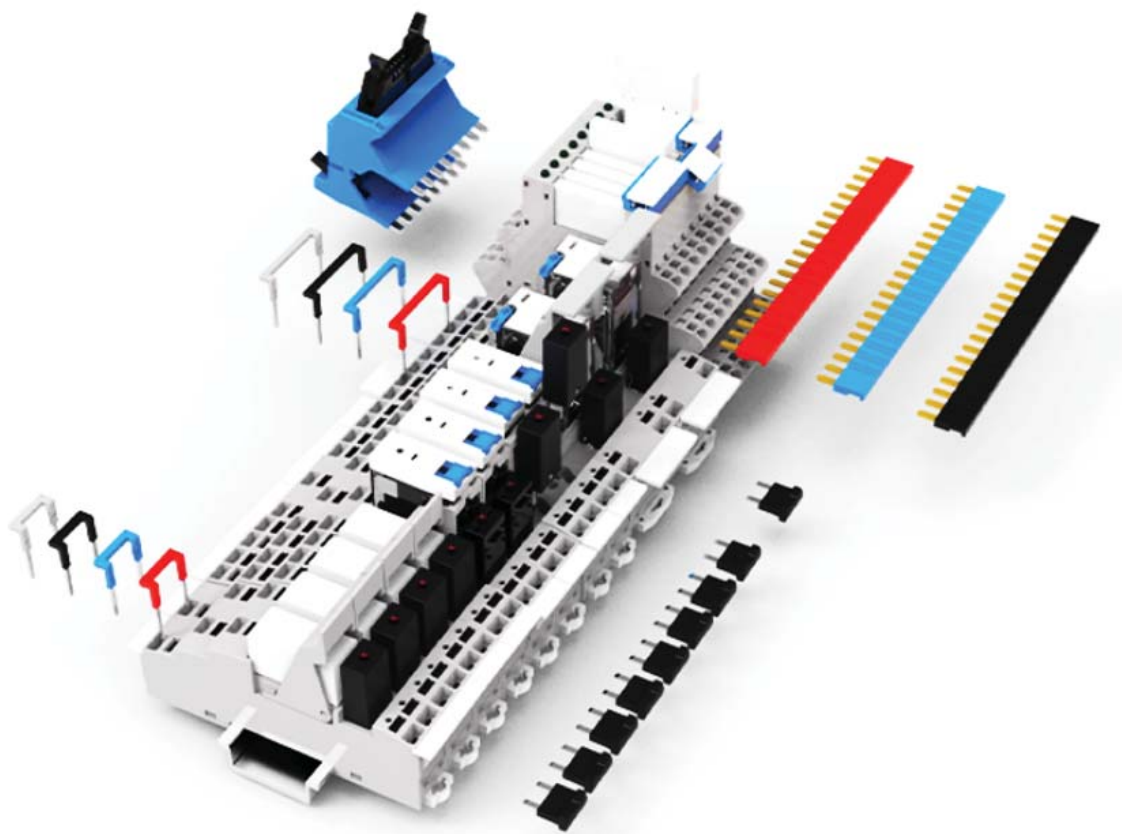


 VELMA
Industrial relay



DESCRIPTION

KS32 is a set of SPST-NO DC output PCB or Socket mount Mini type SSR. The SSR has five DC input options 5VDC, 12VDC, 24VDC, 48VDC and 60VDC for selection and provides 2500Vrms photoelectric isolation between input and output pins of the SSR are fully compatible with standard packaged electromechanical relays, thus it will be very convenient for users to install and use.

KS32	24	-	24D	3	N	-H	(xxx)
Type	Control Voltage	Load Voltage	Load Current	RC Snubber N: Not include	Mounting H: Horizontal Nil: Vertical	Special code	
	5: 5VDC 12: 12VDC 24: 24VDC 48: 48VDC 60: 60VDC	24D: 24VDC 48D: 48VDC	3: 3A (Vertical) 4: 4A (Vertical) 5: 5A (Horizontal)				



SSR
Solid state relay
24Vdc 3A

SSR Specification

OUTPUT SPECIFICATION (Ta = 25°C)

