

Features

- 35A switching capability
- Contact arrangement:1A
- Provide the contact gap of the product is $\geq 2.0\text{mm}$,conforming to IEC62109-2-2011
- Save the power consumption of the whole machine, and reduce the coil voltage to keep working after starting
- UL insulation system:Class F
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(30.3×15.4×23.1)mm
- Main application:New energy and PV industry, EV Charger



■ CHARACTERISTICS

Specifications	Item		Standard	BG Type
Contact Data	Contact arrangement		1.8mm	2.0mm
	Contact arrangement		1A	
	Contact resistance(initial)		≤100mΩ(6VDC 1A)	
	Contact material		AgSnO ₂	
Rated value	Rated load(Resistance load)		32A 250VAC	
	Max.switching voltage		277VAC	
	Max.switching current		35A	
	Max.switching capacity		8750VA	
	Min.allowing load		5VDC 100mA	
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)	
	Dielectric strength (initial)	Between open contacts	2500VAC,1min	
		Between coil&contacts	4500VAC,1min	
	Operate time		≤20ms	
	Release time		≤10ms	
Mechanical performance	Shock resistance	Functional	196m/s²(20g)	
		Destructive	980m/s²(100g)	
	Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		2×10 ⁵ ops	
	Electrical(Room temperature)		32A 250VAC	3×10 ⁴ ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃	
	Humidity		5% to 85%	
Termination			PCB	
Unit weight			Approx.20.7g	
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	≤3.75	≥0.25	280mA	17.8Ω	1400mW	DC 6.0V
DC 12V	≤9.00	≥0.60	116.7mA	102.8Ω		DC 14.4V
DC 18V	≤13.50	≥0.90	77.8mA	231.4Ω		DC 21.6V
DC 24V	≤18.00	≥1.20	58.3mA	411.4Ω		DC 28.8V

■ ORDERING INFORMATION

FH20 -BG -1A S T -XXX DC12V

① Type

② Contact gap:Nil=1.8mm contact gap

BG=2.0mm contact gap

③ Contact arrangement:1A=1open contacts

④ Construction(1):Nil=Flux proofed,S=Plastic sealed

⑤ Contact material:T=AgSnO₂

⑥ Customer special code:numbers or letters denote customer's requirements

⑦ Coil specification:DC5/12/18/24V

- (1) When used in clean environment(excluding H₂S,SO₂,NO₂,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H₂S,SO₂,NO₂,dust and other pollutants), it is recommended to choose the Plastic sealed.

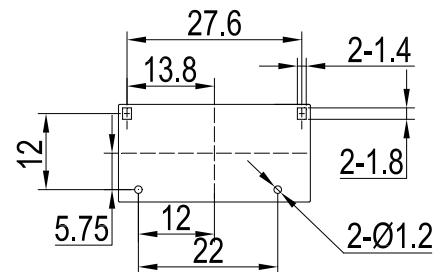
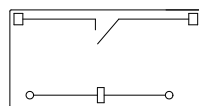
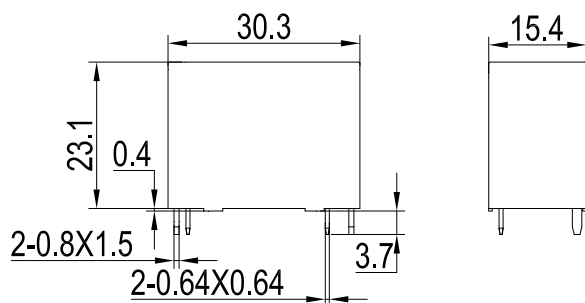
■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

1A

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.

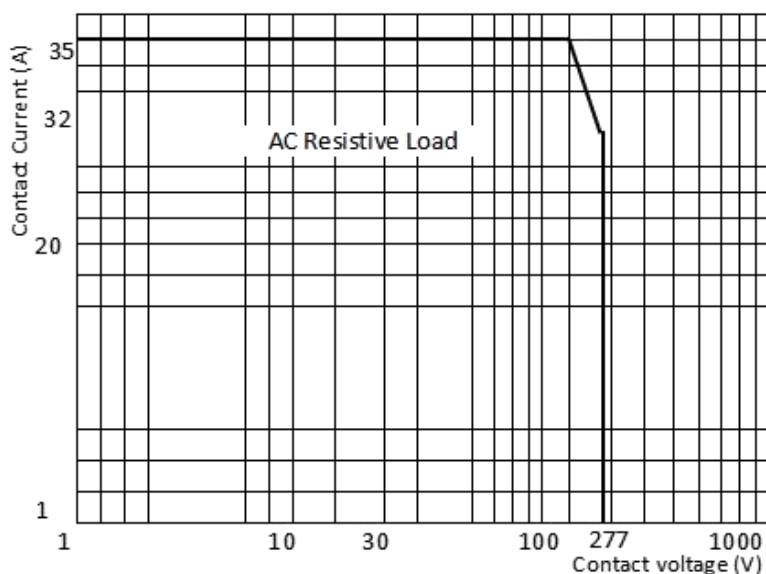
(2) The tolerance without indicating for PCB layout is always ±0.1mm.

SAFETY APPROVAL RATINGS

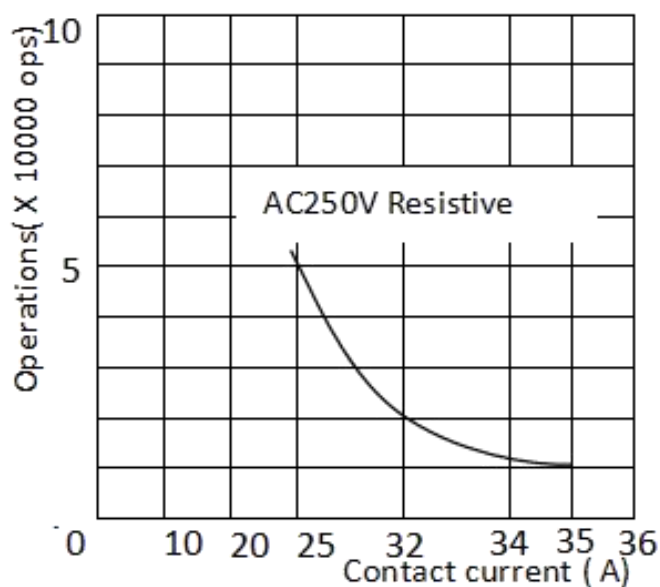
Approval	File No.	Contact arrangement	Contact material	Approved ratings	
UL/C-UL	E475405	1A	AgSnO ₂	32A 250VAC	85℃
				35A 250VAC	85℃
TUV	R 50581364	1A	AgSnO ₂	32A 250VAC	85℃
				35A 250VAC	85℃
CQC	CQC23002383075	1A	AgSnO ₂	32A 250VAC	85℃
				35A 250VAC	85℃

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.