



特性 Features

1. 采用陶瓷钎焊技术, 触头部分灌封以氢气为主的气体, 有效防止触点氧化、烧损, 接触电阻低且稳定, 触点部分可满足IP67防护等级;
Using ceramic brazing technology, the contact part is filled with mainly hydrogen gas to effectively prevent contact oxidation and burnout. The contact resistance is low and stable, and the contact part can meet the IP67 protection grade.
2. 20A 85°C长时间载流能力;
20A 85°C long time current carrying capacity.
3. 绝缘电阻达100MΩ (1000VDC), 触点与线圈间耐压4kV;
The insulation resistance reaches 100MΩ (1,000VDC), and the withstand voltage between the contact and the coil is 4kV.
4. 符合IEC 60664-1, GB/T14048.1和GB/T14048.4要求;
Compliant with IEC 60664-1, GB/T14048.1 and GB/T14048.4 requirements.
5. 符合RoHS (2015/863/EU), REACH (1907/2006/EC) 要求;
Compliant with RoHS (2015/863/EC) and REACH (1907/2006/EC) requirements.
6. 安规认证: CE, RoHS。
Safety certificate: CE, RoHS.

主触点参数 Main Contact Specification

触点形式 Contact Arrangement	1K (1NO)
触点极性 Contact Polarity	无极性 Nonpolarity
接触电阻 Contact Resistance	≤0.5mΩ (at 20A)
最大切换电压 Max. Switching Voltage	750VDC
最大分断电流 Max. Breaking Current	200A (450VDC) 1次(Ops)
电耐久性 Electrical Endurance	100,000次(Ops) (450VDC, 20A)
	75,000次(Ops) (750VDC, 20A)
机械耐久 Mechanical Endurance	200,000次(Ops)
电流耐受 Withstand Current	20A, 持续 20A, Continuous
	30A, 1h
	40A, 20min
	80A, 30S
	120A, 10S
	200A, 0.6S
外形尺寸 Dimension	78x39.6x46.1mm
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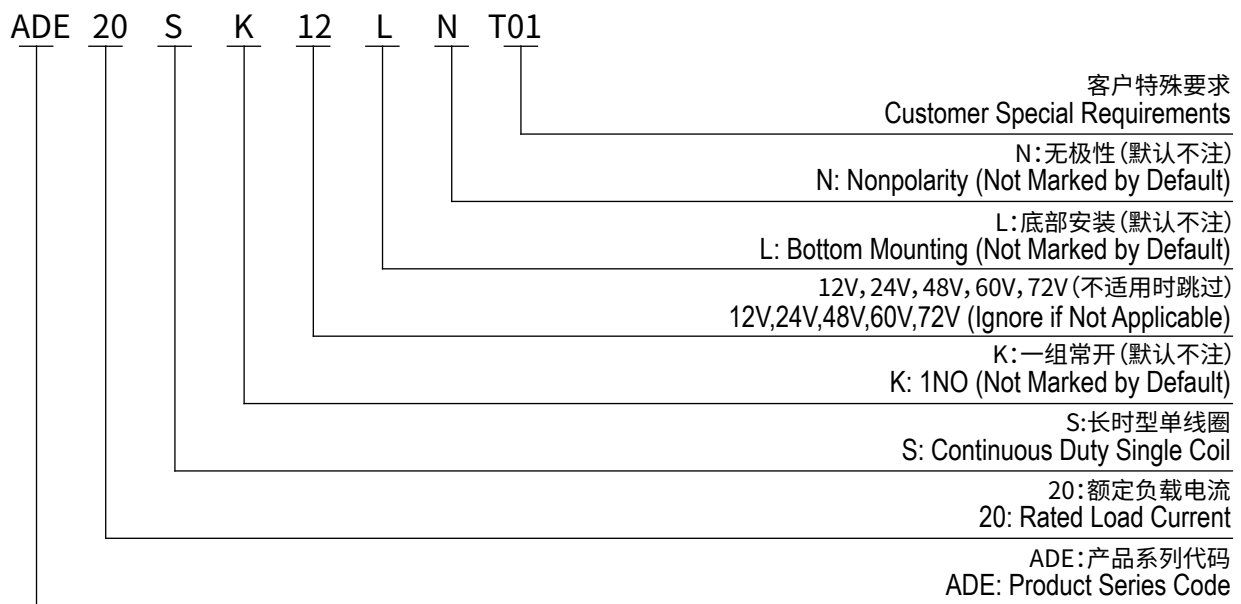
性能参数 (at 23°C) Performance Parameter (at 23°C)