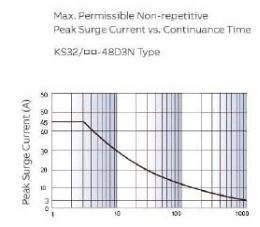
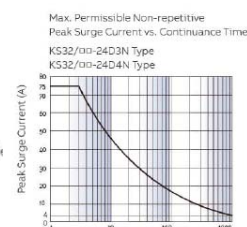
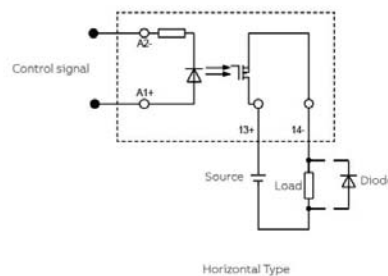
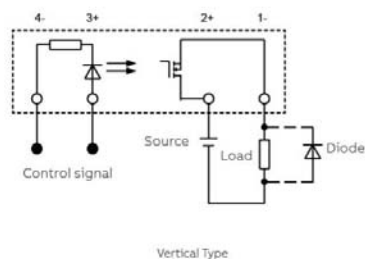
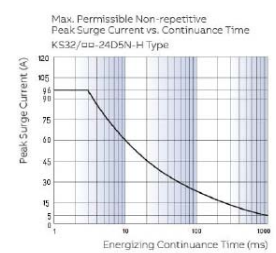
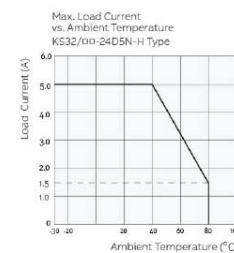
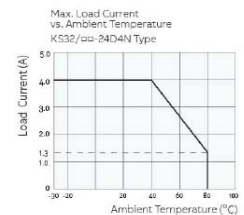
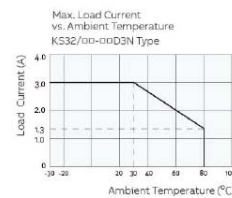
Max. on-state voltage drop	24D3	0.2VDC
	24D4	0.35VDC
	24D5	0.2VDC
	48D3	0.35VDC
Max. turn-on time	50 micro sec.	
Max. turn-off time	300 micro sec.	

GENERAL SPECIFICATION (Ta = 25°C)

Dielectric strength (input/output)	2500VAC, 1 min.
Insulation resistance	1000 M Ohms (500VDC)
Max. capacitance (input/output)	50 pF
Vibration resistance	10 - 55Hz, 1.5 mm, DA
Operating Temperature	-30 - 80°C
Storage Temperature	-30 - 100°C
Ambient humidity	45% - 85% RH
Unit weight	11g.

OUTPUT SPECIFICATION (Ta = 25°C)

Load voltage range	24Dxx	3 - 28.8VDC
	48Dxx	3 - 57.6VDC
Max. transient range	24Dxx	33VDC
	48Dxx	58VDC
Load current range	24D3	0.02 - 3A
	24D4	0.02 - 4A
	24D5	0.02 - 5A
	48D3	0.02 - 3A





DESCRIPTION

For PLC's and process control high power contact AgNi with cage clamp terminals 41F-1Z-C4-x Recommended Max. load 250V 6 A resistive link option.

FEATURES

Relay module up to 6 A 250V, different contact materials
Solid state modules for most loads DC and AC up to 2 A. Coil UC = AC/DC,
no protection circuit required LED status display, Screw terminals or cage clamp terminals
Jumper link and Super small mounting: 6.2 mm.

SPECIFICATION

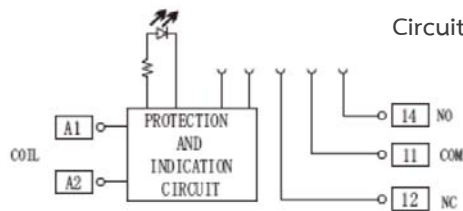
Technical data

Contact	1-CO (1NO/1NC)
Switching current	6 A 250V AC
Recommended minimal load	100mA / 12V
Switching power DC-1-30V	180W
Switching power AC-1-230V	1500VA
Switching power DC-15-230V	300VA
Peak inrush current	15A / 2.5 ms
Switching cycles: mech/elec	50,000,000 times
Isolation EN 61810-5	6Kv
Power consumption Pmax 24V/230V	408 / 900mW
On-delay / release time	7 / 15ms
Temp. operating / storage	-40...+70°C / -40...+85°C

