

1 Features

Type	FXC7-250T
Outline Dimensions	See 5.1
Unit Weight	Approx. 430g
Seal type	Epoxying
Contact Arrangement	1 Form A
Contact Material	Copper Alloy
Auxiliary Contact Type	Nil: without H: with normally open C: with normally closed Z: with convert
Auxiliary Contact Material	Copper Alloy

2 Ordering Information

FXC7 - 250 T H - P W / XXX

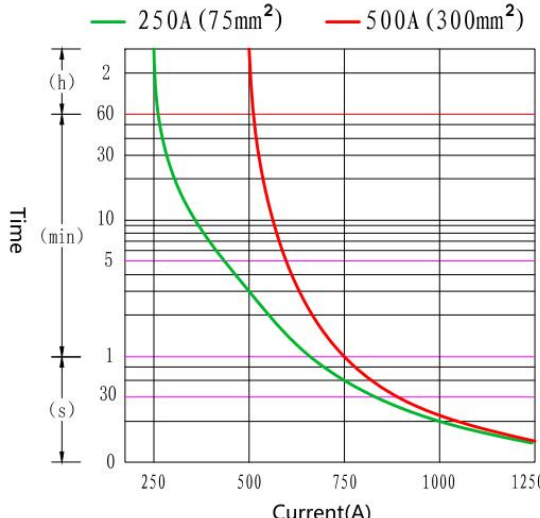
① ② ③ ④ ⑤ ⑥ ⑦

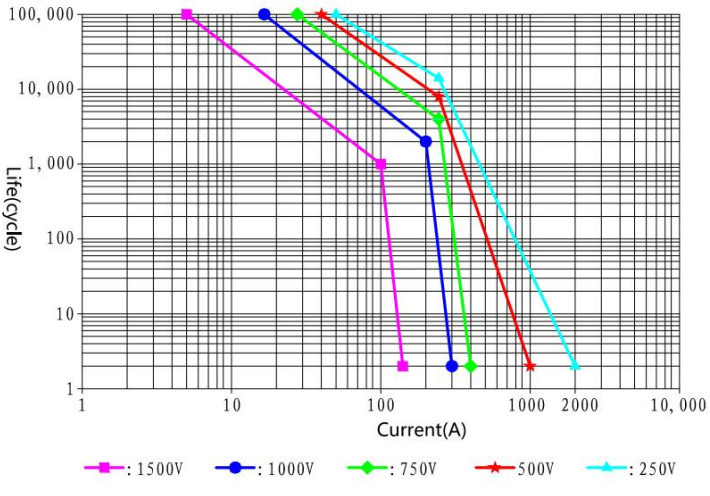
①	Type	FXC7
②	Lode Current	250: 250A
③	Contact Material	Copper Alloy
④	Auxiliary Contact Type	Nil: without H: with normally open C: with normally closed Z: with convert
⑤	Coil Voltage	P
⑥	Mounting Type	Nil: Vertical mounting W: Horizontal mounting
⑦	Product Type	XXX: Customer characteristic number

3 Coil Rating

Rated Voltage (Vd. c.)	8~36
Driving Mode	Single coil PWM
Max. Operating Voltage (Vd. c.)	36
Operate Voltage (Vd. c.) (at 23 °C)	7~8
Release Voltage (Vd. c.) (at 23 °C)	5~6
Coil Resistance (Ω) (at 23 °C)	$3.1 \times (1 \pm 10\%)$
Rated Power (W)	Driving Power: Approx 36 Holding Power: Approx 2

4 Specification

Main contact Specification	Contact Rating	250 A ($\geq 75 \text{ mm}^2$ wire) 500 A ($\geq 300 \text{ mm}^2$ wire)
	Working Voltage Range	12~1500V
	Max. Breaking Current	2000A 320Vd. c. (lop)
	Min. Applicable Load	1 A 12Vd. c.
	Contact Resistance	0.2 m Ω (at 250 A 23°C)
	Current Endurance (85°C)	
	Operate Time	$\leq 45 \text{ ms}$
Release Time	$\leq 10 \text{ ms}$	
Bounce Time	$\leq 5 \text{ ms}$	
Aux contact Specification	Contact Resistance	$\leq 150 \text{ m}\Omega$ (at 1A 23°C)
	Contact Rating	8 Vd. c. 0.1 A

