

SJD 陶瓷直流接触器

HIGH VOLTAGE DIRECT CURRENT RELAY





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公司简介

COMPANY PROFILE

江苏科佳诚瑞电气股份有限公司，目前下辖苏州工业园区科佳自动化有限公司、苏州苏继电气有限公司等机构和主体，是集研发、制造、营销、服务于一体的国家级高新技术企业。2013年荣获了江苏省用户满意服务明星企业；2014年中标了国家电网防雷设备物资采购项目；2015年获得江苏省AAA级信用管理示范企业，并成为气象学会雷电委员会企业委员单位；2015、2016、2017连续三年获得全国安防企业前十强。并获得了“智能电源浪涌保护监测系统工程技术研究中心”称号及“重合同守信用企业”称号。2018年荣获“苏州名牌产品”及“江苏省科技创新优秀示范企业”等称号。近年承担共建国家重点研发计划“城区用户与电网供需友好互动系统”等研究，是苏州电器工业协会常务理事。公司创建二十多年来，产品在电力自动化、雷电防护领域、安防行业、汽车新能源、轨道交通等行业取得了快速发展和长足进步。

公司近年来在智能远程监控、智能电网项目上推出了全系列、多功能的自动化控制产品和防雷保护器产品。产品采用IEC标准设计，每年均有多项产品获得国家专利，在国际国内享有较高声誉。其中变送器系列产品通过了国家电力部设备质检中心的联合鉴定，获得中国专利金奖；防雷器系列产品获得CQC质量认证；电源分配器系列产品通过欧盟CE、RoHs，美洲UL，cUL，日本PSE等认证。公司综自系统、微机保护、继电器等产品，广泛运用于各大电厂项目中。直流接触器类产品在新能源、充电桩等领域发挥了较大的作用。目前已获得近六十多项国家专利。

产品在电力、电子、通讯、工矿、铁路、公路、石化、金融、安防等领域得到了广泛应用，而且在机关、学校、医院、社区及家庭中也有很好的推广前景，特别是在天安门广场地下变电站、广深高速公路、南京地铁、平安城市、西气东输工程中，科佳诚瑞的产品均发挥着重要的作用。



SJD-20MF

Automotive Relays / 汽车继电器



特性 Main Features

- 20A的持续电流能力 (pcb型 25A)
20A continuous current capacity
- 新能源预充继电器
Direct current relay
- 标准的插脚尺寸于脚位
Fully standardized quick connect size and layout
- 防尘罩式抵御恶劣环境
Plastic cover for rough environment protection

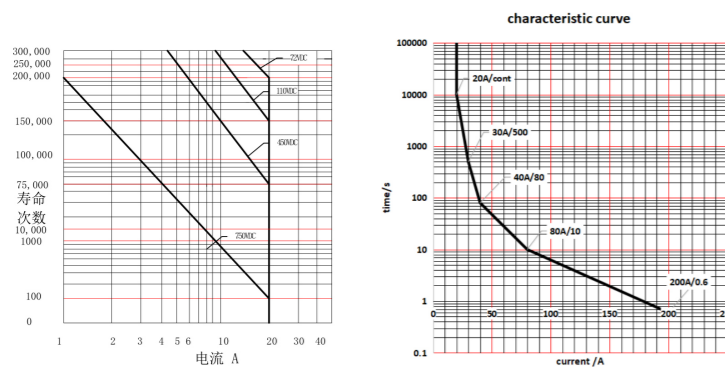
典型应用 /Typical automotive Applications

- 电动汽车预充电

技术特性 Ordering Cod

线圈参数 Coil Data						
线圈代号 Coil Voltage Code	额定电压 (VDC) Nominal Voltage	线圈电阻 (Ω) ±10% Coil Resistance	功耗 (W) Power Consumption	最大吸合电压 (VDC) Must Operate Voltage max.	最大允许电压 (VDC) Allowable Voltage	最小释放电压 (VDC) Must Release Voltage min.
012	12	90	1.6	9	18.0	1
024	24	360		18		35
触点参数 Contact Data						
材料 Material		AgSnO2				
起始接触电阻 Initial Contact Resistance		10mΩ at 20A				
触点形式 Contact Form		一组常开 1 Form A				
持续电流 Max.Continuous Current		20A (PCB型 25A)				
最小负载 Min.Load		1A/12VDC				
寿命 Sevice Life	机械 Mechanical	1×10 ⁶ ops.				
	电气 Electrical	1.5×10 ⁵ ops. 10A 450VDC 7.5×10 ⁴ ops. 20A 450VDC 2×10 ⁵ ops. 20A 72VDC				
性能参数 Performance Parameters						
介质耐压 Dielectric strength	触点与线圈 Coil to contact	3000VAC 1min				
	断开触点间 Across open contact	2500VAC 1 min				
吸合 / 释放时间 Operate/Release Time		30ms. typical/10ms. typical				
绝缘电阻 Insulation Resistance		100MΩ, at 500VDC, 50%RH				
抗电强度 Dielectric Strength		500Vrms, 1 min				
冲击 Shock Resistance		20g, 11ms				
振动 Vibration Resistance		10-40Hz: 双振幅 DA1.27mm,40-70Hz:5g 70-100Hz: 双振幅 DA0.5mm, 100-500Hz:5g				
环境温度 Ambient Temperature		工作 Op erating : -40°C to 85°C 储存 Storage : -40°C to 125°C				
重量 Weight		约 60g ; Approx 60g				

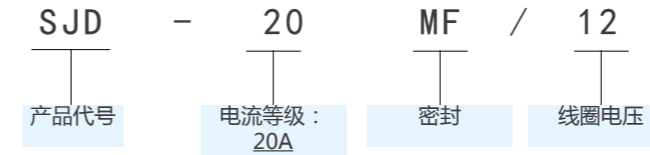
曲线图 Referencd Curve



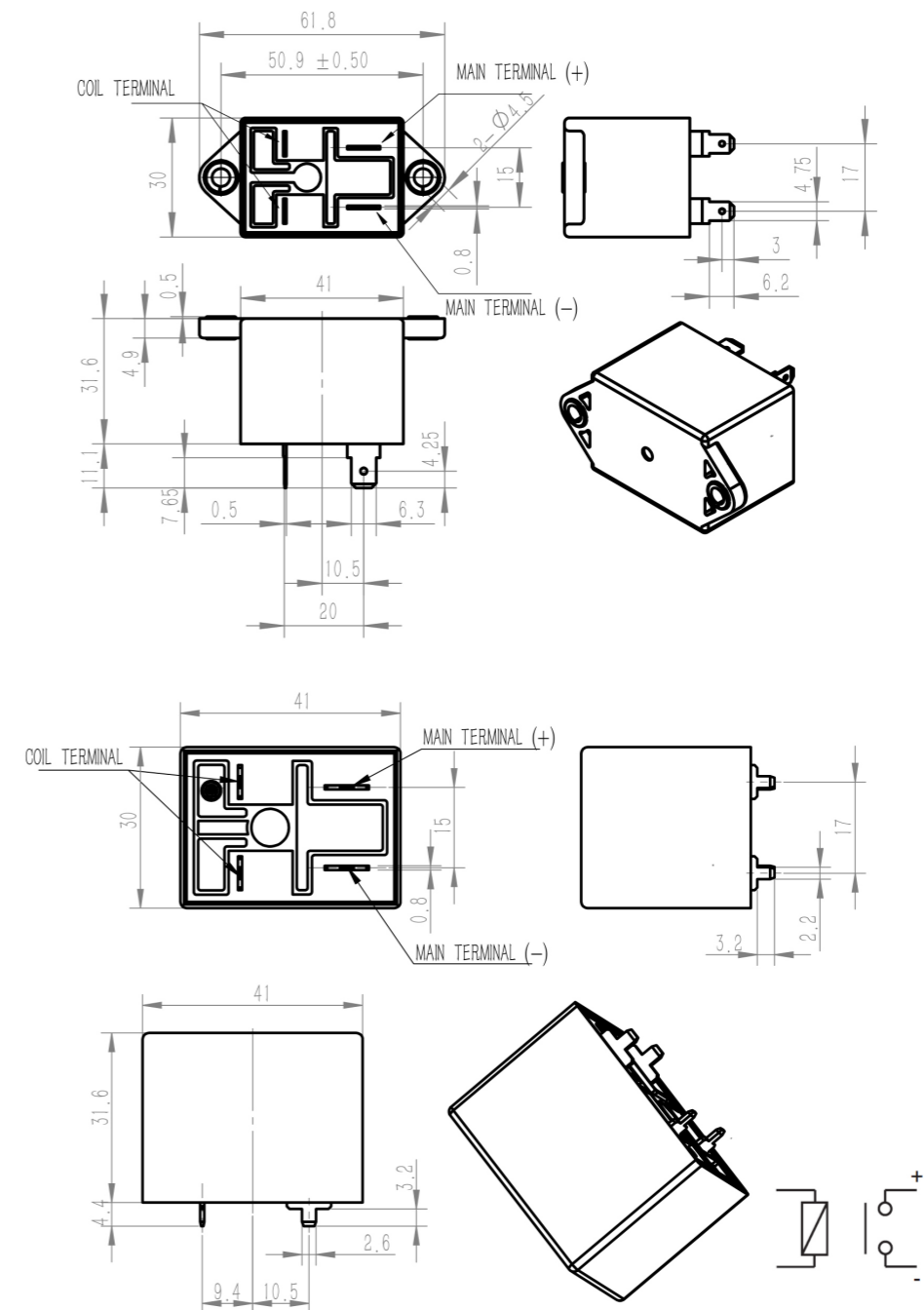
说明 Notes :

