

HF18FZ-G MINIATURE INTERMEDIATE POWER RELAY



File No: E133481



File No: 40048408



File No: CQC17002183722



Features

- Multiple switching capability (2C, 4C type)
- With LED
- Conform to the CE low voltage directive
- 2.0kV dielectric strength(between coil and contacts)
- High electrical life
- High mechanical life
- With test button
- Automatic production

RoHS compliant

CONTACT DATA

Contact arrangement	2C	4C
Contact resistance ¹⁾	100mΩ max.(at 1A 6VDC)	
Contact material	See"ORDERING INFORMATION"	
Contact rating (Res. load)	12A 277VAC/30VDC	6A 277VAC/30VDC
Min. contact load ²⁾	5VDC 1mA	
Max. switching voltage	277VAC / 30VDC	
Max. switching current	12A	6A
Max. switching power	3324VA/ 360W	1662VA/ 180W
Mechanical endurance	2 x 10 ⁷ OPS(DC type)	
	1 x 10 ⁷ OPS(AC type)	
Electrical endurance ³⁾	2 Form C:1 x 10 ⁵ OPS (12A 277VAC or 12A 30VDC, Resistive load,Room temp.,1s on 9s off)	
	4 Form C:1 x 10 ⁵ OPS (6A 277VAC or 6A 30VDC, Resistive load,Room temp.,1s on 9s off)	

- Notes:** 1) The data shown above are initial values.
 2) It refers to the approximate switchable limit for small loads like electronic circuits, not a guaranteed value. It may vary with switching frequency, environment and reliability requirements. Confirm with actual equipment under real operating conditions.
 3) Please refer to the characteristic curves for detailed electrical endurance information.If you need other conditions,please contact us.

CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	2000VAC 1min
	Between open contacts	1000VAC 1min
	Between contact sets	2000VAC 1min(2 Form C) 1500VAC 1min(4 Form C)
Operate time (at nomi. volt.)	20ms max.	
Release time (at nomi. volt.)	DC type: 15ms max.	
	AC type: 25ms max.	
Temperature rise	85K max.	
Shock resistance	Functional	200m/s ² (NO), 100m/s ² (NC)
	Destructive	1000m/s ²
Vibration resistance	10Hz to 55Hz 1mm DA	
Humidity	5% to 85% RH	
Ambient temperature	-40°C to 70°C	
Termination	Plug-in	
Unit weight	Approx. 39.4g	
Construction	Dust protected	

Notes: 1) The data shown above are initial values.

COIL

Coil power	DC type: Approx. 0.8W to 1.1W; AC type: Approx. 0.9VA to 1.5VA
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COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC max. ¹⁾	Drop-out Voltage VDC min.	Max. Voltage VDC ²⁾	Coil Resistance Ω
6	4.8	0.60	6.6	41 x (1±15%)
12	9.6	1.20	13.2	165 x (1±15%)
24	19.2	2.40	26.4	662 x (1±15%)
48	38.4	4.80	52.8	2725 x (1±15%)
100/110	80.0	11.0	110/121	11440 x (1±15%)
220	170.0	22.0	242	53780 x (1±15%)

Nominal Voltage VAC	Pick-up Voltage VAC max. ¹⁾	Drop-out Voltage VAC min.	Max. Voltage VAC ²⁾	Coil Resistance Ω
12	9.60	3.60	13.2	46 x (1±15%)
24	19.2	7.20	26.4	180 x (1±15%)
48	38.4	14.4	52.8	788 x (1±15%)
100/110	80.0	33.0	110/121	3750 x (1±15%)
110/120	88.0	36.0	121/132	4430 x (1±15%)
200/220	160.0	66.0	220/242	12950 x (1±15%)
220/240	176.0	72.0	242/264	18790 x (1±15%)

Notes: 1) Under ambient temperature, applying more than 80% of rating voltage to coil, relay will take action accordingly. But in order to meet the stated product performance, please apply rated voltage to coil.

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



HONGFA RELAY

ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000, ISO/IEC 27001 CERTIFIED

2025 Rev. 2.00

SAFETY APPROVAL RATINGS

UL/CUL	2 Form C	12A 277VAC or 12A 30VDC
	4 Form C	6A 277VAC or 6A 30VDC Resistive at 70°C
CQC	2 Form C	12A 277VAC or 12A 30VDC Resistive at 70°C
	4 Form C	6A 277VAC or 6A 30VDC Resistive at 70°C

Notes: 1) Only typical loads are listed above. Other load specifications can be available upon request.

