

AOYI®

本产品资料仅用于说明本公司系列产品的相关信息。公司随时可根据技术改进或硬件的升级对本手册产品及相关内容进行变更。恕不另行通知。印刷图片仅供参考。订货产品时，请以实物为准。

AOYI® 奥仪电器



AOYI ELECTRIC PRODUCTS CATALOGUE

产品选型/手册

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HUANGSHAN AOYI ELECTRIC CO.,LTD.

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Brief introduction

公司简介

上海奥仪电器有限公司和黄山奥仪电器有限公司有着30多年的生产历史。总公司坐落于安徽省黄山市歙县经济开发区。建筑面积15000平方米。是一家专注于工业自动化领域，集研发、制造、销售为一体的创新型国家或高新技术企业。省市专精特新企业。公司秉承“快捷高效的技术沟通，成熟完美的应用方案，高性价比的工程产品，诚实守信的全程服务”发展理念。公司先后取得了“ISO9001质量管理体系认证”、“CCC认证”、“CE认证”等多项资质。

我司专业生产55W固态继电器、SCR电力调整器、数显及指针式电流电压表、智能温控仪表、可控硅电压调整器等。其产品应用领域广泛应用于塑料机械、鞋机、箱包机、吹瓶机、工业钢化炉设备、纺织机械、干燥设备、涂装设备、食品机械、环境监测、热处理设备、工业自动化等设备。产品远销台湾、东南亚及欧美等国家和全国各地，深受广大客户的好评。

我们在不断地开拓创新中积累了众多产品应用案例，期待与您分享。公司全体员工积极进取，努力拼搏，以高质量的产品和优质的服务欢迎国内外客商朋友的光临。衷心期望成为您值得信赖的合作伙伴，共创美好明天。

Shanghai Aoyi Electrical Appliance Co., Ltd. and Mount Huangshan Aoyi Electrical Appliance Co., Ltd. have a production history of more than 30 years. The head office is located in Shexian Economic Development Zone, Mount Huangshan City, Anhui Province, with a construction area of 15000 square meters. It is an innovative national high-tech, provincial and municipal specialized and new enterprise that focuses on the field of industrial automation, integrating research and development, manufacturing, and sales. The company adheres to the development philosophy of "fast and efficient technical communication, mature and perfect application solutions, cost-effective industrial control products, and honest and trustworthy full-service". The company has successively obtained multiple qualifications such as "ISO9001 Quality System Certification", "CCC Certification", "CE Certification", etc.

Our company specializes in producing SSR solid-state relays, SCR power regulators, digital and pointer current and voltage meters, intelligent temperature control instruments, thyristor voltage regulators, etc. Its products have a wide range of applications, including plastic machinery, shoe machines, luggage and bag machines, bottle blowing machines, industrial tempering furnace equipment, textile machinery, drying equipment, dehumidifier equipment, food machine equipment, environmental monitoring, heat treatment equipment, industrial automation and other equipment. The products are exported to countries such as Taiwan, Southeast Asia, Europe and America, as well as various parts of the country, and are highly praised by customers.

We have accumulated numerous product application cases through continuous exploration and innovation, and look forward to sharing them with you. All employees of the company are proactive and hardworking, welcoming friends from all walks of life at home and abroad with high-quality products and services. We sincerely hope to become your trusted and reliable partner and create a better tomorrow together.



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一、概述 Summary

固态继电器(Solid State Relay)简称为SSR,它是一种全部由固体电子元件组成的新型的无触点开关器件,它利用电子元件中的大功率三极管、功率场效应管、单向可控硅和双向可控硅及快速等器件的开关特性,可达到无触点、无火花的接通和断开电路。它又称为无触点开关,SSR一般为四端有源器件,其中两个控制端和两个输出端,输入、输出端可靠隔离。当输入端加控制信号时,输出端即进行开或关转换。

The solid state relay is usually called SSR for short, it is a new type of non-contact switching device completely composing of solid electronic elements, it adopts the switching characteristics of high power audion, power field effect tube, one-way and two-way controllable silicon and module to make and break the circuit without contact or spark. It is also called non-contact switch. SSR is usually a four-terminal active device including two control terminals, input and output terminals, and input and output terminals own reliable isolation. When control signal is connected with input terminal, the output terminal will switch over for on or off.

二、固态继电器的运用 Application of Solid State Relays

SSR系列固态继电器采用阻燃工程塑料外壳,环氧树脂封装,具有结构强度高、耐冲击、抗震动性强、输入端驱动电流小、可方便与计算机接口和数字控制电路接口。广泛应用于石油化工仪器设备、制药机械、食品机械、包装机械、玻璃机械、橡胶机械、纺织机械、塑料机械、数控机床娱乐设施等自动化控制领域。

The SSR series solid-state relay adopts a flame-retardant engineering plastic shell, epoxy resin encapsulation, and threaded terminal connection. It has high structural strength, impact resistance, strong vibration resistance, low input drive current, and can be easily connected to computer terminals and digital control circuits. It is widely used in automation control fields such as petrochemical equipment, pharmaceutical machinery, food machinery, packaging machinery, glass machinery, cable machinery, textile machinery, plastic machinery, CNC machine tools, entertainment facilities, etc.

三、固态继电器的命名 Denomination of Solid State Relay



四、过零型与随机型SSR的区别 The Difference Between Zero-Crossing SSR and Random SSR

交流固态继电器按开关方式分为电压过零导通型(简称过零型)和随机导通型(简称随机型)。

当输入端施加有效的控制信号时,随机型SSR输出端立即导通(速度为毫秒级),而过零型SSR则要等负载电压过零区域时才开启导通。当输入端撤消控制信号后,过零型随机型SSR均在小于维持电流时关断。虽然过零型SSR有可避免最大半个周期的延迟,但却减少了对负载的冲击和产生的射频干扰,成为理想的开关器件。在“单刀单掷”的开关场合中应用最为广泛。随机型SSR的特点是反应速度快,它可以控制触头触发电脉冲方便地改变交流电网电压,从而应用于精确地调温、调光等感性负载及部分感性负载场合。

AC solid-state relays are divided into voltage zero crossing conduction type (referred to as zero crossing type) and random conduction type (referred to as random type) according to their switching modes.

When an effective control signal is applied to the input terminal, the output terminal of the random type SSR immediately conducts (at a speed of microseconds), while the zero crossing type SSR only turns on when the load voltage crosses the zero region. When the input terminal cancels the control signal, both zero crossing type and random type SSRs turn off when the current is less than the holding current. Although zero crossing SSRs may cause a maximum delay of half a cycle, they reduce the impact on the load and the RF interference generated, making them an ideal switching device and widely used in "single pole single throw" switching situations. The characteristic of random SSR is its fast response speed. It can control the phase-shift trigger pulse to conveniently change the AC grid voltage, making it suitable for precise temperature and dimming of resistive loads and some inductive loads.

五、双向可控硅输出的普通型与单向可控硅反并联输出的增强型的区别 The Difference Between the Ordinary Type of Bidirectional Thyristor Output and the Enhanced Type of Unidirectional Thyristor Anti Parallel Output

固态继电器按输出开关元件分有双向可控硅输出型(普通型)和单向可控硅反并联输出型(增强型)。

在感性负载的场合,当SSR由通态关断时,由于电流、电压的相位不一致,将产生一个很大的电压上升率dv/dt(或dv/dt)如在双向可控硅两端,如此值超过双向可控硅的换向dv/dt指标(典型值为10V/μs),则将导致关断失败甚至失败。而单向可控硅为单极性工作状态,只要静态电压上升率dv/dt(典型值为100V/μs)影响,由两只单向可控硅反并联构成的增强型固态继电器比一只双向可控硅构成的普通型固态继电器的换向dv/dt有了很大提高,因此在感性或容性负载场合宜选取增强型固态继电器。

Solid state relays are divided into bidirectional thyristor output type (ordinary type) and unidirectional thyristor anti parallel output type (enhanced type) according to the output switching elements.

In the case of inductive loads, when SSR is turned off from the on state, due to the phase difference between current and voltage, a large voltage rise rate dv/dt (commutation dv/dt) will be generated at both ends of the bidirectional thyristor. If the value exceeds the commutation dv/dt direction index of the bidirectional thyristor (typical value is 10V/μs), it will cause delayed turn off or even failure. The single-phase thyristor operates in a unipolar state and is only affected by the static voltage rise rate dv/dt (typical value is 100V/μs). The enhanced solid-state relay composed of two unidirectional thyristors in anti parallel has a greatly improved commutation dv/dt compared to a conventional solid-state relay composed of one bidirectional thyristor. Therefore, it is appropriate to choose an enhanced solid-state relay in inductive or capacitive load fields.