1. 以上参数除另有规定外均以室温 23 度为准。
All parameters, unless otherwise specified, are measured at ambient temperature 23°C .
2. 最大接通电流指灯载浪涌电流。
Maximun make current refers to inrush current of lamp load.
3. 在环境温度 85 度时最大允许电压应降低到原值的 72%。
At ambient temperature of 85 °C ,Maximum allowable voltage should be reduced to 72%.
4. 电流时间曲线数据在环境温度 85°C下测得，导线截面 ≥ 4mm²
Data about current time is measured at the environment temperature 85°C with cross section area of wire ≥ 4mm²

产品型号及含义 Ordering Code



外形尺寸图 (单位 mm) Outline siz



SJD-50TC

High voltage direct current relay / 高压直流接触器



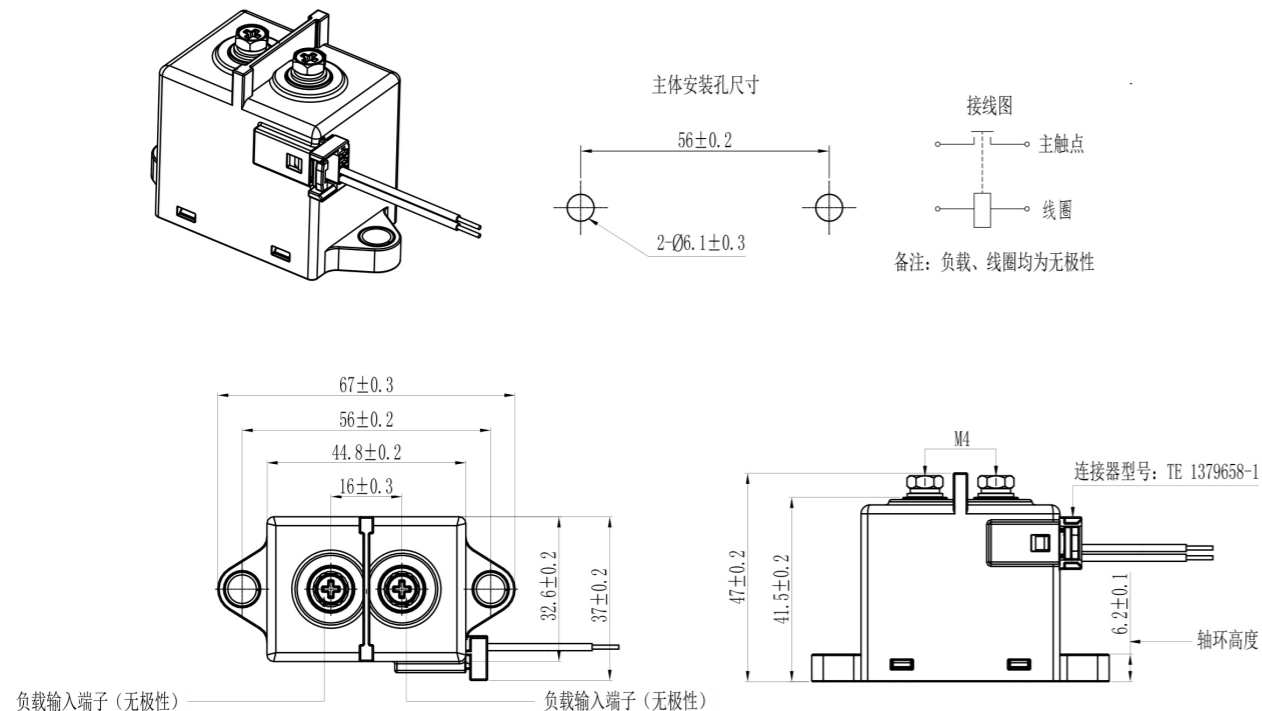
●小型轻量：内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气，从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.

●高度的接触可靠性：由于触点部份密封在氢气中，因此不会发生氧化，同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.

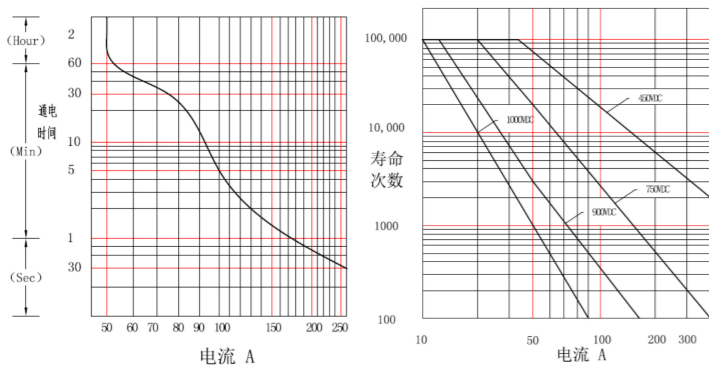
●安全可靠：采用专业的防爆结构设计，从而实现高度的安全性，采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.

●产品用途：直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline size

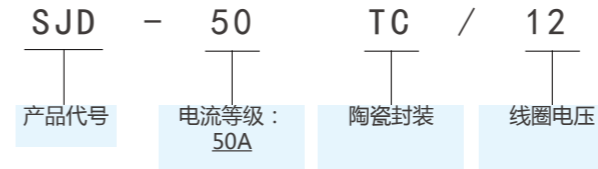


曲线图 Referencd Curve



本继电器典型应用：
This relay typical application：
●主要用于电动汽车 / 直流充电桩，作切换电流作用；
Mainly used for electric vehicle / DC charging pile, for switching current.
备注：客户需要其它额定电压，可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

