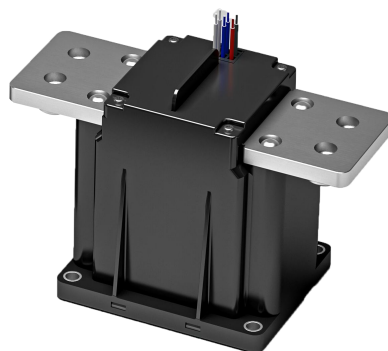


产品特点

- 陶瓷焊接密封结构，磁吹灭弧设计。
- 更高的电流耐受能力。
- 高低压间耐压 4000V 以上。
- 负载连接无极性。
- 环保产品（符合 RoHS）。



FEATURES

- Ceramic welding sealing structure, magnetic blow out arc design.
- With higher current endurance.
- Withstand voltage above 4000V.
- The load connection is BI-directional.
- Compliant with RoHS.

产品型号规则 PRODUCT CODE INFORMATION

DKT	<u>1000</u>	<u>G</u>	<u>1</u>	<u>C</u>	<u>K</u>	<u>XXX</u>
SERIES	(1)	(2)	(3)	(4)	(5)	(6)
(1) 额定电流 Rating Current:	1000=1000A					
(2) 触点形式 Contact Form:	E=一组常开，无辅助触点;			Normally Open.		
	G=主触点一组常开，带辅助触点;			Normally Open with Aux. Contacts.		
(3) 线圈电压 Coil nominal Voltage:	1=9-36Vdc (节能型 PWM)					
(4) 线圈/辅助引出方式 Coil&Auxiliary lead out form:	C=连接器 Connector					
(5) 壳架号 Shell Number:	K=1000 壳架 Shell					
(6) 特殊代码 Special Code:	B=负载电压 1500V Load Voltage is 1500V					

技术参数 PARAMETERS

主触点参数 Main Contact

触点配置	Contact Arrangement	一组常开，无极性 SPST-NO, non-polarity
额定负载	Rating Load Condition	DC1500V 1000A
最小负载	Minimum Load	6V,1A
最大分断电流	Breaking Current Max.	3000A/320VDC, only 1 op
短路电流	Short Circuit Current	8000A, 5ms
吸合时间	Close Time	≤50ms
弹跳时间	Bounce Time	≤10ms
释放时间	Release Time	≤30ms
触点电阻	Contact Resistance	≤0.5mΩ(@1000A) (初始值 initial)
机械寿命	Mechanical Life	2×10 ⁵ 次 cycles (0.5s:0.5s)
电寿命	Electrical Life	1000A/1500V, 20 cycles (仅分断 1:60)

辅助触点参数 Auxiliary Contact

触点形式	Contact Form	一组常开，无极性 SPST-NO, non-polarity
最大电流	Contact Current Max.	0.1A, 12VDC
触点电阻	Contact Resistance	≤100mΩ (初始值 initial)
切换电寿命	Switching Electrical Life	DC12V 0.1A 10000 次 cycles

线圈参数 Coil Data

额定电压	Nominal Voltage	12/24 VDC (PWM)
工作电压范围	Voltage Range	≤9 VDC
吸合电压	Pick-up Voltage	9 ~ 36 VDC
释放电压	Drop-out Voltage	≥5 VDC
线圈电阻	Coil Resistance	3.1±7% Ω
额定启动电流	Start-up Current	≤3.8 A (@12V)
启动时间	Set-up Time	≤150 ms (@12V)
驱动功耗	Start-up Power	48 W (@12V)
稳态功耗	Holding Power	4.4 W (@12V)

Note: The above values are the initial values at room temperature.

性能参数 PERFORMANCE DATA

绝缘电阻 Insulation Resistance

断开触点间	Between main contacts	$\geq 1000M\Omega$
触点与线圈间	Between coil and main contacts	$\geq 1000M\Omega$
触点与辅助触点间	Between main and auxiliary contacts	$\geq 1000M\Omega$

绝缘耐压 Withstand Voltage

断开触点间	Between main contacts	AC4000V 1min
触点与线圈间	Between coil and main contacts	AC4000V 1min
触点与辅助触点间	Between main and auxiliary contacts	AC4000V 1min

机械性能 Mechanical Performance

冲击 Shock resistance	强度 Strength	588m/s ²
	稳定性 Stability	闭合 Closed state : 588m/s ² 断开 Off-state : 196m/s ²
振动 Vibration resistance	正弦振动 Sine	49m/s ² (10~55Hz)

