

Power Relays

El.italia serie FW-FRA7

Features

Miniature 20A switching capabilities
 4.5KV dielectric coil to contact
 Heavy load up to 5,000VA
 Applicable to motor switching
 PCB & QC terminal



CE mark: E139468

Ordering information

FRA7 T A DC12V
 1 2 3 4

1 Relay model
 2 Termination: NIL: PCB type;
 T : PCB & quick connect type
 3 Contact arrangement: A: 1 Form A

4 Rated voltage
 Note: RoHS : RoHS compliant relay
 RoHS-I : AgNi contact
 RoHS-N: AgSnO₂ contact

Coil rating

Rated voltage (V)	Coil resistance Ω +/- 10%	Rated current (mA)	Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (W) Approx.	Operate time (ms)	Release time (ms)
			% of rated voltage (at 20°C)					
5	27.8	180						
12	160	75	70 Max.	10 Min.	130 Max.	0.9	<20	<10
24	640	37.5						

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

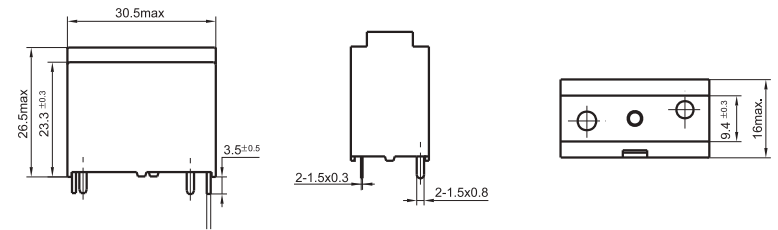
Contact arrangement	SPST (1 Form A)
Contact material	Silver alloy
Contact resistance	30mΩ Max. (Measured at 1A 24VDC)
Contact rating (resistive)	Rate load : 20A 250VAC; 1HP 120VAC; 2HP 240VAC Motor load: Inrush 80A 0.3S (Cosφ=0.7) Break 20A (Cosφ=0.9) (TÜV - Pending *rating: 20A 250VAC Cosφ=0.9)
Switching power	5,000VA Max.
Switching voltage	AC 300V Max.
Insulation resistance	1,000MΩ Min. (500VDC)
Dielectric strength	1,000VAC (50Hz/min) Between open contacts 4,500VAC (50Hz/min) Between coil and contact
Shock resistance	Functional : 196m/s ² Destructive: 980m/s ²
Vibration resistance	1.5mm Double amplitude 10-55Hz
Ambient temperature	-25°C to +70°C
Humidity	85% RH, 40°C
Operation life	Mechanical 2 x 10 ⁶ Electrical 10 ⁵ (at rated load)
Weight	23g Approx.

(Specifications are subject to change without notices.)

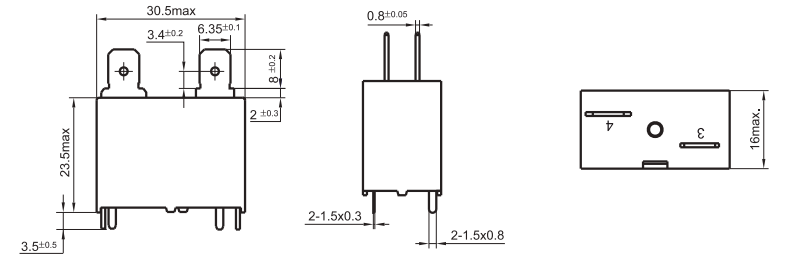
Dimensions

mm

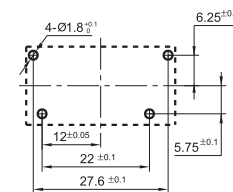
FRA7



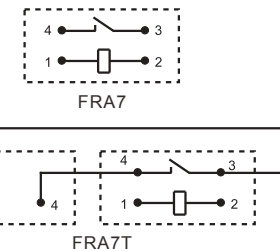
FRA7T



Mounting holes

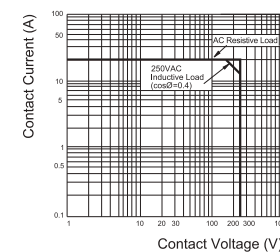


Wiring diagram (Bottom view)



Reference data

MAXIMUM SWITCHING POWER



ENDURANCE CURVE

