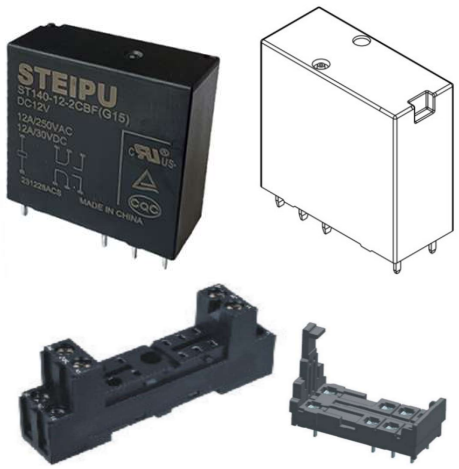
ST140-12 工业/新能源继电器 Industry/New Energy Relay

特性 Features

- 2组12A 负载开闭能力 2 Poles 12A switching capability
- 1.5mm, 2.0mm间隙可选 1.5mm, 2.0mm gap available
- 承受200A冲击电流 Matching inrush current 200A
- 普通品机械寿命 1000 万次以上 Standard type M-life 10KK cycles
- 空间距离大于 6.4mm，爬电距离大于 8mm Clearance distance: >6.4 mm, and creepage distance: >8 mm.
- 可提供满足 IEC62109-1 标准产品 Comply IEC62109-1 available
- 可提供满足 IEC60335-1 标准产品 Comply IEC60335-1 available
- UL绝缘系统:F级 UL insulation system: Class F
- 可提供配套插座使用 Socket Available
- 环保产品(符合RoHS标准) Environmental friendly product (RoHS compliant)



典型应用 Application

- 光伏逆变器/工业设备/不间断电源/灯/充电/智能家居等 Photovoltage Inverters/Industrial Equipment/ UPC/Lighting/ Charging/Smart home, etc.

触点参数 Contact Data

触点间隙 Contact Gap	普通品 Normal Type	1.5/2.0mm GAP
触点形式 Contact Arrangement	2A/2B/2C	
触点额定 Contact Rating	NO/NC: 12A 277VAC NO/NC: 10A 277VAC NO/NC: 10A 30VDC NO/NC: 12A 24VDC	NO/NC: 12A 277VAC NO/NC: 10A 277VAC NO/NC: 10A 30VDC
最大切换电压 Max. Switching Voltage	277VAC/30VDC	
最大切换电流 Max. Switching Current	12A	
触点材质 Contact Material	银合金 Ag alloy	
接触电阻 Contact Resistance	Max.100mΩ (1A 5VDC)	
动作/释放时间 Operate Time/ Release Time	DC Coil: ≤15ms/ ≤10ms AC Coil: ≤15ms/ ≤15ms	≤20ms/ ≤10ms
最小切换负载 Min. switching load	100mA 10V	
电耐久性 Electrical Endurance	on: off= 1.5s: 1.5s @23℃ CO: 12A 250VAC $1*10^4$ ops 阻性负载 R-Load CO: 10A 250VAC $3*10^4$ ops 阻性负载 R-Load NO: 12A 250VAC $3*10^4$ ops 阻性负载 R-Load NO:10A 250VAC $1*10^5$ ops 阻性负载 R-Load NO:12A 24VDC $3*10^4$ ops 阻性负载 R-Load NO:10A 24VDC $1*10^5$ ops 阻性负载 R-Load NC: 12A 250VAC $3*10^4$ ops 阻性负载 R-Load NC:10A 250VAC $5*10^4$ ops 阻性负载 R-Load NC:12A 24VDC $3*10^4$ ops 阻性负载 R-Load NC:10A 24VDC $5*10^4$ ops 阻性负载 R-Load	on: off= 1s: 9s @23℃ NO:12A 250VAC $3*10^4$ ops 阻性负载 R-Load NO:10A 250VAC $5*10^4$ ops 阻性负载 R-Load NC:12A 250VAC $1*10^4$ ops 阻性负载 R-Load NC:10A 250VAC $3*10^4$ ops 阻性负载 R-Load
机械耐久性 Mechanical Endurance	$1*10^7$ops Min.	1.5mm Gap, $5*10^5$ ops Min. 2.0mm Gap, $1*10^5$ ops Min.
最大切换功率 Max. Switching Power	3324VA/240W	3324VA/300W