产品型号及含义 Ordering Code



技术特性 Ordering Cod

线圈参数 Coil Data			
驱动参数 Driving parameters			
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage	释放电压 Release voltage	线圈功耗 Coil power consumption
12VDC	≤ 9VDC	≥ 1VDC	3.0W
24VDC	≤ 18VDC	≥ 2VDC	
触点参数 Contact Data			
触点负载 (FLA) Contact load		50A/750VDC	
触点形式 Contact form		1H	
接触压降 Voltage drop across contacts per 100A		25mV Max @50A	
极限通电流 Limited of current		200A 10 秒	
最大切换电流 Max switching current		500A, 750VDC (1次)	
最大切换电压 Max switching voltage		900VDC	
最大转换功率 Max switching power		375KW	
电气耐久性 Electric endurance		50A/450VDC-75000 次 (阻性负载 Resistive load)	
机械寿命 Mechanical endurance		50A/750VDC-20000 次 (阻性负载 Resistive load)	
辅助开关		2×10 ⁵ 次	
性能参数 Performance Parameters			
绝缘电阻 Insulation resistance		1000MΩ (1000VDC)	
介质耐压	触点与线圈之间 Coil to contact	4000VAC 1 min	
Dielectric strength	断开触点之间 Across open contact	3000VAC 1 min	
闭合时间 Operate time		≤ 30ms	
断开时间 Release time		≤ 10ms	
冲击稳定性 Shock resistance functional		196m/s ² (20G 以上) 20G above	
冲击强度 Shock resistance destructive		490m/s ² (50G 以上) 50G above	
环境温度 Ambient temperature		-40 ~ 85°C	
湿度 Humidity		5 ~ 85%RH	
抗振 Vibration resistance		10-200HZ, 49m/s ²	
引出端方式 Terminal		M4 内螺纹 Internal thread	
单位重量 Unit weight		160g	
封装形式 Package		陶瓷封装 Ceramics encapsulation	

安装使用注意：

- 继电器安装时，为防止连接不良，请使用平垫圈及弹簧垫再加螺母紧固，外部连接片需靠最近的继电器引出端面，保证接触良好。不正确的连接顺序可能会造成严重发热，并造成电线融化或烧掉。
When installing the relay, to prevent bad connection, please use the flat washer, spring washer and nut fastening, the external connecting plates need closed to the nearest relay terminal part, ensure good connection. Incorrect connection sequence may can cause severe fever and lead to wires to melt or burn.
- 本继电器引出端有极性区别，请务必按照每个产品表面的+、-极进行正确接线，连接极性相反时，电气性能会大大下降。
The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
- 触点参数中的额定值均为阻性负载时的数值，使用感性及容性负载情况下，请采取浪涌吸收措施，否则可能会造成电气寿命下降、发生切断不良。
The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
- 请避免在强磁场附近(变压器、磁铁等的周围)和发热体的附近安装。
Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
- 严禁将继电器长时间置于超过产品使用范围温度(-40°C ~ 85°C)环境中，否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
- 请避免在引出端上粘附油脂等异物，请选择合理的连接导线规格，否则有可能会造成引出端部的异常发热，如下对照表供参考：
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZKEV061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
- 各个部位的螺钉锁紧扭矩控制在下述的规定范围内。在超过范围的情况下，扭过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.
(1) 引出端安装部分外螺纹: Terminals installed part of externally threaded
● M6 螺母 nut : 6Nm ~ 8Nm.
(2) 主引出端安装部分内螺纹: The terminals installed part of internally threaded
● M5 螺钉 screw : 3Nm ~ 4Nm

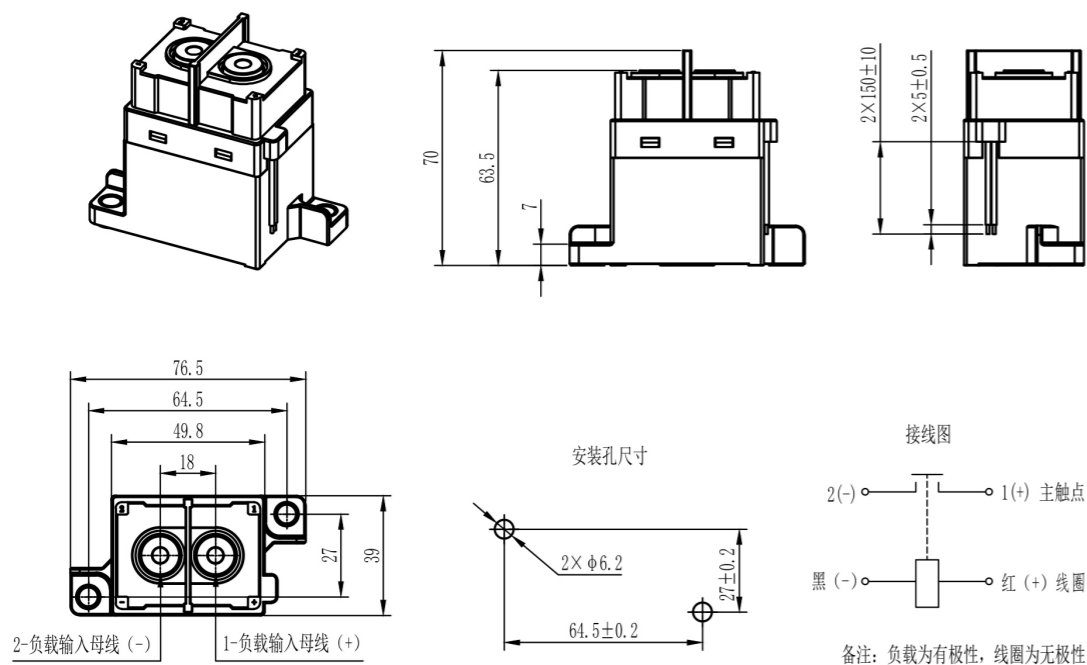
SJD-100TC

High voltage direct current relay 高压直流接触器

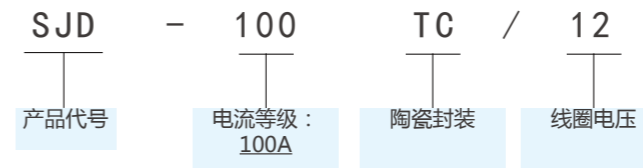


- 小型轻量: 内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气, 从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性: 由于触点部份密封在氢气中, 因此不会发生氧化, 同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠: 采用专业的防爆结构设计, 从而实现高度的安全性, 采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途: 直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz



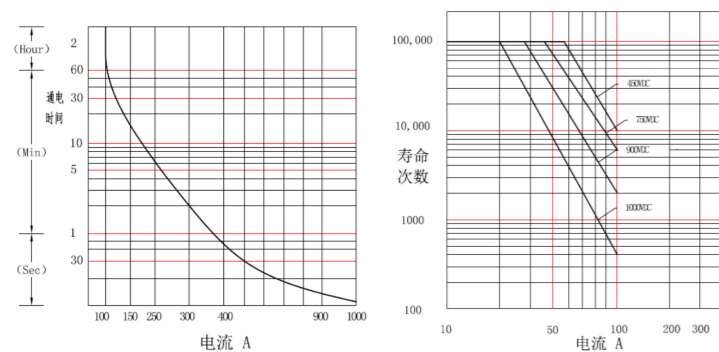
产品型号及含义 Ordering Code



技术特性 Ordering Cod

线圈参数 Coil Data	
驱动参数 Driving parameters	
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage
12VDC	≤ 9VDC
24VDC	≤ 18VDC
释放电压 Release voltage	线圈功耗 Coil power consumption
≥ 1VDC	4.5W
≥ 2VDC	
触点参数 Contact Data	
触点负载 (FLA) Contact load	100A/750VDC
触点形式 Contact form	1H
接触压降 Voltage drop across contacts per 100A	500mV Max @100A
极限通电流 Limited of current	400A 10 秒
最大切换电流 Max switching current	1000A, 450VDC (1 次)
最大切换电压 Max switching voltage	900VDC
最大转换功率 Max switching power	450KW
电气耐久性 Electric endurance	100A/450VDC-6000 次 (阻性负载 Resistive load)
	100A/750VDC-3000 次 (阻性负载 Resistive load)
机械寿命 Mechanical endurance	2×10 ⁵ 次
辅助开关	无
性能参数 Performance Parameters	
绝缘电阻 Insulation resistance	1000MΩ (1000VDC)
介电耐压 Dielectric strength	触点与线圈之间 Coil to contact
	4000VAC 1 min
	断开触点之间 Across open contact
	3000VAC 1 min
闭合时间 Operate time	≤ 30ms
断开时间 Release time	≤ 10ms
冲击稳定性 Shock resistance functional	196m/s ² (20G 以上) 20G above
冲击强度 Shock resistance destructive	490m/s ² (50G 以上) 50G above
环境温度 Ambient temperature	-40 ~ 85°C
湿度 Humidity	5 ~ 85%RH
抗振 Vibration resistance	10-200HZ, 49m/s ²
引出端方式 Terminal	M6 内螺纹 External thread
单位重量 Unit weight	410g
封装形式 Package	陶瓷封装 Ceramics encapsulation

