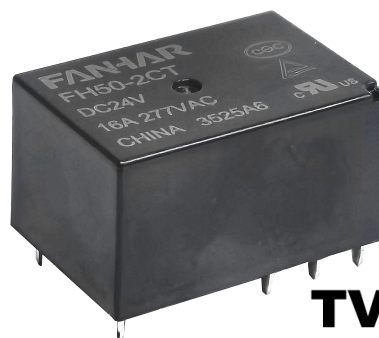


## Features

- 2A, 2C contact arrangement
- The Height of the product is 15.9mm, Suitable for flat mounting
- Breakdown voltage (between coil and contacts): 5KV
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (29.0×19.6×15.9)mm
- Main application: Industrial control, Photovoltaic Inverter



**TV-8**



## CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		2A, 2C
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgSnO <sub>2</sub>
Rated value	Rated load(Resistance load)		16A 277VAC
	Max.switching voltage		277VAC
	Max.switching current		16A
	Max.switching capacity		4432VA
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC, 1min
		Between contact groups	2500VAC, 1min
		Between coil&contacts	5000VAC, 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		5×10 <sup>6</sup> ops
	Electrical(85℃)		16A 277VAC 5×10 <sup>4</sup> ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 85%
Termination			PCB
Unit weight			Approx. 16.5g
Construction			Plastic sealed, Flux proofed

## COIL DATA(23°C)

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≥0.50	160mA	31.2Ω	0.8W	DC 7.5V
DC 6V	≤4.50	≥0.60	133.3mA	45Ω		DC 9V
DC 9V	≤6.75	≥0.90	88.9mA	101.2Ω		DC 13.5V
DC 12V	≤9.00	≥1.20	66.6mA	180Ω		DC 18V
DC 24V	≤18.00	≥2.40	33.3mA	720Ω		DC 36V
DC 48V	≤36.00	≥4.80	16.6mA	2880Ω		DC 72V

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

**FH50 -2A S T F -XXX DC12V**

- ① Type
- ② Contact arrangement: 2A=2 open contacts  
2C=2 switched contacts
- ③ Construction(1): Nil=Flux proofed, S=Plastic sealed
- ④ Contact material: T=AgSnO<sub>2</sub>
- ⑤ Insulation system: Nil=Class A F=Class F
- ⑥ Customer special code: numbers or letters denote customer's requirements
- ⑦ Coil specification:: DC5/6/9/12/24/48V

- (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.

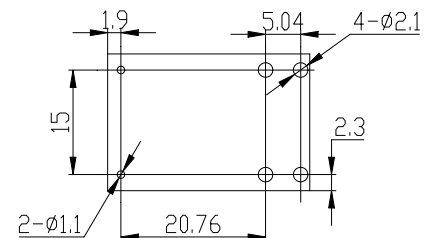
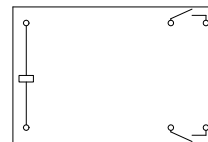
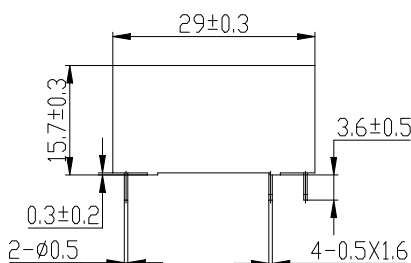
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

2A

Outline Dimensions

Wiring Diagram  
(Bottom view)

PCB Layout  
(Bottom view)



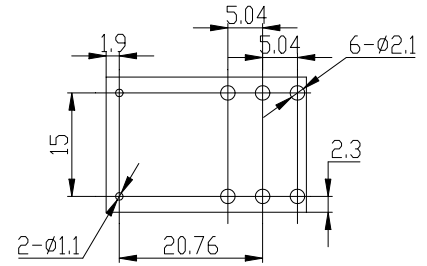
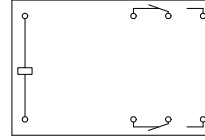
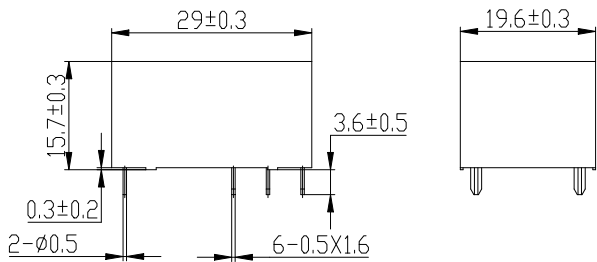
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit:mm)

