HFS34(JG-34F) SOLID STATE RELAY

c UL us
File No: E134517

File No.: J50061405



Features

- 4000V dielectric strength
- Photo isolation
- Zero cross or random turn-on
- Removable finger proof cover available
- Double SCR AC output
- Panel mount
- DC or AC control
- RoHS compliant

INPUT (TA = 25°C)

Control voltage range (DC input)	3 to 32VDC (Without LED) 4 to 32VDC (With LED)
Control voltage range (AC input)	90 to 280VAC
Must operate voltage (DC input)	3VDC
Must operate voltage (AC input)	90VAC
Must release voltage (DC input)	1VDC
Must release voltage (AC input)	10VAC
Max. input current (DC input)	25mA
Max. reverse protection voltage (DC input)	-32VDC

OUTPUT (TA = 25°C)

Type		D -240□	D -380□	D -480□
Load voltage range		48 to 280 VAC	48 to 440 VAC	48 to 530 VAC
Max. transient voltage		600Vpk	800Vpk	1200Vpk
Max. leakage current		5mA	5mA	5mA
Max. on-state voltage drop		1.7Vrms		
Load current		40A, 50A, 60A, 70A, 80A, 100A		
Max. surge current (10ms)		10 times of rated current		
Min. power factor		0.5		
Max. turn-on time		Random turn-on (DC input) : 1ms		
		Zero cross turn-on (DC input) : 1/2 cycle + 1ms		
		AC input type : 20ms		
Max turn-off time	(DC input)	1/2 cycle + 1ms		
	(AC input)	40ms		
Min. off-state dv/dt		500V/μs		

GENERAL (TA = 25°C)

Dielectric strength (at 50/60Hz, 1min)		4000VAC (input to output) 2500VAC (input, output to base)
Insulation resistance		1000MΩ (at 500VDC)
Ambient temperature	Operating	-30°C to 80°C
	Storage	-30°C to 100°C
Ambient humidity		45% to 85% RH
Unit weight		Approx. 88g

DESCRIPTION

The HFS34 offer 3 to 32VDC or 90 to 280VAC input control, with outputs rated at 40A, 50A, 60A, 70A, 80A or 100A. SCR output provides high dv/dt capability more than 500V/us. All models include an internal snubber. The relays provide 4000VAC opto-isolation between input and output. Outline dimension is 58.4mmX45.7mmX22.9mm.

PRECAUTIONS

1. When choosing a SSR, please notice the actual load current and working ambient temperature. To use the SSR correctly, please refer to CHARACTERISTIC DATA and make sure the heat sink size when it works in full load current.
2. Apply heat-radiation silicon grease of a heat conductive sheet between the SSR and heat sink. There will be a space between the SSR and heat sink Attached to the SSR. Therefore, the generated heat of the SSR cannot be radiated properly without the grease. As a result, the SSR may be overheated and damaged or deteriorated.
3. Tighten the SSR terminal screws properly. If the screws are not tight, the SSR will be Damaged by heat generated when the power in ON. Perform wiring using the tightening torque shown in the following table.

Screw size	Recommended tightened torque
M3	0.58 to 0.98 N·m
M4	0.98 to 1.37 N·m

ORDERING INFORMATION

	HFS34 /	D-	240	A	40	Z	S	-L	(XXX)

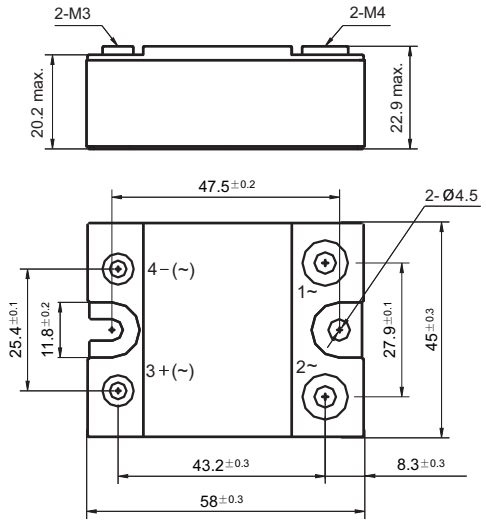
Type	
Input voltage	**D**: 3 to 32VDC (Without LED) 4 to 32VDC (With LED) **A**: 90 to 280VAC
Load voltage	**240**: 48 to 280V **380**: 48 to 400V **480**: 48 to 530V
Load voltage form	**A**: AC
Load current	**40**: 40A **50**: 50A **60**: 60A **70**: 70A **80**: 80A **100**: 100A
Zero cross function	**Z**: Zero cross turn-on **P**: Random turn-on
Output component	**S**: SCR
LED indicator	**L**: With LED(Unavailable for AC input type) **Nil**: Without LED
Customer special code	Only for special requirements, e.g. (555) stands for RoHS compliant

Notes: HFS34 is an environmental friendly product, please mark special code (555) when order.

