

HF3615/12

COOLING FAN CONTROL MODULE

Typical Applications

Cooling fan control



Features

- High and low speed control of cooling fan
- Low speed overheating protection function
- Pluggable terminal
- Ingress protection: IP6K9K
- Material flammability grade V-0
- RoHS & ELV compliant
- Outline Dimensions: 89.4mm x83.5mm x 64.4mm

FUNCTIONAL DESCRIPTION

1. High speed function

When supplying power to the coil of high-speed relay, the internal K2 relay is actuated. At this time, the ceramic resistance relay box outputs the full supply power to the fan.

2. Low speed function

When supplying power to the coil of low-speed relay, the internal K1 relay is actuated. With the ceramic resistance relay box, the input power will be supplied to the fan through the ceramic resistor for voltage reduction and the thermal fuse.

CHARACTERISTICS

Operating voltage range	11VDC to 15VDC
Operating temperature range	-40°C to 90°C
Storage temperature range	-40°C to 105°C
Ingress protection	IP6K9K
Voltage drop	HF3615 Low speed: $595\text{mV} \leq V \leq 805\text{mV}(1\text{A})$; high speed: $V < 165\text{mV}(10\text{A})$ HF3615(623) Low speed: $705\text{mV} \leq V \leq 915\text{mV}(1\text{A})$; high speed: $V < 165\text{mV}(10\text{A})$
Electrical endurance	Low speed: Under the condition of motor load terminal voltage 13V and 13.5V, 8s ON 8s OFF, 2.5×10^5 cycles each High speed: Under the condition of motor load terminal voltage 13V and 13.5V, 8s ON 8s OFF, 9×10^4 cycles each
Unit weight	Approx. 132 g
Vibration resistance	5Hz to 1000Hz

ORDERING INFORMATION

Type	HF3615/	12	(XXX)
Nominal voltage	12: 12VDC		
Special code ¹⁾	623: Indicates that the ceramic resistance is 0.8Ω Nil: Indicates that the ceramic resistance is 0.69Ω		

Notes: 1) The customer special requirement express as special code after evaluating by Hongfa. e.g. (170) stands for flasher load. The performance parameters of products with characteristic numbers shall be subject to the specific specifications provided by Hongfa.



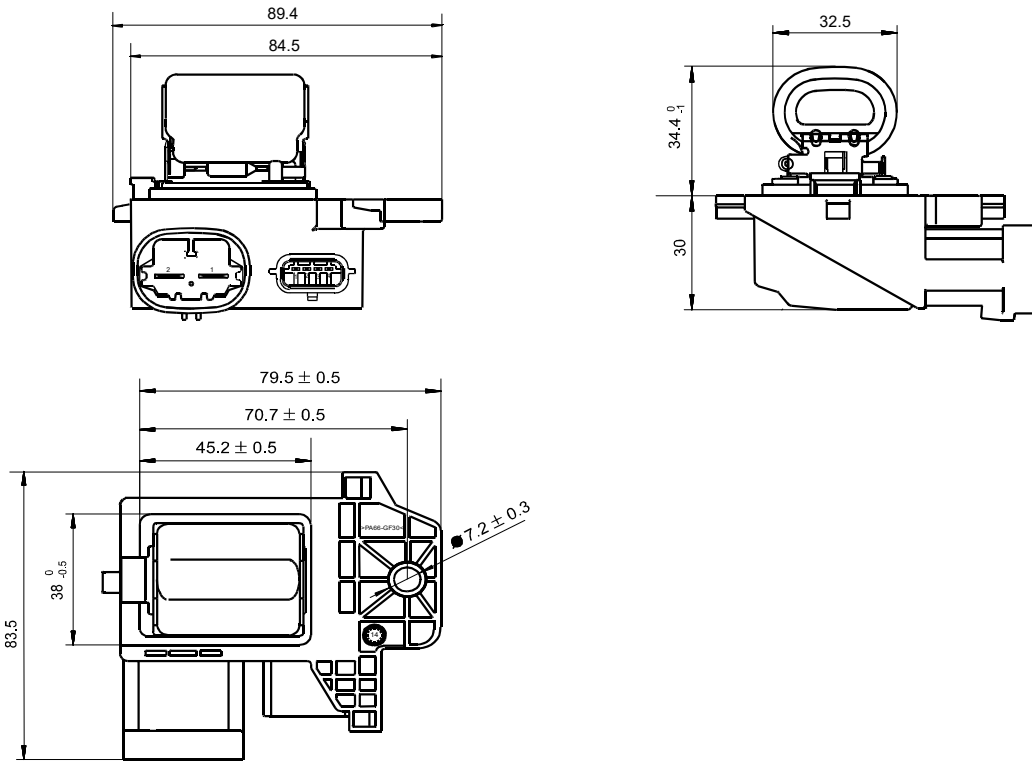
HONGFA RELAY

ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000, ISO/IEC 27001 CERTIFIED

