

特性 Features

- 50A载流, 40A 277Vac负载开闭能力 50A loading and 40A 277VAC switching capability
- 低功耗: 0.9W Low power consumption: 0.9W
- 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
- 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

- 用于软启动/家用电器/变频空调控制、冰箱、电子热水器等。 Variable Frequency Air Conditioning Used for Soft Start / Home Appliances / A/C Control / Refrigerator / Electronic Water Heater, etc.

触点参数 Contact Data

触点形式 Contact Arrangement	1A
触点额定 Contact Rating	Making 20A, Loading 50A, Breaking 20A Making 10A, Loading 40A, Breaking 10A 40A 277VAC (resistive)
最大切换电压 Max. Switching Voltage	277VAC
最大切换电流 Max. Switching Current	40A (resistive)
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100mΩ (1A 5VDC)
电耐久性 Electrical Endurance	5*10 ⁴ ops (Making 20A, Loading 50A, Breaking 20A, 阻性负载 R-Load, 85°C, on:off=1s:9s) 3*10 ⁴ ops (40A 277VAC, R-Load, 85°C, on:off=1s:9s)
机械耐久性 Mechanical Endurance	2*10 ⁶ ops
动作/释放时间 Operate/Release time	≤20ms/≤10ms
最大切换功率 Max. Switching Power	11080VA

线圈参数 Coil Data

线圈电压范围 Coil Voltage Range	5~48 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. 0.9W

注:

- 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.
- 最大电压是指继电器线圈在短时间内所能承受的最大电压 Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

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	1000Vrms 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 (1.2/50μs)
温升 Temperature rise (at rated volt.)		≤70K (Contact load current 40A, rated voltage, excitation at 85°C)
温度范围 Temperature Range		-40~+85°C/-40~+105°C
湿度 Ambient Operating Humidity		5% ~ 85%RH
振动 Vibration Resistance		10~55Hz double amplitude 1.5mm
冲击 Shock	稳定性 Functional	20G
	强度 Destructive	100G
重量 Weight		Approx.25g

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	Ω(±10%)
5	3.75	0.50	27.8
12	9.00	1.20	160.0
24	18.0	2.40	640.0
48	36.0	4.80	2560

注:

- 以上值为初始值 All the performance data are initial values.
- 线圈电阻是在线圈温度23°C, 公差为±10% Coil resistance is tested at 23°C ambient temperature, ±10% tolerance.

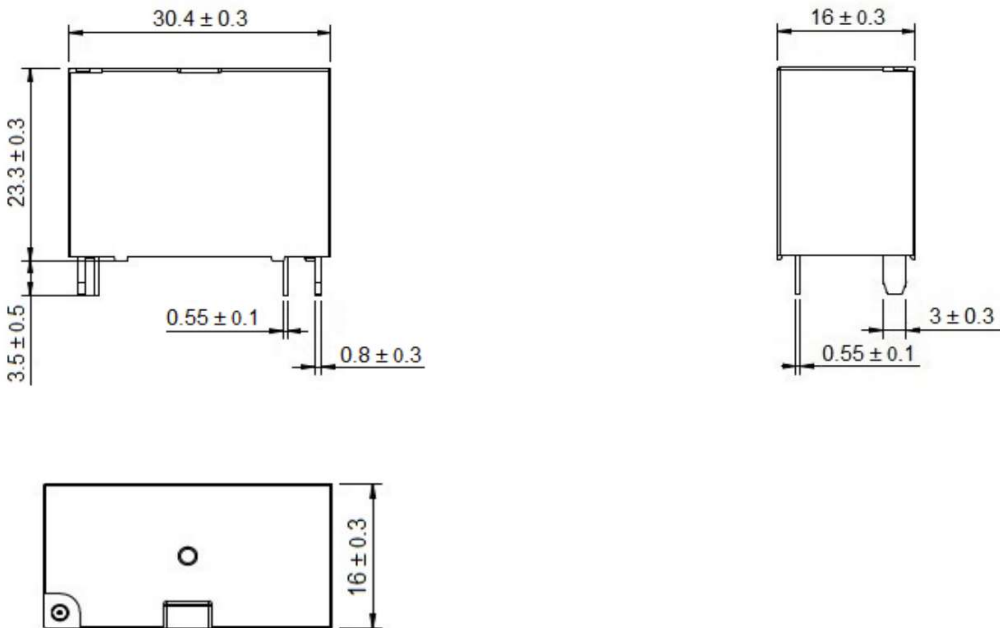
ST161W PCB小型大功率继电器 PCB Miniature High Power Relay

型号命名标准 Model Number Legend

	ST161W	-1A	-12	S	F	,XXX
基本型号 Basic Type:	ST161W					
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					
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)

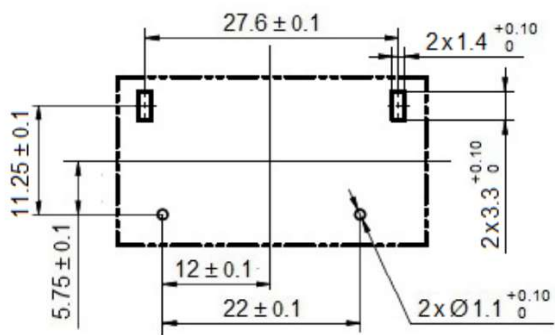
外形尺寸 Outline Dimensions



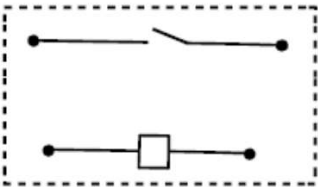
ST161W PCB小型大功率继电器 PCB Miniature High Power Relay

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.