FH55T

Safety Relays

Features

- 8A switching capability
- Contact arrangement::2C、AB1、AB2
- Contact structure of mandatory oriented:EN50205 compliant
- UL insulation system:Class B、Class F
- Strong insulation ability:Surge voltage (Between coil&contacts) :10KV
  Surge voltage(Between contact groups) (Waveform 1.2/50μs):6kV
- Environmental friendly product(RoHS compliant)

■ CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		2C、AB1、AB2
	Structural classification (According EN50205)		AB1,AB2:Class A mandatory orientation 2C:Class B mandatory orientation
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		$AgSnO_2$
Rated value	Rated load(Resistance load)		8A 277VAC/30VDC
	Max.switching voltage		400VAC/30VDC
	Max.switching current		8A
	Max.switching capacity		2216VA/240W
	Min.allowing load		5VDC 10mA(Contacts Gold Plating)
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1500VAC
		Between coil&contacts	4000VAC,1min
		Between contact groups	3000VAC,1min
	Operate time		≤15ms
	Release time		≤10ms
Mechanical performance	Shock resistance	Functional	NO:98m/s²(10g) NC:49m/s²(5g)
		Destructive	980m/s²(100g)
	Vibration resistance		N0:10Hz~55Hz 1.6mm DA,55Hz~200Hz ,98m/s² NC:10Hz~55Hz 0.4mm DA
Creepage distance	Between coil&contacts		8mm
	Between contact groups		5.5mm
Air distance	Between coil&contacts		8mm
	Between contact groups		5.5mm
Endurance	Mechanical		1×10^7ops
	Electrical(Room temperature)		NO:8A 277VAC/30VDC 1×10^5ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 85%
Termination			PCB
Unit weight			Approx.20g
Construction			Plastic sealed、Flux proofed

■ COIL DATA(23℃)

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.80	≥0.50	140.0mA	35.7Ω	700mW	DC 7.5V
DC 6V	≤4.50	≥0.60	116.7mA	51Ω		DC 9.0V
DC 9V	≤6.80	≥0.90	77.8mA	116Ω		DC 13.5V
DC 12V	≤9.00	≥1.20	58.3mA	206Ω		DC 18.0V
DC 15V	≤11.30	≥1.50	46.7mA	321Ω		DC 22.5V
DC 18V	≤13.50	≥1.80	38.9mA	463Ω		DC 27.0V
DC 21V	≤15.80	≥2.10	33.3mA	630Ω		DC 31.5V
DC 24V	≤18.00	≥2.40	29.2mA	823Ω		DC 36.0V
DC 36V	≤27.00	≥3.60	19.4mA	1851Ω		DC 54.0V.
DC 40V	≤30.00	≥4.00	17.5mA	2286Ω		DC 60.0V
DC 48V	≤36.00	≥4.80	14.6mA	3291Ω		DC 72.0V
DC 60V	≤45.00	≥6.00	11.7mA	5142Ω		DC 90.0V
DC 80V	≤64.00	≥8.00	8.75mA	9143Ω		DC 120V
DC 110V	≤82.50	≥11.0	6.4mA	17285Ω		DC 165V

■ ORDERING INFORMATION

FH55T -2C S T F -XXX DC12V

① Type:FH55T=2 sets of relay

② Contact arrangement: 2C=2 switched contacts
AB1=1 open contacts+1 close contacts(Type 1)
AB2=1 open contacts+1 close contacts(Type 2)

③ Construction:Nil=Flux proofed,S=Plastic sealed

④ Contact material:T=$AgSnO_2$

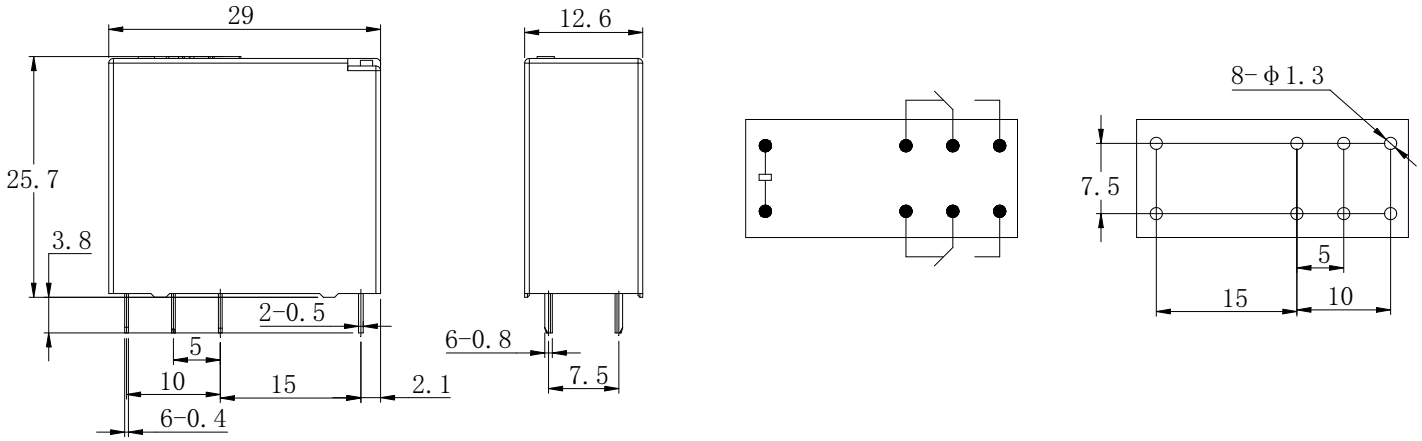
⑤ Insulation system:Nil=Class A、F=Class F

