AFE®
Electronic

IATF16949 ISO9001 ISO14001认证企业
IATF16949 ISO9001 ISO14001 certification enterprises

CX165F-50A/60A系列 Seris

太阳能继电器 Solar relay

产品特点
product features
●50A/60A触点切换能力
High contac capacity50A Contact swiching capability
●可供触点或线圈间耐压达4000VAC耐浪涌电压6000VAC(1.2/50US)的特殊继电
It can be used as a special relay with withstand voltage of 4000VAC and surge voltage of 6000VAC(1.2/50US)between contacts or coils
●适用于太阳能光伏发电逆变器
Applicable to solar photovoltaic power generaion invertre
●可直接焊接在印刷线路板中
It can be directly welded in the printed circuit board

触点负载 Contact Rating

触点形式contact form	1H
触点材料 contact material	AgSnO2
接触压降(1) Contact voltahe drop	最大值：100mA (10A 13.5VDC下测量)
触点负载	50A/60A 277VAC
最大切换电流(2) Max. switching	60A
最大切换电压 Max. switching	277VAC
最大切换功率 Max.switching power	16620VA
机械耐久性Mechanical	1×10^6次
电耐久性 Electrical durability	3×10^4次 （15A导通-60A载流-15A断开277VAC阻性负载常温1s通9s断） 3×10^4次（40A 277VAC,阻性负载常温1s通9s断，）

备注：1.上述值为初始值
remarks:The above values are initial values
2.继电器引出的电路应设计足够的载流截面，避免发生过热现象
The circuit from the relay shall be designed with sufficient
current carrying section to avoid overheating
3.对于塑封型产品试验时，应打开外壳上的透气孔
When experimenting with plastic encapsulated products,the vent holes on the housing should be opened

安规认证 Safety certification

CQC CQC11002061851	50A 277VAC 40A 30VDC Making 20A Carrying 60A Breaking 20A 277VAC
TUV R 50267516	

性能参数Performance Parameter

绝缘电阻 Insulation resistance		1000MΩ(500VDC)
吸合时间（额定电压下） Operate Time		≤15ms
释放时间（额定电压下） Release Time		≤10ms
介质耐压 Dielectric Strength	触点与触点间BOC	1500VAC 1分钟
	触点与线圈间BCC	2500VAC 1分钟
浪涌电压（线圈与触点间） Surge voltage(BCC)		6KV(1.2/50us)
线圈温升 Coil temperature rise		≤90K(触点负载电流50A,额定电压激励，环境温度65℃)
抗振动		10Hz～55Hz双振幅1.5mm
冲击 Shock	稳定性 Error Operation	98m/s²
	强度 Endurance	980m/s²
湿度humidity		5%～85%RH
温度范围 Temperature Range		-40℃～105℃(不结冰) (NO freezing)
引出端形式 Lead out terminal form		印制板式 Printed board
重量Weight		约36克 about36g
封装方式 Type of Sealing		塑封型、防焊剂型 The flux type

典型用途Typical use

●用于光伏电源、UPS电源、充电桩、电动汽车、电子设备空调等大电流切换电路
Used for photovoltaic power supply,UPS power supply,charging pile,electric vehicle,electronic equipment,air conditioner and other high current seitching appliances