曲线图 Referencd Curve




本继电器典型应用:
This relay typical application:
◆主要用于电动汽车 / 直流充电桩, 作切换电流作用;
Mainly used for electric vehicle / DC charging pile, for switching current.
备注: 客户需要其它额定电压, 可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

安装使用注意:

- 继电器安装时, 为防止连接不良, 请使用平垫圈及弹簧垫再加螺母紧固, 外部连接片需靠最近的继电器引出端面, 保证接触良好。不正确的连接顺序可能会造成严重发热, 并造成电线融化或烧掉。
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The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
- 触点参数中的额定值均为阻性负载时的数值, 使用感性及容性负载情况下, 请采取浪涌吸收措施, 否则可能会造成电气寿命下降、发生切断不良。
The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
- 请避免在强磁场附近 (变压器、磁铁等的周围) 和发热体的附近安装。
Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
- 严禁将继电器长时间置于超过产品使用范围温度 (-40°C ~ 85°C) 环境中, 否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
- 请避免在引出端上粘附油脂等异物, 请选择合理的连接导线规格, 否则有可能会造成引出端部的异常发热, 如下对照表供参考:
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZKEV061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
7、各个部位的螺钉锁紧扭矩请控制在下述的规定范围内。在超过范围的情况下, 扭矩过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.

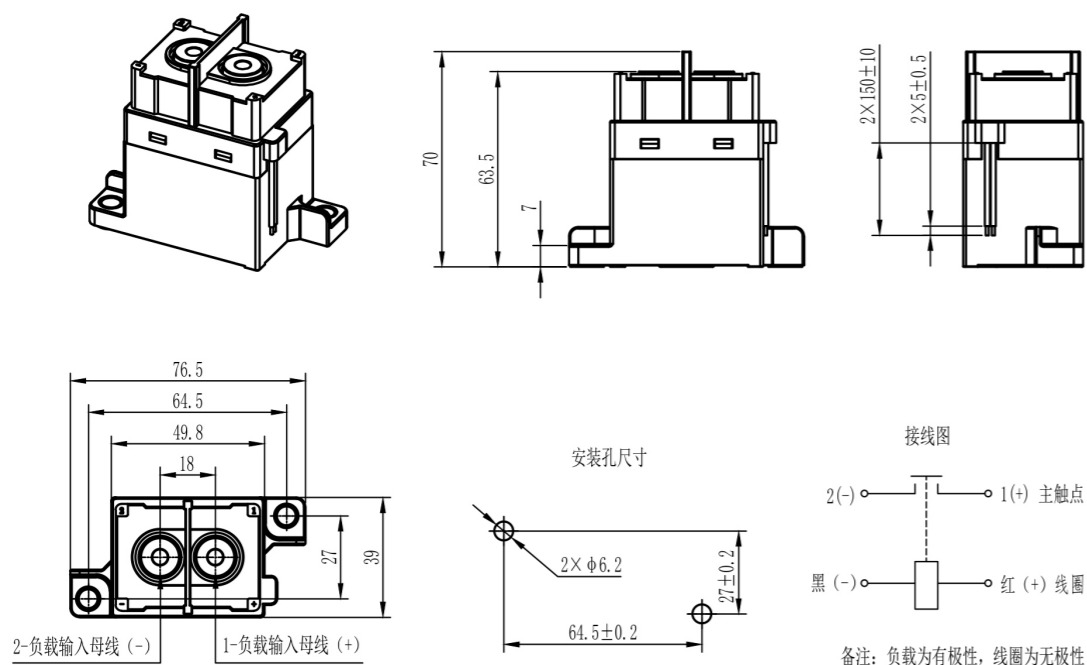
SJD-150TC

High voltage direct current relay 高压直流接触器

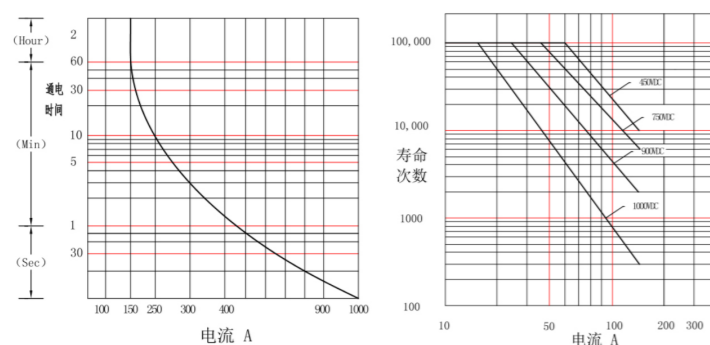


- 小型轻量：内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气，从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性：由于触点部份密封在氢气中，因此不会发生氧化，同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠：采用专业的防爆结构设计，从而实现高度的安全性，采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途：直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz

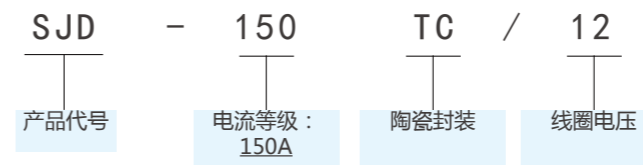


曲线图 Referencd Curve



本继电器典型应用：
This relay typical application :
◆主要用于电动汽车 / 直流充电桩，作切换电流作用；
Mainly used for electric vehicle / DC charging pile, for switching current.
备注：客户需要其它额定电压，可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

产品型号及含义 Ordering Code



技术特性 Ordering Cod


线圈参数 Coil Data	
驱动参数 Driving parameters	
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage
12VDC	≤ 9VDC
24VDC	≤ 18VDC
释放电压 Release voltage	线圈功耗 Coil power consumption
≥ 1VDC	6.0W
≥ 2VDC	
触点参数 Contact Data	
触点负载 (FLA) Contact load	150A/750VDC
触点形式 Contact form	1H
接触压降 Voltage drop across contacts per 100A	75mV Max @150A
极限通电流 Limited of current	900A 8 秒
最大切换电流 Max switching current	1500A, 450VDC (1 次)
最大切换电压 Max switching voltage	900VDC
最大转换功率 Max switching power	675KW
电气耐久性 Electric endurance	150A/450VDC-10000 次 (阻性负载 Resistive load)
	150A/750VDC-6000 次 (阻性负载 Resistive load)
机械寿命 Mechanical endurance	2×10 ⁵ 次
辅助开关	无
性能参数 Performance Parameters	
绝缘电阻 Insulation resistance	1000MΩ (1000VDC)
介电耐压 Dielectric strength	触点与线圈之间 Coil to contact
	4000VAC 1 min
	断开触点之间 Across open contact
	3000VAC 1 min
闭合时间 Operate time	≤ 30ms
断开时间 Release time	≤ 10ms
冲击稳定性 Shock resistance functional	196m/s ² (20G 以上) 20G above
冲击强度 Shock resistance destructive	490m/s ² (50G 以上) 50G above
环境温度 Ambient temperature	-40 ~ 85°C
湿度 Humidity	5 ~ 85%RH
抗振 Vibration resistance	10-200HZ, 49m/s ²
引出端方式 Terminal	M6 内螺纹 Internal thread
单位重量 Unit weight	410g
封装形式 Package	陶瓷封装 Ceramics encapsulation