ORDERING INFORMATION

Type		HF18FZ-G/ A 12 -2Z 2 3 J 1 (XXX)						
Coil voltage form	A: AC(50Hz or 60Hz) Nil: DC							
Coil voltage	See "COIL DATA"							
Contact arrangement	2Z: 2 Form C 4Z: 4 Form C							
Termination	2: Socket							
Contact material	5: AgSnO ₂ In ₂ O ₃ (2Z) T: AgSnO ₂ (4Z)							
Custom component code	Nil: Without Component J: With free-wheeling diode(Only DC coil specifications) ¹⁾							
Interface function code	1: No LED no button 2: With LED no button 3: With LED and button							
Special code ²⁾	XXX: Customer special requirement Nil: Standard							

Notes: 1) Free-wheeling diode is available only for DC coil relay.

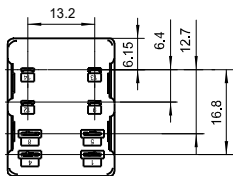
2) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

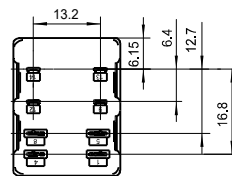
Unit: mm

Outline Dimensions

HF18FZ-G/□□□□-2Z2□□□1□
HF18FZ-G/□□□□-2Z2□□□2□

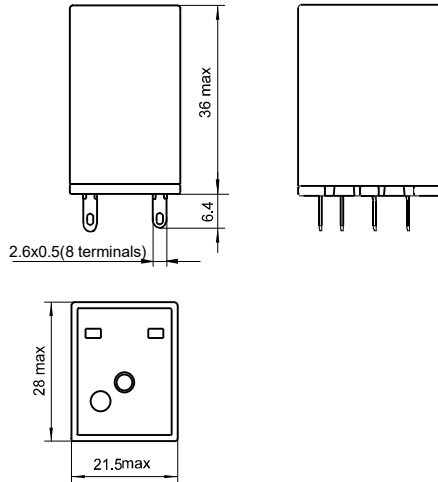


HF18FZ-G/□□□□-2Z2□□□3□

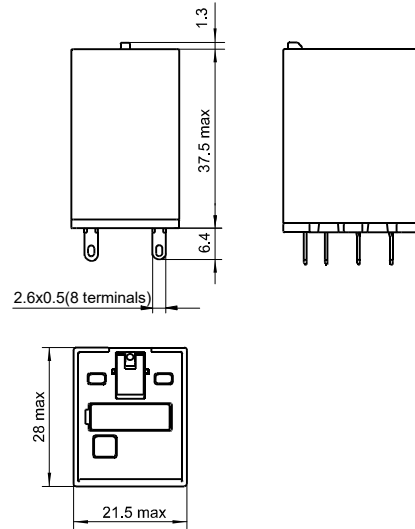


Outline Dimensions

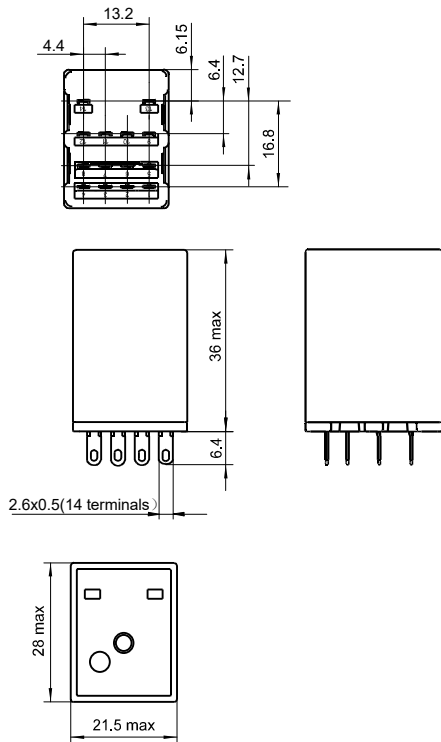
HF18FZ-G/□□□□-2Z2□□□1□
 HF18FZ-G/□□□□-2Z2□□□2□



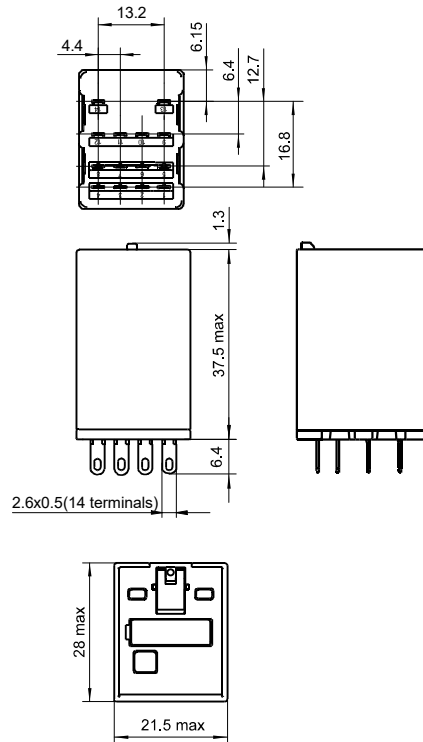
HF18FZ-G/□□□□-2Z2□□□3□



HF18FZ-G/□□□□-4Z2□□□1□
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HF18FZ-G/□□□□-4Z2□□□3□