CX165F-50A/60A系列 Seris

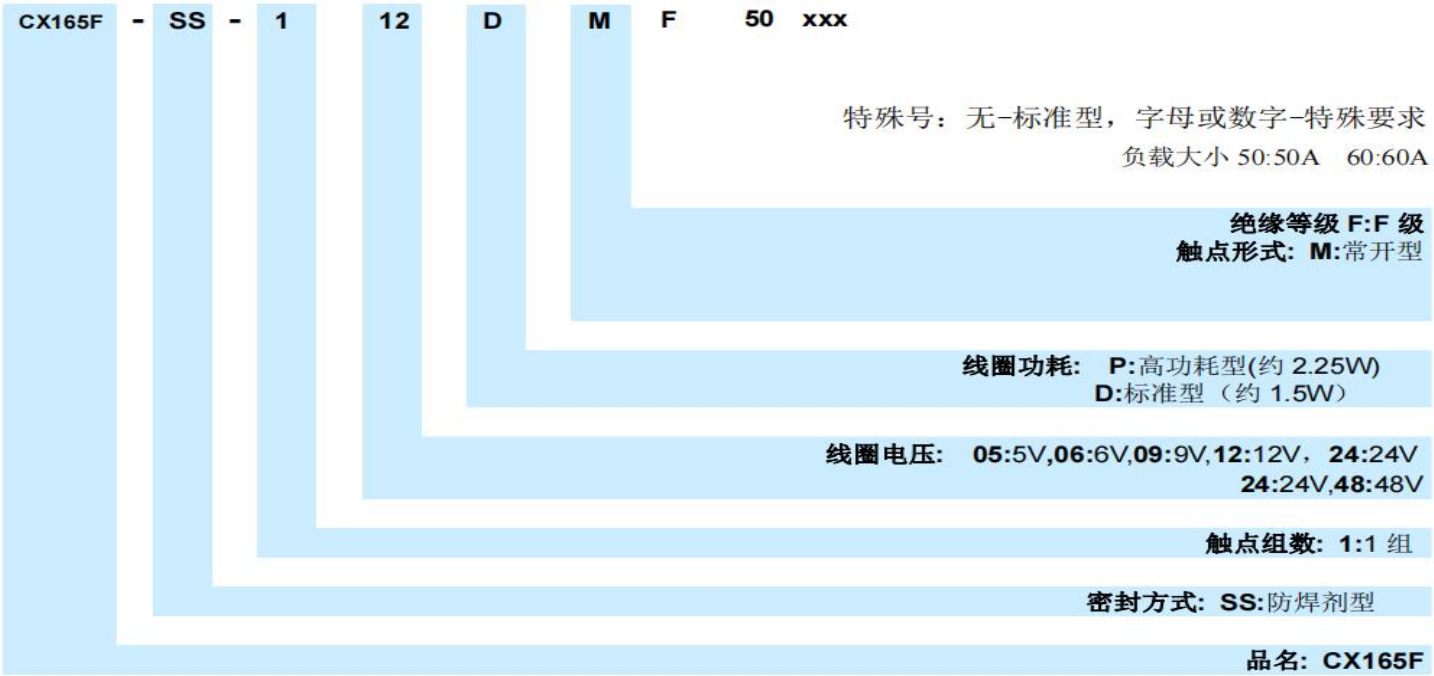
太阳能继电器
Solar relay

线圈参数Coil Specification (at 20 ℃)

额定电压 Nominal Voltage (VDC)	动作电压 Action voltage (VDC)	释放电压 Drop-Out Voltage (Min)VDC	最大电压 Maximum Voltage (Max)VDC	线圈电阻 Coil Resistance (Ω ±10%)	额定功率 Rated power (w)
5	≤4	≥0.35	6.5	16.6×（1±10%）	约:1.5W
6	≤4.8	≥0.42	7.8	24×（1±10%）	
12	≤9.6	≥0.84	15.6	96×（1±10%）	
24	≤19.2	≥1.68	31.2	384×（1±10%）	
48	≤38.4	≥3.36	62.4	1536×（1±10%）	
5	≤4	≥0.35	6.5	11.1×（1±10%）	约:2.25W
6	≤4.8	≥0.42	7.8	16×（1±10%）	
12	≤9.6	≥0.84	15.6	64×（1±10%）	
24	≤19.2	≥1.68	31.2	256×（1±10%）	
48	≤38.4	≥3.36	62.4	1024×（1±10%）	

备注：1.上述值为初始值
remarks:The above values are initial values
2.最大电压是指继电器线圈在短时间内能够承受的最大值。
The maximum voltage refers to the maximum value that the relay coil can withstand in a short time

订货标记



备注 ：
1. 在洁净环境（不含H2S、SO2、NO2、粉尘等污染物）下使用时，推荐使用防焊剂型产品
2.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。
3.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。

remark
(1)When using in clean enbironment （without H2S SO2 NO2 dust and other pollutants),it is recommended to Use flux resistant products
(2). When using in polluted environ ment(with a certain amount of H2S SO2 NO2dust and other pollutants), it is recom mended to use plastic encapsulated products.please confirm in actual use.
(3)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 specifications.