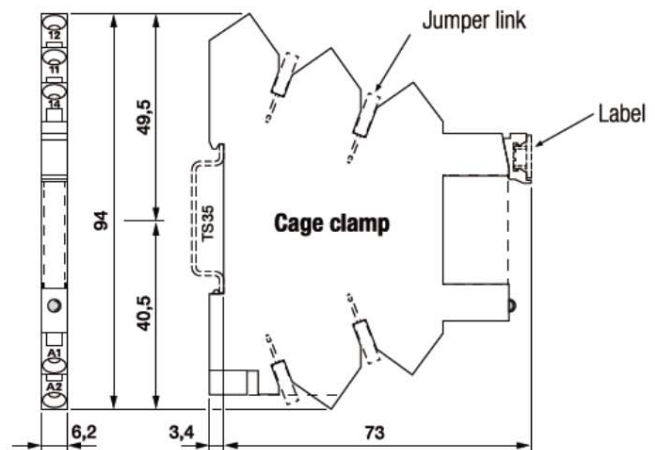
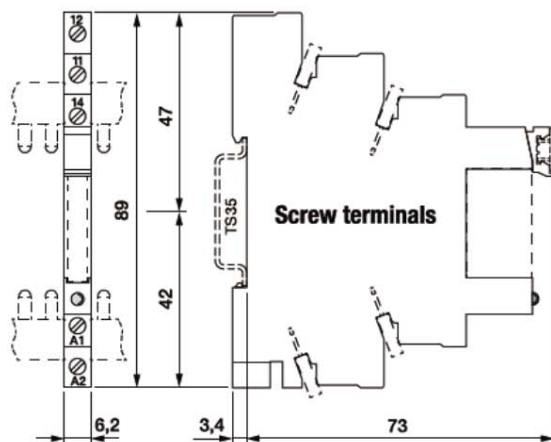
41F Combo with cage clamp terminals

Nominal coil voltage	Order no.
24VDC	41F-1Z-C4-5
220VAC	41F-1Z-C4-4
Solid state relay (SSR)	41F-1Z-C4-N-1
Other voltage	Can be generate the order no.

Circuit diagram



Dimension





Miniature power relay
ZJ157F - HF157 - ZJ18F



ZJ157F

Miniature power relay
contact 8A - AgNi



DESCRIPTION

For PLC's and process control high power contact AgNi
with screw terminals 157F-2Z-C3 and 157F-2Z-C4
Recommended Max. load 250V 16 A resistive link option.

FEATURES

Relay module up to 8 A 250V, different contact materials
Lockable test button models available
Built-in mechanical operation indicator
LED status display
High switching power (1-pole: 16 A) (2-pole: 8A) Jumper link 8 pin & Diode protection
(option) Available with working temperature of 105°C

Specification

Contact	1-CO (1NO/1NC)	2-CO (2NO/2NC)
Switching current	16 A 250V AC	8 A 250V AC
Rate voltage	250VAC / 30VDC Max.	
Switching power	3000VA, 360W	
Contact Material	AgNi	
Initial contact resistance	Less than 50 mOhms	
Peak inrush current	15A / 2.5 ms	
Operating time	<20 ms	
Release time	<10 ms	
Power consumption	DC 0.53W / AC1.0W	
Electrical endurance	> 50,000,000 times	
Temp. operating / storage	-40...65°C / -40...85°C	
Weight	20 g.	
Shock resistance	10G	
Vibration resistance	10 - 55 Hz	
Insulation resistance	>10000 M.Ohms (500VDC)	
Cordend length	10 mm. / 12 mm.	

Ordering no.

ZJ157F T - 2 PL D / 24

Type

Function

No letter: Standard relay

T: Whit test button

Contact

1: 1-CO 1NO/1NC 16A

2: 2-CO 2NO/2NC 8A

LED Signal

P: Without LED

PL: With LED

Coil protection

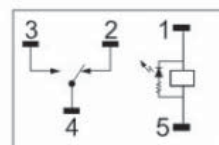
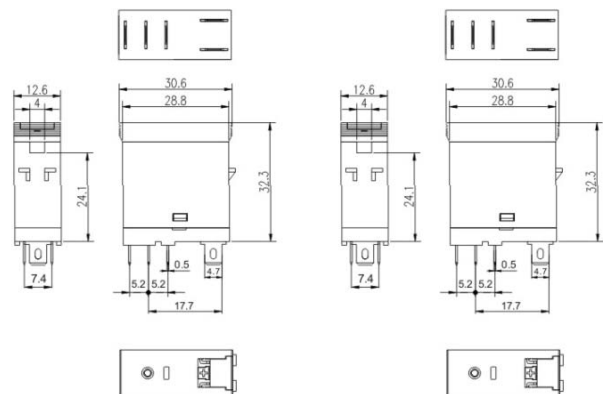
No letter: Without Diode

