

CX140FF系列 Series

小型大功率继电器
Small high power relay



- 产品特点
- 16A触点切换能力
16A Contact switching capability,
 - 线圈与触点间介质耐压5kV
Dielectric Withstand voltage between coils and contacts tkV
 - 可提供1.5mm/1.8mm触点间隙规格产品
We can provide products with contact gap specifications of 1.5mm/1.8mm
 - 塑封型和防焊剂型可选择
Plastic sealing type and anti soldering flux type can be selectde
 - 环保产品：（符合RoHS）
Environmentally friendly products:(RoHS compliant)

触点负载 Contact Rating	
触点形式contact for	2H 2Z
触点材料 contact material	银合金
额定负载（阻性） Rated load (Resistance)	12A/10A 250VAC 16A 277VAC 8A 30VDC
最大切换电流 Max. switching Current	16A
最大切换电压 Max. switching Voltage	277VAC/30VDC
最大切换功率 Max. switching	4432VA/360W
机械耐久性Mechanica	W型: 5×10^5 次 W (456) 型: 3×10^5 次
电耐久性 Electrical durability	NO 3×10^4 次 NC 1×10^4 次 (12A 250VAC, 1S通9S断) 3×10^4 次 (8A 30VDC, 1S通9S断)

备注：备注：1. 上述值为初始值
2. 对于塑封型产品试验时，应打开外壳上的透气孔
1.remarks:The above values are initial values
2.When experimenting with plastic encapsulated products,the vent holes on the housing should be opened

线圈参数

额定线圈功率 Rated coil power	约0.8W 约1.4W
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性能参数Performance Parameter		
接触电阻 ⁽¹⁾ Initial contact resistance		$\leq 100\text{m}\Omega$ (6VDC/1A)
吸合时间（额定电压下） Operate Time		$\leq 15\text{ms}$
释放时间（额定电压下） Release Time		$\leq 5\text{ms}$
介质耐压 Dielectric Strength	触点组间	3000VAC 1分钟
	触点与线圈间BCC	5000VAC 1分钟
	断开触点间BOC	2000VAC 1分钟
绝缘电阻Contact Resistance		$1000\text{M}\Omega$ (500VDC)
浪涌电压（线圈与触点间） Surge voltage (BCC)		10kV (1.2/50us)
温度范围Temperature Range		-40℃~85℃ (不结冰)
湿度范围humidity		5%~85%RH
抗冲击 Shock	强度Endurance	981m/s^2 Min
	稳定性 Error Operation	98.1m/s^2 Min
抗振动vibration		10Hz~55Hz 双振幅1.5mm
引出端形式		印制板式
重量Weight		约16克 about 16g
封装方式Type of Sealing		塑封型、防焊剂型

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线圈参数Coil Specification (at 20 ℃)

W型-0.8W					W型-1.4W				
额定电压 (VDC)	吸合电压 ⁽¹⁾ (VDC)	释放电压 ⁽¹⁾ (VDC)	最大电压 ⁽³⁾ (VDC)	线圈电阻 (Ω ±10%)	额定电压 (VDC)	吸合电压 ⁽¹⁾ (VDC)	释放电压 ⁽¹⁾ (VDC)	最大电压 ⁽³⁾ (VDC)	线圈电阻 (Ω ±10%)
3	≤2.25	≥0.3	3.3	11.3	3	≤2.25	≥0.3	3.3	6
5	≤3.75	≥0.5	5.5	31	5	≤3.75	≥0.5	5.5	18
6	≤4.5	≥0.6	6.6	45	6	≤4.5	≥0.6	6.6	26
9	≤6.75	≥0.9	9.9	101	9	≤6.75	≥0.9	9.9	58
12	≤9	≥1.2	13.2	180	12	≤9	≥1.2	13.2	102
15	≤11.25	≥1.5	16.5	280	15	≤11.25	≥1.5	16.5	160
18	≤13.5	≥1.8	19.8	405	18	≤13.5	≥1.8	19.8	230
24	≤18	≥2.4	26.4	720	24	≤18	≥2.4	26.4	410
36	≤27	≥3.6	39.6	1620	36	≤27	≥3.6	39.6	925
48	≤36	≥4.8	52.8	2880	48	≤36	≥4.8	52.8	1650
60	≤45	≥6	66.0	4500	60	≤45	≥6	66.0	2570