⑥ Customer special code:numbers or letters denote customer's requirements、For example: G=Gold plating

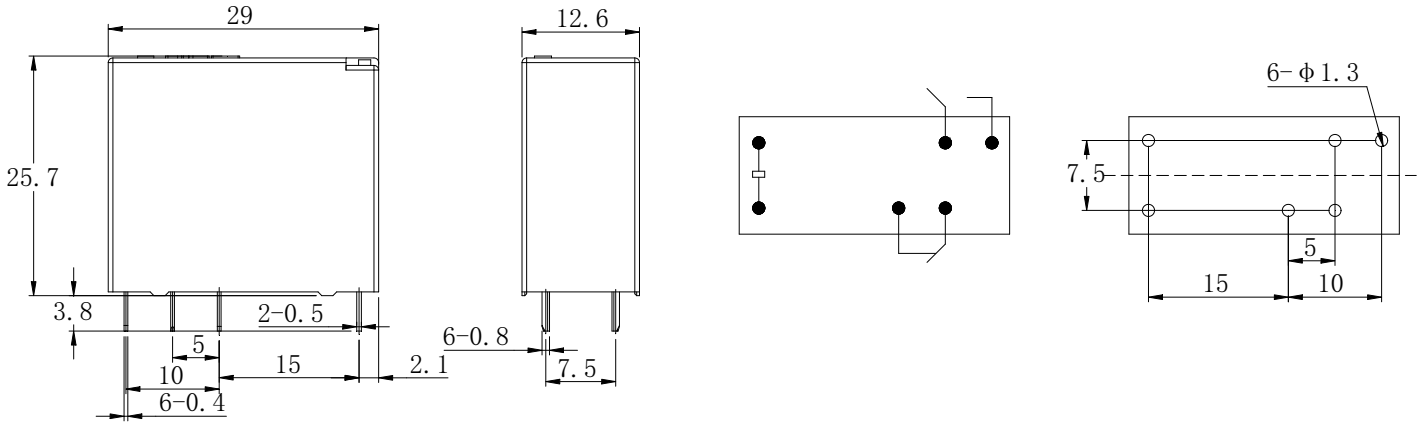
⑦ Coil specification:DC5/6/9/12/15/18/21/24/36/40/48/60/80/110V

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

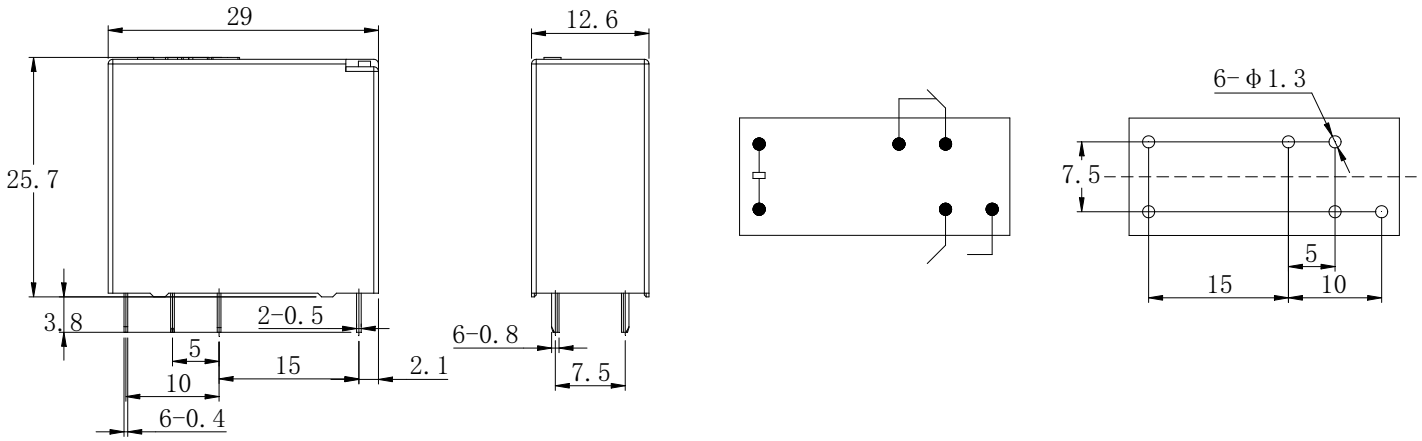
2C Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)



