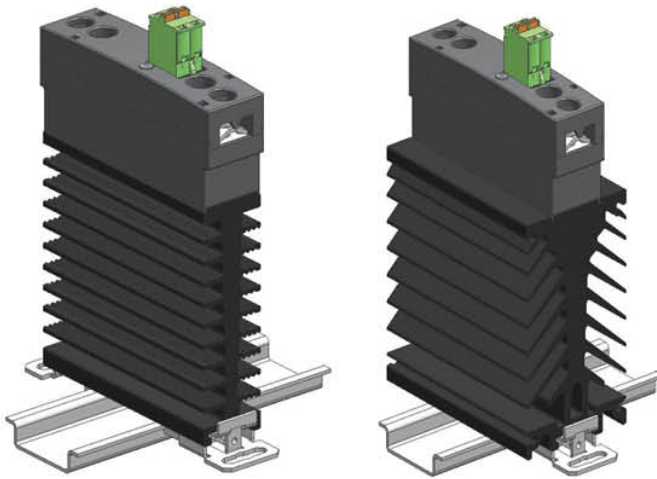


AC input type & 24V input type

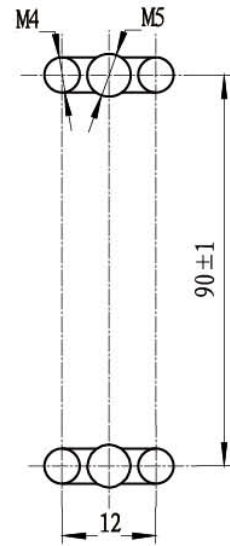
- PCB Mount
- Panel Mount
- DIN Rail Mount
- Motor/Reversing Module
- Intelligent SSR
- SSR Accessories

## DIMENSIONS INSTALLATION DIAGRAM

Unit: mm



DIN-rail mount



Panel mount

## LOAD CURRENT VS. AMBIENT TEMPERATURE CURVE