D: With Diode

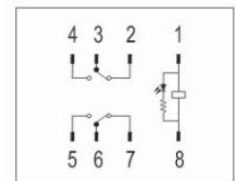
Coil Voltage

5: 5VDC 12: 12VDC 24: 24VDC 48: 48VDC

110: 110VAC 220: 220VAC



1Z



2Z

HF157 Series

FEATURES

- High capacity (1 pole:16A;2 pole:10A)
- Various types available
- 1/2 pole configurations
- 5kV dielectric strength
- (between coil and contacts)
- Sockets available

COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC ¹⁾	Drop-out Voltage VDC ¹⁾	Max. Allowable Voltage VDC ²⁾	Coil Resistance Ω
5	3.5	0.5	5.5	47.2 x (1±10%)
6	4.2	0.6	6.6	67.9 x (1±10%)
12	8.4	1.2	13.2	271 x (1±10%)
24	16.8	2.4	26.4	1080 x (1±10%)
36	25.2	3.6	39.6	2445 x (1±10%)
48	33.6	4.8	52.8	4340 x (1±10%)
60	42	6	66	6792 x (1±10%)
100~110	77	11	110~121	18870 x (1±10%)

SAFETY APPROVAL RATINGS

UL/CUL	1C	12A 250VAC/30VDC Resistive load 70°C 16A 250VAC/30VDC Resistive load 70°C
	2C	8A 250VAC/30VDC Resistive load 70°C 10A 250VAC/30VDC Resistive load 70°C
TÜV	1C	12A 250VAC/30VDC Resistive load 70°C 16A 250VAC/30VDC Resistive load 70°C
	2C	8A 250VAC/30VDC Resistive load 70°C 10A 250VAC/30VDC Resistive load 70°C

Notes: Only some typical ratings are listed above. If more details are required, please contact us.

CONTACT DATA

Contact arrangement	1Z,2Z
Contact resistance ¹⁾	100mΩ (1A 6VDC)
Contact material	AgSnO ₂ Alloy
Contact rating(Res. load)	1Z:12A 250VAC/30VDC 2Z:8A 250VAC/30VDC
Max. switching voltage	250VAC/30VDC
Max. switching current	1Z: 16A 2Z: 10A
Max. switching power	1Z:4000VA/480W 2Z:2500VA/300W
Mechanical endurance	AC:3 x 10 ⁷ ops DC:5 x 10 ⁷ ops
Electrical endurance	1 x 10 ⁵ ops (1Z:12A 250VAC/30VDC, Resistive load, Room temp, 1s on 9s off, NO or NC) (2Z:8A 250VAC/30VDC, Resistive load, Room temp, 1s on 9s off, NO or NC)