吸合电压 Pickup Voltage	≤75%Us	
释放电压 Dropout Voltage	≥8%Us	
吸合时间 Pickup Time	≤30ms	
触点弹跳时间 Contact Bounce Period	≤5ms	
释放时间 Dropout Time	≤10ms	
介质耐压 Dielectric Strength	主触点间 Between Main Contacts	3,000VDC 1min
	主触点与线圈间 Between Main Contact and Coil	4,000VDC 1min
绝缘电阻 Insulation Resistance	初始状态 Initial State	100MΩ 1min
	电寿命后 After Electrical Life	50MΩ 1min
冲击 Shock	稳定性 Stability	20g (通电) 20g (Power On)
	强度 Strength	50g
振动 Vibration	5g, 10~500Hz, 1/2正弦波 (通电) 5g, 10~500Hz, 1/2 Sine Wave (Power On)	
湿度 Relative Humidity	5%~85%RH	
温度 Temperature	-40°C~85°C	
负载端引出端型式 Load Terminal	QC端子 QC Terminal	
重量 Weight	约About 150g	

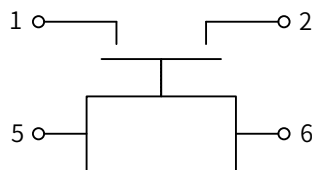
ADE20线圈参数 ADE20 Coil Parameter

线圈电压 Coil Voltage	吸合电压 Pickup Voltage VDC	释放电压 Dropout Voltage VDC	线圈电阻 Coil Resistance	线圈功耗 Coil Power Consumption
12V	$\leq 75\%U_s$	$\geq 8\%U_s$	$48\Omega \pm 10\%$	$3W \pm 10\%$
24V	$\leq 75\%U_s$	$\geq 8\%U_s$	$192\Omega \pm 10\%$	$3W \pm 10\%$
48V	$\leq 75\%U_s$	$\geq 8\%U_s$	$761\Omega \pm 10\%$	$3W \pm 10\%$
60V	$\leq 75\%U_s$	$\geq 8\%U_s$	$1200\Omega \pm 10\%$	$3W \pm 10\%$
72V	$\leq 75\%U_s$	$\geq 8\%U_s$	$1728\Omega \pm 10\%$	$3W \pm 10\%$

型号说明 Model Coding



接线原理图 Wiring Diagram

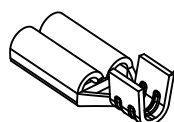


接线图
Wiring Diagram

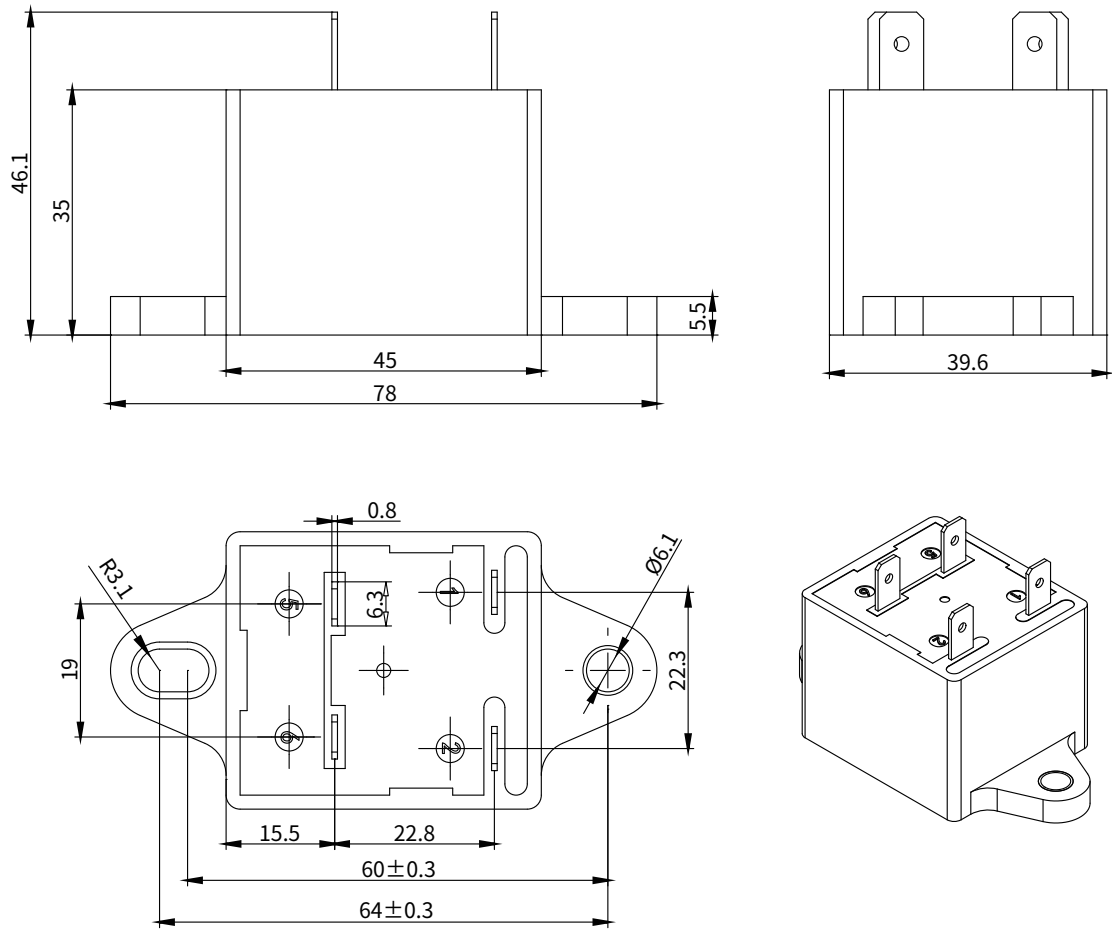
1,2主端子接线无极性
1,2 Main Terminals with Non-Polarity