Endurance	Electrical Endurance (Breaking)		
	Mechanical Endurance	300,000 次 cycles	
Safety insulation	Insulation Resistance	Between main open contacts:	Initial: ≥1000MΩ (1000 Vd. c. 1min)
		Between main contact and aux contact	Initial: ≥1000MΩ (1000 Vd. c. 1min)
		Between main contact and coil	Initial: ≥1000MΩ (1000 Vd. c. 1min)
	Dielectric Strength (Leak Current:≤1 mA)	Between main open contacts:	Initial: ≥3000 Va. c. (50/60 Hz 1 min)
		Between main contact and aux contact	Initial: ≥3000 Va. c. (50/60 Hz 1 min)
		Between main contact and coil	Initial: ≥3000 Va. c. (50/60 Hz 1 min)
Mechanical property	Vibration	20G peak, 10~2000Hz, sine wave	
	Shock	Functional	20G peak, 11ms, half sine wave
		Destructive	50G peak, 6ms, half sine wave
Operating Condition	Temperature	-40 °C ~ 85 °C	
	Humidity	5 % ~ 95 % RH	
	Mounting Direction	Vertical/Horizontal	
	Note:The ambient environment of application shall not cause any dewing or icing inside the relay. Otherwise, the relay may fail to work consequently.		

Storage Condition	Temperature	-40 °C ~ 85 °C
	Humidity	5 % ~ 95 % RH (Original Package)
	Storage Life	36 Months (Original Package)
	Environment	1.Store in locations where the product is not exposed to corrosive gas. 2.Keep product is not exposed to the direct ray of the sun.