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



File No.:E133481



File No.:R50403813



File No.:CQC18002189443



HF157

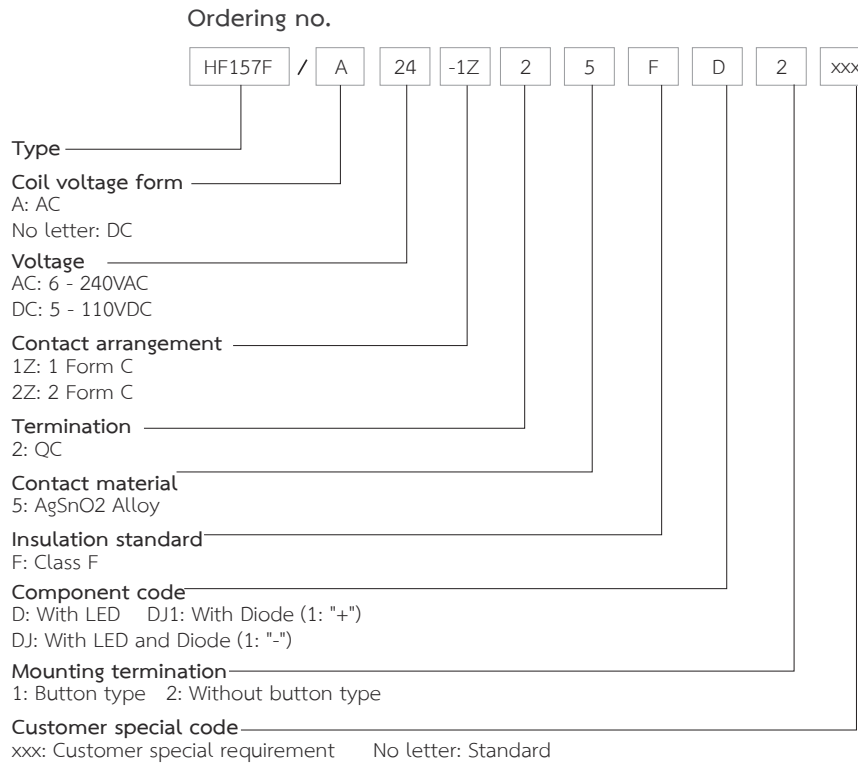
Miniature power relay
Contact 8A AgSnO₂

CHARACTERISTICS

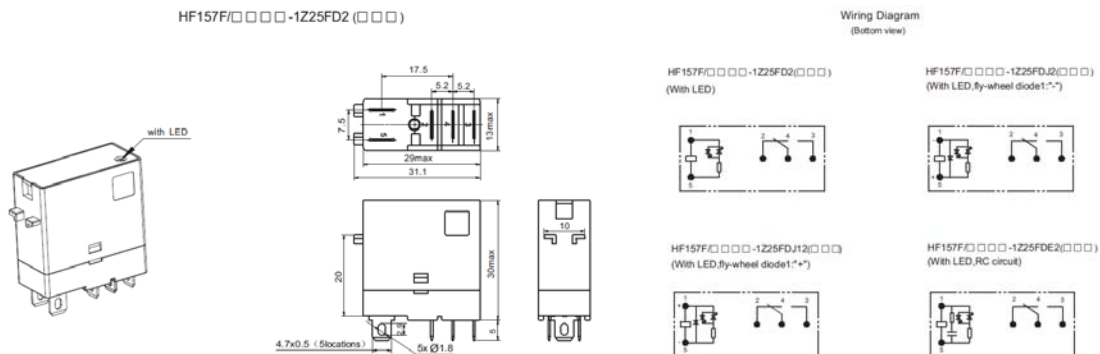
Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
	Between contact sets	3000VAC 1min
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		20ms max. (AC, With diode or RC circuit) DC: 10ms max.
Shock resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient temperature		-40°C to 70°C
Termination		Plug-in
Unit weight		Approx. 23.5g(button type) Approx.22g (without button type)
Construction		Dust protected

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

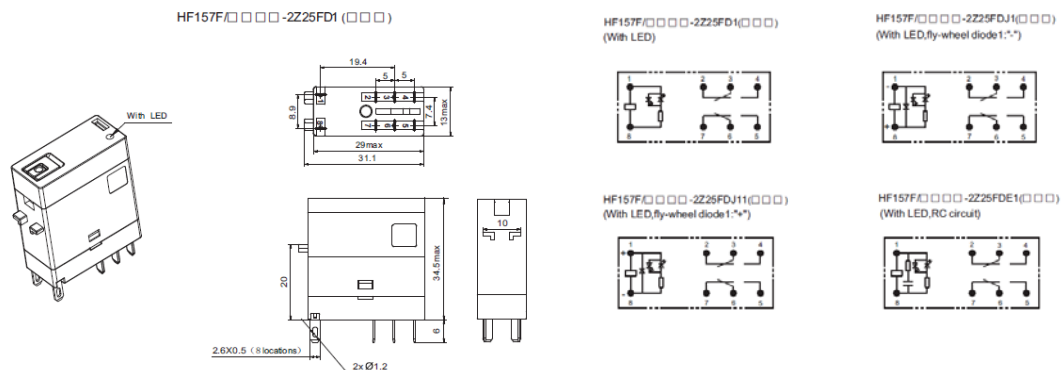
HF157 Series



1-CO 1NO/1NC Dimension and wiring



2-CO 1NO/1NC Dimension and wiring



ZJ18F Series

FEATURES

- Relay module up to 10 A 250V, different contact materials
- Lockable test button models available
- Built-in mechanical operation indicator
- LED status display
- High switching power (2-CO: 10 A) (4-CO: 5A)
- Relays with AC and DC coils have different RoHS complaint



