

CHFN SOLAR RELAY

31A~35A POWER RELAY

FEATURES

- Outline dimension(30.1×15.7×26.5)
- 1 Form A(SPST-NO) arrangement
- Designed to meet UL/cUL,TUV,CQC requirements
- 4,500VAC dielectric strength between coil and contact
- Contact Gap:≥2.25mm
- F class Insulation System
- RoHS compliance
- Halogen-Free type available

APPLICATION

Solar Inverter, AC/DC Power Source, Industry Control...etc

COIL PARAMETER

Coil voltage	9-24VDC
Coil power	1.4W
Holding voltage	40%~120%U _N (at 23°C)
1) 2)	50%~80%U _N (at 85°C)

Note: 1) The coil holding voltage is that voltage of relay coil after being applied rated voltage for 100ms.
2) The relay does not allow for a long time to maintain the upper limit of the holding voltage. It is suggested that when the relay coil applied to the rated voltage 100ms, then decreases to the lower limit value of the voltage specification, prevent overheating of relay.

COIL DATA@23°C

CHFN Solar				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω)±10%	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
9	156.0	58	6.75	0.45
12	117.0	103	9.00	0.60
18	78.0	231	13.50	0.90
24	58.0	411	18.00	1.20

UL File NO. E341422
TUV File NO. R50220099
CQC File NO. CQC1100206606



CONTACT DATA

Contact arrangement	1 Form A(SPST-NO)
Contact material	Ag Alloy
Initial contact resistance	100mΩ max.@6VDC,1A
Max. switching voltage	277V AC
Max. switching current	35A
Max. switching power	9,695VA
Contact rating	20A 250VAC/277VAC, Resistive
	31A 250VAC/277VAC, Resistive
	35A 250VAC/277VAC, Resistive
	20A 250VAC/277VAC, Inductive(cosφ =0.8)
	31A 250VAC/277VAC, Inductive(cosφ =0.8)
	35A 250VAC/277VAC, Inductive(cosφ =0.8)
Mechanical endurance	500,000 ops Min.(no load)
Electrical endurance	30,000 ops Min.(rated load)
Minimum load(reference value)	100mA @5VDC

CHARACTERISTICS

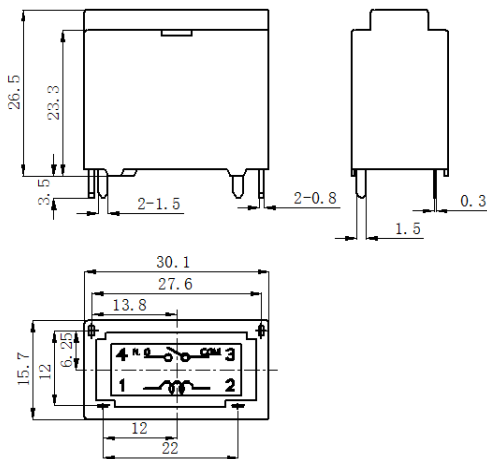
Operate voltage		75% of nominal voltage or less
Release voltage		5% of nominal voltage or more
Operate time (At nominal voltage)		20ms max.
Release time(At nominal voltage)		10ms max.
Insulation resistance		1,000 MΩ min. (at 500 VDC)
Insulation system		155(F)
Dielectric strength	Between coil and contacts	4,500 VAC, 50/60 Hz for 1 min
	Between open contacts	2,800 VAC, 50/60 Hz for 1 min
Surge voltage between coil and contacts		10,000V(1.2/50μs)
Vibration resistance	Destruction	10 to 55 Hz.,1.5mm double amplitude
	Malfunction	10 to 55 Hz.,1.5mm double amplitude
Shock resistance	Destruction	1,000 m/s ² (100G approximately)
	Malfunction	100 m/s ² (10G approximately)
Ambient temperature		Operating: -40~+85°C (without icing or condensation)
Ambient humidity		Operating: 20% to 85% RH
Terminal		PCB terminal
Enclosure (94V-0 Flammability Ratings)		V: Vented(Flux-tight),plastic cover.(RT II)
		S:Sealed,plastic cover.(RT III)
Weight		Approx. 23g

* Package Quantity:500pcs/Carton

ORDERING INFORMATION

	CHFN	-V	-1	12	H	A	2	F	(31A)	000
1. Product Family CHFN=PCB Terminal only										
2. Enclosure V = Vented(Flux-tight),plastic cover.(RT II) S = Sealed,plastic cover.(RT III)										
3. Number of Poles 1 = 1 pole										
4. Rated Coil Voltage 09 = 9VDC 12 =12VDC 18 = 18VDC 24 = 24VDC										
5. Coil Input H= High power consumption (1.4W)										
6. Contact Arrangement A = Form A										
7. Contact material 2 = AgSnO ₂										
8. Insulation System Designation F= Class F(155°C)										
9. Current Rating (31A) = AC rating,31A (35A) = AC rating,35A,										
10. Additional numbers and /or letters 000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements										

OUTLINE DIMENSION

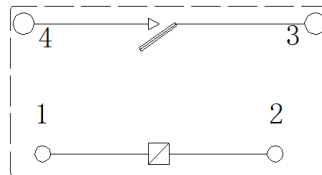


Remark:

- The reference tolerance in outline dimension:
outline dimension ≤ 1 mm, reference tolerance is ± 0.2 mm;
outline dimension > 1 mm and ≤ 5 mm, reference tolerance is ± 0.3 mm;
outline dimension > 5 mm, reference tolerance is ± 0.5 mm.
- The reference tolerance for PC Board layout is ± 0.1 mm.

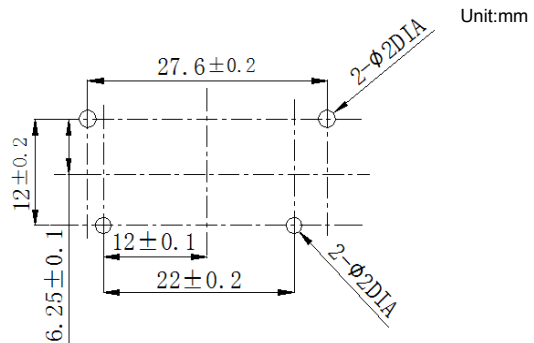
WIRING DIAGRAMS (BOTTOM)

Unit:mm



PC BOARD LAYOUTS (BOTTOM)

Unit:mm



Typical products

Product Description		Characteristic							
Product Name	Code	Coil Rated voltage	Contact material	Contact Load	Electrical endurance	Safety certification	Glow	Anti-explosio	Special Feature
CHFN-V-1**HA2F(31A)	000	12V、24V	Ag alloy	31A @277VAC	30000ops.min	UL/cUL,TUV,CQC			
CHFN-S-1**HA2F(31A)					10000ops.min				
CHFN-V-1**HA2F(35A)	100			35A @277VAC	30000ops.min				
CHFN-S-1**HA2F(35A)					10000ops.min				

Remarks: Special ordering for other requirements

Packaging Figure