AB1 Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)



AB2 Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)



Remark:(1)In case of no tolerance shown in outline dimension:outline dimension≤1mm,tolerance should be±0.2mm;outline dimension >1mm and <5mm,tolerance should be ±0.3mm;outline dimension≥5mm,tolerance should be ±0.5mm.

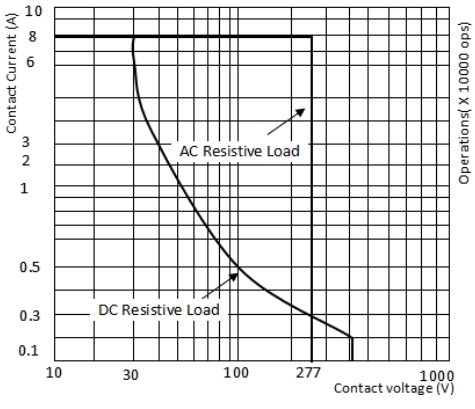
(2) The tolerance without indicating for PCB layout is always ±0.1mm.

■ SAFETY APPROVAL RATINGS

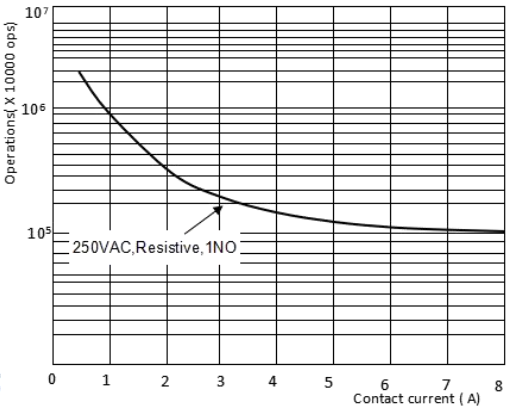
Approval	File No.	Contact arrangement	Approved ratings	
UL/C-UL	E475405	$AgSnO_2$	NO:8A/6A 277VAC/250VAC/240VAC/125VAC	85℃
			NO:8A/6A 30VDC	85℃
			NC:6A 277VAC/250VAC/240VAC/125VAC	85℃
			NC:6A 30VDC	85℃
			NO:Pilot duty A300	70℃
			NO:Pilot duty B300	70℃
			NC:Pilot duty B300	70℃
TUV	R 50598477	$AgSnO_2$	NO:8A/6A 277VAC/250VAC/240VAC/125VAC	85℃
			NO:8A/6A 30VDC	85℃
			NO:4A 60VDC	85℃
			NC:6A 277VAC/250VAC/240VAC/125VAC	85℃
			NC:6A 30VDC	85℃
			NO/NC:1A 24VDC	85℃
			NO:3A 240VAC(AC-15)	55℃
			NC:1.5A 240VAC(AC-15)	55℃
			NO:3A 24VDC(DC-13)	55℃
			NC:1A 24VDC(DC-13)	55℃
CQC	CQC23002395622	$AgSnO_2$	NO:8A/6A 277VAC/250VAC/240VAC/125VAC	85℃
			NO:8A/6A 30VDC	85℃
			NC:6A 277VAC/250VAC/240VAC/125VAC	85℃
			NC:6A 30VDC	85℃

■ PERFORMANCE CURVES

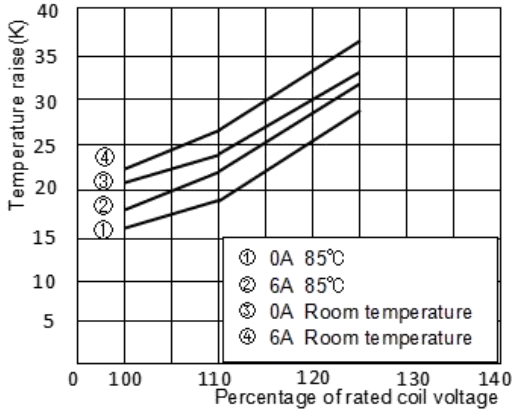
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



Coil temperature rise



Test conditions:

1 NO,Resistance load,250VAC

Room temperature,ON/OFF=1s/9s

■ 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.