File No.:E133481



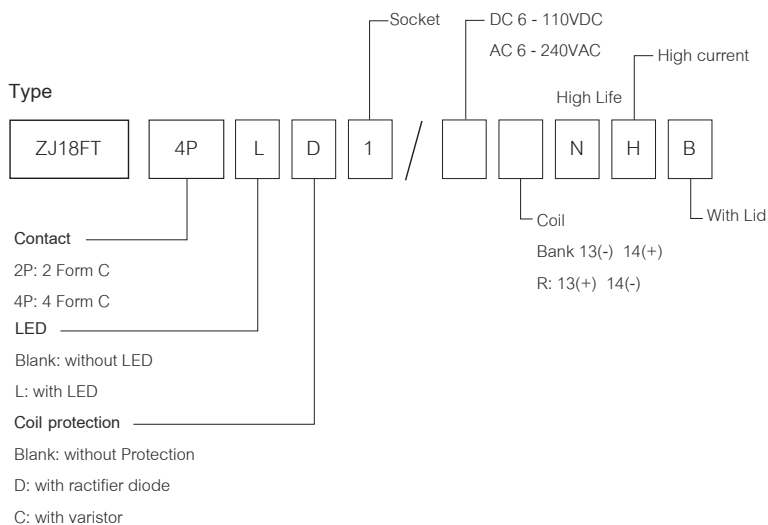
File No.:R50403813



File No.:CQC1800218944



Type



ZJ18F

Industrial power relay
Contact 10A AgNi

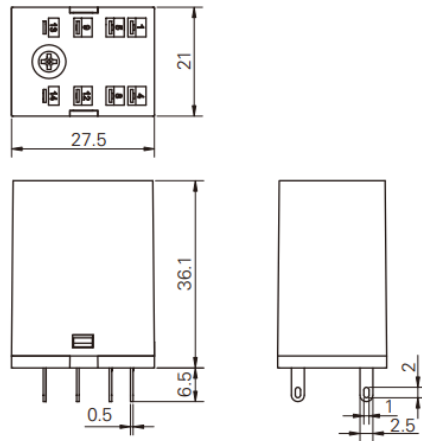
SPECIFICATION

Technical data

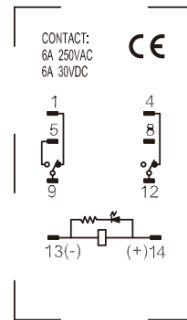
Contact	2 Pole (2-CO)	4 Pole (4-CO)
Load	Resistive load	Resistive load
Contact configuration	2C Form C	4C Form C
Contact material	AgNi	AgNi
Rated current	10 A	5 A
Maximum switching capacity	2500VA 300W	660VA 72W
Contact resistance	50 mOhms	100 mOhm
Operating time	20ms max	20ms max
Release time	20ms max	20ms max
Dielectric strength	AC2000V 50/60Hz 1min	AC2000V 50/60Hz 1min
Vibration resistance	10 to 55 to 10 Hz,	10 to 55 to 10 Hz,
Shock resistance	200m/s (approx.20g)	200m/s (approx.20g)
Endurance	50,000,000 operations	50,000,000 operations
Ambient humidity	5~85%RH	5~85%RH
Weight	35g	35g
Coil support (Customer order)	12, 24, 48, 60VDC / 24, 250VAC	12, 24, 48, 60VDC / 24, 250VAC