5,6线圈接线12-72V
5,6 Coil Terminals 12-72V

端子类型=插座型
9-160583-X
9-160313-X



外形安装尺寸图
Outline Installation Dimension Drawing



使用注意事项 Usage Cautions

1. 本资料仅供客户选型参考，奥凯已尽力确保本资料中信息的准确性。产品规格、参数可能因产品改良等发生变更，而未及时更新导致规格参数不一致。具体每个产品的参数及性能请以奥凯提供的样品及对应签字受控的承认书为准。

This document is only for customer selection reference, AOKAI has tried the best to ensure the accuracy of the information in this document. Product specifications and parameters may be changed due to product improvement etc., they may be inconsistent because of not updated in time. For the specific parameters and performance of each product, please refer to the samples provided by AOKAI and the corresponding signed and controlled specification.

2. 关于本产品的应用，客户在选型产品时，根据自己的具体使用条件和环境要求，选择与之相匹配的产品，其中未明确规定的要求条件，请与奥凯联系，以便获取更多的技术支持。

Regarding the application of this product, please select the matching product according to your specific use conditions and environmental requirements when selecting the product. If the requirements are not clearly specified, please contact AOKAI to obtain more technical support.

3. 安装使用本产品时，无论接线还是固定安装，均要求使用防松弹垫。

When installing and using this product, regardless of wiring or fixed installation, it is required to use anti-loose spring washers.

4. 安装紧固件的扭矩应在本规范要求的标准范围内，扭矩低于扭矩最小值或超出扭矩最大值，可能导致安装不牢固或破坏产品。

The torque for installing fasteners should be within the standard range required by this specification. It may cause the unstable installation or damaging the product if the torque is lower than the minimum torque or higher than the maximum torque.

5. 避免把本接触器安装在强磁场的地方（如变压器或强磁铁处），或靠近有热辐射的物体，建议配合安装散热风扇使用。

Do not install the contactor in places with strong magnetic fields (such as transformers or strong magnets), or close to objects with thermal radiation. It is recommended to use it with a cooling fan.

6. 禁止使用高处（高度 $\geq 30\text{cm}$ ）跌落过的产品。

It is forbidden to use the product that have been dropped from a high place (height $\geq 30\text{cm}$).

7. 禁止在有油污的环境下使用该产品，尤其是未接线前，主端子被油污污染会严重影响导电性，影响产品寿命。

It is forbidden to use the product in an environment with oil pollution, especially before wiring, it will seriously affect the main terminals conductivity if they are polluted by oil pollution, and affect the product life.

8. 禁止超出额定电寿命使用该产品，额定电寿命到达时虽然产品还可以继续工作，但有失效、爆炸、不断开引起燃烧的风险。

It is forbidden to use the product beyond the rated electrical life. When the rated electrical life is reached, although the product can continue to work, there is a risk of failure, explosion, and burning because of non-breaking.

9. 该产品不能作为保护器使用，使用时线路必须串联保护器。

This product cannot be used as a protector, and the circuit must be connected with a protector in series when using.

10. 奥凯仅做阻性电寿命验证和质量保证，产品用于有感性负载或容性负载的环境时，建议回路并联浪涌保护装置。

AOKAI only does the resistive electrical life verification and quality assurance. When the product is used in an environment with inductive load or capacitive load, it is recommended that the circuit should be connected in parallel with a surge protection device.

11. 持续工作后，断开后立即重启，会因产品处于发热状态而影响吸合电压，吸合电压会升高属合理现象。

After continuous work, restarting immediately after disconnection will affect the pull-in voltage because the product is in a hot state, and the pull-in voltage will increase, which is a reasonable phenomenon.

12. 严禁带电接线。

It is strictly prohibited to wiring when power on.