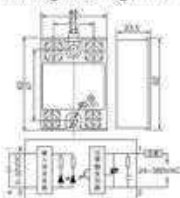
六、固态继电器使用注意事项 Operation Notice

1. 固态继电器型号中的电流值为内部可控硅所能承受的最大电流有效值。
过流或负载短路是造成SSR内部输出可控硅永久性损坏的最主要原因。快速熔断器和空气开关是过流保护方法之一。小容量SSR也可选用保险丝。许多负载在接通瞬间会产生很大的浪涌电流,由于散热不及,浪涌电流与过流一样也是造成SSR内部输出可控硅损坏的主要原因之一。因此选取固态继电器时,保证一定的电流余量是极其重要的。
▲ 感性负载时,选取SSR的电流等级大于2倍的负载额定电流。
▲ 负载为交流电动机时,选取SSR的电流等级大于6-7倍的电动机额定电流。
▲ 交流电磁铁、继电器负载时,选取SSR的电流等级大于4倍负载额定电流。
▲ 变压器负载时,选取SSR的电流等级大于5倍变压器初级额定电流。
▲ 电力补偿电容类负载时,选取SSR的电流等级大于5倍的负载额定电流。
2. 过压保护措施:过压保护可以采取并联压敏电阻(MOV),MOV的面积大小决定吸收功率,MOV的厚度决定保护电压值。一般220V系列SSR可选取47V/10D压敏电阻,380V系列SSR可选取68V/10D压敏电阻,480V系列SSR可选取82V/10D压敏电阻。
3. 固态继电器在导通时会产生一定的热量,故在固态继电器使用时,应安装散热器使其冷却。在选用散热器时,应考虑环境温度、通风条件及SSR安装密度等因素,实际使用负载电流较大时,应安装风机进行冷却。
固态继电器与散热器安装面之间涂一层导热硅脂。
1. The current value in the solid-state relay model is the maximum effective current that the internal thyristor can withstand.
Overcurrent or load short circuit is the main cause of permanent damage to the internal output thyristor of SSR. Quick fuses and air switches are one of the over current protection methods, and fuses can also be used for small capacity SSR. Many loads generate large surge currents at the moment of connection. Due to insufficient heat dissipation, surge currents, like overcurrent, are also one of the main causes of damage to the internal output thyristor of SSR. Therefore, it is extremely important to ensure a certain current margin when selecting solid-state relays.
▲ When using resistive loads, select a load rated current with SSR current level greater than twice the rated current.
▲ When the load is an AC motor, the selected SSR current level must be greater than 6-7 times the rated current of the motor.
▲ When using AC electromagnets and relay loads, the current level of SSR selected must be greater than 4 times the rated current of the load.
▲ When the transformer is loaded, the current level selected for SSR must be greater than 5 times the primary rated current of the transformer.
▲ When using power compensation capacitor loads, the current level of SSR selected must be greater than 5 times the rated current of the load.
3. Solid state relays generate a certain amount of heat when conducting, so a heat sink should be installed to cool them during use. When selecting a radiator, factors such as ambient temperature, ventilation conditions, and SSR installation density should be taken into account. When the actual load current is high, a fan should be installed for cooling.
A layer of thermal conductive silicone grease must be applied between the installation surface of the solid-state relay and the radiator.

SSR-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

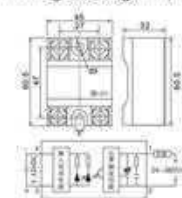
SSR-□DA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:115g

ASR-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.5LX45.0WX32.0H

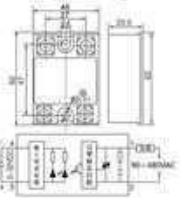
ASR-□DA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:85g

SSR-40DA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



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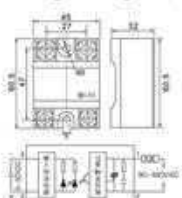
SSR-□DA-H

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:90-480VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:115g

ASR-40DA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



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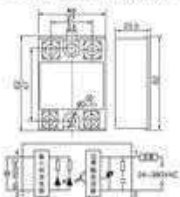
ASR-□DA-H

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:90-480VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:85g

SSR-40AA



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

SSR-□AA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:80-250VAC
控制电流 Control Current:AC≤2mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤6mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:115g

ASR-40AA



外形及安装尺寸(毫米)
Wiring drawing(mm)



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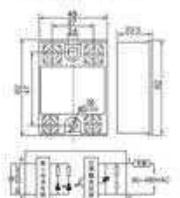
ASR-□AA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:80-250VAC
控制电流 Control Current:AC≤2mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:85g

SSR-40AA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



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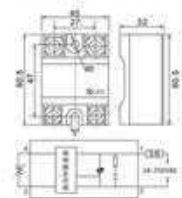
SSR-□AA-H

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:90-480VAC
控制信号 Control Signal:80-250VAC
控制电流 Control Current:AC≤2mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:115g

ASR-40VA



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.5LX45.0WX32.0H

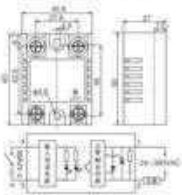
ASR-□VA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-250VAC
控制方式 Control Mode:VR 300KΩ/220VAC
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:85g

ZSR-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.0LX45.6WX27.0H

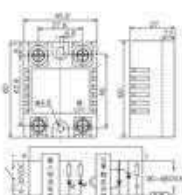
ZSR-□DA

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:115g

ZSR-40DA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.0LX45.6WX27.0H

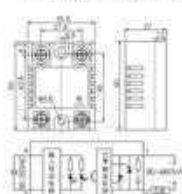
ZSR-□DA-H

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:90-660VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:无
工作指示 The work instructions:LED
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:115g

ZSR-40AA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.0LX45.6WX27.0H

ZSR-□AA-H

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:90-660VAC
控制信号 Control Signal:80-250VAC
控制电流 Control Current:AC≤2mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:115g

ZSR-40VA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



60.0LX45.6WX27.0H

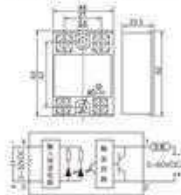
ZSR-□VA-H

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:90-480VAC
控制方式 Control Mode:VR-1MΩ/2W
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:无
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:115g

SSR-10DD



外形及安装尺寸(毫米)
Wiring drawing(mm)

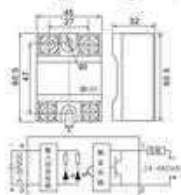


62.0LX45.0WX23.5H

ASR-40DD



外形及安装尺寸(毫米)
Wiring drawing(mm)

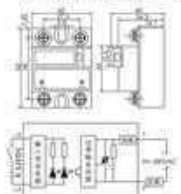


60.5LX45.0WX32.0H

SSR-F-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)

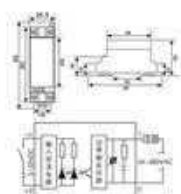


62.0LX45.0WX40.0H

YTSSR-10DA



外形及安装尺寸(毫米)
Wiring drawing(mm)



90.0LX26.5WX45.0H

SSR-□DD

负载电流 Load Current:10A,30A,75A
负载电压 Load Voltage:5-60VDC,5-300VDC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC2-15mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
重量 Weight:115g

ASR-□DD

负载电流 Load Current:10A,25A,40A,75A
负载电压 Load Voltage:24-480VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC2-15mA
通态压降 On Voltage:≤1.0V
静态漏电流 Off Leakage Current:≤2mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
重量 Weight:85g

SSR-F-□DA(内置快熔)

负载电流 Load Current:25A,40A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:85g

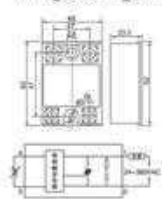
YTSSR-□DA

负载电流 Load Current:10A
负载电压 Load Voltage:24-380VAC
控制信号 Control Signal:3-32VDC
控制电流 Control Current:DC6-12mA
通态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:阻性电流×2 感性电流×6
重量 Weight:65g

SSR-40VA



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

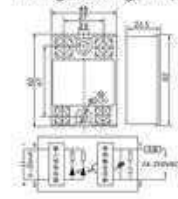
SSR-□VA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制方式 Control Mode:VR-500KΩ/2W
静态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:115g

SSR-40LA



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

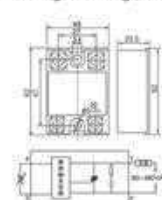
SSR-□LA

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-250VAC
控制信号 Control Signal:DC4-20mA
静态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:115g

SSR-40VA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

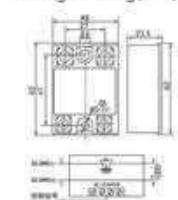
SSR-□VA-H

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:90-480VAC
控制方式 Control Mode:VR-1MΩ/2W
静态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:无
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:115g

DTS-40A-E



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

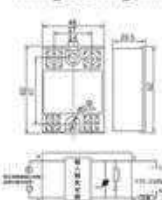
DTS-□A-E

负载电流 Load Current:20A,40A,80A
输入电压 Input Voltage:DC12-24V
输出电压范围 Output Voltage Range:0-输入电压
控制信号 Control Signal:0-5V,4-20mA,VR10K(电位器手动)
静态压降 On Voltage:≤0.3V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
重量 Weight:115g

SSR-40DV



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

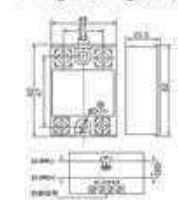
SSR-□DV

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:175-250VAC
控制方式 Control Mode:电压调整器控制
控制电流 Control Current:DC3-25mA
静态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:115g

DTS-40A-F



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

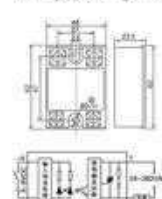
DTS-□A-F

负载电流 Load Current:20A,40A,80A
输入电压 Input Voltage:DC12-24V
输出电压范围 Output Voltage Range:0-输入电压
控制信号 Control Signal:0-10V,4-20mA,VR10K
静态压降 On Voltage:≤0.3V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
重量 Weight:115g

SSR-40DA-P



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

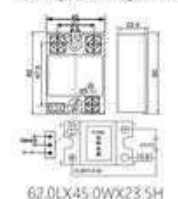
SSR-□DA-P

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:24-380VAC
控制电压 Control Voltage:PWM 4-8VDC
控制电流 Control Current:DC1-11mA
静态压降 On Voltage:≤1.5V
静态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:无
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:115g

DTS-40A-24V



外形及安装尺寸(毫米)
Wiring drawing(mm)



62.0LX45.0WX23.5H

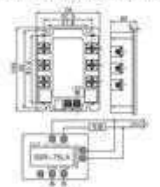
DTS-□A-24V

负载电流 Load Current:10A,25A,40A
负载电压 Load Voltage:DC2-4V
控制信号 Control Voltage:DC 0-5V,4-20mA
输出电压范围 Output Voltage Range:0-24VDC
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃ ~ +60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
重量 Weight:115g

SCR-40LA(单相有源)



外形及安装尺寸(毫米)
Wiring drawing(mm)



100.0LX76.0WX30.0H

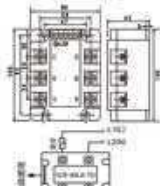
SCR-□LA(单相有源)