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	Normal 1000Vrms 1min 1.5mm Gap 2000Vrms 1min 2.0mm Gap 2500Vrms 1min
	触点组间 Between Contact sets	3000Vrms 1min
	线圈与触点间 Between Coil and Contact	5000Vrms 1min
温度范围 Temperature Range		-40~+85℃
湿度 Ambient Operating Humidity		5%～85%RH
振动 Vibration Resistance		频率 10Hz-55Hz，双振幅 1.5mm 10Hz-55Hz, at double amplitude 1.5mm
冲击 Shock	稳定性 Functional	10G
	强度 Destructive	100G
重量 Weight		Approx.19g

线圈参数 Coil Data (0.53W) only for normal type	
线圈电压范围 Coil Voltage Range	3~110 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. 0.53W

线圈参数 Coil Data (0.8W)	
线圈电压范围 Coil Voltage Range	3~110 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. 0.8W

线圈参数 Coil Data (1.4W) only for 1.5/1.8mm gap type	
线圈电压范围 Coil Voltage Range	3~220 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. 1.4W

线圈参数 Coil Data (1.2VA) only for normal type	
线圈电压范围 Coil Voltage Range	6~240 VAC
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. 1.2VA

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.

线圈规格 Coil Voltage Specifications (for DC Coil)

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%)		
			0.53W	0.8W	1.4W
3	2.40	0.15	17	11	6
5	4.00	0.25	47	30	17.5
6	4.8	0.30	67	45	25
9	7.2	0.45	152	100	57
12	9.6	0.60	270	180	100
15	12.0	0.75	420	280	160
18	13.5	0.90	610	400	230
24	14.4	1.20	1080	720	410
36	28.8	1.80	2445	1620	925
48	38.4	2.40	4345	2880	1645
60	48.0	3.00	6790	4500	2570
110	88.0	5.50	22800	13600	8640
220	176.0	11.0	/	/	34500

线圈规格 Coil Voltage Specifications (for AC Coil)

额定电压 Nominal Coil	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VAC	VAC	VAC	Ω(±10%)
6	4.8	0.6	19
12	9.6	1.2	72
24	19.2	2.4	290
48	38.4	4.8	1200
60	48.0	6.0	1800
110	88.0	11.0	6000
120	96.0	12.0	6000
110/125	88.0/100.0	11.0/12.5	6000
220	176	22.0	23000
230	184	23.0	23000
240	192	24.0	23000
220/240	176/192	22.0/24.0	23000

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

ST140	-12	-2C	S	P	F	G	-15	B	XXX	/DC12V

基本型号 Basic Type:
ST140

触点负载 Contact Rating:
12: 12A

触点结构 Contact Arrangement:
2A: 2组常开 2 Form A; 2B: 2组常闭 2 Form B
2C: 2组转换 2 Form C

防护构造 Protective construction:
Blank: Flux tight 耐助焊剂型; S: Sealed 塑料密封型

线圈功耗 Coil Power:
Blank: 0.53W 或 1.1-1.4VA; B: 1.4W P: 0.8W

绝缘等级 Insulation class:
F: F级 Class F

触点镀层 Contact Surface Plate:
Blank: 无镀金 without Gold Plating; G: 镀金 Gold Plating

触点间隙类型 Contact Gap Type:
Blank: 标准品 Standard; 15: 1.5mm Gap; 20: 2.0mm Gap

外壳特性 Case Characteristic:
Blank: 透明外壳 Transparent Case; B: 黑色外壳 Black Case

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

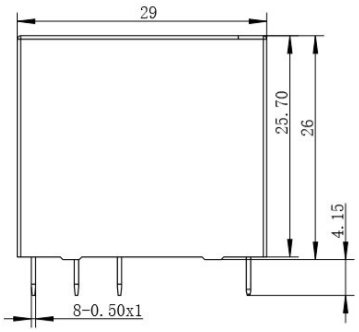
线圈电压 Coil Voltage:
3, 5, 6, 9, 12, 15, 18, 24, 36, 48, 60, 110VDC
6, 12, 24, 48, 60, 110, 120, 110/125, 220, 230, 240, 220/240VAC