安装使用注意：

- 继电器安装时，为防止连接不良，请使用平垫圈及弹簧垫再加螺母紧固，外部连接片需靠最近的继电器引出端面，保证接触良好。不正确的连接顺序可能会造成严重发热，并造成电线融化或烧掉。
When installing the relay, to prevent bad connection, please use the flat washer, spring washer and nut fastening, the external connecting plates need closed to the nearest relay terminal part, ensure good connection. Incorrect connection sequence may can cause severe fever and lead to wires to melt or burn.
 - 本继电器引出端有极性区别，请务必按照每个产品表面的 +、- 极进行正确接线，连接极性相反时，电气性能会大大下降。
The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
 - 触点参数中的额定值均为阻性负载时的数值，使用感性及容性负载情况下，请采取浪涌吸收措施，否则可能会造成电气寿命下降、发生切断不良。
The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
 - 请避免在强磁场附近 (变压器、磁铁等的周围) 和发热体的附近安装。
Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
 - 严禁将继电器长时间置于超过产品使用范围温度 (-40°C ~ 85°C) 环境中，否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
 - 请避免在引出端上粘附油脂等异物，请选择合理的连接导线规格，否则有可能会造成引出端部的异常发热，如下对照表供参考：
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZKEV061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
 - 各个部位的螺钉锁紧扭矩请控制在下述的规定范围内。在超过范围的情况下，扭矩过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.
- (1) 引出端安装部分外螺纹：Terminals installed part of externally threaded
● M6 螺母 nut : 6Nm ~ 8Nm.
(2) 主引出端安装部分内螺纹：The terminals installed part of internally threaded
● M5 螺钉 screw : 3Nm ~ 4Nm

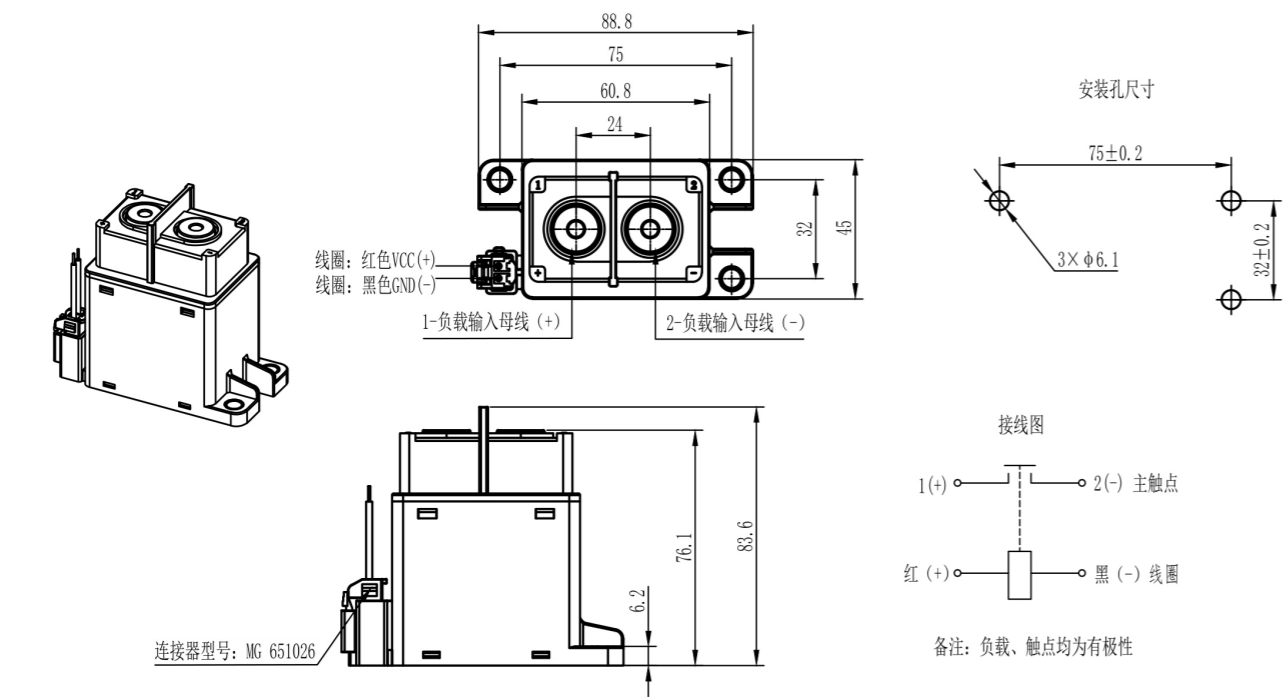
SJD-200TC

High voltage direct current relay 高压直流接触器

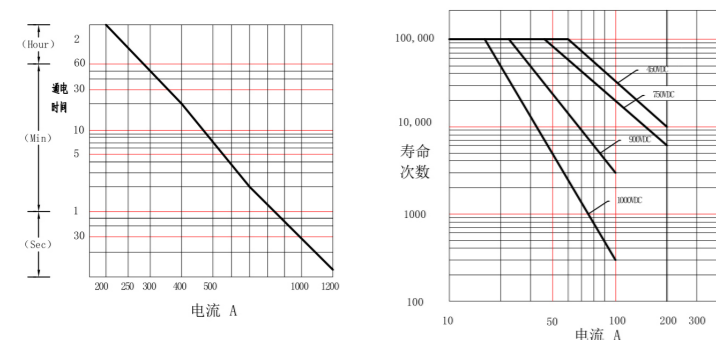


- 小型轻量：内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气，从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性：由于触点部份密封在氢气中，因此不会发生氧化，同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠：采用专业的防爆结构设计，从而实现高度的安全性，采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途：直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz

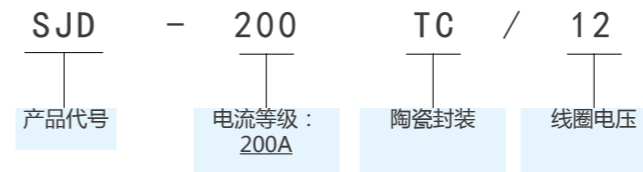


曲线图 Referencd Curve



本继电器典型应用：
This relay typical application：
◆主要用于电动汽车 / 直流充电桩，作切换电流作用；
Mainly used for electric vehicle / DC charging pile, for switching current.
备注：客户需要其它额定电压，可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

产品型号及含义 Ordering Code



技术特性 Ordering Cod

线圈参数 Coil Data	
驱动参数 Driving parameters	
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage
12VDC	≤ 9VDC
24VDC	≤ 18VDC
释放电压 Release voltage	线圈功耗 Coil power consumption
≥ 1VDC	接通时 34W (接通 0.1s), 保持时: 3.9W
≥ 2VDC	When connect 45W (connect 0.1s), Maintain: 3.9W
触点参数 Contact Data	
触点负载 (FLA) Contact load	200A/750VDC
触点形式 Contact form	1H
接触压降 Voltage drop across contacts per 100A	40mV Max @200A
极限通电电流 Limited of current	2000A 0.6 秒
最大切换电流 Max switching current	2000A, 320VDC (1 次)
最大切换电压 Max switching voltage	1000VDC
最大转换功率 Max switching power	640KW
电气耐久性 Electric endurance	200A/450VDC-10000 次 (阻性负载 Resistive load)
机械寿命 Mechanical endurance	200A/750VDC-6000 次 (阻性负载 Resistive load)
辅助开关	无
性能参数 Performance Parameters	
绝缘电阻 Insulation resistance	1000MΩ (1000VDC)
介电耐压 Dielectric strength	触点与线圈之间 Coil to contact 断开触点之间 Across open contact
4000VAC 1 min	
3000VAC 1 min	
闭合时间 Operate time	≤ 30ms
断开时间 Release time	≤ 10ms
冲击稳定性 Shock resistance functional	196m/s ² (20G 以上) 20G above
冲击强度 Shock resistance destructive	490m/s ² (50G 以上) 50G above
环境温度 Ambient temperature	-40 ~ 85°C
湿度 Humidity	5 ~ 85%RH
抗振 Vibration resistance	10-200HZ, 49m/s ²
引出端方式 Terminal	M6 内螺纹 Internal thread
单位重量 Unit weight	600g
封装形式 Package	陶瓷封装 Ceramics encapsulation