负载电流 Load Current:15A,25A,40A,75A,90A
负载电压 Load Voltage:24-250VAC
控制信号 Control Signal:0-5V,0-10V,4-20mA,VR
辅助电源 Auxiliary power supply:175-265VAC
通态压降 On Voltage:≤2V
断态漏电流 Off Leakage Current:≤10mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:340g

SCR-40LA-TD



外形及安装尺寸(毫米)
Wiring drawing(mm)



105.0LX80.0WX43.0H

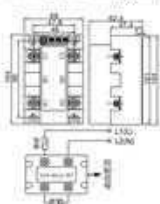
SCR-□LA-TD

负载电流 Load Current:10A,25A,40A,60A,75A,90A
负载电压 Load Voltage:180-430VAC
输出电压范围 Output voltage range:0-输入电压
控制信号 Control Signal:0-5V,0-10V,4-20mA,VR
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:425g

SCR-40LA-WY(稳压型)



外形及安装尺寸(毫米)
Wiring drawing(mm)



104.0LX68.0WX37.4H

SCR-□LA-WY(稳压型)

负载电流 Load Current:25A,40A,75A,90A,120A
负载电压 Load Voltage:180-440VAC
控制信号 Control Signal:DC:0-5V,4-20mA
通态压降 On Voltage:≤2V
断态漏电流 Off Leakage Current:≤10mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:540g

SCR-40LA-W



外形及安装尺寸(毫米)
Wiring drawing(mm)



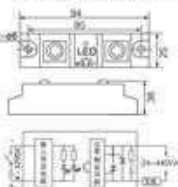
SCR-□LA-W

负载电流 Load Current:40A,60A,80A,100A
负载电压 Load Voltage:90-480VAC
控制信号 Control Signal:4-20mA
输出电压范围 Output voltage range:0-输入电压
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:475g

GYSSR-120DA(H型)



外形及安装尺寸(毫米)
Wiring drawing(mm)

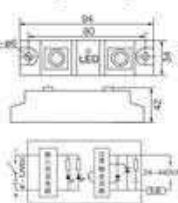


94.0LX25.0WX38.0H

GYSSR-150DA(H型)



外形及安装尺寸(毫米)
Wiring drawing(mm)

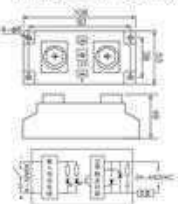


94.0LX34.0WX42.0H

GYSSR-350DA(H型)



外形及安装尺寸(毫米)
Wiring drawing(mm)

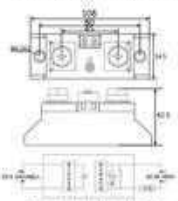


108.0LX53.0WX48.0H

GYSCR-150LA



外形及安装尺寸(毫米)
Wiring drawing(mm)



108.0LX34.5WX42.5H

GYSSR-□DA(H)

负载电流 Load Current:60A,80A,100A,120A
负载电压 Load Voltage:24-440VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC:7-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2500VAC
绝缘电阻 Insulation Resistance:1000MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+75℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:135g

GYSSR-□DA(H)

负载电流 Load Current:150A,200A,250A,300A
负载电压 Load Voltage:24-440VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC:7-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2500VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+75℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:210g

GYSSR-□DA(H)

负载电流 Load Current:350A
负载电压 Load Voltage:24-440VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC:7-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2500VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+75℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:410g

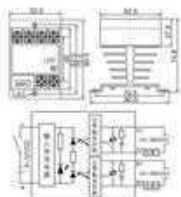
GYSCR-□LA

负载电流 Load Current:80A,100A,150A,200A,250A
负载电压 Load Voltage:48-480VAC
控制信号 Control Signal:4-20mA
通态压降 On Voltage:≤2V
断态漏电流 Off Leakage Current:≤4mA
介电耐压 Dielectric Strength:≥2500VAC
绝缘电阻 Insulation Resistance:1000MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+75℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流×2 感性电流×6
重量 Weight:210g

SSR2-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)



80.5LX52.5WX74.8H

SSR2-□DA(1路控2路)

负载电流 Load Current:10A,15A,25A,40A
负载电压 Load Voltage:24-380VACX2
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC12-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:225g

SSR2-40DA-2K



外形及安装尺寸(毫米)
Wiring drawing(mm)



80.5LX52.5WX74.8H

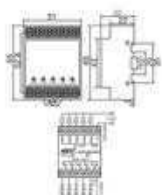
SSR2-□DA-2K(2路独立控制)

负载电流 Load Current:10A,15A,25A,40A
负载电压 Load Voltage:24-380VACX2
控制信号 Control Signal:3-32VDCX2
控制电流 Control Current:DC12-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:225g

ST5-5DD



外形及安装尺寸(毫米)
Wiring drawing(mm)



65.5LX51.0WX30.0H

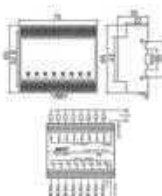
ST5-5DD(5路独立控制)

负载电流 Load Current:5Ax5
负载电压 Load Voltage:24VDC
控制信号 Control Signal:24VDC
控制电流 Control Current:≤2mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:65g

ST8-5DD



外形及安装尺寸(毫米)
Wiring drawing(mm)



65.0LX75.0WX30.0H

ST8-5DD(8路独立控制)

负载电流 Load Current:5Ax8
负载电压 Load Voltage:24VDC
控制信号 Control Signal:24VDC
控制电流 Control Current:≤2mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤4mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:95g

SCR3-40DA



外形及安装尺寸(毫米)
Wiring drawing(mm)

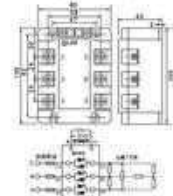


105.0LX80.0WX43.0H

SCR3-40DA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)

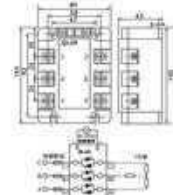


105.0LX80.0WX43.0H

SCR3-40AA



外形及安装尺寸(毫米)
Wiring drawing(mm)

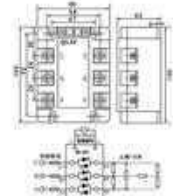


105.0LX80.0WX43.0H

SCR3-40AA-H



外形及安装尺寸(毫米)
Wiring drawing(mm)



105.0LX80.0WX43.0H

SCR3-□DA(增强型)

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:24-440VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC12-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:425g

SCR3-□DA-H(高压增强型)

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:90-660VAC
控制信号 Control Signal:4-32VDC
控制电流 Control Current:DC12-32mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:425g

SCR3-□AA(增强型)

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:24-380VAC
控制电压 Control Voltage:80-250VAC
控制电流 Control Current:AC≤12mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:425g

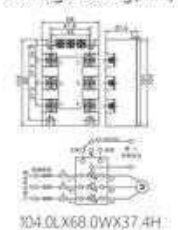
SCR3-□AA-H(高压增强型)

负载电流 Load Current:25A,40A,60A,75A,90A,120A
负载电压 Load Voltage:90-660VAC
控制电压 Control Voltage:80-250VAC
控制电流 Control Current:AC≤12mA
通态压降 On Voltage:≤1.5V
断态漏电流 Off Leakage Current:≤10mA
通断时间 On-Off Time:≤10ms
介电耐压 Dielectric Strength:≥2000VAC
绝缘电阻 Insulation Resistance:500MΩ/500VDC
环境温度 Ambient Temperature:-20℃~+60℃
安装方式 Mounting instructions:螺栓固定
工作指示 The work instructions:LED
选型 Model selection:感性电流x2 感性电流x6
重量 Weight:425g

TSR3-3KDA-H/ZF



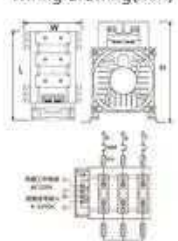
外形及安装尺寸(毫米)
Wiring drawing(mm)



ZHSSR3-200DA-L



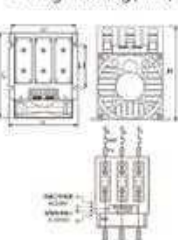
外形及安装尺寸(毫米)
Wiring drawing(mm)



ZHSSR3-200DA-G



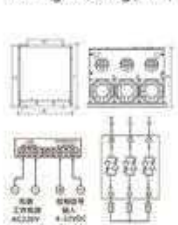
外形及安装尺寸(毫米)
Wiring drawing(mm)



MZHSSR3-400DA-YJ



外形及安装尺寸(毫米)
Wiring drawing(mm)



TSR3-0KDA-H/ZF(三相电机正反转模块)

负载功率 Load Power: 2KW, 3KW
负载电压 Load Voltage: 380VAC
控制信号 control signal: 10-30VDC
控制电流 Control Current: DC10-30mA
通态电压 On Voltage: $\leq 2V$
静态漏电流 Off Leakage Current: $\leq 10mA$
通断时间 On-Off Time: 正反转切换时间 $\leq 30ms$
介电耐压 Dielectric Strength: $\geq 2000VAC$
绝缘电阻 Insulation Resistance: 500MQ/500VDC
环境温度 Ambient Temperature: $-20^{\circ}C \sim +60^{\circ}C$
安置方式 Mounting instructions: 螺栓固定
工作指示 The work instructions: LED
重量 Weight: 460g

ZHSSR3-0DA-L(三相交流固态组合模块)

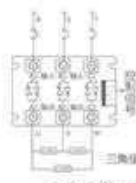
负载电流 Load Current: 80A, 100A, 120A, 150A, 200A, 250A, 300A, 350A
负载电压 Load Voltage: 24-440VAC
控制信号 control signal: 4-32VDC
控制电流 Control Current: DC20-95mA
通态电压 On Voltage: $\leq 1.5V$
静态漏电流 Off Leakage Current: $\leq 10mA$
通断时间 On-Off Time: $\leq 10ms$
介电耐压 Dielectric Strength: $\geq 2000VAC$
绝缘电阻 Insulation Resistance: 500MQ/500VDC
环境温度 Ambient Temperature: $-20^{\circ}C \sim +60^{\circ}C$
安置方式 Mounting instructions: 螺栓固定
工作指示 The work instructions: LED
选型 Model selection: 感性电流 $\times 2$ 感性电流 $\times 3$