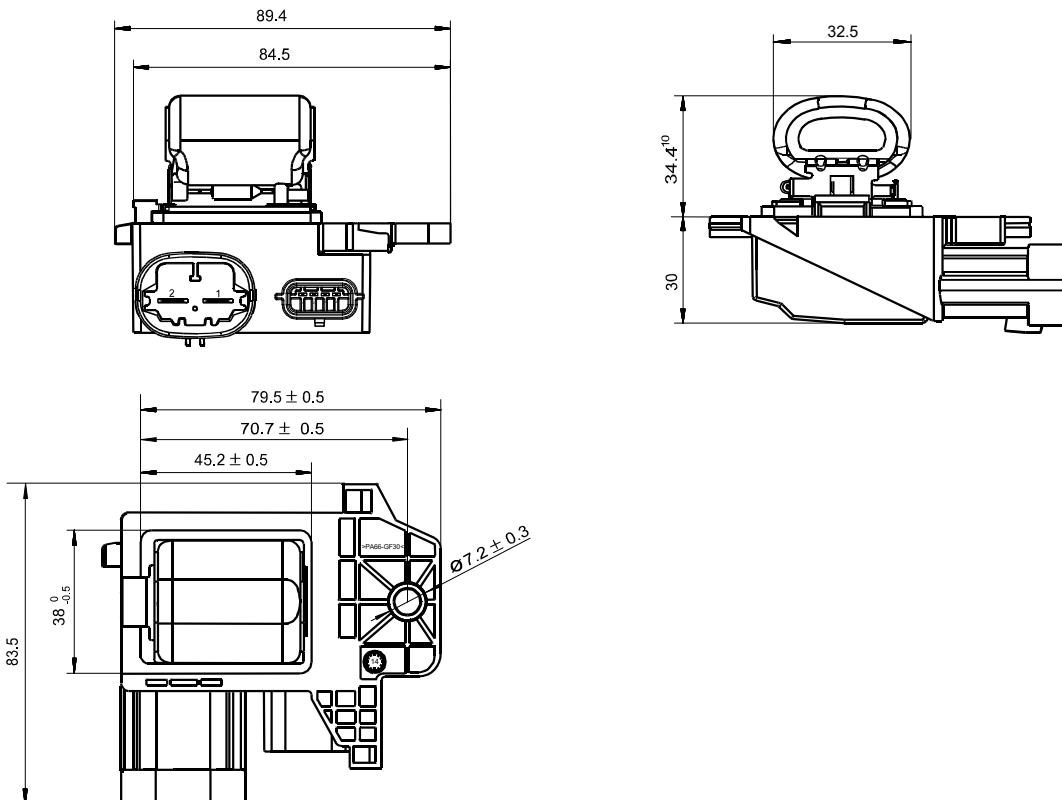
2020 Rev. 1.01

Outline Dimensions

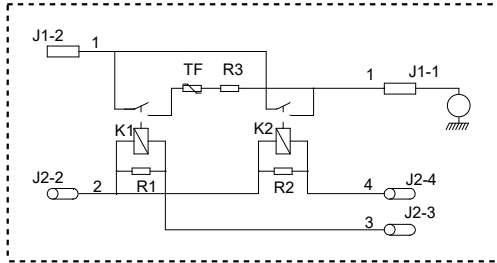
HF3615



HF3615 (623)

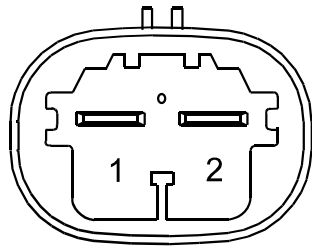


Wiring Diagram

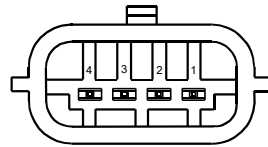


As Shown in the wiring diagram,J1-1 connects to cooling fan load,J1-2 connects to power supply +12VDC,J2-3 connects to low speed fan control signal(low level trigger),J2-4 connects to high speed fan control signal(low level trigger).

Terminal Function Definition



J1



J2

Definition of connector terminal	Function description	Power or current value	Remark
J1-1	Output	High speed: 39A Low speed: 15A	
J1-2	Power supply	39A	
J2-1	---	---	
J2-2	Relay coil +	---	
J2-3	Low speed control	50mA	Low level trigger
J2-4	High speed control	120mA	Low level trigger

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. In case there is specific criterion (such as mission profile, technical specification, PPAP etc.) checked and agreed by and between customer and Hongfa, this specific criterion should be taken as standard regarding any requirement on Hongfa product. 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.