安装使用注意：

- 继电器安装时，为防止连接不良，请使用平垫圈及弹簧垫再加螺母紧固，外部连接片需靠最近的继电器引出端面，保证接触良好。不正确的连接顺序可能会造成严重发热，并造成电线融化或烧掉。
When installing the relay, to prevent bad connection, please use the flat washer, spring washer and nut fastening, the external connecting plates need closed to the nearest relay terminal part, ensure good connection. Incorrect connection sequence may can cause severe fever and lead to wires to melt or burn.
- 本继电器引出端有极性区别，请务必按照每个产品表面的 +、- 极进行正确接线，连接极性相反时，电气性能会大大下降。
The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
- 触点参数中的额定值均为阻性负载时的数值，使用感性及容性负载情况下，请采取浪涌吸收措施，否则可能会造成电气寿命下降、发生切断不良。
The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
- 请避免在强磁场附近 (变压器、磁铁等的周围) 和发热体的附近安装。
Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
- 严禁将继电器长时间置于超过产品使用范围温度 (-40°C ~ 85°C) 环境中，否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
- 请避免在引出端上粘附油脂等异物，请选择合理的连接导线规格，否则有可能会造成引出端部的异常发热，如下对照表供参考：
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZKEV061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
- 各个部位的螺钉锁紧扭矩请控制在下述的规定范围内。在超过范围的情况下，扭矩过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.
(1) 引出端安装部分外螺纹：Terminals installed part of externally threaded
● M6 螺母 nut : 6Nm ~ 8Nm.
(2) 主引出端安装部分内螺纹：The terminals installed part of internally threaded
● M5 螺钉 screw : 3Nm ~ 4Nm

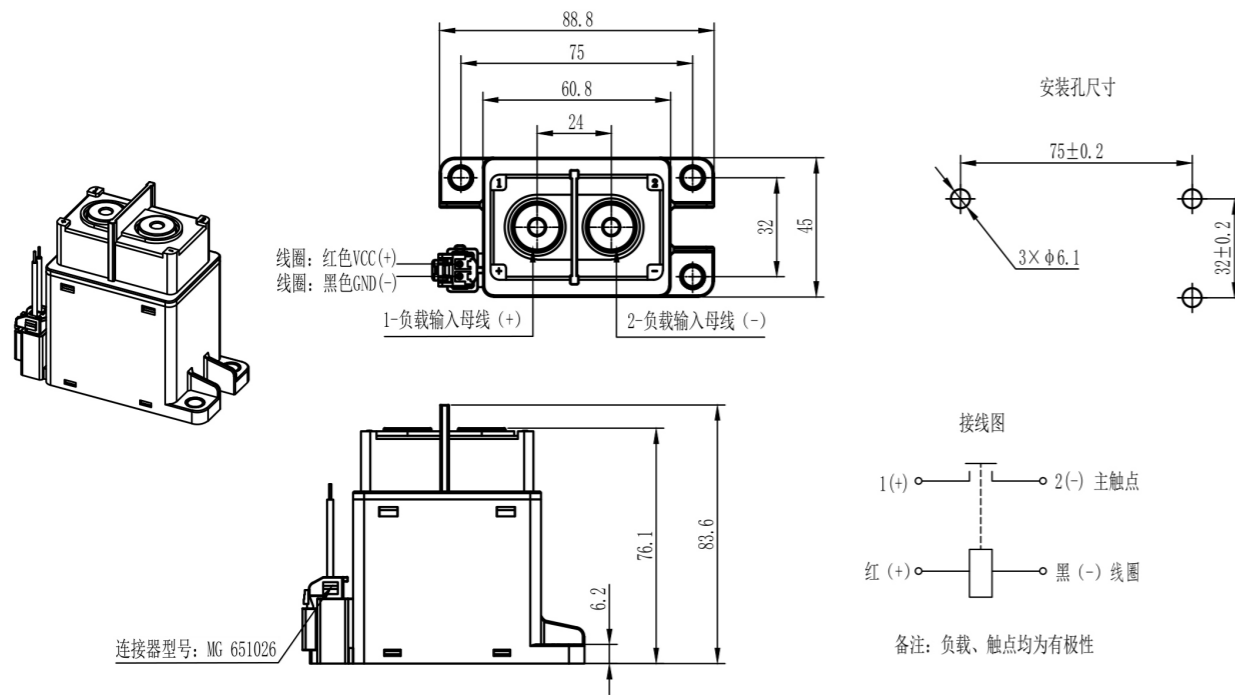
SJD-250TC

High voltage direct current relay 高压直流接触器

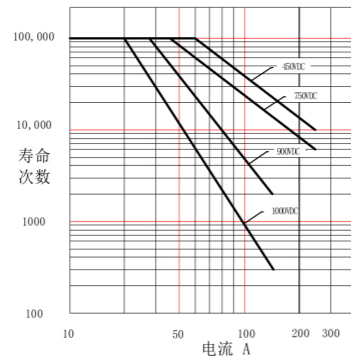
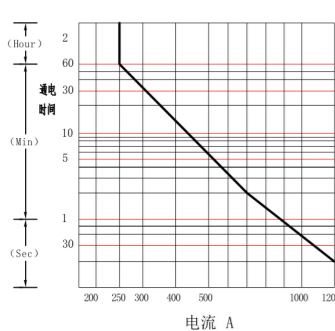


- 小型轻量: 内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气, 从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性: 由于触点部份密封在氢气中, 因此不会发生氧化, 同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠: 采用专业的防爆结构设计, 从而实现高度的安全性, 采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途: 直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz

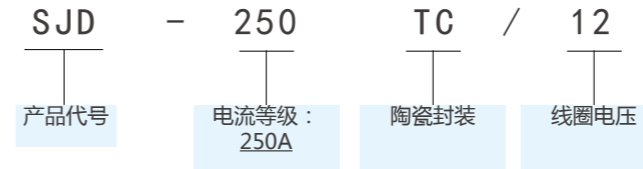


曲线图 Referencd Curve



本继电器典型应用:
This relay typical application:
◆主要用于电动汽车 / 直流充电桩, 作切换电流作用;
Mainly used for electric vehicle / DC charging pile, for switching current.
备注: 客户需要其它额定电压, 可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

产品型号及含义 Ordering Code



技术特性 Ordering Cod


线圈参数 Coil Data	
驱动参数 Driving parameters	
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage
12VDC	≤ 9VDC
24VDC	≤ 18VDC
释放电压 Release voltage	线圈功耗 Coil power consumption
≥ 1VDC	接通时 34W (接通 0.1s), 保持时: 3.9W
≥ 2VDC	When connect 45W (connect 0.1s), Maintain: 3.9W
触点参数 Contact Data	
触点负载 (FLA) Contact load	250A/750VDC
触点形式 Contact form	1H
接触压降 Voltage drop across contacts per 100A	50mV Max @200A
极限通电电流 Limited of current	2000A 0.6 秒
最大切换电流 Max switching current	2000A, 320VDC (1 次)
最大切换电压 Max switching voltage	1000VDC
最大转换功率 Max switching power	640KW
电气耐久性 Electric endurance	200A/450VDC-10000 次 (阻性负载 Resistive load)
机械寿命 Mechanical endurance	200A/750VDC-6000 次 (阻性负载 Resistive load)
辅助开关	无
性能参数 Performance Parameters	
绝缘电阻 Insulation resistance	1000MΩ (1000VDC)
介电耐压 Dielectric strength	触点与线圈之间 Coil to contact: 4000VAC 1 min 断开触点之间 Across open contact: 3000VAC 1 min
闭合时间 Operate time	≤ 30ms
断开时间 Release time	≤ 10ms
冲击稳定性 Shock resistance functional	196m/s ² (20G 以上) 20G above
冲击强度 Shock resistance destructive	490m/s ² (50G 以上) 50G above
环境温度 Ambient temperature	-40 ~ 85°C
湿度 Humidity	5 ~ 85%RH
抗振 Vibration resistance	10-200HZ, 49m/s ²
引出端方式 Terminal	M6 内螺纹 Internal thread
单位重量 Unit weight	600g
封装形式 Package	陶瓷封装 Ceramics encapsulation

