



DESCRIPTION

KS34 is a high-power AC output panel mount type SSR with alternative DC or AC control. The DC input voltage range is 3~32VDC (without LED indicator) or 4~32VDC (with LED indicator), and the AC input voltage range is 90~280VAC. The SSR offers six output current ratings from 25A to 80A and four output voltage options from 240VAC, 380VAC, 480VAC and 600VAC for selection. The SSR provides photoelectric isolation between input and output with dielectric strength 4000V and it is epoxy resin encapsulated with outline dimensions 58.6mmX45.7mmX26.5mm (Screw Terminal Type) or 58.6mmX45.7mmX32.5mm (Faston Terminal Type).

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.

FEATURES

- ◆ Photoelectric isolation
- ◆ Removable protective cover
- ◆ Dielectric strength 4000V
- ◆ Zero-cross or random turn-on
- ◆ DC or AC control
- ◆ SCR output

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. For inductive loads, it is suggested to select the product with random turn-on (i.e. item number with letter P); for capacitive loads, please do not select the product with overvoltage protection (i.e. item number with letter Y).
6. The specified specifications are based on resistive loads. Please do not use the SSR exceeding the limitation which is specified on this datasheet.

SELECTION GUIDE

KS34/	D-	24	Z	40	-Y	L	Q	(XXX)
Type	Control voltage	Load voltage	Switching mode	Load current	Overvoltage protection	LED indicator	Termination	Customer special code
	D: 3 ~ 32VDC (Without LED)	24: 240VAC 38: 380VAC 48: 480VAC	Z: Zero-cross P: Random	25: 25A 40: 40A 50: 50A 60: 60A 70: 70A 80: 80A	Y: Included Nil: Not included	L: Included Nil: Not included	Q: Quick connection Nil: Screw	
	4 ~ 32VDC (With LED)	60: 600VAC						
	A: 90 ~ 280VAC							

Notes: (1) For SSRs with overvoltage protection function, the output will self-trigger when the load peak voltage reaches the protection value. Please refer to the overvoltage range for different loads as follows: 400~600VDC for D-24 type, 600~800VDC for D-38 type, 850~1200VDC for D-48/D-60 type. This SSR is not suitable for capacitive loads.

(2) Available parts are as below:

KS34/D-24□□□□□□	KS34/D-38□□□□□□	KS34D-48Z40-□□	KS34/D-48Z50-□□	KS34/D-48Z60-□□
KS34/D-48Z70-□□	KS34/D-48Z80-□□	KS34/D-60Z40-□□	KS34/D-60Z50-□□	KS34/D-60Z60-□□
KS34/D-60Z70-□□	KS34/D-60Z80-□□	KS34/A-24Z40-□□	KS34/A-24Z50-□□	KS34/A-24Z60-□□
KS34/A-24Z70-□□	KS34/A-24Z80-□□	KS34/A-48Z40-□□	KS34/A-48Z50-□□	KS34/A-48Z60-□□
KS34/A-48Z70-□□	KS34/A-48Z80-□□			

INPUT SPECIFICATIONS (Ta = 25°C)

Control voltage range (DC input)	3 ~ 32VDC (without LED)
	4 ~ 32VDC (with LED)
Control voltage range (AC input)	90 ~ 280VAC
Must turn-on voltage (DC input)	3 VDC (without LED)
	4 VDC (with LED)
Must turn-on voltage (AC input)	90VAC
Must turn-off voltage (DC input)	1VDC
Must turn-off voltage (AC input)	10VAC
Max. input current (DC input)	25mA
Max. input current (AC input)	10mA
Max. reverse protection voltage (DC input type)	- 32VDC

OUTPUT SPECIFICATIONS (Ta = 25°C)

	A -24 D -24	D -38	A -48 D -48	D -60		
Load voltage range	48 ~ 280VAC	48 ~ 440VAC	48 ~ 530VAC	48 ~ 660VAC		
Max. transient voltage	600Vpk	800Vpk	1200Vpk	1600Vpk		
Load current range	25A	40A	50A	60A	70A	80A
Max. surge current (10ms)	300Apk	400Apk	500Apk	600Apk	700Apk	800Apk
Max. I ² t for fusing (10ms, A ² s)	312	800	1250	1800	2450	3200
Max. off-state leakage current	10mA					
Max. on-state voltage drop	1.7Vr.m.s.					
Min. power factor	0.5					
Max. turn-on time	Random (DC input)		1ms			
	Zero-cross (DC input)		1/2 Cycle + 1ms			
	AC input type		20ms			
Max. turn-off time	DC input type		1/2 Cycle + 1ms			
	AC input type		40ms			
Frequency range	47 ~ 63Hz					
Min. off-state dv/dt	500V/μs					

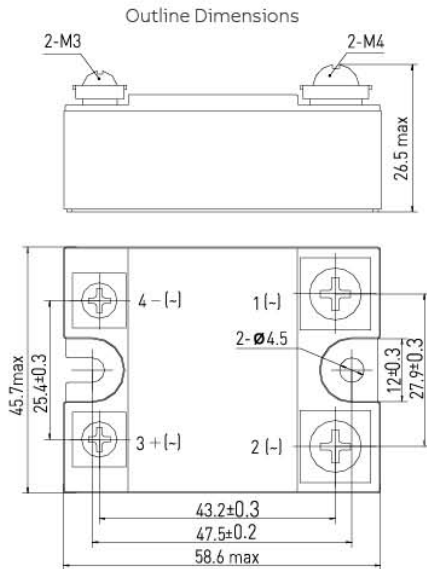
GENERAL SPECIFICATIONS (Ta = 25°C)