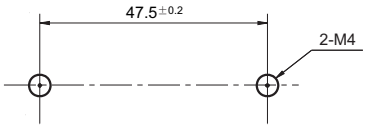
OUTLINE DIMENSIONS, WIRING DIAGRAM AND MOUNTING HOLES

Unit: mm

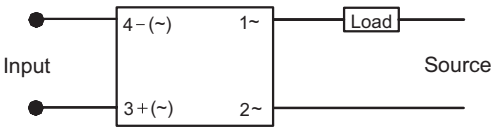
Outline Dimensions



Mounting Hole Layout

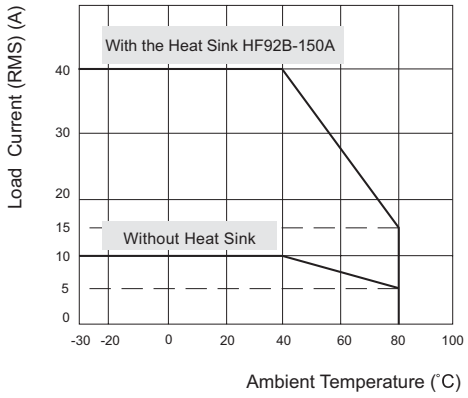


Wiring Diagram

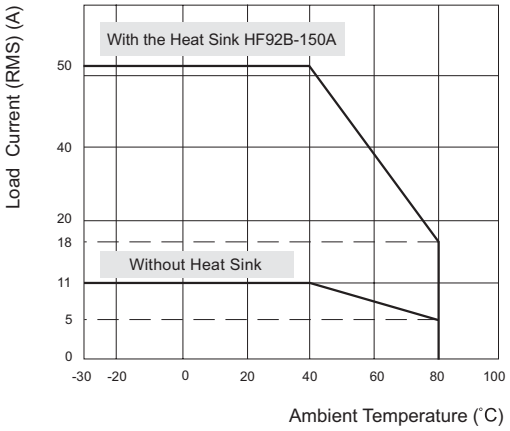


CHARACTERISTIC CURVES

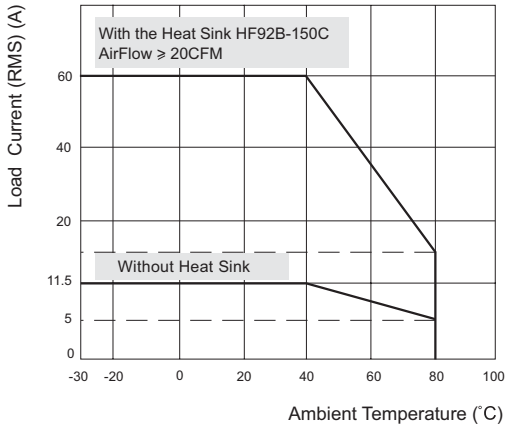
Max. Load Current vs. Ambient Temp. (40A)



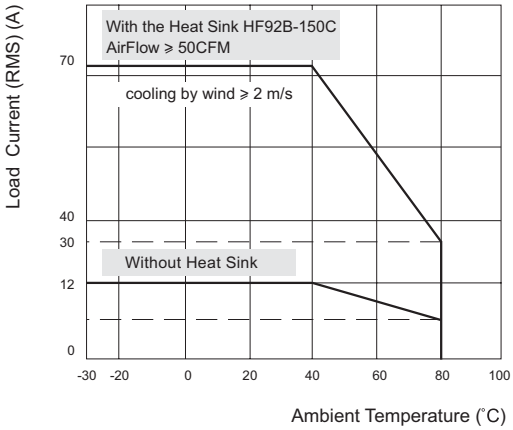
Max. Load Current vs. Ambient Temp. (50A)



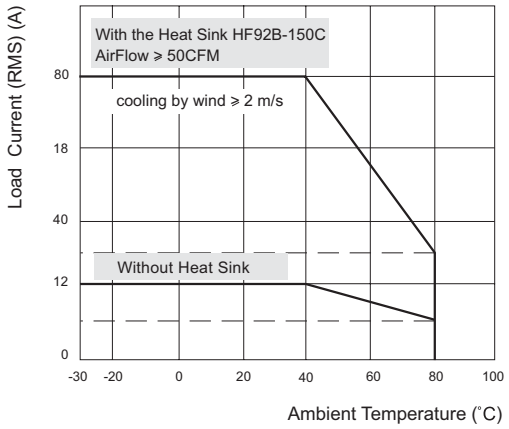
Max. Load Current vs. Ambient Temp. (60A)



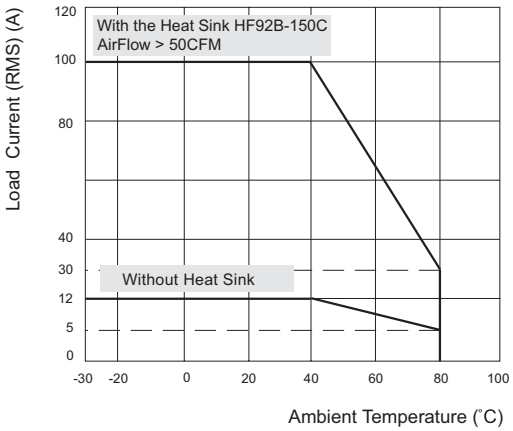
Max. Load Current vs. Ambient Temp. (70A)



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



Max. Load Current vs. Ambient Temp. (100A)



Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice.
We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.

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