

HF192F

SOLAR RELAY



File No.: E133481



File No.: R50508861



Features

- 260A switching capability
- Applicable to solar photovoltaic inverter
- 4.0 mm contact gap
- Low coil holding voltage contributes to saving energy of equipment
- UL insulation system: Class F

RoHS compliant

CONTACT DATA

Contact arrangement	1H
Contact resistance(initial)	$\leq 1\text{m}\Omega(6\text{VDC } 20\text{A})$
Contact material	AgNi
Contact rating (Res. load)	Making 55A, carrying 260A, breaking 55A, 800VAC
Max. switching voltage	830VAC
Max. switching current	260A
Max. switching power	45650VA
Mechanical endurance	$1 \times 10^6\text{OPS}$ $\geq 1 \times 10^4\text{OPS}$
Electrical endurance	(85°C, 1s on 9s off, Making 55A, carrying 260A, breaking 55A, 800VAC, Resistive load)

CHARACTERISTICS

Insulation resistance		1000 MΩ (500VDC)
Dielectric strength	Between open contacts	2000VAC 1min
	Between coil & contacts	5000VAC 1min
Surge voltage		10kV(1.2/50μs)
Operate time (at rated. volt.)		30ms max.
Release time (at rated. volt.)		10ms max.
Temperature rise		70K max. (Contact load current 260A, Coil rated voltage is reduced to holding voltage after 100ms of excitation, at 85°C)
Shock resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance		10Hz to 55Hz 1.0mm DA
Humidity		5 % to 85 % RH
Ambient temperature		-40°C to 85°C (Coil rated voltage is reduced to holding voltage after 100ms of excitation)
Termination		PCB
Unit weight		Approx.265g
Construction		Flux proofed

Notes: The data shown above are initial values.

COIL

Coil power	Approx.3W
Holding voltage	40% to 100%UN(at 25°C) 50% to 60%UN(at 85°C)

Notes: 1)The coil holding voltage is the voltage applied to coil 200ms after the rated voltage.
2)To avoid overheating and burning, the coil can not be consistently applied to with voltage larger than maximum holding voltage.

COIL DATA

23°C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Voltage VDC ¹⁾	Coil Resistance Ω
6	≤ 4.5	≥ 0.6	7.2	12×(1±10%)
9	≤ 6.75	≥ 0.9	10.8	27×(1±10%)
12	≤ 9	≥ 1.2	14.4	48×(1±10%)
24	≤ 18	≥ 2.4	28.8	192×(1±10%)

Notes: Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

UL/CUL	Making 55A, carrying 260A, breaking 55A, 830VAC, 85°C, 10000OPS, Resistive load
TUV	Making 55A, carrying 260A, breaking 55A, 830VAC, 85°C, 10000OPS, Resistive load



HONGFA RELAY

ISO9001, IATF16949,ISO14001,OHSAS18001,IECQ QC 080000 CERTIFIED

2022 Rev. 1.00

ORDERING INFORMATION

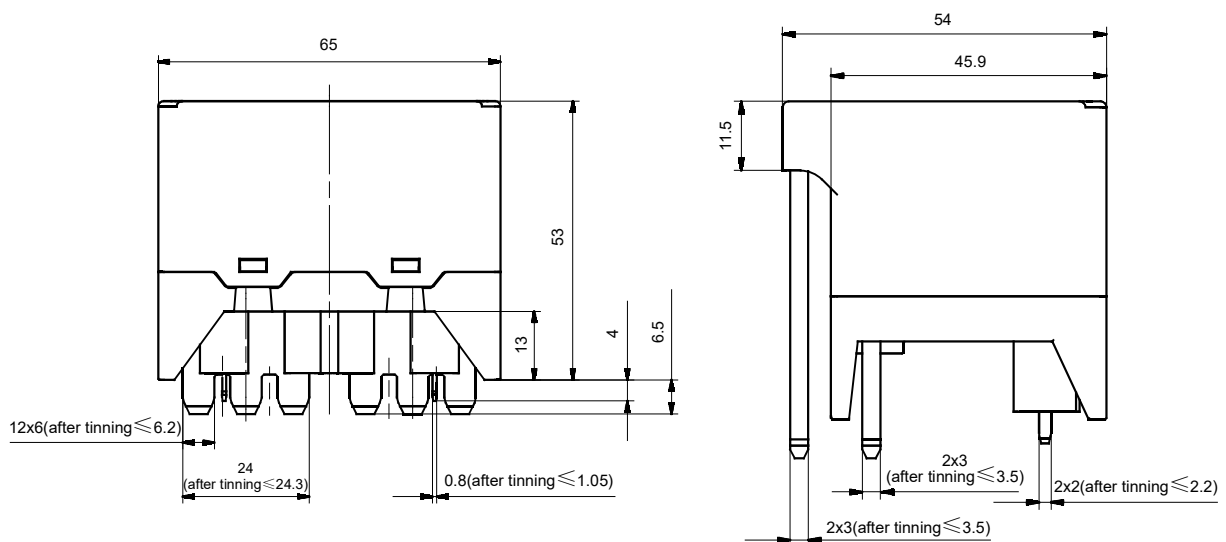
Type	HF192F/	12	-H	3	F	(XXX)
Coil voltage	6,9,12,24VDC					
Contact arrangement	H: 1 Form A					
Contact material	3: AgNi					
Insulation standard	F: Class F					
Special code	XXX: Customer special requirement Nil: Standard type					

Notes: 1) Flux-proofed relays can not be used in the environment with pollutants like H₂S, SO₂, NO₂, dust, etc.
 2) Water clearing or surface process is not suggested after the flux-proofed relays are assembled on PCB.
 3) The customer special requirement express as special code after evaluating by Hongfa.

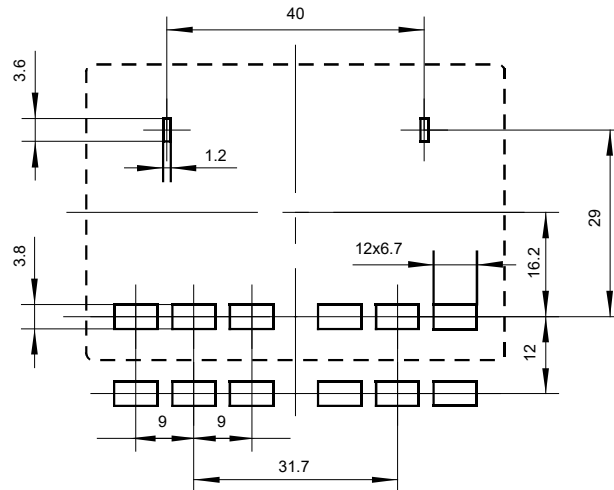
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

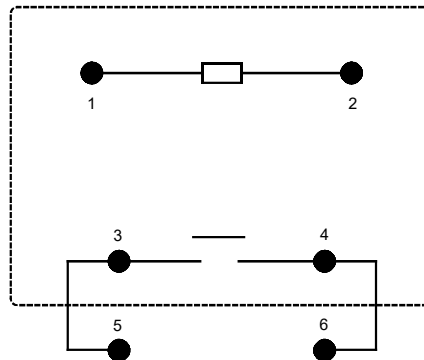
Outline Dimensions



PCB Layout
(Bottom view)



Wiring Diagram
(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 $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.

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