ZHSSR3-0DA-G(三相交流固态组合模块)

负载电流 Load Current: 60A, 80A, 100A, 120A, 150A, 200A, 250A, 300A
负载电压 Load Voltage: 24-440VAC
控制信号 control signal: 4-32VDC
控制电流 Control Current: DC20-95mA
通态电压 On Voltage: $\leq 1.5V$
静态漏电流 Off Leakage Current: $\leq 10mA$
通断时间 On-Off Time: $\leq 10ms$
介电耐压 Dielectric Strength: $\geq 2000VAC$
绝缘电阻 Insulation Resistance: 500MQ/500VDC
环境温度 Ambient Temperature: $-20^{\circ}C \sim +60^{\circ}C$
安置方式 Mounting instructions: 螺栓固定
工作指示 The work instructions: LED
选型 Model selection: 感性电流 $\times 2$ 感性电流 $\times 3$

MZHSSR3-0DA-YJ

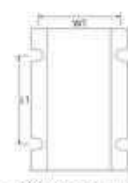
负载电流 Load Current: 300A, 400A, 500A, 600A
负载电压 Load Voltage: 24-440VAC
控制信号 control signal: 4-32VDC
控制电流 Control Current: DC20-95mA
通态电压 On Voltage: $\leq 1.5V$
静态漏电流 Off Leakage Current: $\leq 10mA$
通断时间 On-Off Time: $\leq 10ms$
介电耐压 Dielectric Strength: $\geq 2000VAC$
绝缘电阻 Insulation Resistance: 500MQ/500VDC
环境温度 Ambient Temperature: $-20^{\circ}C \sim +60^{\circ}C$
安置方式 Mounting instructions: 螺栓固定
工作指示 The work instructions: LED
选型 Model selection: 感性电流 $\times 2$ 感性电流 $\times 3$



三相三线制接线图Wiring



三相四线制接线图Wiring



外形及安装尺寸 Size

一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 模块化，耐高压，更安全可靠。
- ▲ 小型化，安装，接线等使用方便。
- ▲ 内置热敏元件，具有机体过热保护。
- ▲ 应用领域：各种加热设备，塑料机械，食品机械，包装机械。
- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy
- ▲ Modular, high voltage resistant, safer and more reliable
- ▲ Minimization, easy to install, wire, and use
- ▲ Built in thermal sensor with body overheating protection
- ▲ Application areas: Various electric heating equipment, plastic machinery, food machinery, packaging machinery

三、产品性能 Product Features

- ▲ 额定电压：三相AC380V/50Hz/60Hz
- ▲ 风扇电源：AC220V/50Hz/60Hz
- ▲ 输出方式：移相调压。
- ▲ 自动控制：4-20mA, 0-5VDC, 0-10VDC。
- ▲ 手动信号：10K/2W电位器。
- ▲ 使用环境：温度 $-20 \sim 65^{\circ}C$ ，湿度 $< 90\%RH$ 。
- ▲ Rated voltage: three-phase AC380V/50Hz/60Hz
- ▲ Fan power supply AC220V/50Hz/60Hz
- ▲ Output method: Phase output
- ▲ Automatic signal 4-20mA, 0-5VDC, 0-10VDC
- ▲ Manual signal 10K/2W potentiometer
- ▲ Operating environment temperature: $-20 \sim 65^{\circ}C$, humidity: $< 90\%RH$

四、输出方式及波形 Output Wave



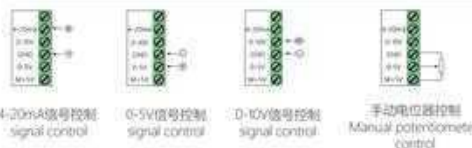
七、注意事项 Warning

- 主电路中采用三相三线制或四线制，无相序要求，请根据负载线方式和功率大小正确接线，否则会造成SCR损坏或散热器过热烧毁。
- SCR是壁挂式的，最大电流产品，安装时请务必拧紧SCR主输入，输出接线螺丝，以免打火，垂直安装可取得最佳散热效果。
- 当散热器达到一定温度时，SCR会报警并停止输出，此时请检查风扇是否工作，环境及湿度是否过高。
- 通电过程中，严禁触摸输入，输出端子，以免发生触电危险。如表面有灰尘及异物请及时清理，避免相间打火，而导致SCR烧毁。
- 请使用在通风良好，不受日光直射或热辐射，无腐蚀性，无可燃性的环境中。若有故障，请及时专业人员，严禁私自拆卸，改造该产品。
- Three phase three wire or four wire input is used in the main circuit, with no phase sequence requirement. Please select the correct type based on the load wiring method and power, otherwise it may cause the output voltage to lose control or the heat sink to overheat.
- SCR is a wall mounted, high current product. When installing, please be sure to tighten the main input and output wiring screws to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
- When the radiator reaches a certain temperature, the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
- During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock, if there is dust or foreign matter on the surface, please clean it up promptly to avoid sparking between phases, which may cause SCR to burn out.
- Please use in a well ventilated environment that is not exposed to direct sunlight or thermal radiation, and is non corrosive and non flammable; if there is a mal function, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.

二、产品规格 Product Model

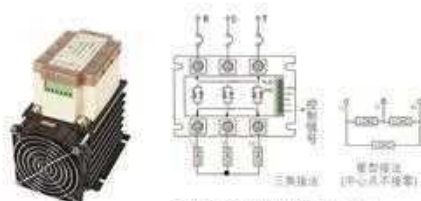
型号 Type	SCR3-0DA-L(三相交流)	SCR3-0DA-G(三相交流)	SCR3-0DA-YJ(三相交流)	
额定电流 Current	25A 40A 75A 90A 120A 60W 90W 12KW 18KW 24KW			
外形尺寸 Dimension (mm)	W	100	115	100
	L	140	140	140
	H	145	160	135
安装尺寸(mm) Dimension	W1	90	105	90
	L1	80	80	80
适应负载功率 Adapt to load power	公式：输入电压 \times 选型电流 $\times 2 \times 3$ Formula: Input voltage \times Selection current $\times 2 \times 3$			

五、三相三线制控制信号接线图 Wiring Diagram

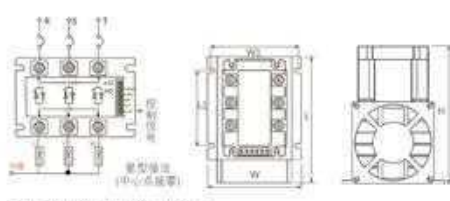


六、三相四线制控制信号接线图 Wiring Diagram





三相三线制KKW-3型接线图 Wiring



三相四线制KKW-4型接线图 Wiring

一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 模块化，耐高压，更安全可靠。
- ▲ 小型化，安装、接线等使用方便。
- ▲ LED指示工作状态。
- ▲ 应用领域：各种电加热设备、塑料机械、食品机械、包装机械。
- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Modular, high voltage resistant, safer and more reliable.
- ▲ Miniaturization, easy to install, wire, and use
- ▲ LED indicates the working status.
- ▲ Application areas: various electric heating equipment, plastic machinery, food machinery, packaging machinery.

三、产品性能 Product Features

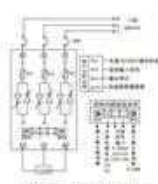
- ▲ 额定电压：三相180VAC（三相三线）或220VAC。
- ▲ 输出方式：移相调压。
- ▲ 控制信号：4-20mA、0-5VDC、0-10VDC或VR。
- ▲ 输入阻抗：4-20mA(20Ω)、0-5VDC(30K)、0-10VDC(10K)。
- ▲ 使用环境：温度-20~65℃，湿度90%RH以下。
- ▲ Rated voltage: three-phase 180VAC (three-phase three wire) or 220VAC.
- ▲ Output method: Phase shifting voltage regulation.
- ▲ Control signal: 4-20mA, 0-5VDC, 0-10VDC or VR.
- ▲ Input impedance: 4-20mA (20Ω), 0-5VDC (30K), 0-10VDC (10K).
- ▲ Usage environment: Temperature: -20~65 °C, humidity: below 90% RH.

六、输出方式及波形 Output Wave



七、注意事项 Warning

1. 主电路中采用三相三线或四线输入，无相序要求，请根据负载接线方式和功率大小正确选型，否则会造成SCR损坏或散热器容易发热。
 2. SCR是壁挂式的，最大电流产品，安装时请务必拧紧SCR主输入、输出接线螺栓，以免打火，垂直安装可达最佳散热效果。
 3. 当散热器达到一定温度时，SCR会报警并停止输出，此时请检查风扇是否工作，环境温度是否过高。
 4. 通电过程中严禁触摸输入、输出端子以免发生触电危险，如表面有灰尘及异物请及时清理，避免相间打火，而导致SCR烧毁。
 5. 请使用在通风良好，不受日光直射或热辐射，无腐蚀性，无可燃性的环境中，若有故障，请找专业人员，严禁私自拆卸、改造该产品。
1. The main circuit adopts three-phase three wire or four wire input without phase sequence requirements. Please select the correct type based on the load wiring method and power size, otherwise it may cause SCR damage or heat sink overheating.
 2. SCR is a wall mounted, high current product. When installing, please be sure to tighten the main input and output wiring screws of SCR to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
 3. When the radiator reaches a certain temperature, the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
 4. During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock. If there is dust or foreign matter on the surface, please clean it up in a timely manner to avoid sparking between phases, which may cause SCR to burn out.
 5. Please use in a well ventilated environment that is not exposed to direct sunlight or thermal radiation, and is non corrosive and non flammable. If there is a malfunction, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.