AFE®
Electronic

IATF16949 ISO9001 ISO14001认证企业
IATF16949 ISO9001 ISO14001 certification enterprises

CX165F-50A/60A系列 Seris

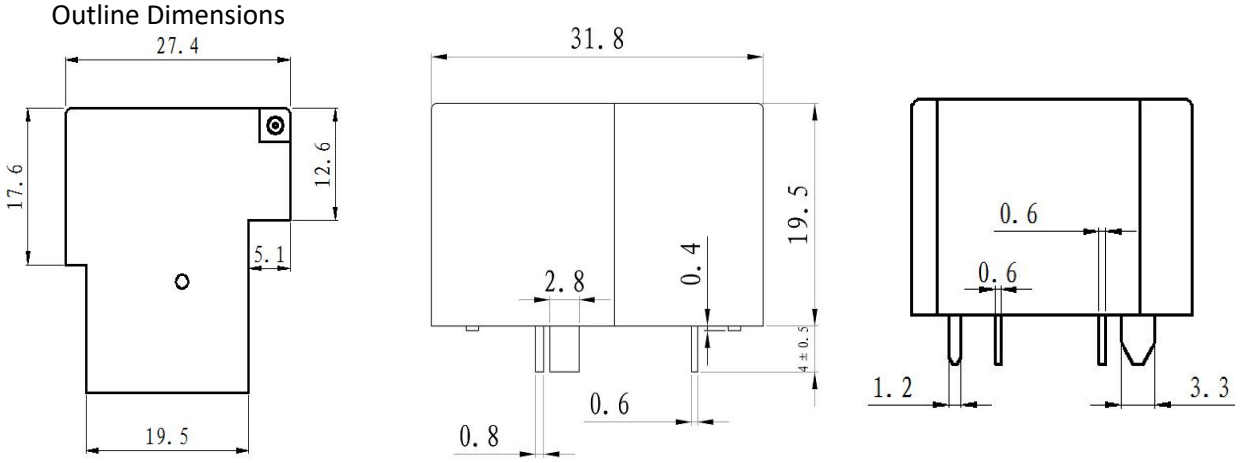
太阳能继电器
Solar relay

类型 category

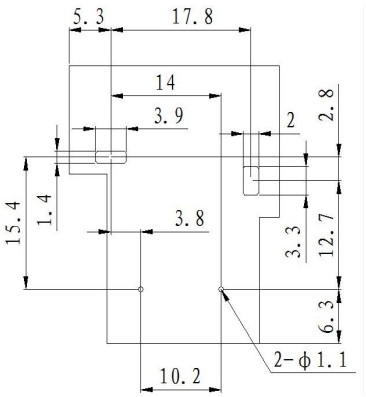
型号	CX165F-50A/60A			
线圈灵敏度 Coil sensitivity	标准直流线圈 Standare DC coil			
	1A			
防焊剂型 The flux type	CX165F-SS-1☐☐DMF50	CX165F-SS-1☐☐PMF50	CX165F-SS-1☐☐DMF60	CX165F-SS-1☐☐PMF60

外形尺寸、接线、安装孔位图
Overall dimension,wiring and installation hole bitmap

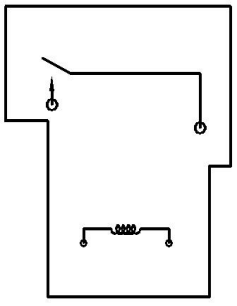
外形尺寸
Outline Dimensions



安装孔位图(底视图）
PCB Layout (Bottom view)



接线图(底视图）
Wiring Diagram
(Bottom view)



备注：

1.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.

2.产品部分外形尺寸未注尺寸公差，当外形尺寸≤1mm,公差为±0.2mm;当外形尺寸在（1～5）mm之间时，公差为±0.3mm；当外形尺寸＞5mm，公差为±0.4mm

3.安装孔尺寸中未注尺寸公差为±0.1mm

DISCLAIMER:

1.The pin dimension in the outline drawing or the product is the dimension before dipping tin(lt gets bigger when stained with tin)The size of mountin 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

2.The overall dimension of the product il not marked with dimensional tolerance,when teh overall dimension≤1mmTolerance is±0.2mm When the overall dimension is(1～5)mm Between Tolerance is±0.3mm When the overall dimension＞5mm,Tolerance is±0.4mm

3.The dimension tolerance of mounting hole without dimension injection is ± 0.1 mm

备注：

本产品规格书仅供客户使用时参考，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:

This product specification is for reference only and 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.