Selection manual of industrial control relay

13F Miniature Power Relay

CE



Relay



Socket



Relay module

13F □ – □ □ □

- **Coil voltage**
  6-220VDC
  6-380VAC
- **NIL Without electroniccomponents**
  D:With rectifier diode
  C:With varistor
- **Options**
  None: Standard
  L: LED(DC coil: green, AC coil: red)
- **Contact form**
  1,2,3,4(A:normally open,B:normally close, C:changeover)
- **Series Name**

Specification

Contact	Contact form		1C	2C	3C / 4C
	Rated load	Resistive (AC-1)	16A/250VAC,30VDC	10A/250VAC,30VDC	
		Motor (AC-15)	1/2HP,240VAC;1HP,240VAC	1/2HP,240VAC;1HP,240VAC	
	Operating power(Resistive)		4000VA,480W	2500VA,300W	
	Contact resistance(Initial)		≤50mΩ		
	Material		Ag alloy		
	Electrical endurance		⩾10^5cycles(1800 Ops/h)		
	Mechanical endurance		⩾10^7cycles(18000 Ops/h)		
Pick-up voltage (23℃)			DC:⩽75%Rated voltage,AC:⩽80%Rated voltage		
Drop-out voltage (23℃)			DC:⩾10%Rated voltage,AC:⩾30%Rated voltage		
Max.Allowed voltage(25℃)			110%Rated voltage		
Insulation resistance			⩾ 500mΩ(500VDC)		
Coil power consumption	DC(W)		0.9	1.4	1.5
	AC(VA)		1.2	2	2.5
Operate time(at nominal voltage)			⩽20ms		
Release time(at nominal voltage)			⩽20ms		
Initial dielectric strength	Between contacts		1000VAC/1min (Leakage current 1 mA)		
	Between poles		1000VAC/1min (Leakage current 1 mA)		
	Between contact and coil		2000VAC/1min (Leakage current 1 mA)		
Ambient temperature			-25~+55℃		
Humidity			35%~85%RH		
Atmospheric Pressure			86~106KPa		
Shock resistance			10G(Half a wave of pulses of sine:11ms)		
Vibration resistance			10~55Hz Dual amplitude:1.5mm		
Installation mode			Plug-in terminals/PCB terminals		
Weight			Approx.35g		
Matched relay socket			13F-2Z-C1 13F-2Z-C2 13F-2Z-PI	13F-3Z-C1 13F-3Z-C3	13F-4Z-C1 13F-4Z-C2
Equivalent Product	FUJITSU		HH61P	HH62P	HH63P / HH64P
	OMRON		LY1	LY2	LY3 / LY4

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Coil Specifications (23°C)

13F1P&13F2P

Rated voltage V.DC	6	9	12	24	36	48	110	220			
Coil resistance (±10%)	40	90	160	630	1500	2600	11000	42000			
Rated voltage V.AC	6	12	24	36	48	110	120	220	230	240	380
Coil resistance (±10%)	11.5	40	160	370	600	3750	3900	13000	15000	18790	42000

13F3P

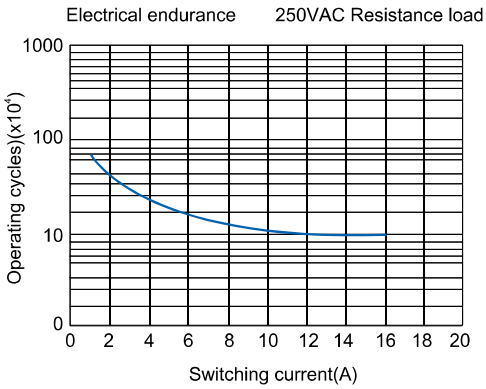
Rated voltage V.DC	6	9	12	24	36	48	110	220		
Coil resistance (±10%)	25	56	100	400	900	1600	8400	33000		
Rated voltage V.AC	6	12	24	36	48	110	120	220	240	380
Coil resistance (±10%)	6.5	25.5	102	230	410	2300	2700	8600	10000	27500

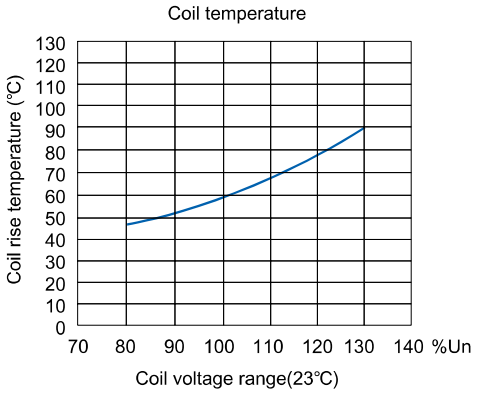
13F4P

Rated voltage V.DC	6	9	12	24	36	48	110	220		
Coil resistance (±10%)	24	54	96	360	865	1540	6800	29000		
Rated voltage V.AC	6	12	24	36	48	110	120	220	240	380
Coil resistance (±10%)	5	20	80	180	320	1680	2000	6700	8000	29000

Contact Specification

13F1P





13F2P&13F3P&13F4P