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

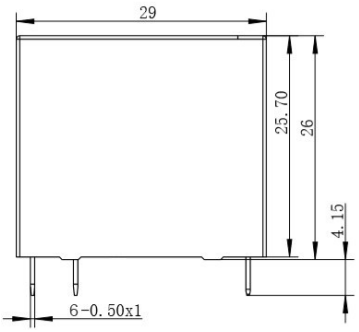
◆ 外形尺寸 Outline Dimensions

● 透明外壳或普通间隙类型 Transparent Case or Normal Contact Gap Type

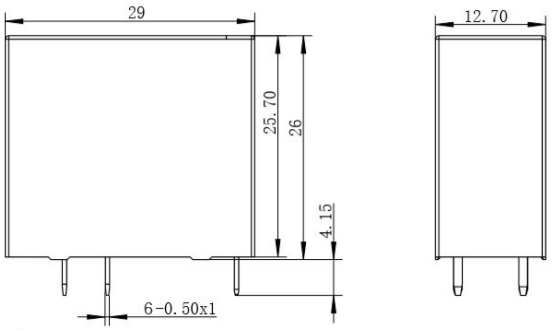
- 2 组转换 2 Form C



- 2 组常开 2 Form A

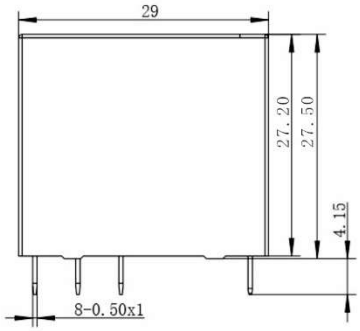


- 2 组常闭 2 Form B

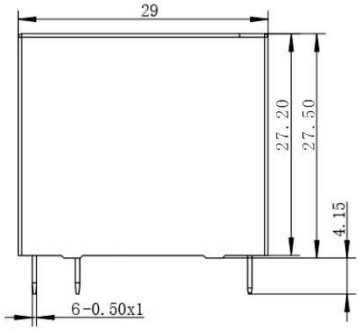


● 黑色外壳或大间隙类型 Black Case or Big Contact Gap Type

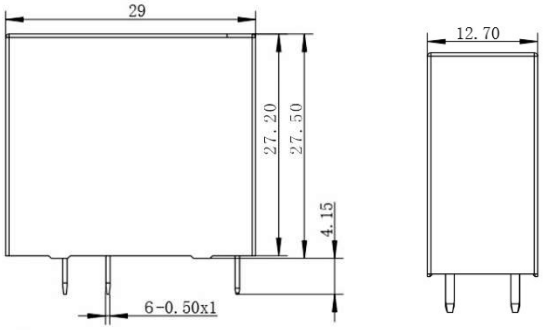
- 2 组转换 2 Form C



- 2 组常开 2 Form A

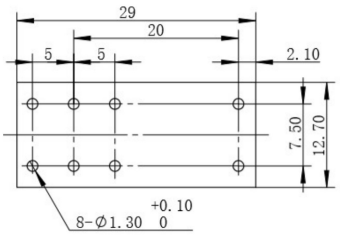


- 2 组常闭 2 Form B

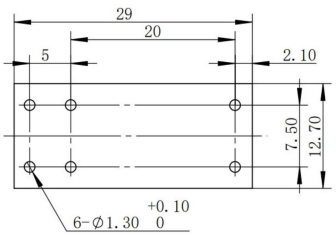


◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View

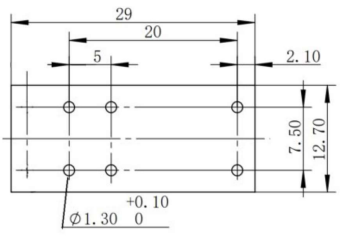
- 2 组转换 2 Form C



- 2 组常开 2 Form A



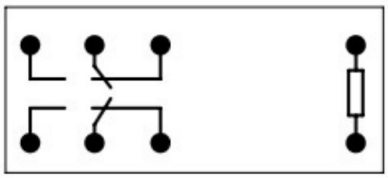
- 2 组常闭 2 Form B



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

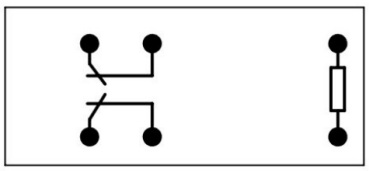
◆ 接线图 Wiring Diagram Bottom View

- 2 组转换 2 Form C



- 2 组常开 2 Form A

- 2 组常闭 2 Form B



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.

