

特性 Features

- 35A负载开闭能力 35A switching capability
- 触点和线圈电气间隙最大超过6.4mm,爬电距离最大超过8mm The clearance distance between contact and coil is bigger than 6.4mm, the creepage distance is bigger than 8mm.
- 低线圈保持电压有助于节省设备功耗: Low coil holding voltage contributes to saving energy of equipment
- 1.8mm 接点间隙 1.8mm contact gap (compliant to IEC 62109-2-2011)
- UL绝缘系统:F级 UL insulation system: Class F
- 105°C产品可选 105°C product optional
- 环保产品(符合RoHS标准) Environmental friendly product (RoHS compliant)
- 尺寸 Dimensions: 30.4 x 16.0 x 23.3 mm

典型应用 Application

- 光伏发电系统逆变器/太阳能逆变器/交流/直流电源控制/ UPS /工业控制等。To Inverter used for Photovoltaic Power Generation System / Solar Inverter / AC/DC Power Control / UPS / Industrial Control, etc.



触点参数 Contact Data

触点形式 Contact Arrangement	1A
触点额定 Contact Rating	35A 277VAC (resistive) 35A 277VAC (inductive cos $\theta=0.8$)
最大切换电压 Max. Switching Voltage	277VAC
最大切换电流 Max. Switching Current	35A (resistive)
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100m Ω (1A 5VDC)
电耐久性 Electrical Endurance	3*10 ⁴ ops (35A 277VAC, 阻性负载 R-Load, 85°C, on:off = 1s:9s)
机械耐久性 Mechanical Endurance	1*10 ⁵ ops
动作/释放时间 Operate/Release time	$\leq 20\text{ms}/\leq 10\text{ms}$
最大切换功率 Max. Switching Power	9695VA

线圈参数 Coil Data

线圈电压范围 Coil Voltage Range	5~24 VDC
容许最大电压 Max. Continuous	额定电压的110% 110% 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. 1.4W
降压保持 Hold Voltage	100%~110% 额定电压激励时间 100ms, 降压至 55% ~ 65% 保持 The coil is energized at 100% ~ 110% for 100ms, and the voltage is reduced to 55% ~ 65% for holding.

注Note:

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

性能参数 Characteristics

绝缘电阻 Insulation Resistance	1000M Ω Min (at 500VDC)	
介质耐压 Dielectric Strength	断开触点间 Between Open Contacts	2500Vrms 1min
	线圈与触点间 Between Coil and Contact	4500Vrms 1min
线圈触点间浪涌电压 Surge Voltage (Between Contact and Coil)	10kV (1.2/50 μ s)	
温升 Temperature rise (at rated volt.)	$\leq 95\text{K}$ (Contact load current 31A, rated voltage excitation, at 60°C)	
	$\leq 70\text{K}$ (Contact load current 31A, 80% of rated voltage excitation, at 85°C)	
温度范围 Temperature Range	-40~+85°C/-40~+105°C (Apply holding voltage to coil, which is 55% to 80% that of rated voltage)	
湿度 Ambient Operating Humidity	5% ~ 85%RH	
振动 Vibration Resistance	10~55Hz 双振幅 1.5mm double amplitude 1.5mm	
冲击 Shock	稳定性 Functional	20G
	强度 Destructive	100G
重量 Weight	Approx.21g	

线圈规格 Coil Voltage Specifications

线圈电压 Coil Voltage	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VDC	VDC	VDC	$\Omega(\pm 10\%)$
5	3.75	0.25	17.9
9	6.75	0.45	58.0
12	9.00	0.60	103
18	13.50	0.90	230
24	18.00	1.20	410

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°C, 公差为 $\pm 10\%$ Coil resistance is tested at 23°C ambient temperature, $\pm 10\%$ tolerance.

