

## Features

- 16A switching capability
- Provide the product of highly efficient,magnetic circuit for high sensitivity:200mW
- Breakdown voltage (between coil and contacts): 4KV
- Creep age distance and air distance are greater than 6.5mm
- We can provide the product with ambient temperature is 105°C
- UL insulation system:Class F
- Environment-friendly products (RoHS compliant)
- Outline Dimensions:(18.4×10.2×15.3)mm
- Main application:Smart switches, Smart sockets, Home appliance



**TV-8**



## CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgSnO <sub>2</sub>
Rated value	Rated load(Resistance load)		10A 250VAC 16A 250VAC
	Max.switching voltage		277VAC
	Max.switching current		20A
	Max.switching capacity		4000VA
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC,1min
		Between coil&contacts	4000VAC,1min
	Operate time		≤10ms
	Release time		≤5ms
Mechanical performance	Shock resistance	Functional	98m/s <sup>2</sup> (10G)
		Destructive	980m/s <sup>2</sup> (100G)
Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		1×10 <sup>7</sup> ops
	Electrical(Room temperature)		10A 250VAC 1×10 <sup>5</sup> ops(ON/OFF=1s/9s) 16A 250VAC 5×10 <sup>4</sup> ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40°C~85/105°C
	Humidity		5% to 90%
Termination		PCB	
Unit weight		Approx.7g	
Construction		Plastic sealed,Flux proofed	

## ■ COIL DATA(23°C)

### ■ Standard Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	150 mA	20Ω	450mW	DC 3.9V
DC 5V	≤3.75	≥0.25	90 mA	55.5Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	75 mA	80Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	50 mA	180Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	37.5 mA	320Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	30 mA	500Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	25 mA	720Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	18.8 mA	1280Ω		DC 31.2V
DC 48V	≤36.00	≥2.40	10.4 mA	4608Ω	500mW	DC 62.4V

### ■ Sensitive Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.4	≥0.15	66.7mA	45Ω	200mW	DC 3.9V
DC 5V	≤4.0	≥0.25	40 mA	125Ω		DC 6.5V
DC 6V	≤4.8	≥0.30	33.3mA	180Ω		DC 7.8V
DC 9V	≤7.2	≥0.45	22.2 mA	405Ω		DC 11.7V
DC 12V	≤9.6	≥0.60	16.7mA	720Ω		DC 15.6V
DC 15V	≤12.0	≥0.75	13.3 mA	1128Ω		DC 19.5V
DC 18V	≤14.4	≥0.90	11.1 mA	1620Ω		DC 23.4V
DC 24V	≤19.2	≥1.20	8.3 mA	2880Ω		DC 31.2V