备注: 1. 上述值为初始值;
2. 如需动作电压<75%额定电压, 可特殊订货;
3. 常温下, 继电器线圈施加额定值80%以上电压, 继电器会动作, 但为了达到规定的产品性能, 使用时请对线圈施加额定电压。
4. 最大电压是指继电器线圈在短时间内能承受的最大电压值
5. 1.5mm/1.8mm触点间隙的转换Z型产品动作电压≤85%额定电压

remarks:The above values are initial values
2.If the action voltage is less than 75% of the rated voltage,special order can be made
3.Under normal temperature,when the relay coil is applied with more than80% of the rated voltage,the relay will order to achieve the specified product performance,please apply the rated voltage to the coil when using
4.The maximum voltage refers to the maximum voltage that the maximum voltage that the relay coil can withstand in a short
5.Switching of 1.5mm/1.8mm contact clearance Z-type product action voltage≤85%of rated voltage

订货标记Ordering Information

CX140FF - SS - 212LMW/F: (xxx)

W: 大间隙 F: F 级
(xxx):特性号: 客户特殊要求

触点形式: M:常开型
无:转换型

线圈功耗: D:标准功耗
L:高灵敏度

线圈电压: 03:3V,05:5V,06:6V,09:9V,12:12V
15:15V,18:18V24:24V.48:48V,60:60V

触点组数: 2:两组

密封方式: SS:防焊剂型

品名: CX140FF

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- 备注:
- 在洁净环境（不含H2S、SO2、NO2、粉尘等污染物）下使用时，推荐使用防焊剂型；在污染环境（含一定量的H2S、SO2、NO2、粉尘等污染物）下使用时，建议选用塑封型产品，并请在实际使用中进行确认；
 - 当继电器装入PCB板焊接后，如需进行整体清洗或表面处理，请与我司联系，以便商定合适的焊接条件、合适的产品规格；
 - W型具有1.5mm、1.8mm两种规格，当您选用W型（大间隙）时，默认为1.5mm规格，如需1.8mm规格，请在订货时加注特性号“（456）”
 - 客户特殊要求由我司评审后，按特性号的形式标识。例如：（456）表示断开触点间隙能够达到1.8mm

remarks:

- When using in clean environment (without H2S SO2 NO2 dust and other pollutants), it is recommended to Use flux resistant products. When using in polluted environment (with a certain amount of H2s SO2 NO2 dust and other pollutants), it is recommended to use plastic encapsulated products. please confirm in actual use.
- After the relay is installed into the PCB board for welding, if it needs overall cleaning or surface treatment, please Contact me to negotiate the appropriate welding conditions and product specification
- The W type has two specifications of 1.5mm and 1.8mm, When you select the W the (large clearance) the default is 1.5mm If you need a 1.8mm specification, please add the feature number "456" when ordering
- Special requirements of customers shall be identified in the form of characteristic number after being reviewed by our company. For example, (456) indicates that the gap between the breaking contacts can reach 1.8mm

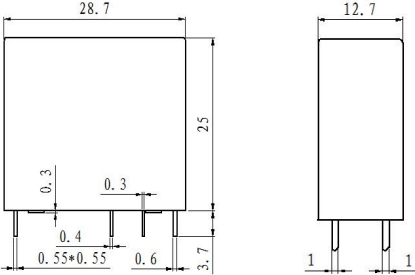
类型type				
型号	CX140FF			
线圈灵敏度	标准直流线圈		高灵敏度直流线圈	
	2A	2C	2A	2C
防焊剂型	CX140FF-SS-2□□DMW	CX140FF-SS-2□□DW	CX140FF-SS-2□□LMW	CX140FF-SS-2□□LW

外形尺寸、接线、安装孔位图

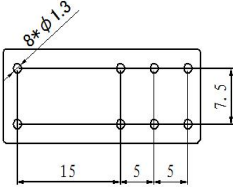
Overall dimension, wiring and installation hole bitmap

两组转换
2C

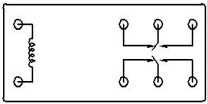
外形尺寸
Outline Dimensions



安装孔位图(底视图)
PCB Layout (Bottom view)