其他参数 Other Parameters

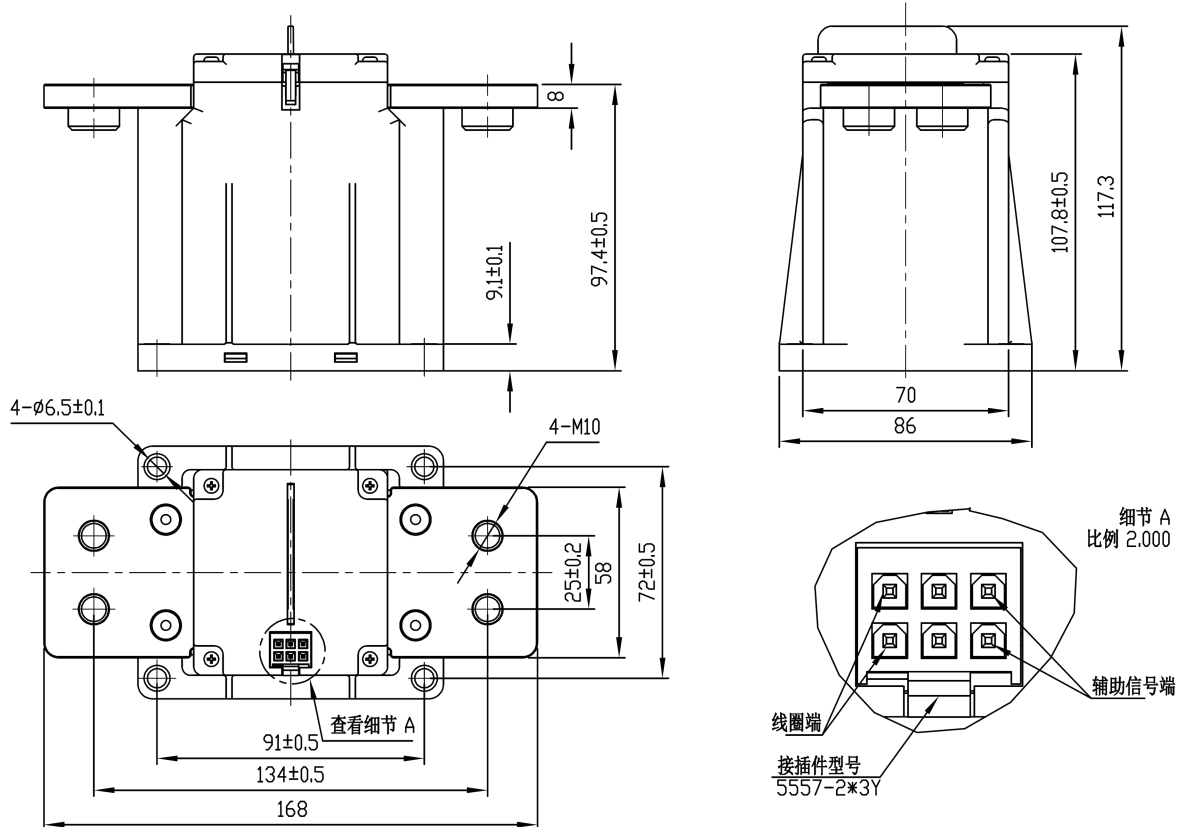
温度范围	Temperature Range	-40 ~ +85°C (不结冰、无凝露) No frost, No condensation
湿度范围	Humidity Range	5 ~ 95%RH
重量	Weight (Approx.)	1620g

Note: The above values are the initial values at room temperature.

外形尺寸 DIMENSIONS & DIAGRAM

尺寸图 Dimensions

单位 Unit: mm 视角 Viewing angle:



未注公差 Undeclared Tolerance

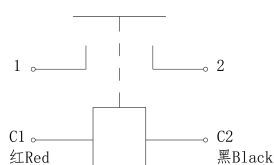
标称值	Values:	≤10	10~50	≥50
公差	Tolerance:	±0.3	±0.6	±1.0

说明 Note

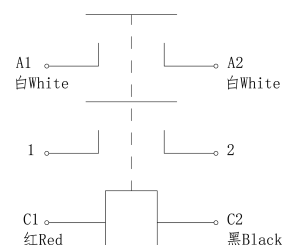
- 1、2为负载端，负载无极性(外壳无标识);
- C1、C2为线圈端，线圈有极性，红“+”，黑“-”;
- A1、A2为辅助触点，辅助触点无极性。

接线图 Diagram

TYPE E



TYPE G (Aux. NO)



- 1 and 2 are power terminals, with no polarity of the load (no identification on the shell).
- C1 and C2 are the coil ends, with polarity. Red“+”,Black“-”.
- A1 and A2 are auxiliary contacts, which have no polarity.