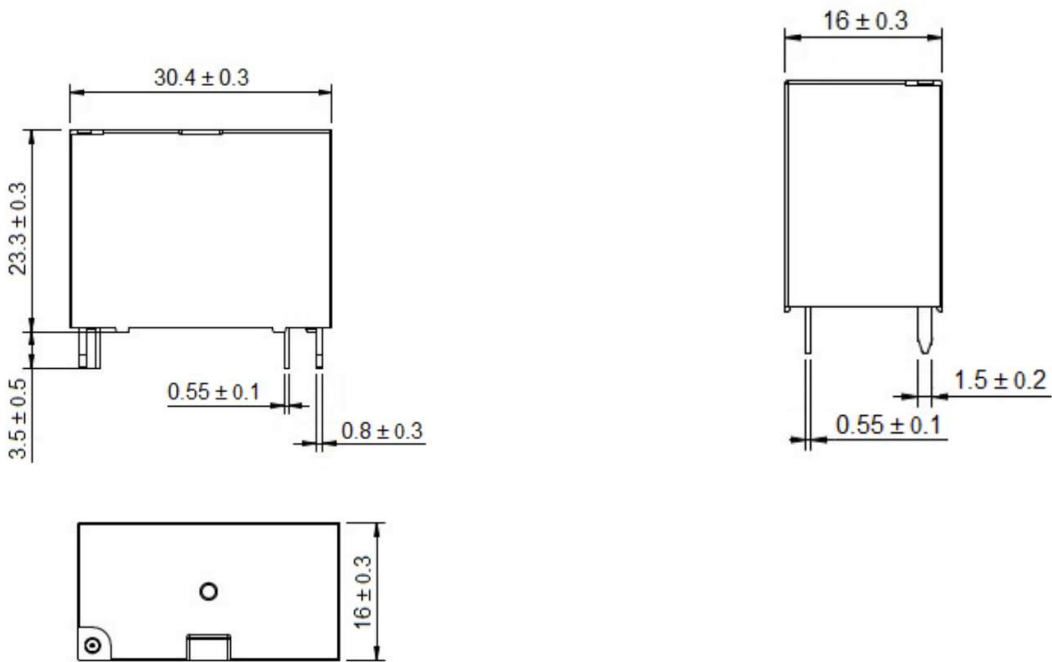
ST161 PCB小型大功率继电器 PCB Miniature High Power Relay

型号命名标准 Model Number Legend

	ST161	-1A	-12	L	S	F	,XXX
基本型号 Basic Type:	ST161						
触点结构 Contact Arrangement:	A: 1组常开 1 Form A						
线圈电压 Coil Voltage:	5, 9, 12, 18, 24VDC						
线圈功耗 Coil Power:	L:1.4W						
防护构造 Protective Construction:	Blank: 耐助焊剂型 Flux Tight; S: 塑料密封型 Sealed						
绝缘等级 Insulation Class:	F: F级 F Class						
特殊特性 Special Characteristic:	T**: 105°C产品 105°C product; 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)

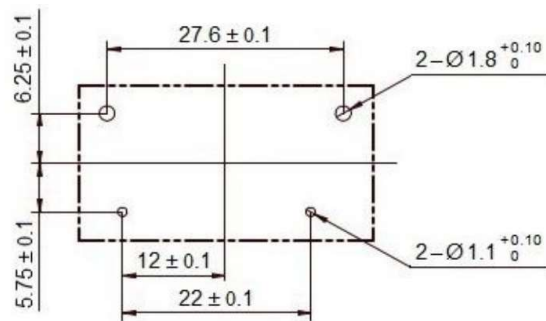
外形尺寸 Outline Dimensions



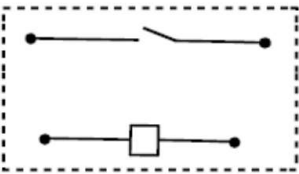
ST161 PCB小型大功率继电器 PCB Miniature High Power Relay

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

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: ± 0.3 mm, >5mm: ± 0.5 mm ;

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 ± 0.1 mm.

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.