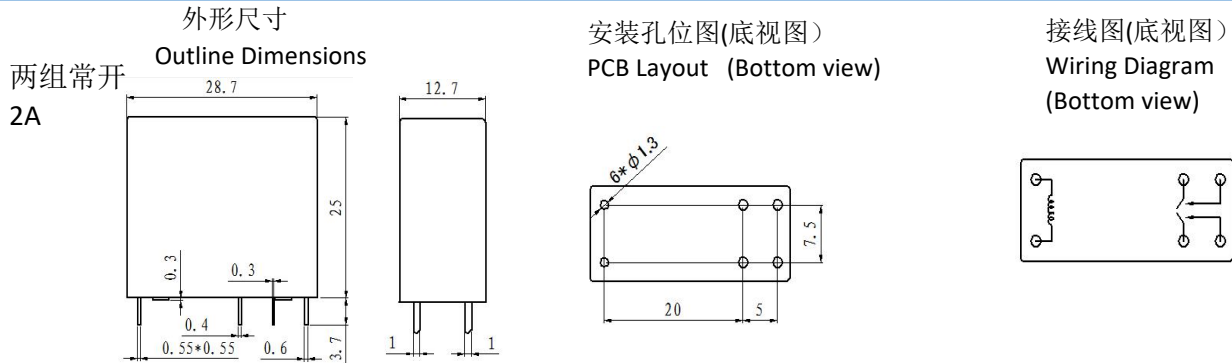


接线图(底视图)
Wiring Diagram (Bottom view)



外形尺寸、接线、安装孔位图

Overall dimension, wiring and installation hole bitmap



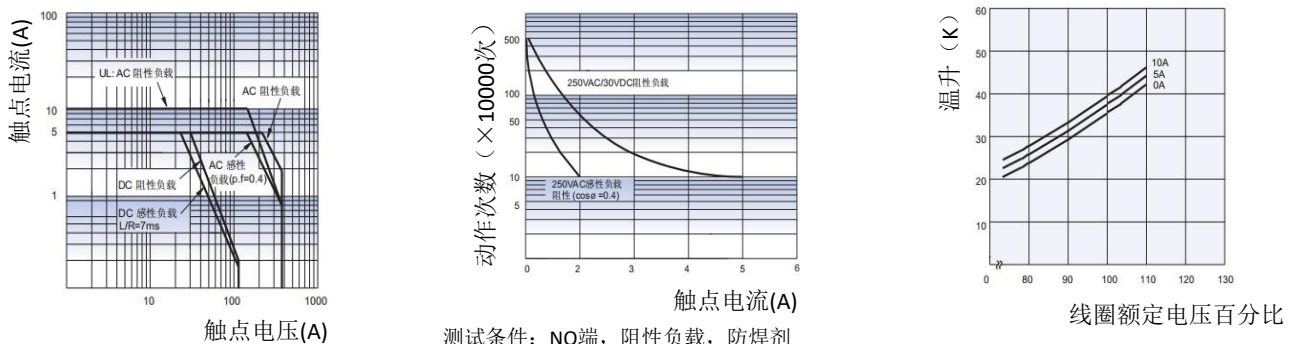
备注:

- 产品外形图的引脚标注尺寸为沾锡前尺寸（沾锡后会变大），安装孔尺寸为推荐的PCB板孔的设计尺寸，具体PCB板孔设计尺寸可根据产品实物进行测绘、调整。
- 产品部分外形尺寸未注尺寸公差，当外形尺寸 $\leq 1\text{mm}$ ，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $(1\sim 5)\text{mm}$ 之间时，公差为 $\pm 0.3\text{mm}$ ；当外形尺寸 $> 5\text{mm}$ ，公差为 $\pm 0.4\text{mm}$ 。
- 安装孔尺寸中未注尺寸公差为 $\pm 0.1\text{mm}$ 。

DISCLAIMER:

- The pin dimension in the outline drawing or the product is the dimension before dipping tin (it gets bigger when stained with tin). The size of mounting hole is the recommended design size of PCB hole. The specific PCB hole design size can be mapped and adjusted according to the actual product.
- The overall dimension of the product if not marked with dimensional tolerance, when the overall dimension $\leq 1\text{mm}$, Tolerance is $\pm 0.2\text{mm}$. When the overall dimension is $(1\sim 5)\text{mm}$, Tolerance is $\pm 0.3\text{mm}$. When the overall dimension $> 5\text{mm}$, Tolerance is $\pm 0.4\text{mm}$.
- The dimension tolerance of mounting hole without dimension injection is $\pm 0.1\text{mm}$.

性能曲线图 Performance Curve



备注:

具体参数型号和产品性能以我司承认书为准，本产品规格书仅作参考，若有更改，恕不另行通知。

对科信而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应该根据具体的使用条件选择与之相匹配的产品。若有疑问，请与科信联系，以便获取更多的技术支持，但产品选型责任仅由客户负责。

DISCLAIMER:

The specific parameters, models, and product performance shall be subject to our company's acceptance letter. This product specification sheet is for reference only and is subject to change without prior notice.

For AFE, it is not possible to assess all performance requirements for relays in each specific application area and therefore the customer should select a suitable product for each specific application, please contact AFE for additional technical support. But the responsibility of product selection is only the responsibility of the customer.