Dielectric strength (50~60Hz)	input/output/base 2500VAC, 1min input/output 4000VAC, 1min
Insulation resistance	1000MΩ (500VDC)
Max. capacitance (input/output)	8pF
Operating Temperature	-30 ~ 80°C
Storage Temperature	-30 ~ 100°C
Ambient humidity	45% ~ 85% RH
Unit weight	25A Type Approx. 80g
	40A~80A Type Approx. 95g

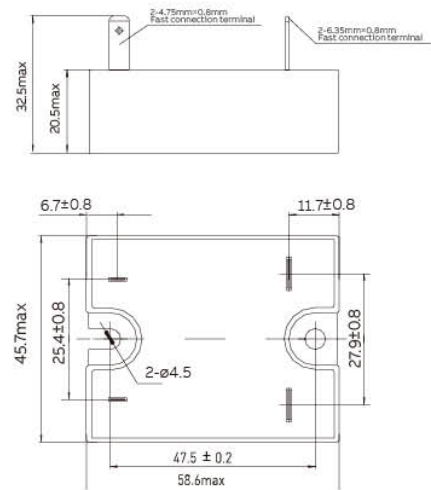
OUTLINE DIMENSIONS, WIRING DIAGRAM AND MOUNTING HOLES LAYOUT

Unit: mm

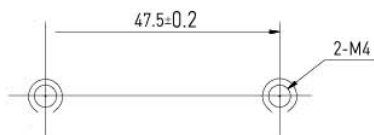
Outline drawing



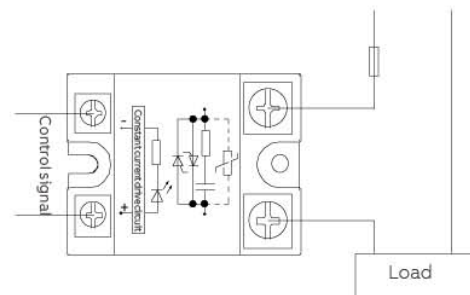
Faston Terminal Type



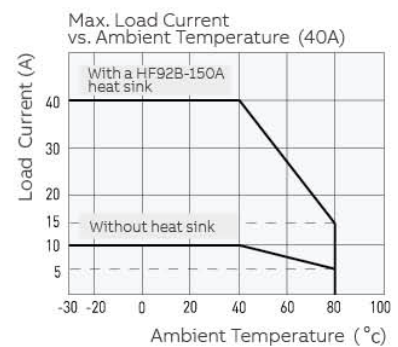
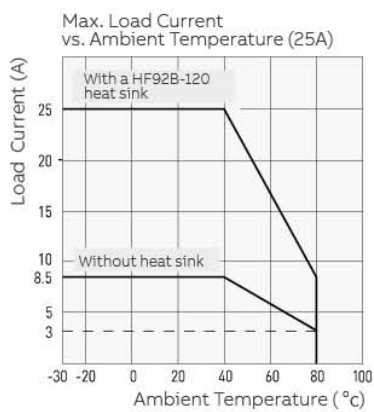
Mounting Holes



Wiring Diagram

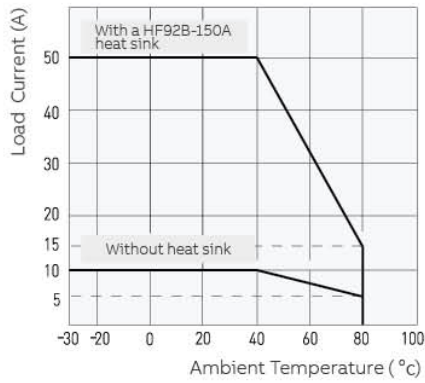


CHARACTERISTIC CURVES

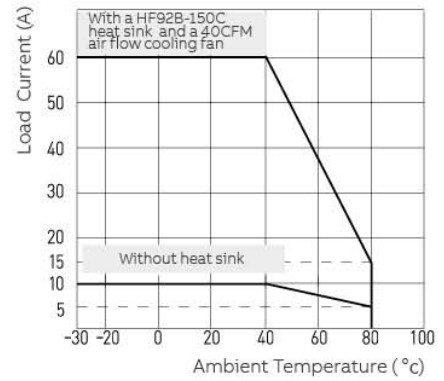


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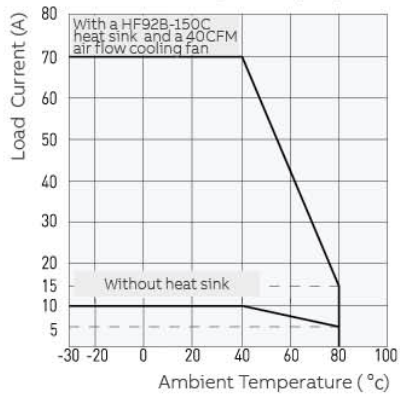
Max. Load Current vs. Ambient Temperature (50A)



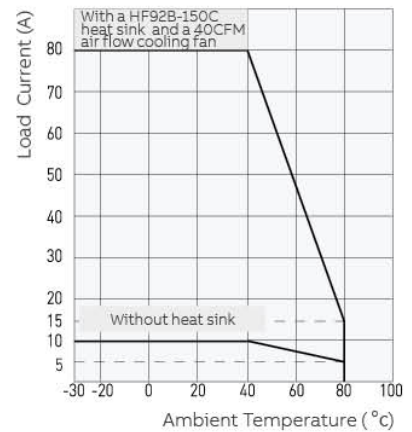
Max. Load Current vs. Ambient Temperature (60A)



Max. Load Current vs. Ambient Temperature (70A)



Max. Load Current vs. Ambient Temperature (80A)



Max. Permissible Non-repetitive Peak Surge Current vs. Continuance Time

