


# HFS43

# SOLID STATE RELAY



**Features**

- Load voltage 48VAC to 440VAC, load current 2A
- Dielectric strength 4000V
- EMC performance meets CE requirement
- Dual in-line PCB package
- RoHS compliant

CE

### INPUT (Ta = 25°C)

Input voltage range	1D	4VDC to 15VDC
	2D	15VDC to 32VDC
Must Operate Voltage	1D	4VDC
	2D	15VDC
Input current	1D	5mA to 32 mA
	2D	5mA to 18 mA
Input resistance	1D	480 x(1±20%)Ω
	2D	2000 x(1±20%)Ω
Must Release Voltage	1VDC	

### GENERAL (Ta = 25°C)

Dielectric Strength (input to output)	4000VAC, 50Hz/60Hz, 1min
Insulation Resistance (input to output)	1000MΩ (500VDC)
Max. capacitance (input to output)	8pF
Shock resistance	Acceleration:980m/s <sup>2</sup> , continuous surge:6ms
Vibration resistance	10Hz to 55Hz 1.5mm DA
Ambient humidity	45% to 85%RH
Operating temperature	-30°C to 85°C
Storage temperature	-30°C to 100°C
Unit weight	Approx.15g

### OUTPUT (Ta = 25°C)

	□D-240A1Z(P)	□D-380A1Z(P)	□D-240A2Z(P)	□D-380A2Z(P)
Load voltage range	48VAC to 280VAC	48VAC to 440VAC	48VAC to 280VAC	48VAC to 440VAC
Max. transient overvoltage	600Vpk	800Vpk	600Vpk	800Vpk
Load current	0.1A to 1A		0.1A to 2A	
Max. surge current	60A 10ms		120A 10ms	
Max. I <sup>2</sup> t for fusing(10ms,A <sup>2</sup> s)	18		72	
Fit for motor power	50W		100W	
Max. output on voltage drop	1.5Vr.m.s.			
Max. output on leakage current	5mA			
Min. off-state dv/dt	200V/μs min.			
Max. turn-on time	Zero-cross: 1/2 cycle+1 ms;Random:1ms			
Max. turn-off time	1/2 cycle+1 ms			
Frequency range	47Hz to 63Hz			
Min. power factor	0.5			
EMC/burst immunity	□D-□A□Z-H general	According to GB/T17626.4(IEC61000-4-4):level 3 criterion A		
EMC/ESD immunity	According to GB/T17626.4(IEC61000-4-4):level 3 criterion B			
EMC/Surge immunity	According to GB/T17626.5(IEC61000-4-5):level 3			
EMC/ESD immunity	According to GB/T17626.2(IEC61000-4-2):level 3			



HONGFA RELAY

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

2010 Rev. 1.00

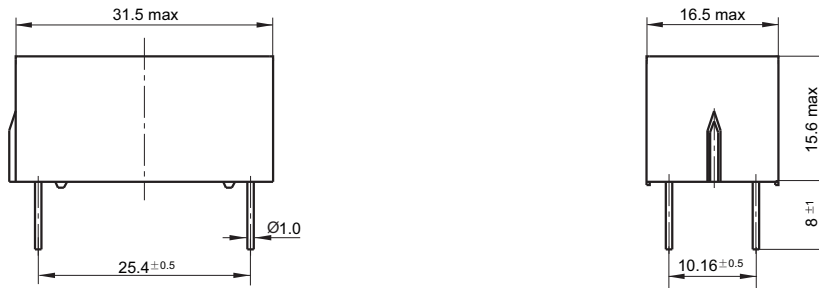
## ORDERING INFORMATION

Type	HFS43 /	1D-	240A	2	Z	N	(XXX)
Input voltage	1D: 4VDC to 15VDC 2D: 15VDC to 32VDC						
Load voltage	240A: 48VAC to 280VAC		380A: 48VAC to 440VAC				
Load current	1: 0.1A to 1A		2: 0.1A to 2A				
Zero cross function	Z: Zero-cross		P: Random turn-on				
Other	N: Without RC snubber		Nil: General				
	H: EMC performance meets CE requirement						
Special request code							