接线图 Wiring diagram



安装尺寸 Installation size

一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 模块化，耐高压，更安全可靠。
- ▲ 小型化，安装、接线等使用方便。
- ▲ 内置熔断元件，具有本体过热保护。
- ▲ 应用领域：各种电加热设备、塑料机械、食品机械、包装机械。
- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Modular, high voltage resistant, safer and more reliable.
- ▲ Miniaturization, easy to install, wire, and use
- ▲ Built in thermal sensor with body overheating protection.
- ▲ Application areas: Various electric heating equipment, plastic machinery, food machinery, packaging machinery.

三、产品性能 Product Features

- ▲ 额定电压：三相180-480VAC (50/60Hz)。
- ▲ 输出方式：移相调压，过零调功。
- ▲ 控制信号：4-20mA、1-5VDC、2-10VDC、0-20mA、0-5VDC、0-10VDC (5种信号可切换)。
- ▲ 输入阻抗：4-20mA(250Ω)、1-5VDC(>8KΩ)、2-10VDC(>8KΩ)、0-20mA(250Ω)、0-5VDC(>8KΩ)、0-10VDC(>8KΩ)。
- ▲ 使用环境温度：65℃以下；湿度90%RH以下。
- ▲ Rated voltage: three-phase 180-480VAC (50/60Hz)。
- ▲ Output mode: phase-shifting voltage regulation, zero crossing power regulation.
- ▲ Control signals: 4-20mA, 1-5VDC, 2-10VDC, 0-20mA; 0-5VDC, 0-10VDC, (6 types of signals can be switched).
- ▲ Input impedance: 4-20mA (250Ω), 1-5VDC (>8KΩ), 2-10VDC (>8KΩ), 0-20mA (250Ω), 0-5VDC (>8KΩ), 0-10VDC (>8KΩ).
- ▲ Operating environment: Temperature below 65 °C, humidity: below 90%RH.

五、输出方式及波形 Output Wave



六、注意事项 Warning

1. 主电路中采用三相三线或四线输入，无相序要求，请根据负载接线方式和功率大小正确选型，否则会造成SCR损坏或散热器容易发热。
 2. SCR是壁挂式的，最大电流产品，安装时请务必拧紧SCR主输入、输出接线螺栓，以免打火，垂直安装可达最佳散热效果。
 3. 当散热器达到一定温度时，SCR会报警并停止输出，此时请检查风扇是否工作，环境温度是否过高。
 4. 通电过程中严禁触摸输入、输出端子以免发生触电危险，如表面有灰尘及异物请及时清理，避免相间打火，而导致SCR烧毁。
 5. 请使用在通风良好，不受日光直射或热辐射，无腐蚀性，无可燃性的环境中，若有故障，请找专业人员，严禁私自拆卸、改造该产品。
1. The main circuit adopts three-phase three wire or four wire input without phase sequence requirements. Please select the correct type based on the load wiring method and power size, otherwise it may cause SCR damage or heat sink overheating.
 2. SCR is a wall mounted, high current product. When installing, please be sure to tighten the main input and output wiring screws of SCR to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
 3. When the radiator reaches a certain temperature, the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
 4. During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock. If there is dust or foreign matter on the surface, please clean it up in a timely manner to avoid sparking between phases, which may cause SCR to burn out.
 5. Please use in a well ventilated environment that is not exposed to direct sunlight or thermal radiation, and is non corrosive and non flammable. If there is a malfunction, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.

二、产品规格 Product Model

型号 Type	SCR3-cckw-3L(三相三线)	SCR3-cckw-4(三相四线)
额定电流 Current	6KW, 9KW, 12KW, 18KW, 24KW	
外形尺寸 Dimension (mm)	L: 140, W: 100, H: 135	L: 140, W: 115, H: 150
安装尺寸 Dimension (mm)	W1: 80, L1: 90	W1: 80, L1: 105
重量(KG) Weight	1.5	
适应负载功率 Adapt to load power	公式：输入电压x选型电流/2x√3 Formula: Input voltage x Selection current / 2x√3	

四、三相三线制控制信号接线图 Wiring Diagram



五、三相四线制控制信号接线图 Wiring Diagram



提示：根据信号功率电压信号可以多台并联使用，电流信号可以多台串联使用。
Tip: According to the signal power, multiple voltage signals can be used in parallel, and multiple current signals can be used in series.

二、产品规格 Product Model

型号 Type	AVSCR-cckwA (1-0K)	33-SCR-cckwA (1-0K)	FUSCR-cckwA (1-0K)
额定电流 Current	25A, 40A, 75A, 90A, 120A, 150A, 150A, 200A, 250A		
外形尺寸 Dimension (mm)	L: 112, W: 95, H: 95	112, 115, 140, 145, 145, 145, 210, 225	
安装尺寸 Dimension (mm)	W1: 100, L1: 95	100, 160, 160, 160, 205, 205	
重量(KG) Weight	2	3.5	5.7, 6, 6.5
适应负载功率 Adapt to load power	公式：输入电压x选型电流/2x√3 Formula: Input voltage x Selection current / 2x√3		

四、控制信号接线示意图 Wiring Diagram





一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 模块化，耐高压，更安全可靠。
- ▲ 小型化，安装、接线等使用方便。
- ▲ 内置快熔保护，大电流互感器便于配接电流表。
- ▲ 应用领域：各种电加热设备、塑料机械、食品机械、包装机械。
- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Modular, high voltage resistant, safer and more reliable.
- ▲ Miniaturization, easy to install, wire, and use.
- ▲ Built-in fast melting protection, high current transformer for easy connection to ammeter.
- ▲ Application areas: Various electric heating equipment, plastic machinery, food machinery, packaging machinery.

三、产品性能 Product Features

- ▲ 额定电压：三相180-440VAC(50/60Hz)三相三线。
- ▲ 额定电流：300A, 400A, 500A, 600A。
- ▲ 输出方式：移相调压，过零调压。
- ▲ 控制信号：4-20mA, 1-5VDC, 2-10VDC, 0-20mA, 0-5VDC, 0-10VDC (四种信号可切换)。
- ▲ 输入阻抗：4-20mA(250Ω), 1-5VDC(>8KΩ), 2-10VDC(>8KΩ), 0-20mA(25-Ω), 0-5VDC(>8KΩ), 0-10VDC(>8KΩ)。
- ▲ 使用环境：湿度<65℃以下，湿度<90%RH以下。
- ▲ Rated voltage: three-phase 180-440VAC(50/60Hz) (three-phase three wire).
- ▲ Rated current: 300A, 400A, 500A, 600A.
- ▲ Output mode: phase-shifting voltage regulation, zero crossing power regulation.
- ▲ Control signals: 4-20mA, 1-5VDC, 2-10VDC, 0-20mA, 0-5VDC, 0-10VDC, 16 types of signals can be switched.
- ▲ Input resistance: 4-20mA(250Ω), 1-5VDC(>8KΩ), 2-10VDC(>8KΩ), 0-20mA(25-Ω), 0-5VDC(>8KΩ), 0-10VDC(>8KΩ).
- ▲ Operating environment: Temperature: below 65 °C, Humidity: below 90% RH.

五、输出方式及波形 Output Wave



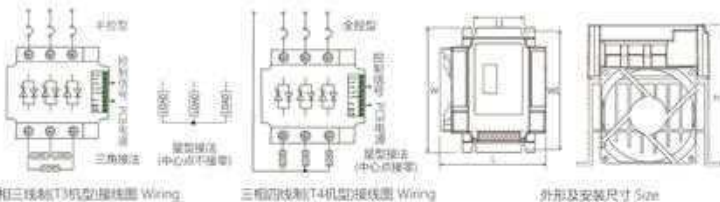
六、注意事项 Warning

- 主电路中采用三相三线或四线输入，无相序要求，请按照负载接线方式和功率大小来正确选型，否则会造成SCR损坏或散热器容易发烫。
 - SCR是壁挂式的，大电流产品，安装时请务必拧紧SCR主输入、输出接线螺丝，以免打火，垂直安装可达到最佳散热效果。
 - 当散热器达到一定温度时，SCR会报警并停止输出，此时请检查风扇是否工作，环境温度是否过高。
 - 通电过程中严禁触摸输入、输出端子以免发生触电危险，如表面有灰尘及异物请及时清理，避免相间打火，而导致SCR烧毁。
 - 请使用在通风良好，不受阳光直射或辐射射，无腐蚀性，无可燃性的环境中，若有故障，请找专业人员，严禁私自拆卸、改造该产品。
- The main circuit adopts three-phase three wire or four wire input without phase sequence requirements. Please select the correct type based on the load wiring method and power size, otherwise it may cause SCR damage or heat sink overheating.
 - SCR is a wall mounted, high current product. When installing, please be sure to tighten the main input and output wiring screws of SCR to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
 - When the radiator reaches a certain temperature, the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
 - During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock. If there is dust or foreign matter on the surface, please clean it up in a timely manner to avoid sparking between phases, which may cause SCR to burn out.
 - Please use in a well-ventilated environment that is not exposed to direct sunlight or thermal radiation, and is non-corrosive and non-flammable. If there is a malfunction, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.

二、产品规格 Product Model

型号 Type		YZHSCR-DCLA-YI			
额定电流 Current		300A	400A	500A	600A
外型尺寸 Dimension (mm)	L	300		390	
	W	360		430	
	H	225		260	
安装尺寸 Dimension (mm)	W1	200		250	
	L1	345		410	
重量(KG) Weight		18		26	
适应负载功率 Adapt to load power	公式：输入电压×选型电流/√3 Formula: Input voltage x Selection current/√3				

四、控制信号接线示意图 Wiring Diagram



一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 模块化，耐高压，更安全可靠。
- ▲ 小型化，安装、接线等使用方便。
- ▲ 数码管+LED组合显示，工作状态更清晰。
- ▲ 内置快熔元件，具有过温过流保护。
- ▲ 应用领域：各种电加热设备、塑料机械、食品机械、包装机械。
- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Modular, high voltage resistant, safer and more reliable.
- ▲ Miniaturization, easy to install, wire, and use.
- ▲ The combination of digital tube and LED display provides clearer working status.
- ▲ Built-in thermal sensor with body overheating protection.
- ▲ Application areas: Various electric heating equipment, plastic machinery, food machinery, packaging machinery.