安装使用注意:

- 继电器安装时, 为防止连接不良, 请使用平垫圈及弹簧垫再加螺母紧固, 外部连接片需靠最近的继电器引出端面, 保证接触良好。不正确的连接顺序可能会造成严重发热, 并造成电线融化或烧掉。
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- 本继电器引出端有极性区别, 请务必按照每个产品表面的 +、- 极进行正确接线, 连接极性相反时, 电气性能会大大下降。
The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
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The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
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Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
- 严禁将继电器长时间置于超过产品使用范围温度 (-40°C ~ 85°C) 环境中, 否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
- 请避免在引出端上粘附油脂等异物, 请选择合理的连接导线规格, 否则有可能会造成引出端部的异常发热, 如下对照表供参考:
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZXE061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
- 各个部位的螺钉锁紧扭矩请控制在下述的规定范围内。在超过范围的情况下, 扭矩过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.
(1) 引出端安装部分外螺纹: Terminals installed part of externally threaded
● M6 螺母 nut : 6Nm ~ 8Nm.
(2) 主引出端安装部分内螺纹: The terminals installed part of internally threaded
● M5 螺钉 screw : 3Nm ~ 4Nm

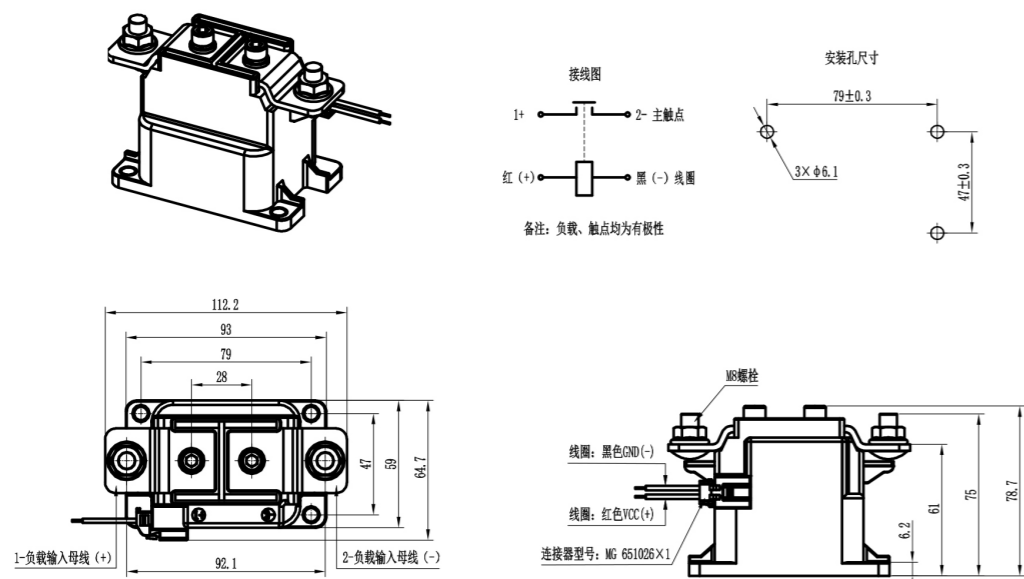
SJD-300TC

High voltage direct current relay 高压直流接触器

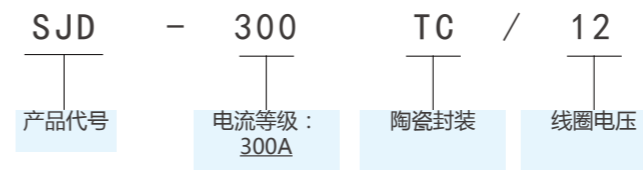


- 小型轻量：内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气，从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性：由于触点部份密封在氢气中，因此不会发生氧化，同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠：采用专业的防爆结构设计，从而实现高度的安全性，采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途：直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz



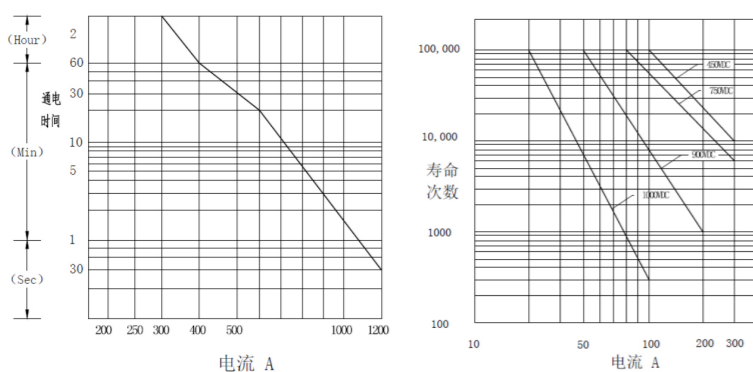
产品型号及含义 Ordering Code



技术特性 Ordering Cod

线圈参数 Coil Data			
驱动参数 Driving parameters			
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage	释放电压 Release voltage	线圈功耗 Coil power consumption
12VDC	≤ 9VDC	≥ 1VDC	接通时 45W (接通 0.1s), 保持时: 3.8W
24VDC	≤ 18VDC	≥ 2VDC	When connect 45W (connect 0.1S), Maintain: 3.8W
触点参数 Contact Data			
触点负载 (FLA) Contact load		300A/750VDC	
触点形式 Contact form		1H	
接触压降 Voltage drop across contacts per 100A		90mV Max @300A	
极限通电流 Limited of current		1200A 30 秒	
最大切换电流 Max switching current		2500A, 320VDC (1 次)	
最大切换电压 Max switching voltage		900VDC	
最大转换功率 Max switching power		800KW	
电气耐久性 Electric endurance		300A/450VDC-10000 次 (阻性负载 Resistive load) 300A/750VDC-6000 次 (阻性负载 Resistive load)	
机械寿命 Mechanical endurance		2×10 ⁵ 次	
辅助开关		无	
性能参数 Performance Parameters			
绝缘电阻 Insulation resistance		1000MΩ (1000VDC)	
介电耐压 Dielectric strength	触点与线圈之间 Coil to contact	4000VAC 1 min	
	断开触点之间 Across open contact	3000VAC 1 min	
闭合时间 Operate time		≤ 30ms	
断开时间 Release time		≤ 10ms	
冲击稳定性 Shock resistance functional		196m/s ² (20G 以上) 20G above	
冲击强度 Shock resistance destructive		490m/s ² (50G 以上) 50G above	
环境温度 Ambient temperature		-40 ~ 85°C	
湿度 Humidity		5 ~ 85%RH	
抗振 Vibration resistance		10-200HZ, 49m/s ²	
引出端方式 Terminal		M8 外螺纹 External thread	
单位重量 Unit weight		800g	
封装形式 Package		陶瓷封装 Ceramics encapsulation	

曲线图 Referencd Curve



本继电器典型应用：
This relay typical application：
●主要用于电动汽车 / 直流充电桩，作切换电流作用；
Mainly used for electric vehicle / DC charging pile, for switching current.
备注：客户需要其它额定电压，可特殊定货。
Remarks: Customers need other rated voltage, can be customized.