安装说明 INSTALLATION

负载引出端 Load Terminal

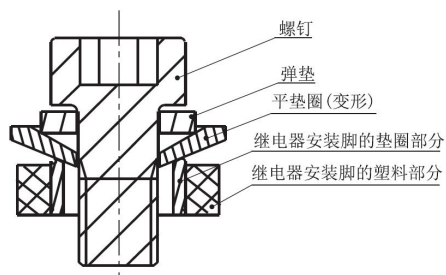
负载引出端形式	Power terminal lead out form	M10 内螺纹 Female
建议铜排厚度	Recommended copper bar thickness	8 mm
建议铜排孔径	Recommended copper bar aperture	Φ10.2mm ~ Φ10.5mm
扭矩范围	Torque Range	12 N·m ~ 16 N·m
建议连接导线/铜排截面积	Recommended cross-sectional area of connecting wires/copper bars	≥ 500mm ²

注意：如果铜排的厚度和扭矩超出建议的数值，会造成螺纹滑牙或安装不紧的问题。

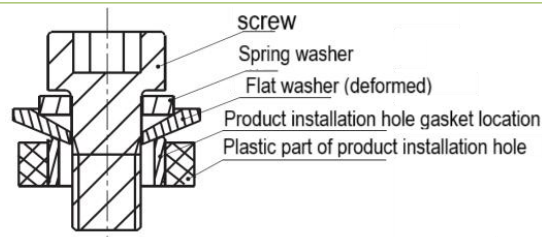
Note: If torque and the thickness of the connecting copper bars exceed the recommended values, it may cause problems such as thread slippage or loose installation.

产品基座安装 Base Mounting

紧固件规格	Fastener specifications	M6 组合螺钉 Combination Screw
扭矩范围	Torque Range	3 N·m ~ 4 N·m



安装时请使用垫圈，确保垫圈厚度和强度足够，否则会变形，撑破外壳。



Please use washers during installation to ensure that the thickness and strength of the washers are sufficient, otherwise they may deform and break the shell.

注意事项 CAUTIONS

1. 我司承诺的负载,在没有特别说明时,均指额定负载,产品使用于我们承诺的负载条件之外时,我公司不承担因此造成的失效责任。
1. The load promised by our company, unless otherwise specified, refers to the rated load. When the product is used outside of our promised load conditions, our company does not assume any responsibility for the failure caused by this. Customers should choose products that match their specific usage conditions. If you have any questions, please contact us for more technical support; But the responsibility for product selection lies solely with the customer.
2. 触点额定值均为阻性负载时的数值,使用 $L/R \geq 1$ ms 的感性负载 (L 负载) 的情况下,请与感性负载并行采取浪涌吸收措施。未采取措施的情况下,可能会造成电气寿命下降、发生切断不良。
2. The rated values of the contacts are all values for resistive loads. When using inductive loads (L loads) with $L/R \geq 1$ ms, surge absorption measures should be taken in parallel with the inductive loads. Without taking measures, it may cause a decrease in electrical life and result in poor cutting off.
3. 为抑制继电器线圈的反向电动势,建议非节能型产品加装非线性电阻 (推荐使用可变电阻,最大能量耐量: 1J 以上; 电压: 额定电压的 1.5 ~ 2 倍)。若使用二极管,会使继电器释放时间大大加长,肯定会导致切断性能下降,敬请注意。
3. To suppress the reverse electromotive force of the relay coil, it is recommended to install nonlinear resistors on non energy-saving products (variable resistors are recommended, maximum energy tolerance: 1J or more; voltage: 1.5 to 2 times the rated voltage). If diodes are used, it will greatly prolong the release time of the relay, which will definitely lead to a decrease in cutting performance. Please be aware.
4. 本继电器的内部触点使用了气体保护,伴随着触点温度变化 (环境温度+通电致使温度上升) 而存在内部气体穿透,严禁将继电器长时间置于超过产品温度使用范围 ($-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$) 环境中。
4. The internal contacts of this relay are protected by gas, and there may be internal gas penetration due to changes in contact temperature (ambient temperature+temperature rise caused by power on). It is strictly prohibited to place the relay in an environment exceeding the product temperature range ($-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$) for a long time.
5. 请在强磁界 (变压器、磁铁的周围) 和发热物体的附近安装。
5. Please avoid installing near strong magnetic fields (around transformers, magnets) and hot objects
6. 请在引出片上粘附油脂等异物,否则有可能会造成引出端部分的异常发热。
6. Please avoid sticking foreign objects such as grease on the lead out piece, otherwise it may cause abnormal heating at the lead out end.
7. 避免将两铜排安装在同一侧,谨防高压短路或打火。
7. Please avoid installing two copper bars on the same side to prevent high voltage short circuits or ignition.
8. 在继电器坠落的情况下,原则上请不要再使用。
8. Please do not use it when the product has fallen.
9. 请确保在继电器周围不存在硅系物质 (如硅橡胶、硅油、硅系涂料剂、硅填充剂等),因为它们会产生含硅挥发气体,可能导致硅附着于继电器触点上,引起触点接触不良。
9. Please ensure that there are no silicone based substances (such as silicone rubber, silicone oil, silicone coating agents, silicone fillers, etc.) around the relay, as they can produce volatile gases containing silicon, which may cause silicon to adhere to the relay contacts and cause poor contact.

东科保留对产品进行更改的权利。客户在首次下单前应确认本产品手册的内容,必要时可联系我公司提供新的规格书。
Dongke reserves the right to make changes to the product. Customers should confirm the content of this product manual before placing their first order, and may request our company to provide new data sheet if necessary.