三、产品性能 Product Features

- ▲ 额定电压：三相380VAC 50Hz/60Hz。
- ▲ 辅助电源/风扇电源：AC220V 50Hz/60Hz。
- ▲ 输出方式：移相调压。
- ▲ 控制信号：4-20mA, 0-5VDC, 0-10VDC。
- ▲ 手动信号：10K/2W电位器。
- ▲ 显示功能：输出百分比、LED状态指示。
- ▲ 使用环境：湿度-20~65℃，湿度<90%RH。
- ▲ Rated voltage: three-phase 380VAC 50Hz/60Hz.
- ▲ Auxiliary power supply/fan power supply: AC220V 50Hz/60Hz.
- ▲ Output mode: Phase-shifted voltage regulation.
- ▲ Automatic signal: 4-20mA, 0-5VDC, 0-10VDC.
- ▲ Manual signal: 10K/2W potentiometer for manual adjustment.
- ▲ Display function: Output percentage, LED status indication.
- ▲ Operating environment: Temperature: -20~65 °C, Humidity: < 90%RH.

五、输出方式及波形 Output Wave



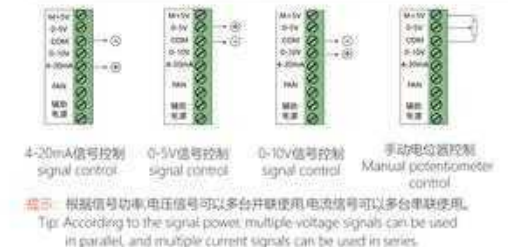
六、注意事项 Warning

- 主电路中采用三相三线或四线输入，无相序要求，请按照负载接线方式和功率大小来正确选型，否则会造成SCR损坏或散热器容易发烫。
 - SCR是壁挂式的，大电流产品，安装时请务必拧紧SCR主输入、输出接线螺丝，以免打火，垂直安装可达到最佳散热效果。
 - 当散热器达到一定温度时，SCR会报警并停止输出，此时请检查风扇是否工作，环境温度是否过高。
 - 通电过程中严禁触摸输入、输出端子以免发生触电危险，如表面有灰尘及异物请及时清理，避免相间打火，而导致SCR烧毁。
 - 请使用在通风良好，不受阳光直射或辐射射，无腐蚀性，无可燃性的环境中，若有故障，请找专业人员，严禁私自拆卸、改造该产品。
- The main circuit adopts three-phase three wire or four wire input without phase sequence requirements. Please select the correct type based on the load wiring method and power size, otherwise it may cause SCR damage or heat sink overheating.
 - SCR is a wall mounted, high current product. When installing, please be sure to tighten the main input and output wiring screws of SCR to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
 - When the radiator reaches a certain temperature, the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
 - During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock. If there is dust or foreign matter on the surface, please clean it up in a timely manner to avoid sparking between phases, which may cause SCR to burn out.
 - Please use in a well-ventilated environment that is not exposed to direct sunlight or thermal radiation, and is non-corrosive and non-flammable. If there is a malfunction, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.

二、产品规格 Product Model

型号 Type		T3-DCL(A)三线圈		T4-DCL(A)四线圈	
额定电流 Current		40A	60A	80A	90A
外型尺寸 Dimension (mm)	L		520		130
	W		140		140
	H		135		135
安装尺寸 Dimension (mm)	L1		55		55
	W1		125		125
重量(KG) Weight		1.1			
适应负载功率 Adapt to load power	公式：输入电压×选型电流/√3 Formula: Input voltage x Selection current/√3				

四、控制端子接线图 Wiring Diagram





一、产品特点 Product Features

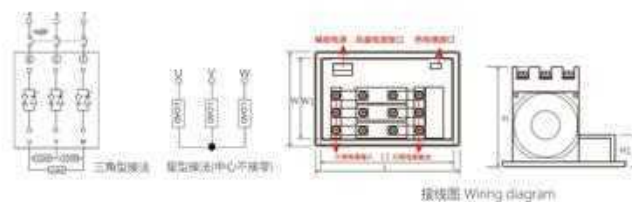
- ▲ 采用真空焊接工艺的高耐压全控型模块，稳定性高。
- ▲ 内置快速熔断器，具有过流保护功能。
- ▲ 具有机体温度检测和超温保护功能。
- ▲ 具备异常实时监控及报警功能。
- ▲ 输出具有缓启动及起停功能。
- ▲ 电源频率适应于50/60Hz，不需任何切换。
- ▲ 全数字化操作，手动和自动控制模式一键切换。
- ▲ 移相调压和过零调功输出模式可切换。
- ▲ 输入控制信号与输出呈线性比例。
- ▲ The high-pressure fully controlled module using vacuum welding technology has high stability.
- ▲ Built in fast fuse with overcurrent protection function.
- ▲ It has the functions of body temperature detection and over temperature protection.
- ▲ Equipped with real-time monitoring and alarm functions for abnormalities.
- ▲ The output has slow start and start stop functions.
- ▲ The power frequency is suitable for 50/60Hz and does not require any switching.
- ▲ Fully digital operation, one click/switch between manual and automatic control modes.
- ▲ The output modes of phase-shifting voltage regulation and zero crossing power regulation can be switched.
- ▲ The input control signal is linearly proportional to the output.

二、产品规格 Product Model

型号 Type	D1-33-000W	D2-33-000W	D3-33-000W	D4-33-000W	D5-33-000W	D6-33-000W	D7-33-000W
额定电流 Current	25A, 40A	75A, 90A	110A, 120A	150A, 200A	250A, 300A	400A, 500A	600A
外型尺寸 (mm) Dimension	W	115	115	115	145	145	390
	L	165	235	235	245	315	430
	H	170	170	180	210	210	260
安装尺寸 (mm) Dimension	W1	图3		图4		图5	
	L1	105	105	135	135	135	250
	H1	95	100	150	205	205	410
主电源输入/输出安装螺母 Main power input/output nut (mm)	M6		M6		M10		
重量(KG) Weight	2	3	6	6.5	7	18	28
适应负载功率 Adapt to load power	公式: 输入电压×选型电流/2√3, Formula: Input voltage × Selection current/2√3.						

三、产品性能 Product Features

- ▲ 额定电压: 三相AC380V±15%/50Hz/60Hz.
- ▲ 辅助电源: AC220V±15%/50Hz/60Hz.
- ▲ 输出方式: 相位输出/过零均分/过零取相三种方式可切换。
- ▲ 控制信号: 4-20mA, 0-5V, 0-10V, 0-20mA, 1-5V, 2-10V.
- 1. 手动2-10K电位器调节。
- 2. 进入控制层可切换到数字输入模式调节。
- 3. 信号可选择切换,出厂默认控制信号4-20mA.
- ▲ 主要功能:
 1. 显示功能: LED显示SCR工作状态、机体温度及故障代码。
 2. 过流保护: 采用快速熔断器过流保护。
 3. 超温停机: 机体温度超过95℃SCR停止工作。
 4. 起停功能: 接线端子RUN/Stop 短路开/关, 断开/闭合。
 5. 报警输出: 故障报警后, 有常开/常闭报警继电器输出。
 6. 快速切换: 一键快速切换手动/自动输出。
- ▲ 使用环境: 环境温度: -20~65℃, 散热温度: 90%/RH以下。
- ▲ Rated voltage: three-phase AC380V ± 15%/50Hz/60Hz.
- ▲ Auxiliary power supply: AC220V ± 15%/50Hz/60Hz.
- ▲ Output modes: phase output/zero crossing equalization/zero crossing sampling (three modes can be switched).
- ▲ Control signal: 4-20mA, 0-5V, 0-10V, 0-20mA, 1-5V, 2-10V.
- 1. Manual 2-10K potentiometer adjustment.
- 2. Switch to digital input mode adjustment when entering the control layer.
- 3. Signal can be selectively switched, factory default control signal: 4-20mA.
- ▲ Main function:
 1. Display function: LED displays the working status of SCR, body temperature, and fault codes.
 2. Overcurrent protection: using fast fuse overcurrent protection.
 3. Overtemperature shutdown: When the body temperature exceeds 95 °C, the SCR stops working.
 4. Start stop function: Connect terminal RUN/Stop short circuit to start, disconnect and stop the machine.
 5. Alarm output: After a fault alarm, there are two sets of relay outputs: normally closed/for normally open.
 6. Quick switch: One click quick switch between manual/automatic output.
- ▲ Usage environment: Environmental temperature: -20~65 °C, heat dissipation temperature: below 90% RH.



一、产品特点 Product Features

- ▲ 一体化结构, 接线简单, 减少劳动力成本。
- ▲ 软件调节精度, 冷却单独测量, 放大器自稳零, 显示精度高可达于1.0%FS.
- ▲ 模糊理论结合传统PID方法, 控制快速平稳。
- ▲ 先进的PID参数自整定方法, 整定时间短一般仅表量程1/3以上时间。
- ▲ 过流保护功能, 当散热器运行造成的散热器温度过高, 本控制器会自动输出。
- ▲ Integrated structure, easy wiring, and reduced labor costs.
- ▲ Software zeroing at full capacity, separate temperature measurement at the cold end, amplifier self stabilizing zero, display accuracy can be better than 1.0% FS.
- ▲ Combining fuzzy theory with traditional PID methods to achieve fast and stable control.
- ▲ Advanced PID parameter self-tuning method, which shortens the tuning time by more than 1/3 compared to general instruments.
- ▲ Overload protection function, when the radiator temperature is too high, due to overload operation, the controller will turn off the output.