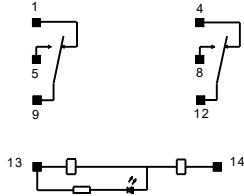
Remark: In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Wiring Diagram (Bottom view)

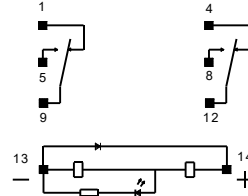
HF18FZ-G/□□□-2Z252
HF18FZ-G/□□□-2Z253

2 Form C(With LED)
(Without 220VDC)



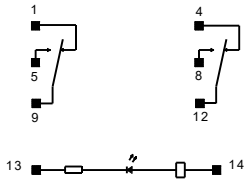
HF18FZ-G/□□□-2Z25J2
HF18FZ-G/□□□-2Z25J3

2 Form C
(DC, With fly-wheel diode and LED)
(Without 220VDC)



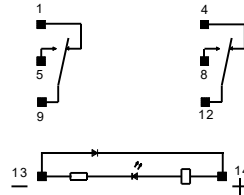
HF18FZ/220-2Z252
HF18FZ/220-2Z253

2 Form C(With LED)
(220VDC)



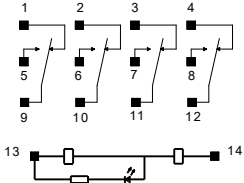
HF18FZ/220-2Z25J2
HF18FZ/220-2Z25J3

2 Form C
(DC, With fly-wheel diode and LED)
(220VDC)



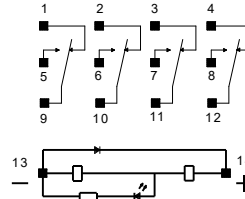
HF18FZ/□□□-4Z2T2
HF18FZ/□□□-4Z2T3

4 Form C
(With LED)
(Without 220VDC)



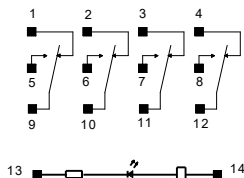
HF18FZ/□□□-4Z2TJ2
HF18FZ/□□□-4Z2TJ3

4 Form C
(DC, With fly-wheel diode and LED)
(Without 220VDC)



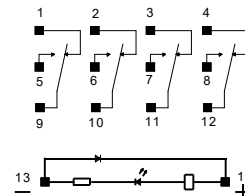
HF18FZ/220-4Z2T2
HF18FZ/220-4Z2T3

4 Form C
(DC, With LED)
(220VDC)



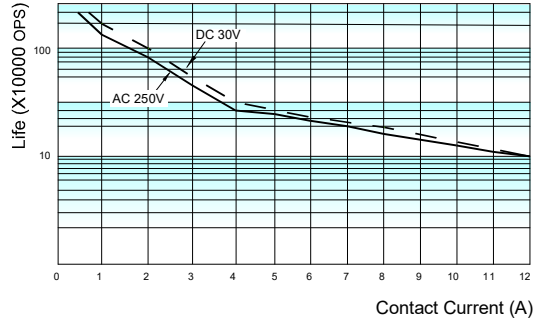
HF18FZ/220-4Z2TJ2
HF18FZ/220-4Z2TJ3

4 Form C
(DC, With fly-wheel and LED)
(220VDC)

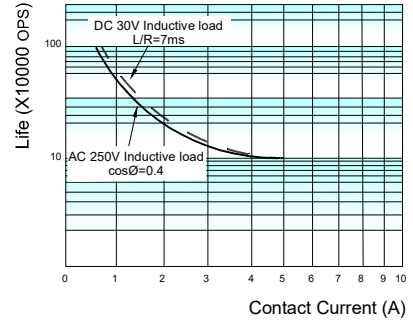


CHARACTERISTIC CURVES

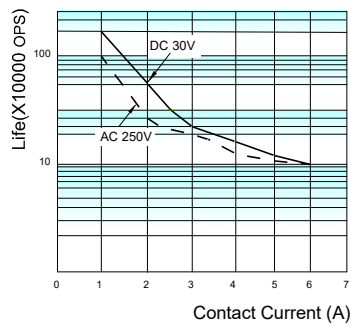
RESISTIVE ENDURANCE
2Z-G



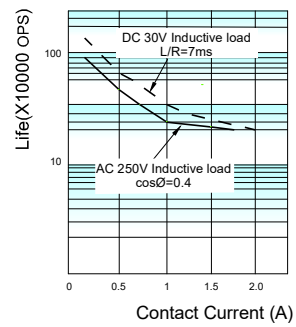
INDUCTIVE ENDURANCE
2Z-G



RESISTIVE ENDURANCE
4Z-G



INDUCTIVE ENDURANCE
4Z-G



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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