■ 插座命名标准 Socket Number Legend

ST140	-08E	-DRA	,XXX

基本型号 Base Type:
ST140

插座型号 Socket Type:
08E: 08E系列 08E Series

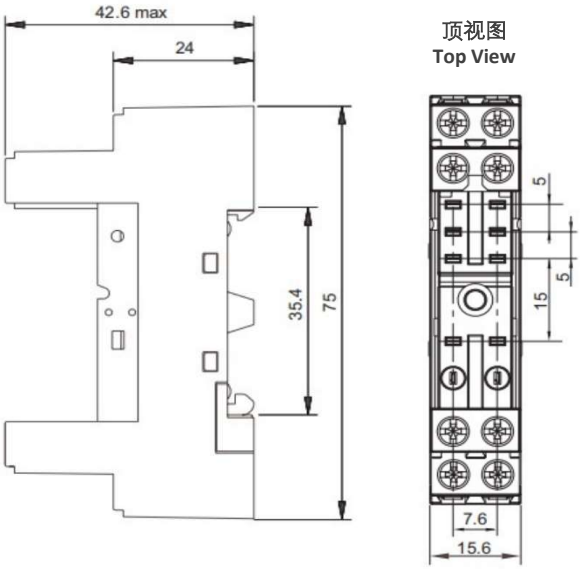
安装类别 Mounting Classes:
PCB: PCB 安装 PCB Mounting
DRA: 35mm 导轨 35mm DIN Rail

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

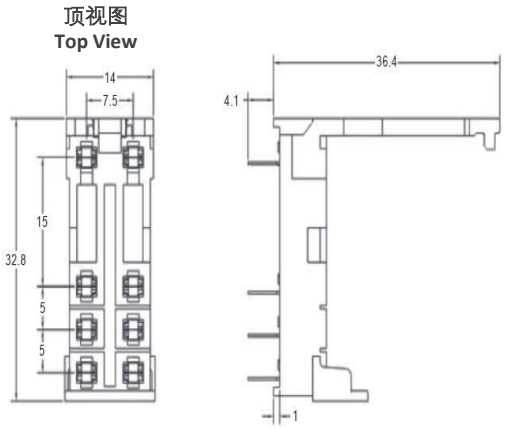
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions

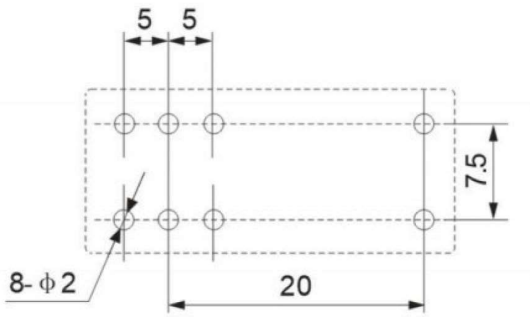
● 35mm 导轨型 35mm DIN Rail Type



● PCB安装型 PCB Mounting Type



◆ 印刷线路板加工尺寸(PCB安装型) PCB Outline Dimension Bottom View (PCB Mounting Type)



注 Note:

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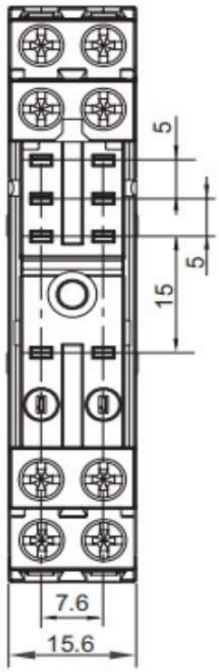
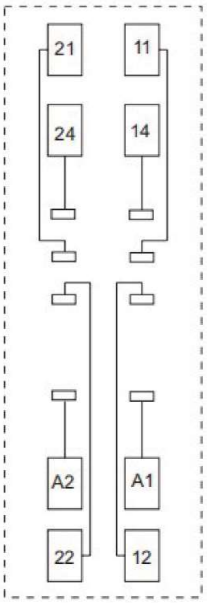
安装孔尺寸中未注尺寸公差为± 0.1 mm PC board layout dimensions hadn't specified tolerance is ±0.1mm.

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

◆ 插座接线图 (35mm 导轨型) Socket Terminal-arrangement (35mm DIN Rail Type)





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:

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