三、产品性能 Product Features

- ▲ K型热电偶, 可设(及)测量温度范围0~400℃(其它规格需订制)。
- ▲ 测量精度: 1.0级(±1.0%F.S.).
- ▲ 采样速率: 2次/秒。
- ▲ 调节方式: 智能PID调节。
- ▲ 散热器超过过流关断温度: 95℃.
- ▲ 电源: 220VAC±10%/50/60Hz, (其它电压需订制), 控制器本身功耗: <3VA.
- ▲ 工作环境: 温度: -20~65℃, 湿度: <85%RH(无凝露, 无腐蚀性)。
- ▲ K-type thermocouple, capable of setting (and measuring) a temperature range of 0-400 °C (other specifications require customization).
- ▲ Measurement accuracy: 1.0 level (± 1.0% F.S.).
- ▲ Sampling rate: 2 times/second.
- ▲ Adjustment method: Intelligent PID adjustment.
- ▲ Heat sink overheating and overload shutdown output temperature: 95 °C.
- ▲ Power supply: 220VAC ± 10% 50/60Hz. (Other voltages need to be custom (zed) power consumption of the controller itself: < 3VA).
- ▲ Working environment: Temperature: -20-65 °C, humidity: <85% RH, no condensation, no corrosive environment.

五、注意事项 Warning

1. 主电路中采用三相三线或四线输入, 其相序要求, 请根据负载接线方式和功率大小正确选型, 否则会造成SCR损坏或散热器温度过高。
 2. SCR是密封式的, 系大电流产品, 安装时请务必拧紧SCR主输入、输出接线螺母, 以免打火, 垂直安装可保证最佳散热效果。
 3. 当散热器达到一定温度时, SCR会报警并停止输出, 此时请检查风扇是否工作, 环境温度是否过高。
 4. 通电过程中严禁触摸输入、输出端子, 以免发生触电危险。如表面有灰尘及异物请及时清理, 避免相间打火, 而导致SCR烧毁。
 5. 请在使用通风良好, 不受阳光直射或热辐射, 无腐蚀性, 无可燃性的环境中, 若有故障, 请联系专业人员, 严禁私自拆卸、改造该产品。
1. The main circuit adopts three-phase three-wire or four-wire input without phase sequence requirements. Please select the correct type based on the load wiring method and power size, otherwise it may cause SCR damage or heat sink overheating.
2. SCR is a sealed product, high current product. When installing, please be sure to tighten the main input and output wiring screws of SCR to avoid ignition. Vertical installation can achieve the best heat dissipation effect.
3. When the radiator reaches a certain temperature: the SCR will sound an alarm and stop outputting. At this time, please check if the fan is working and if the ambient temperature is too high.
4. During the power on process, it is strictly prohibited to touch the input and output terminals to avoid the risk of electric shock. If there is dust or foreign matter on the surface, please clean it up in a timely manner to avoid sparking between phases, which may cause SCR to burn out.
5. Please use in a well ventilated environment that is not exposed to direct sunlight or thermal radiation, and is not corrosive and non flammable. If there is a mal function, please seek professional assistance. It is strictly prohibited to disassemble or modify the product without authorization.

二、产品规格 Product Model

型号 Type	ICMS-A	ICMS-9KW-A	ICMS-12KW-A
额定功率(KW)	外插SKKT	9	12
外型尺寸 (mm) Dimension	L	230	
	W	150	
	H	120	
	H1	35	
安装尺寸 (mm) Dimension	L1	212	
	W1	132	
重量(KG) Weight	0.3	1.5	

四、端子接线图 Terminal Wiring Diagram



ICM-9KW背板接线端子 ICM-9KW back terminal block



接线图 Wiring diagram

接线图 Wiring diagram

外形及安装尺寸 Size

一、产品特点 Product Features

- ▲ 全数字化操作及温度显示功能。
 - ▲ 采用真空焊接工艺的高耐压全控型模块，稳定性高。
 - ▲ 移相调压，过零调功，SSR模式可切换。
 - ▲ 具备可输入命令及故障报警功能。
 - ▲ 内置快速熔断器，具有过流保护功能。
 - ▲ 电源频率50/60Hz自适应。
 - ▲ 信号输入百分比和输出百分比呈线性比例。
 - ▲ 具有慢启动和外部的控制启动功能。
 - ▲ 异常检测显示功能，方便排除问题及维修。
 - ▲ 主电源范围更宽：180-480VAC。
- ▲ Fully digital operation and temperature display function.
 - ▲ High pressure fully controlled module using vacuum welding technology, with high stability.
 - ▲ Phase shifting voltage regulation, zero crossing power regulation, and SSR mode can be switched.
 - ▲ Equipped with command input and fault alarm functions.
 - ▲ Built in fast fuse with overcurrent protection function.
 - ▲ The power frequency is 50/60Hz adaptive.
 - ▲ The percentage of signal input and output are linearly proportional.
 - ▲ It has the functions of slow start and external control start stop.
 - ▲ Abnormal detection display function, convenient for troubleshooting and maintenance.
 - ▲ The main power supply has a wider range: 180-480VAC.

二、产品规格 Product Model

型号 Type	E1-E1-009A E1-E1-009A	额定电流 Current	25A 40A 75A 90A 120A			150A 200A 250A 300A			
			25A 40A 75A	90A 120A 150A 200A					
外形尺寸(mm) Dimension	W		115	115					
	L		185	235					
	H		170	185					
安装尺寸(mm) Dimension	W1		105	105					
	L1		95	160					
主电源输入/输出安装螺丝 Main power input and output installation screws			M6			M8			
适应负载功率 Adapt to load power			公式：输入电压×选型电流/2。 Formula: input voltage x Selection current/2						

三、产品性能 Product Features

- ▲ 输入电压：1. 单相220V/50Hz/60Hz；电压范围：AC180-250VAC，把菜单1层中的主电源电压设定为0；2. 单相380V/50Hz/60Hz；电压范围：AC300-440VAC，把菜单1层中的主电源电压设定为1。
 - ▲ 辅助电源：AC220V±15%/50Hz/60Hz。
 - ▲ 输出模式：过零调压，过零调功，稳压/稳流/稳功，固态SSR等多种输出模式。
 - ▲ 控制信号：4-20mA，0-5V，0-10V，0-20mA；1-5V，2-10V，六种控制信号可选择切换。
 - ▲ 主要功能：
 1. 显示功能：LED显示SCR工作状态，机体温度及故障代码。
 2. 过流保护：采用快速熔断器过流保护。
 3. 超温停机：机体温度超95℃SCR停止工作。
 4. 起停功能：接线端子RUN/STOP，短接开机/断开停机。
 5. 报警输出：故障报警后，有常开/常闭两相继电器输出。
 6. 快速切换：一键快速切换手动/自动输出。
 7. 智能风扇控制：机体温度达42℃风扇工作可延长风扇寿命。
 - ▲ 使用环境：环境温度-20~65℃，相对湿度：90%RH以下。
- ▲ Input voltage: 1. Single phase 220V/50Hz/60Hz. Voltage range: AC180-250VAC, set the main power supply voltage in menu layer 1 to 0. 2. Single phase 380V/50Hz/60Hz. Voltage range: AC300-440VAC, take the menu The main power supply voltage in layer 1 is set to 1.
 - ▲ Auxiliary power supply: AC220V ± 15%/50Hz/60Hz.
 - ▲ Output mode: Zero crossing voltage regulation, zero crossing power regulation, voltage stabilization/current stabilization/power stabilization, solid-state SSR, etc. Output mode
 - ▲ Control signals: 4-20mA, 0-5V, 0-10V, 0-20mA, 1-5V, 2-10V, six types. The control signal can be selectively switched.
 - ▲ Main functions:
 1. Display function: LED displays the working status of SCR, body temperature, and fault codes.
 2. Overcurrent protection: Adopting fast fuse overcurrent protection.
 3. Overtemperature shutdown: When the body temperature exceeds 95 °C, the SCR stops working.
 4. Start stop function: Connect the RUN/STOP terminal to short-circuit and start the machine, disconnect and stop the machine.
 5. Alarm output: After a fault alarm, there are two sets of relay outputs: normally closed/normally open.
 6. Quick switch: One click quick switch between manual/automatic output.
 7. Intelligent fan control: When the body temperature reaches 42 °C, the fan works to extend its lifespan.
 - ▲ Operating environment: Environmental temperature: -20~65 °C, heat dissipation temperature: below 90% RH.



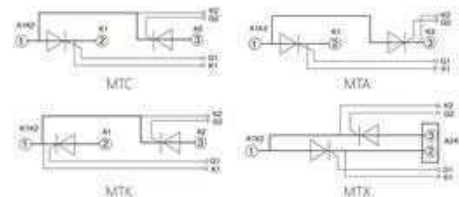
特征 Features

- ▲ 芯片与基板电气绝缘≥2500V。
 - ▲ 国际标准封装。
 - ▲ 真空-氢气保护焊接技术。
 - ▲ 焊接或压接结构，优良的散热。
 - ▲ 特性和功率循环能力。
 - ▲ 400A以下模块皆为强迫风冷，400A以上模块，既可选用风冷，也可选用水冷。
 - ▲ 安装简单，使用维修方便。
 - ▲ 体积小，重量轻。
- ▲ The electrical insulation between the chip and the substrate is a 2500V.
 - ▲ International standard packaging.
 - ▲ Vacuum-hydrogen charging protection welding technology.
 - ▲ Welding or crimping structure, excellent temperature.
 - ▲ Characteristics and power cycling capability.
 - ▲ Modules below 400A are all forced air-cooled, while those above 400A are not. Modules can be either air-cooled or water-cooled.
 - ▲ Easy installation and convenient use and maintenance.
 - ▲ Small size and light weight.

