

# HF3503

# DELAYING RELAY



## Typical Applications

Heating control, Start control, Fan Control

## Features

- Solid base design, stable structure
- Use MCU control circuit to ensure stable performance and high precision
- Surface mounting technology, advanced craftwork
- Ingress protection: IP52

## ELECTRICAL PARAMETER

Type	Nominal Voltage VDC	Operating Voltage VDC	Delay Time s	Rated Load A	Electrical endurance OPS	Voltage drop mV/5A max.
HF3503/12-G40A2	12	9 to 16	2.0 ± 0.5	40	1 x 10 <sup>5</sup>	150
HF3503/12-L15B9-B	12	9 to 16	9.0 ± 2.0	15	1 x 10 <sup>5</sup>	150
HF3503/12-G15B480	12	9 to 16	480 ± 60	15	1 x 10 <sup>5</sup>	150
HF3503/24-G20A5	24	18 to 32	5.0 ± 1.0	20	1 x 10 <sup>5</sup>	150
HF3503/12-G15B600	12	9 to 16	600 ± 60	15	1 x 10 <sup>5</sup>	150
HF3503/24-G15A8-B	24	18 to 32	8.0 ± 1.5	15	1 x 10 <sup>5</sup>	150
HF3503/12-G15A8-B	12	9 to 16	8.0 ± 1.5	15	1 x 10 <sup>5</sup>	150

When demand of time delay is different from above, please contact Hongfa for more technology support.

## OTHER PARAMETERS

Ambient temperature	-40°C to 85°C	
Vibration resistance	Sine	10Hz to 200Hz 49m/s <sup>2</sup>
	Random	10Hz to 1000Hz 19.6m/s <sup>2</sup>
Shock resistance	196m/s <sup>2</sup>	
Weight	Approx. 35g	
Mechanical data	Cover retention: 160N min.	
	Terminal retention: 100N min.	

## ORDERING INFORMATION

Type	HF3503 /		12	-G	40	A	2	-B	(XXX)
	Suffix (A-Z) is for specific extending application								
Nominal voltage	12: 12VDC	24: 24VDC							
Trigger level	G: High electric level start up L: Low electric level start up								
Electrical current specification	15: 15A	20: 20A	40: 40A						
Delayed mode	A: On delay	B: Off delay							
Delayed time	2: 2s	10: 10s							
Packing style	B: With bracket	Nil: Without bracket							
Customer special code									



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

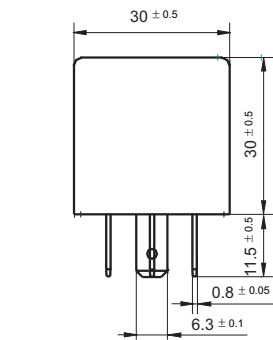
2012 Rev. 1.01

## OUTLINE DIMENSIONS, WIRING DIAGRAM, LOGIC DIAGRAM

Unit: mm

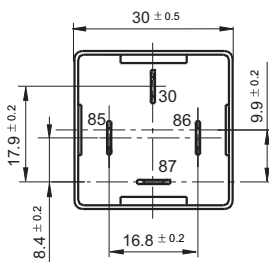
### Outline Dimensions

HF3503/□□-□□□□□(XXX)



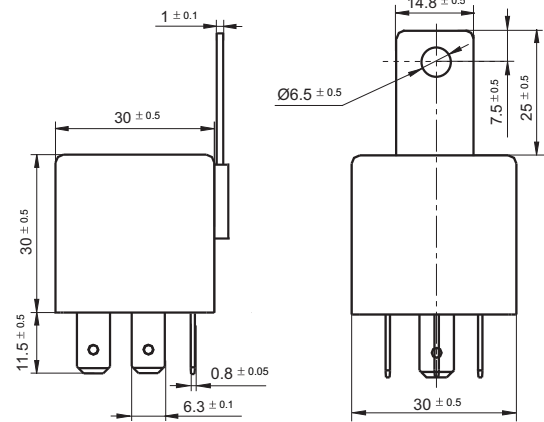
A↑

A direction



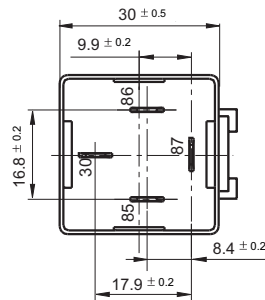
(Bottom view)

HF3503/□□-□□□□□-B(XXX)



A↑

A direction

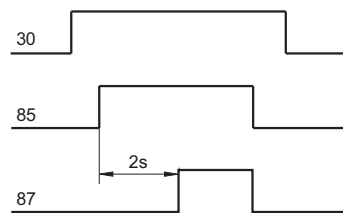
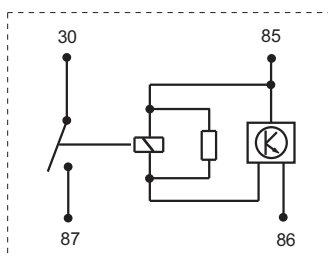