ZJ18F Series

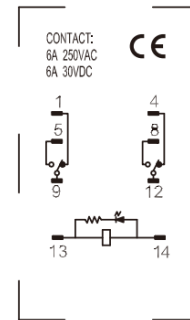
2-CO 2NO/2NC Dimension and wiring



ZJ18FT - 2P

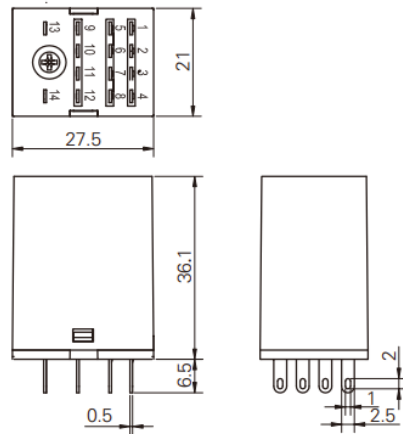


DC Coil

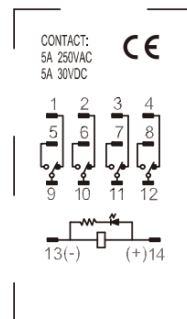


AC Coil

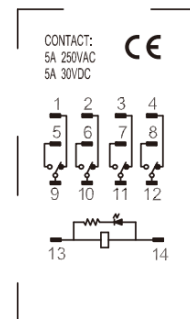
4-CO 4NO/4NC Dimension and wiring



ZJ18FT - 4P



DC Coil

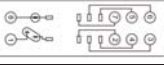
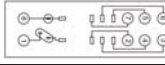
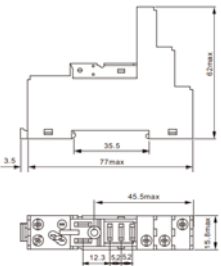
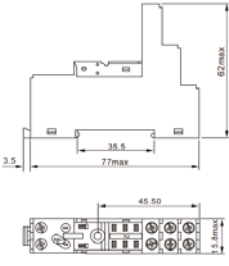
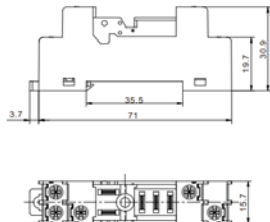
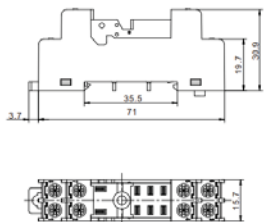
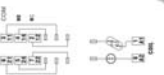
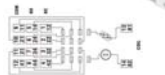
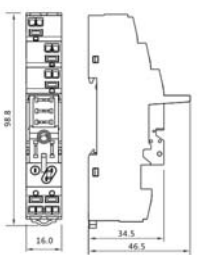
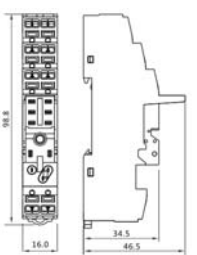
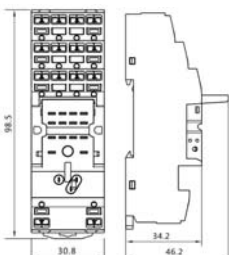
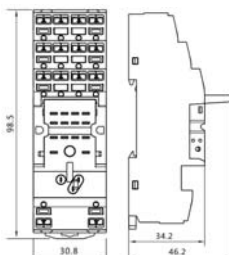


AC Coil

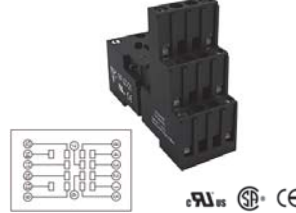
ZJ18F Series

Hi quality 2-years warranty

157F Socket series

157F-1Z-C3		157F-2Z-C3		157F-1Z-C4		157F-2Z-C4	
							
							
Current	16A	Current	10A	Current	16A	Current	10A
Voltage	300V	Voltage	300V	Voltage	300V	Voltage	300V
Material	PA66	Material	PA66	Material	PA66	Material	PA66
Wire strip length	7 mm.	Wire strip length	7 mm.	Wire strip length	7 mm.	Wire strip length	7 mm.
Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²
Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²
							
157F-1Z-C5		157F-2Z-C5		157F-2Z-C11		157F-4Z-C11	
							
							
Current	16A	Current	10A	Current	12A	Current	8A
Voltage	300V	Voltage	300V	Voltage	300V	Voltage	300V
Material	PA66	Material	PA66	Material	PA66	Material	PA66
Wire strip length	8 mm.	Wire strip length	8 mm.	Wire strip length	8 mm.	Wire strip length	8 mm.
Wire cross section	1x2.5 mm ²	Wire cross section	1x2.5 mm ²	Wire cross section	1x2.5 mm ²	Wire cross section	1x2.5 mm ²
Casing wire	1x1.5 mm ²	Casing wire	1x1.5 mm ²	Casing wire	1x1.5 mm ²	Casing wire	1x1.5 mm ²
							

18F Socket series

18F-2Z-C2		18F-4Z-C2		18F-2Z-C5		18F-4Z-C5	
							
Current	12A	Current	10A	Current	12A	Current	10A
Voltage	300V	Voltage	300V	Voltage	300V	Voltage	300V
Material	PA66	Material	PA66	Material	PA66	Material	PA66
Wire strip length	7 mm.	Wire strip length	7 mm.	Wire strip length	7 mm.	Wire strip length	7 mm.
Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²	Wire cross section	2x2.5 mm ²
Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²	Casing wire	2x1.5 mm ²