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

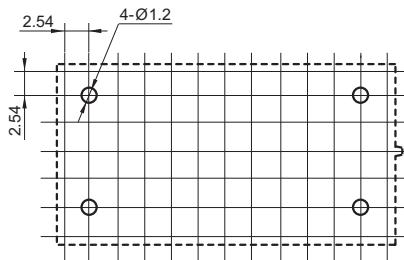
### Outline Dimensions



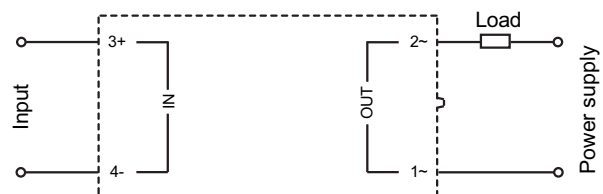
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

### PCB Layout (Bottom view)

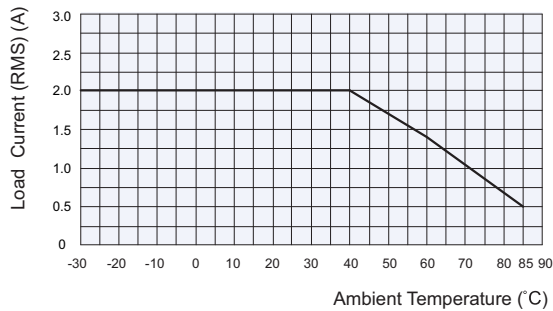


### Wiring Diagram

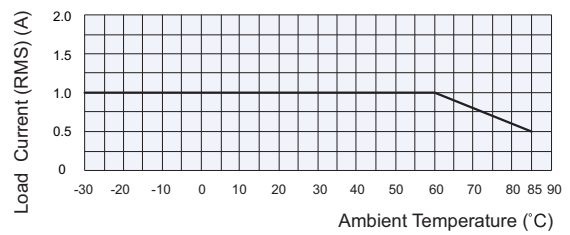


## CHARACTERISTIC CURVES

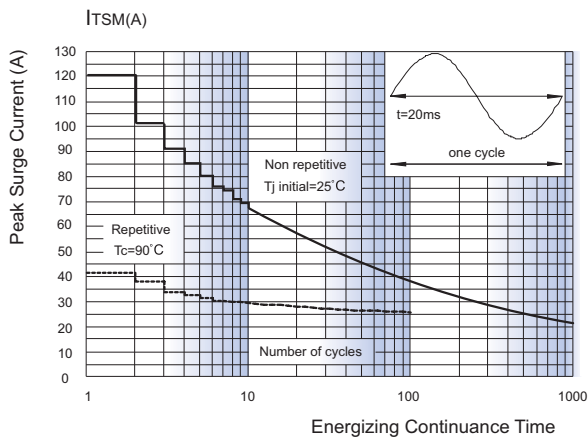
Max. Load Current  
vs. Ambient Temperature (2A)



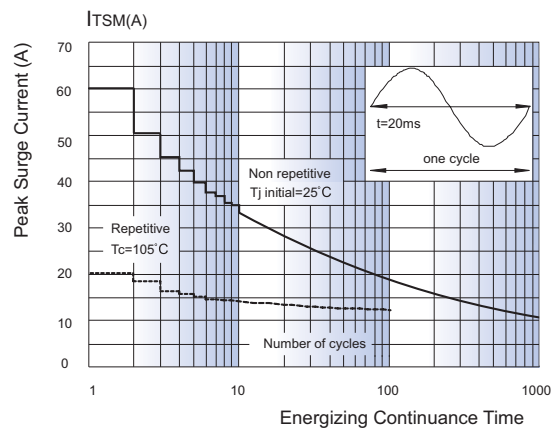
Max. Load Current  
vs. Ambient Temperature (1A)



Max. Permissible Non-repetitive  
Peak Surge Current vs. Continuance Time(2A)



Max. Permissible Non-repetitive  
Peak Surge Current vs. Continuance Time(1A)



### 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.