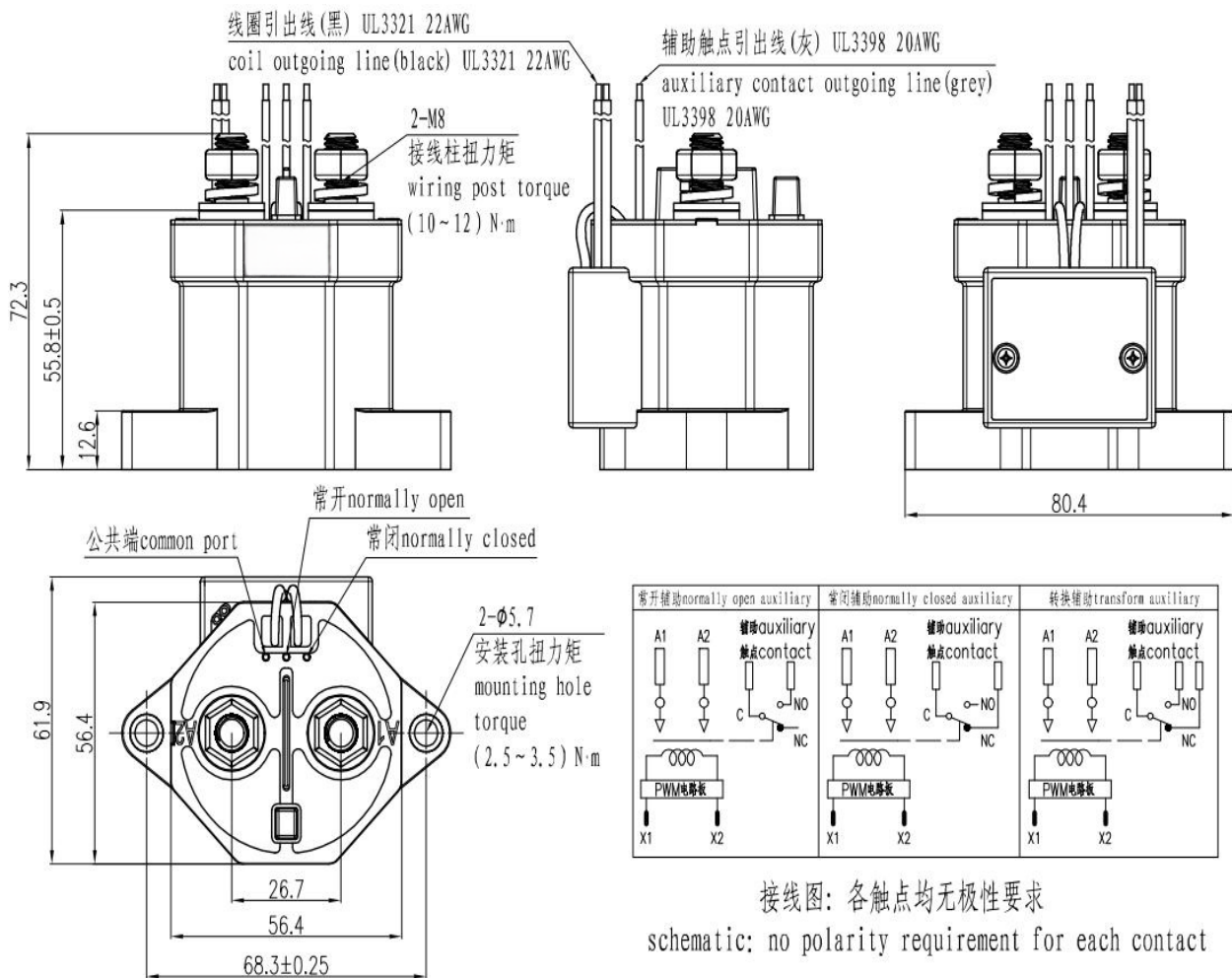
Condition for current endurance

- 1) Ambient temperature: 85 °C;
- 2) Supply rated voltage to coil;
- 3) The cross section area of wire is 75 mm².

5 Configuration

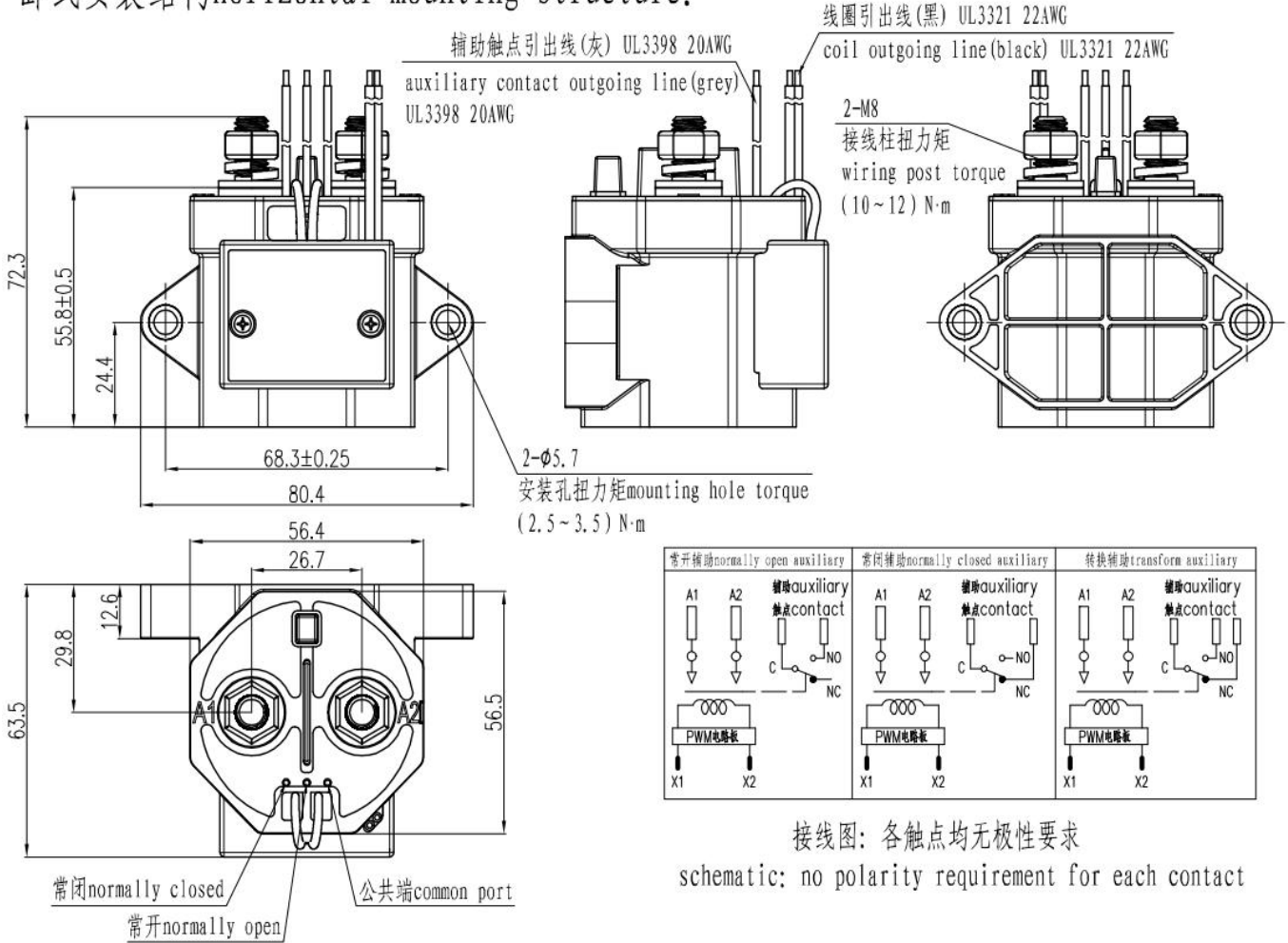
5.1 Outline Dimensions:

Vertical monting



Horizontal mounting

卧式安装结构 Horizontal mounting structure:



接线图: 各触点均无极性要求
schematic: no polarity requirement for each contact

Notes:

1. All unspecified tolerance according to following table.

Outline dimensions hadn't specified tolerance	
Outline Dimensions	Tolerance
≤10	±0.3
>10~50	±0.5
>50	±0.8

6 Others

6.1 Supplier

6.2 All the performance data listed in the datasheet are the initial values tested under standard testing condition.

6.3 Notes

6.3.1 Weltrus could not evaluate all the performance and all the parameters for every potential application. The customer can choose the right product according to the specific usage conditions and requirements. If there is any queries, please contact weltrus for the technical service. However, customer will be responsible for what they choose and it is the user's responsibility to determine which product should be used.

6.3.2 Without special note, the load we commit to the load is the rating load. weltrus doesn't response for any usage beyond our guarantee.

6.3.3 The rating load of contact is resistive load. Please assure a surge absorption device together with inductive load when using the $L/R \geq 1\text{ms}$ inductive load (Load), otherwise it may lead to the decrease of electrical endurance and defective switch.

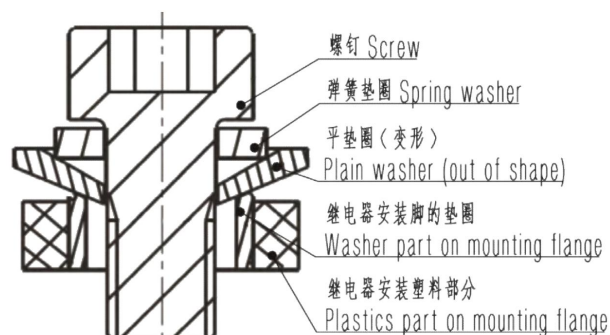
6.3.4 The relay contacts are sealed and filled with gas. When the contact temperature changes, there is internal gas penetrating characteristic.

weltrus relays are forbidden to be used at the temperature beyond our suggestion - $40\text{ }^{\circ}\text{C} \sim 85\text{ }^{\circ}\text{C}$ for long time.

5 Please avoid installation in strong magnetic field (around the transformers & magnets) and the heating objects nearby.

6.3.5 When use M5 screws to install relay, screw locking torque within $3\text{N} \cdot \text{m} \sim 4\text{N} \cdot \text{m}$.

6.3.6 In order to prevent loosening, please use the washer when installing the relay. Otherwise it will be out of shape, and the case will be broke.



6.3.8 Please avoid grease and other foreign matter in the terminal, please use the connecting wire with a cross section area $\geq 75 \text{ mm}^2$, or they may cause overheating to the terminal part .

6.3.9 Please pay attention to the thickness of copper bars and the value of the torque. If it goes beyond the recommended values in the below table , it will cause thread slide or installation is not tight. To avoid short circuit or fire, it' s not suggest fix two copper bus bar at same side.

screw on load terminal	the thickness of copper bus bar	suggest hole dimension of copper bus bar	Torque
M8	4 mm	$\Phi 8.2\text{mm} \sim \Phi 8.5\text{mm}$	10 N • m ~ 12 N • m

6.3.10 In principle, please do not use it when the relay has fallen down.

6.3.11 Environmental Protection

Weltrus products are all RoHS compliant.

6.3.12 Weltrus reserves the right to make changes.

Customers should reconfirm the contents

of the specification before first orders and ask for us to supply a new specification if necessary.