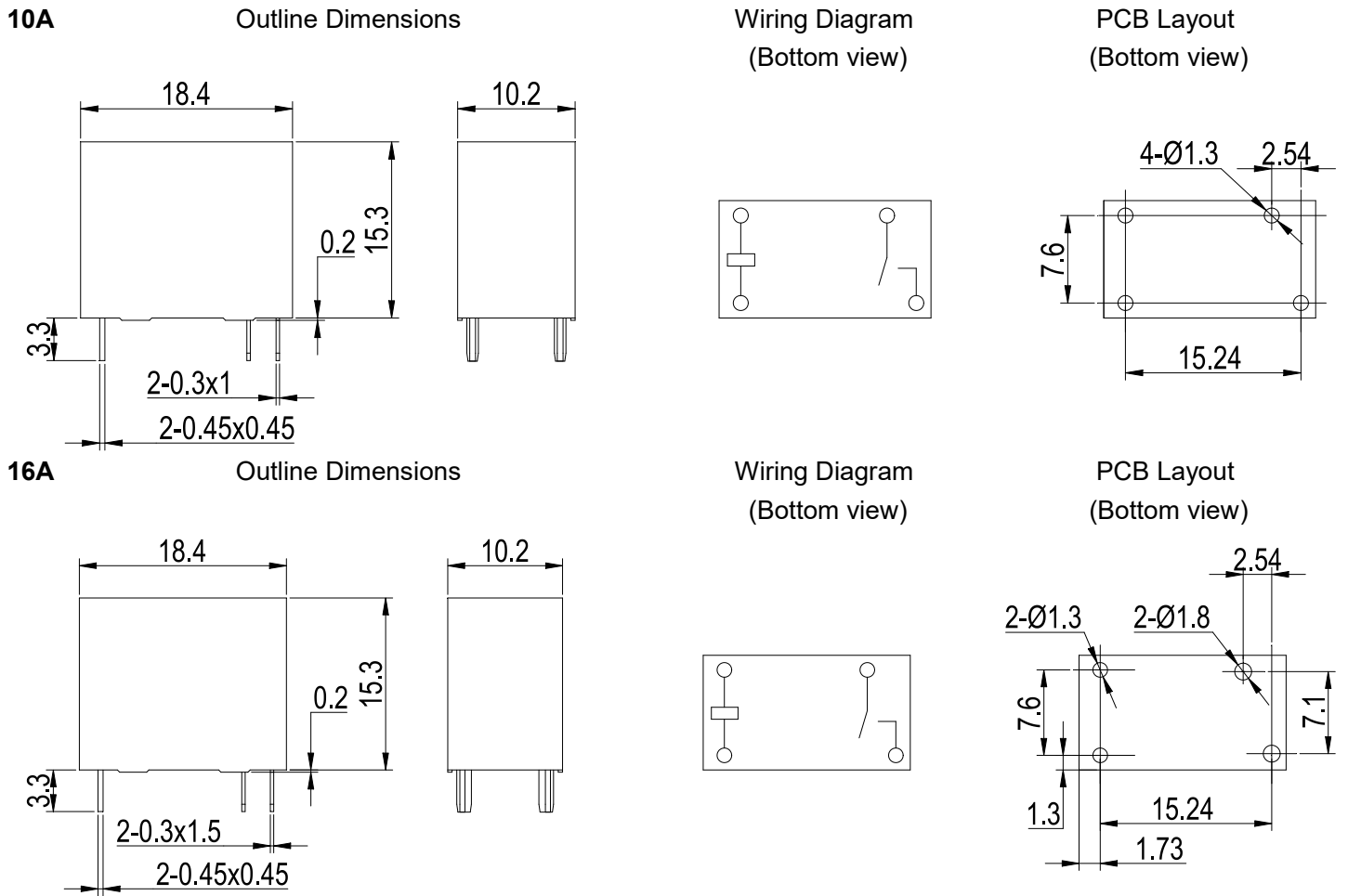
## ■ ORDERING INFORMATION

**FH17 -1A 2 S T L E -XXX DC12V**

- ① Type
- ② Contact arrangement: 1A=1 open contacts
- ③ PCB mounting: 2=type 2
- ④ Construction(1): Nil=Flux proofed, S=Plastic sealed(High load products with E are not recommended)
- ⑤ Contact material: T=AgSnO<sub>2</sub>
- ⑥ Coil power: Nil=Standard, L=Sensitive
- ⑦ Load: Nil=Standard load E=High load(16A)
- ⑧ Customer special code: numbers or letters denote customer's requirements, for example: WG products can meet IEC60335-1 test
- ⑨ Coil specification: DC3/5/6/9/12/15/18/24/48V

- (1) When used in clean environment(excluding H<sub>2</sub>S,SO<sub>2</sub>,NO<sub>2</sub>,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H<sub>2</sub>S,SO<sub>2</sub>,NO<sub>2</sub>,dust and other pollutants), it is recommended to choose the Plastic sealed.

## OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)



Remark:(1)In case of no tolerance shown in outline dimension:outline dimension $\leq$ 1mm,tolerance should be $\pm$ 0.2mm;outline dimension  $>$ 1mm and  $<$ 5mm,tolerance should be  $\pm$ 0.3mm;outline dimension $\geq$ 5mm,tolerance should be  $\pm$ 0.5mm.

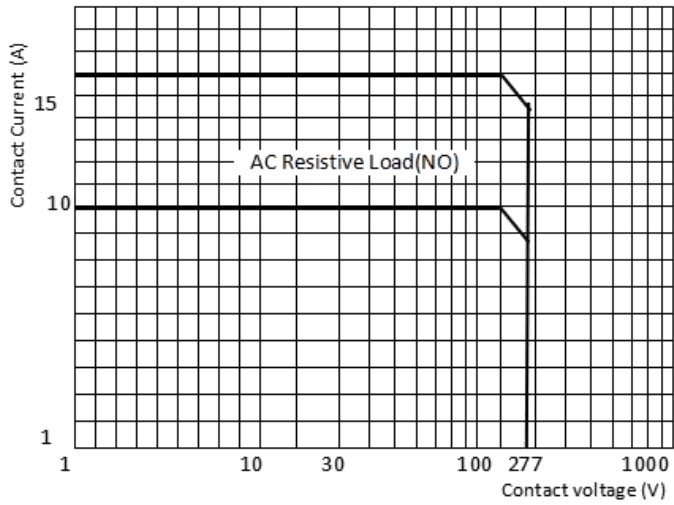
(2) The tolerance without indicating for PCB layout is always  $\pm$ 0.1mm.

## SAFETY APPROVAL RATINGS

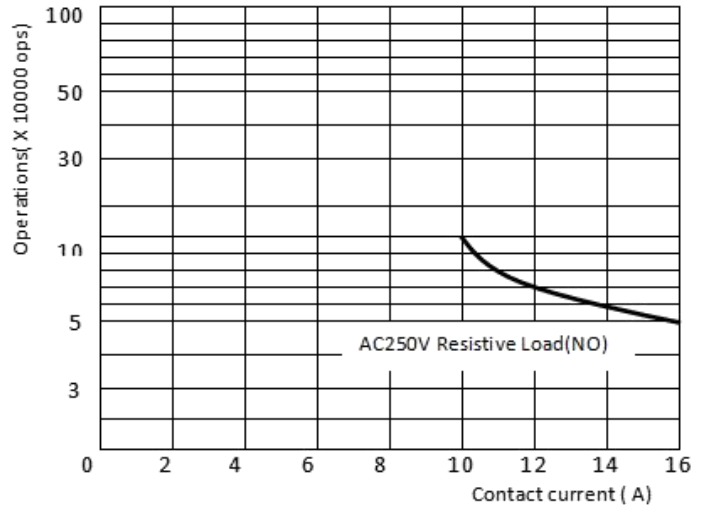
Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A	AgSnO <sub>2</sub>	10A	250VAC	85/105 $^{\circ}$ C
				16A	250VAC	85 $^{\circ}$ C
				TV-8	250VAC	85 $^{\circ}$ C
TUV	R 50501023	1A	AgSnO <sub>2</sub>	10A	250VAC	85 $^{\circ}$ C
				16A	250VAC	85 $^{\circ}$ C
				20A	250VAC	85 $^{\circ}$ C
CQC	CQC20002239134	1A	AgSnO <sub>2</sub>	10A	250VAC	85 $^{\circ}$ C
				16A	250VAC	85 $^{\circ}$ C

## ■ PERFORMANCE CURVES

### MAXIMUM SWITCHING POWER



### ENDURANCE CURVE



## ■ NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only. Specifications subject to change without notice.