HSR10-100 大功率继电器 High Power Relay

特性 Features

- 100A负载开闭能力 100A switching capability
- 适用于太阳能光伏发电逆变器 Suitable for solar photovoltaic inverters (PVI)
- 触点间隙大于 3.6mm Min. Contact gap 3.6mm
- 最大切换电压690VAC Max. switching voltage 690VAC
- 5kV介电强度(线圈与触点之间) 5kV dielectric strength (between coil and contacts)
- 环保产品(符合RoHS标准) Environmental friendly product (RoHS compliant)
- 尺寸 Dimensions：41.4 x 45.9 x 46 mm



典型应用 Application

- 光伏逆变器/大功率电源/直流充电桩开关矩阵等。PVI / High power supply/ DC charging station switch matrix, etc.

触点参数 Contact Data

触点形式 Contact Arrangement	1A
触点负载 Contact Rating	接通 50A, 载流 100A, 断开 50A 85℃ Making 50A, Carrying100A, Breaking 50A, 85℃
最大切换电压 Max. Switching Voltage	690VAC
最大切换电流 Max. Switching Current	100A
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.1mΩ (20A 6VDC)
接触压降 Contact Voltage Drop	≤ 100mV (at 100A)
动作/释放时间 Operate Time/ Release Time	≤35ms/≤10ms
电耐久性 Electrical Endurance	$3*10^4$ 次（接通 : 50A / 0.15s 载流：100A / 0.7s 分断 : 50A / 0.15s, 690VAC；on : off = 1s : 9s 55%降压保持，85℃ $3*10^4$ times (Making 50A / 0.15s Carrying 100A/0.7s Breaking 50A, 690VAC;/0.15s; on: off =1s: 9s 55%hold voltage, 85℃
机械耐久性 Mechanical Endurance	$3*10^5$ops (3600ops/h)

线圈参数 Coil Data（标准型Standard Type）

线圈电压范围 Coil Voltage Range	9~24 VDC
容许最大电压 Max. Continuous	额定电压的120% 120% of Rated Voltage
线圈绝缘等级 Coil Insulation System	Class F
额定线圈功率 Coil Rating Power	约 Approx. 3.2W
降压保持 Hold Voltage	100%~120% 额定电压激励时间 100ms，降压至 55% ~ 65% 保持 The coil is energized at 100% ~ 120% for 100ms, and the voltage is reduced to 55% ~ 65% for holding.

注:

a) 所有数值均为在环境温度+23℃下未预通电的线圈 All the performance data are for coils that are not pre energized at 23℃ ambient temperature.

性能参数 Characteristics

绝缘电阻 Insulation Resistance		1000MΩ Min（at 500VDC)
介质耐压 Dielectric Strength	断开触点间 Between Open Contacts	2000Vrms 1min
	线圈与触点间 Between Coil and Contact	5000Vrms 1min
浪涌电压 Surge Voltage	线圈与触点间 Between Coil and Contact	6kV (1.2 / 50μs)
温度范围 Temperature Range		-40~+85℃
湿度 Ambient Operating Humidity		5% ~ 98%RH
振动 Vibration Resistance		10~55Hz 1.5mm双振幅 10Hz~55Hz 1.5mm double amplitude
冲击 Shock	稳定性 Functional	10G
	强度 Destructive	100G
保护构造 Protective Construction		耐助焊剂型 Flux Tight

线圈规格 Coil Voltage Specifications

额定电压 Nominal Coil	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VDC	VDC	VDC	Ω(±10%)
9	6.75	0.9	25.3
12	9.00	1.2	45
24	18.0	2.4	180

注:

a) 以上值为初始值 All the performance data are initial values.

b) 线圈电阻是在线圈温度23℃，公差为±10% Coil resistance is tested at 23℃ ambient temperature, ±10% tolerance.

■ 型号命名标准 Model Number Legend

HSR10	-100	-1AH	-12	F	,XXX

基本型号 Basic Type:

HSR10

触点负载 Contact Rating:

100: 100A

触点结构、材质 Contact Arrangement and Material:

1AH: 1组常开银合金触点 1Form A Ag Alloy Contact

线圈电压 Coil voltage:

9, 12, 24VDC

绝缘等级 Insulation class:

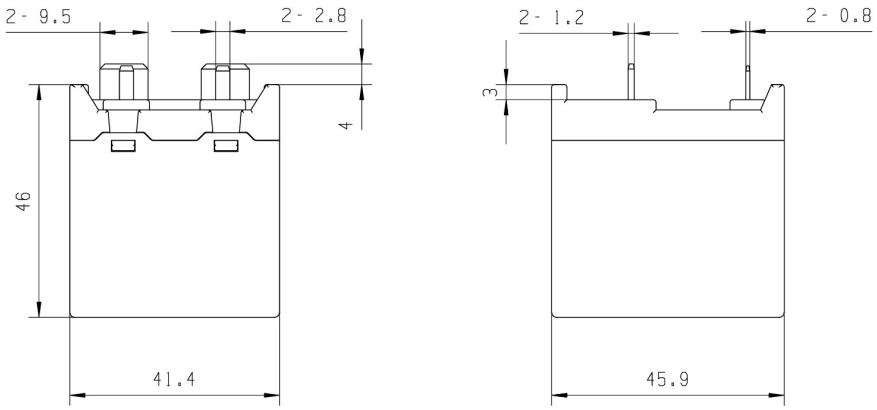
F: F级 Class F

特殊特性 Special Characteristic:

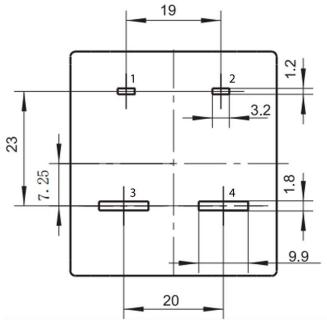
Blank: 标准型 Standard; XXX: 客户特殊特性号 Customer Special Feature Number

■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

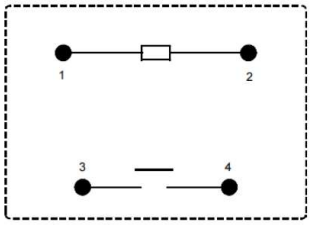
◆ 外形尺寸 Outline Dimensions



◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View



◆ 接线图 Wiring Diagram Bottom View



注 Note:

未注尺寸公差 Unspecified tolerance : <1mm: ±0.2 mm, 1~5 mm: ±0.3mm, >5mm: ±0. 5mm ;

安装孔尺寸中未注尺寸公差为± 0.1 mm PC board layout dimensions hadn't specified tolerance is ±0.1mm.

免责声明:

本说明书仅供参考。

有关更多信息，请参阅“术语和指南”。规格如有更改，恕不另行通知。我们无法评估每个可能应用的所有性能和所有参数。因此，用户应该在一个正确的位置选择适合自己的产品。如有任何疑问或者需要技术服务，请联系STEIPU。

Disclaimer:

This manual is for reference only. For more information, see Terms and Guidelines. Specifications are subject to change without notice. We cannot evaluate all performance and all parameters for every possible application. Therefore, users should choose the right product for them in the right place. If you have any questions or need technical services, please contact STEIPU.