安装使用注意：

- 继电器安装时，为防止连接不良，请使用平垫圈及弹簧垫再加螺母紧固，外部连接片需靠最近的继电器引出端面，保证接触良好。不正确的连接顺序可能会造成严重发热，并造成电线融化或烧掉。
When installing the relay, to prevent bad connection, please use the flat washer, spring washer and nut fastening, the external connecting plates need closed to the nearest relay terminal part, ensure good connection. Incorrect connection sequence may can cause severe fever and lead to wires to melt or burn.
 - 本继电器引出端有极性区别，请务必按照每个产品表面的 +、- 极进行正确接线，连接极性相反时，电气性能会大大下降。
The relay terminal have polarity difference, please do it correct connection according to the surface + - on the relay. If the connection polarity is reversed, the electrical performance will be greatly decreased.
 - 触点参数中的额定值均为阻性负载时的数值，使用感性及容性负载情况下，请采取浪涌吸收措施，否则可能会造成电气寿命下降、发生切断不良。
The contact parameters of the ratings are impedance loading values, using inductive and capacitive load case, please take measures to absorb the surge, or it may cause electric life decline, and cut off the defect.
 - 请避免在强磁场附近 (变压器、磁铁等的周围) 和发热体的附近安装。
Please avoid install near the strong magnetic field (such as the transformer, the magnetic around) and near the heating element.
 - 严禁将继电器长时间置于超过产品使用范围温度 (-40°C ~ 85°C) 环境中，否则容易造成塑件老化影响产品性能。
It is forbidden to put the relay in more than using range temperature (-40°C ~ 85°C) environment for a long time, otherwise easy to cause the plastic parts aging and impact product performance.
 - 请避免在引出端上粘附油脂等异物，请选择合理的连接导线规格，否则有可能会造成引出端部的异常发热，如下对照表供参考：
Please avoid adhesion grease and other things on the terminal, please select a suitable connection wire, otherwise it may lead to the terminal abnormal heat, below data for reference:
ZXE061-400A: 公称截面积 240mm² 以上; Nominal cross-section 240mm² above
7、各个部位的螺钉锁紧扭矩请控制在下述的规定范围内。在超过范围的情况下，扭矩过大可能会造成破损。
The screws locking torque control within range of the following rules, if exceed the range, the excessive torque may cause damage.
- (1) 引出端安装部分外螺纹：Terminals installed part of externally threaded
● M6 螺母 nut : 6Nm ~ 8Nm.
(2) 主引出端安装部分内螺纹：The terminals installed part of internally threaded
● M5 螺钉 screw : 3Nm ~ 4Nm

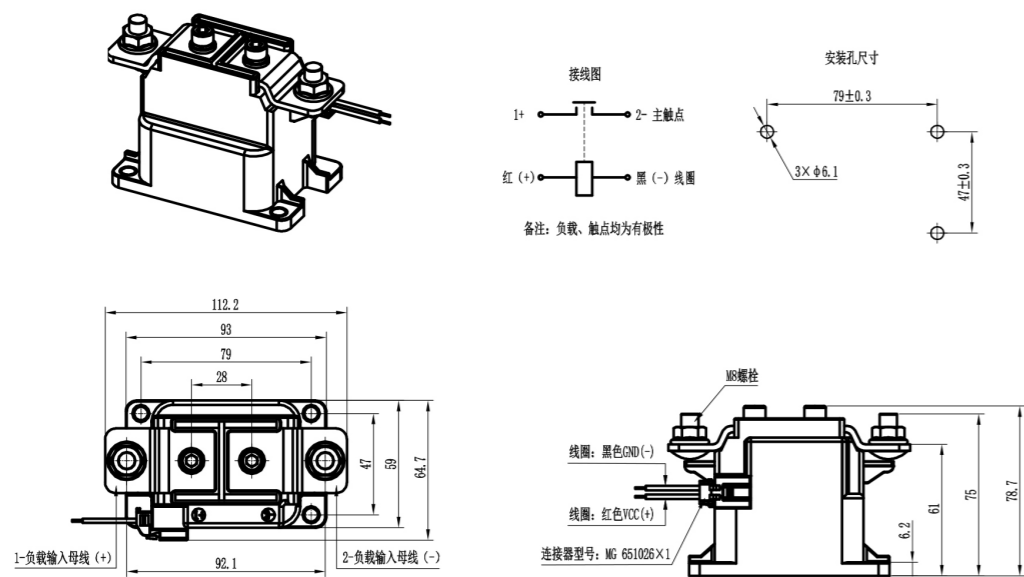
SJD-400TC

High voltage direct current relay 高压直流接触器

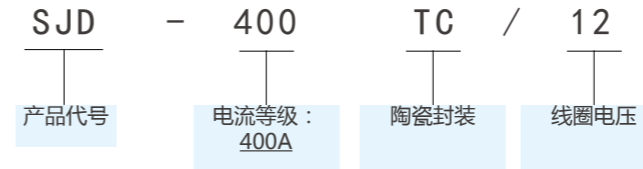


- 小型轻量：内部采用高可靠的密封技术并充有电弧冷却能力较高的氢气，从而可在短时间内实现高压直流的切断。
Small and lightweight: Internally adopt reliable sealing technology and filled with hydrogen which arc colling ability is high. It can cut off high voltage DC in a short time.
- 高度的接触可靠性：由于触点部份密封在氢气中，因此不会发生氧化，同时还实现了触点部份防尘、防水性。
High contact reliability: Due to the contact sealed in the hydrogen, therefore it will be not oxidized, also achieving the contact of the dustproof and waterproof.
- 安全可靠：采用专业的防爆结构设计，从而实现高度的安全性，采用磁吹灭弧有助于快速切断直流负载。
Safety and reliable: Use the professional explosion-proof structure design, to achieve a high degree of security, adopt magnetic quenching helps to cut-off the DC load quickly.
- 产品用途：直流充电桩、电动汽车、混合动力汽车、电池充电系统、光伏发电系统等直流高压用途。
Application: DC charging pile, electric vehicles, hybrid vehicles, battery charging and discharging system, Photovoltaic power generation system such as dc high voltage application.

外形尺寸图 (单位 mm) Outline siz



产品型号及含义 Ordering Code



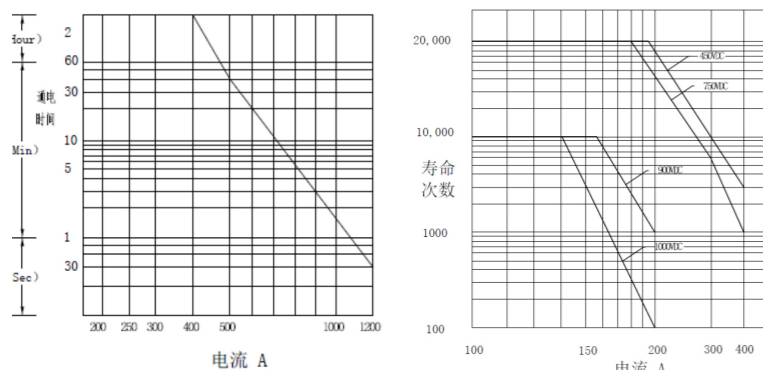
技术特性 Ordering Cod

线圈参数 Coil Data			
驱动参数 Driving parameters			
额定线圈电压 Nominal coil voltage	吸合电压 Opreat voltage	释放电压 Release voltage	线圈功耗 Coil power consumption
12VDC	≤ 9VDC	≥ 1VDC	接通时 45W (接通 0.1s), 保持时: 3.8W
24VDC	≤ 18VDC	≥ 2VDC	When connect 45W (connect 0.1S), Maintain: 3.8W
触点参数 Contact Data			
触点负载 (FLA) Contact load		400A/750VDC	
触点形式 Contact form		1H	
接触压降 Voltage drop across contacts per 100A		120mV Max @400A	
极限通电流 Limited of current		1200A 30秒	
最大切换电流 Max switching current		3000A, 320VDC (1次)	
最大切换电压 Max switching voltage		900VDC	
最大转换功率 Max switching power		800KW	
电气耐久性 Electric endurance		400A/450VDC-3000次 (阻性负载 Resistive load) 400A/750VDC-1000次 (阻性负载 Resistive load)	
机械寿命 Mechanical endurance		2×10 ⁵ 次	
辅助开关		无	
性能参数 Performance Parameters			
绝缘电阻 Insulation resistance		1000MΩ (1000VDC)	
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曲线图 Referencd Curve



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