2C

Outline Dimensions

Wiring Diagram  
(Bottom view)

PCB Layout  
(Bottom view)



Remark:(1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $< 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $\geq 5\text{mm}$ , tolerance should be  $\pm 0.5\text{mm}$ .  
(2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

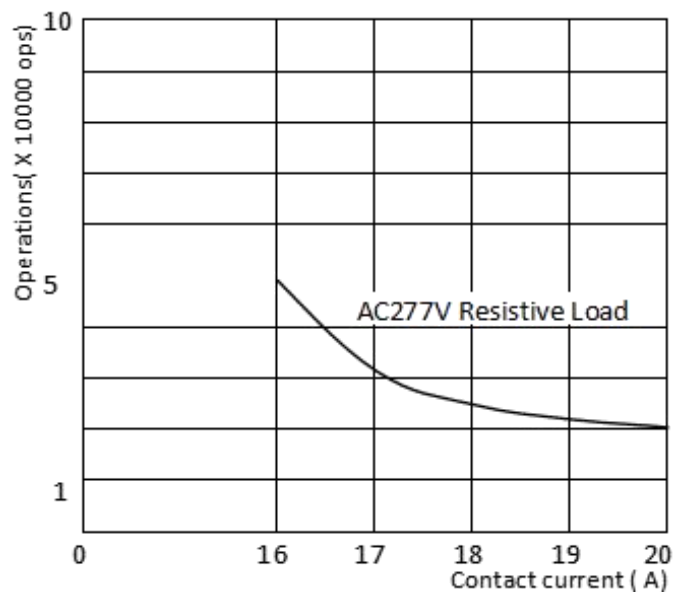
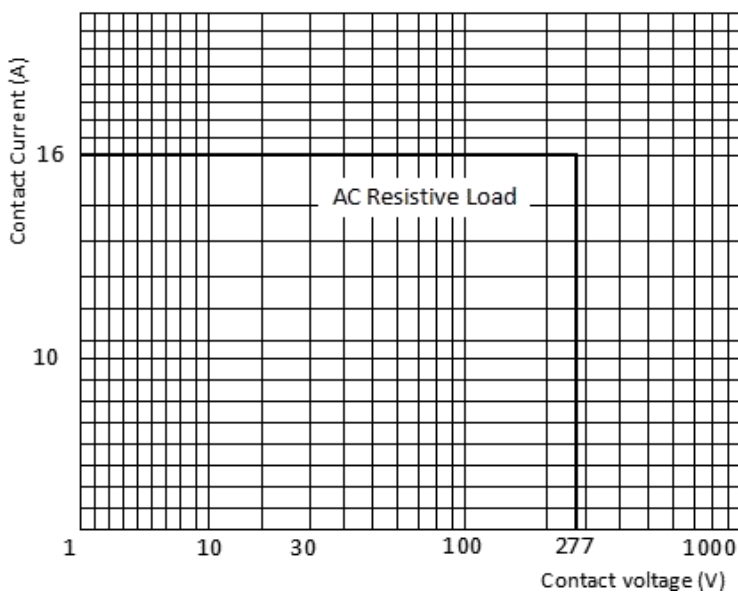
## SAFETY APPROVAL RATINGS

Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	E475405	2A, 2C	AgSnO <sub>2</sub>	16A 277/250VAC/30VDC 85°C
TUV	R 50583677	2A, 2C	AgSnO <sub>2</sub>	16A 277/250VAC/30VDC 85°C
CQC	CQC23002384831	2A, 2C	AgSnO <sub>2</sub>	16A 277/250VAC/30VDC 85°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.