(Bottom view)

## OUTLINE DIMENSIONS, WIRING DIAGRAM, LOGIC DIAGRAM

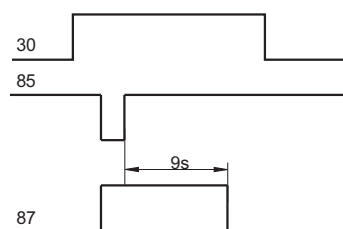
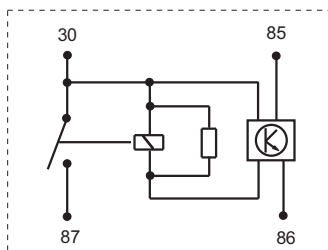
Unit: mm

HF3503/12-G40A2(XXX)



- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 30 and 87 will be connected when terminal 85 received a 12V start-up signal and delayed  $2s \pm 0.5s$ .

HF3503/12-L15B9-B(XXX)



- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 30 and 87 will be connected when terminal 85 received a low level start-up signal, the terminal 30 and 87 will be opened when 85 terminal start-up signal disappeared and delayed  $9s \pm 2s$ .

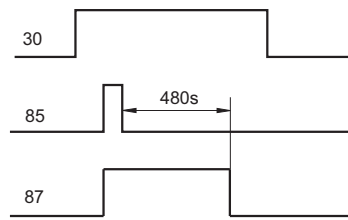
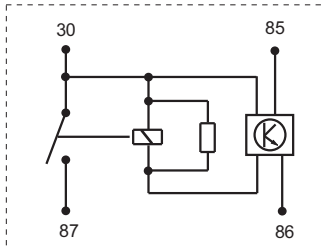
## OUTLINE DIMENSIONS, WIRING DIAGRAM, LOGIC DIAGRAM

Unit: mm

### Wiring Diagram

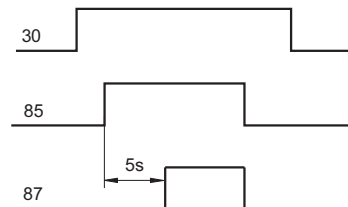
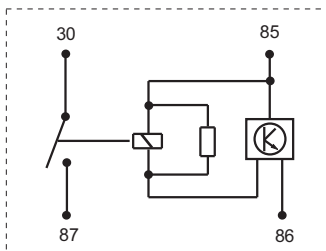
### Logic Diagram

HF3503/12-G15B480(XXX)



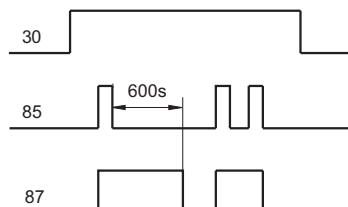
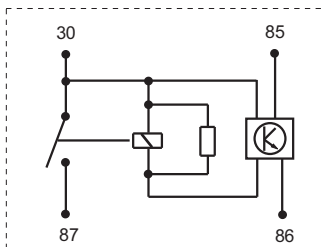
- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 87 and 30 will be connected when terminal 85 received a 12V start-up signal, the terminal 87 and 30 will be opened when terminal 85 start-up signal disappeared and delayed  $480s \pm 60s$ .

HF3503/24-G20A5(XXX)



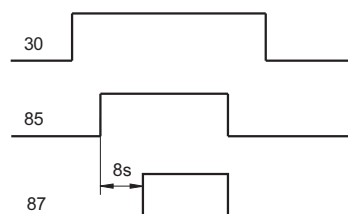
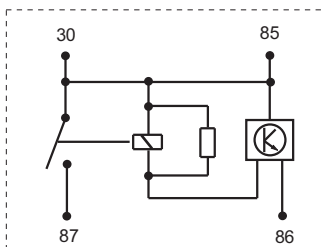
- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 30 and 87 will be connected when terminal 85 received a 24V start-up signal and delayed  $5s \pm 1s$ .

HF3503/12-G15B600(XXX)



- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 87 and 30 will be connected when terminal 85 received a 12V start-up signal, the terminal 87 and 30 will be opened when terminal 85 start-up signal disappeared and delayed  $600s \pm 60s$ . During the delay period after connection, the terminal 87 and 30 will be opened when terminal 85 receive start-up signal.

HF3503/24-G15A8-B(XXX)  
HF3503/12-G15A8-B(XXX)



- 1) The terminal 30 is connected with positive electrode of power supply, terminal 87 is connected with load, the terminal 86 is connected with nature, the terminal 85 is connected with control signal. As shown in logic diagram, the terminal 87 and 30 will be connected when terminal 85 received a start-up signal and delayed for  $8s \pm 1.5s$ .

### 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.

© Xiamen Hongfa Electroacoustic Co., Ltd. All rights of Hongfa are reserved.