典型应用 Typical applications

- ▲ 交直流电机控制。
 - ▲ 工业加热控制。
 - ▲ 调光。
 - ▲ 无触点开关。
 - ▲ 电机软启动。
 - ▲ 静止无功补偿。
 - ▲ 电焊机。
 - ▲ 变频器。
 - ▲ UPS电源。
- ▲ AC/DC motor control.
 - ▲ Industrial heating control.
 - ▲ Dimming.
 - ▲ Contactless switch.
 - ▲ Motor soft start.
 - ▲ Static reactive power compensation.
 - ▲ Welding machine.
 - ▲ Variable frequency drive.
 - ▲ UPS power supply.

模块型号与电路图 Module and Circuit Diagram



型号 Type	额定平均 电流 I _{avg}	额定 V _{DM} V _{DM}	浪涌电流 I _{DM} I _{DM}	基本峰值电压 V _{RM} V _{RM}	电压上升率 dV/dt V/μs	额定电流 I _T mA	额定电压 V _{TM} V	维持电流 I _L mA	最高结温 T _J °C
SKKT-20A	20	1600	≤10	≤1.5	800	≤35	≤2	≤70	125
SKKT-30A	30	1600	≤10	≤1.5	800	≤35	≤2	≤70	125
SKKT-60A	60	1600	≤10	≤1.5	800	≤35	≤2	≤70	125
SKKT-90A	90	1600	≤13	≤1.5	800	≤40	≤2	≤80	125
SKKT-120A	120	1600	≤15	≤1.5	800	≤40	≤2	≤80	125
MTC-60A	60	1600	≤10	≤1.5	800	≤35	≤2	≤70	125
MTC-90A	90	1600	≤15	≤1.5	800	≤40	≤2	≤80	125
MTC-120A	120	1600	≤15	≤1.5	800	≤40	≤2	≤80	125
MTC-160A	160	1600	≤20	≤1.6	800	≤40	≤2.5	≤80	125
MTC-200A	200	1600	≤20	≤1.6	800	≤40	≤2.5	≤80	125
MTC-250A	250	1600	≤20	≤1.6	800	≤40	≤2.5	≤80	125
MTC-300A	300	1600	≤30	≤1.8	800	≤80	≤3	≤160	125
MTC-400A	400	1600	≤30	≤1.8	800	≤80	≤3	≤160	125
MTC-500A	500	1600	≤30	≤1.8	800	≤80	≤3	≤160	125
MTC-600A	600	1600	≤30	≤1.8	800	≤80	≤3	≤160	125

注：MTK、MTA、MTX模块的有关参数与上述的MTC模块相同。
Note: The relevant parameters of MTK, MTA, and MTX modules are the same as those of the MTC module mentioned above.



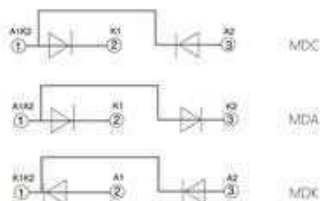
特征 Features

- ▲ 芯片与基板电气绝缘≥2500V.
- ▲ 国际标准封装.
- ▲ 真空+充氩保护焊接技术.
- ▲ 焊接或压接结构, 优良的温度.
- ▲ 特性和功率循环能力.
- ▲ 400A以下模块皆为强迫风冷, 400A以上模块, 既可选用风冷, 也可选用水冷.
- ▲ 安装简单, 使用维修方便.
- ▲ 体积小, 重量轻.
- ▲ The electrical insulation between the chip and the substrate is ≥2500V
- ▲ International standard packaging
- ▲ Vacuum+hydrogen charging protection welding technology
- ▲ Welding or crimping structure, excellent temperature
- ▲ Characteristics and power cycling capability
- ▲ Modules below 400A are all forced air-cooled, while those above 400A are not. Modules can be either air-cooled or water-cooled
- ▲ Easy installation and convenient use and maintenance
- ▲ Small size and light weight

典型应用 Typical applications

- ▲ 交流电机控制.
- ▲ 各种整流电源.
- ▲ 工业加热控制.
- ▲ 调光.
- ▲ 电机软启动.
- ▲ 静止无功补偿.
- ▲ 电焊机.
- ▲ UPS电源.
- ▲ 电池充放电.
- ▲ AC/DC motor control
- ▲ Various rectifier power supplies
- ▲ Industrial heating control
- ▲ Dimming
- ▲ Motor soft start
- ▲ Static reactive power compensation
- ▲ Welding machine
- ▲ UPS power supply
- ▲ Battery charging and discharging

模块型号与电路图 Module and Circuit Diagram



型号 Type	通态平均 电流 I _{T(AV)}		反向峰值电压 V _{RM}		反向峰值电流 I _{RM}		通态峰值电压 V _{TM}	通态峰值电流 I _{TM}	最高结温 T _J
	A	V	V	mA	V	A			
MDC-20A	20	1600	≤10	≤1.5	≤0	80	125		
MDC-30A	30	1600	≤10	≤1.5	≤0	90	125		
MDC-60A	60	1600	≤10	≤1.5	≤0	160	125		
MDC-80A	80	1600	≤15	≤1.5	≤0	240	125		
MDC-100A	100	1600	≤15	≤1.5	≤0	200	125		
MDC-120A	120	1600	≤15	≤1.5	≤0	360	125		
MDC-160A	160	1600	≤20	≤1.6	≤0	480	125		
MDC-180A	180	1600	≤20	≤1.6	≤0	540	125		
MDC-200A	200	1600	≤20	≤1.6	≤0	400	125		
MDC-250A	250	1600	≤20	≤1.6	≤0	750	125		
MDC-300A	300	1600	≤30	≤1.8	≤0	900	125		
MDC-400A	400	1600	≤30	≤1.8	≤0	1200	125		
MDC-500A	500	1600	≤30	≤1.8	≤0	1500	125		
MDC-600A	600	1600	≤30	≤1.8	≤0	1800	125		

注: MDK, MDA模块的有关参数与上述的MDC模块相同。
Note: The relevant parameters of MDK and MDA modules are the same as those of the MDC module mentioned above.

A型散热器 A type radiator



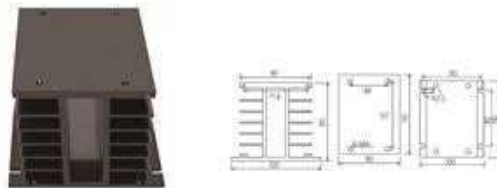
AB型散热器 AB type radiator



C型散热器 C type radiator



C型散热器 C type radiator



A-50(2孔 重82g)

型号 model: A-50(80x50)
长×宽×高(mm)
length×width×height: 50x80x50
适用范围
application range: 适用于负载实际电流小于15A的一只长方形单相固态继电器。(散热器A-50, 长度50mm, 以此散热器长度为一位, A-100长度100mm, 为二位, 以此类推。)
Applied for one piece of oblong single-phase solid state relay with actual load current less than 15A (for radiator A-50, length=50mm, which is treated as one unit, for A-100, length=100mm, treated as two units, etc.)

AB-50(2孔 重62g)

型号 model: AB-50(80x76)
长×宽×高(mm)
length×width×height: 50x80x76
适用范围
application range: 适用于负载实际电流小于8A的一只长方形单相固态继电器。(散热器AB-50, 长度50mm, 以此散热器长度为一位, A-100长度100mm, 为二位, 以此类推。)
Applied for one piece of oblong single-phase solid state relay with actual load current less than 8A (for radiator AB-50, length=50mm, which is treated as one unit, for A-100, length=100mm, treated as two units, etc.)

C-55(2孔 重265g)

型号 model: C-55(100x80)
长×宽×高(mm)
length×width×height: 55x100x80
适用范围
application range: 适用于负载实际电流小于30A的一只长方形单相固态继电器。(散热器C-55, 长度55mm, 以此散热器长度为一位, C-110长度110mm, 为二位, 以此类推。)
Applied for one piece of oblong single-phase solid state relay with actual load current less than 30A (for radiator C-55, length=55mm, which is treated as one unit, for C-110, length=110mm, treated as two units, etc.)

C-110(4孔 重530g)

型号 model: C-110(100x80)
长×宽×高(mm)
length×width×height: 110x100x80
适用范围
application range: 适用于负载实际电流(三相)和小于60A的一只三相固态继电器。(散热器C-110, 长度110, application range: mm, 以此散热器长度为一位, C-220长度=220mm, 为二位, 以此类推。)
Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 60A (for radiator C-110, length=110mm, which is treated as one unit, for C-220, length=220mm, treated as two units, etc.)

G型散热器 G type radiator



G-80(2孔 重281g)

型号 model: G-80(25x35)
长x宽x高(mm)
lengthxwidthxheight: 80x25x35
适用范围 application range: 适用于负载实际电流(三相总和)小于30A的一只三相固态继电器。(散热器G-80, 长度80mm, 以此散热器长度为一位, G-160长度160mm, 为二位, 以此类推...) Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 30A for radiator G-80 (length=80mm) which is treated as one unit, for G-160 (length=160mm) treated as two units, etc.]

E型散热器 E type radiator



E-50(2孔 重372g)

型号 model: E-50(115x94)
长x宽x高(mm)
lengthxwidthxheight: 50x115x94
适用范围 application range: 适用于负载实际电流小于65A的一只长方形工业级单相固态继电器。(散热器E-50, 长度50mm, 以此散热器长度为一位, E-100长度100mm, 为二位, 以此类推...) A rectangular or rectangular industrial grade solid state relay (heat sink E-50, length 50mm) suitable for loads with actual current less than 65A, with the heat sink length as one position, E-100 length 100mm as two positions, and so on.

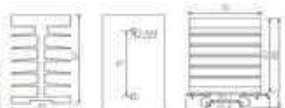
E型散热器 E type radiator



E-110(4孔 重818g)

型号 model: E-110(100x80)
长x宽x高(mm)
lengthxwidthxheight: 110x100x80
适用范围 application range: 适用于负载实际电流(三相总和)小于75A的一只三相固态继电器。(散热器E-110, 长度110mm, 以此散热器长度为一位, E-220长度220mm, 为二位, 以此类推...) Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 75A (for radiator E-110 length=110mm which is treated as one unit, for E-220 length=220mm treated as two units, etc.)

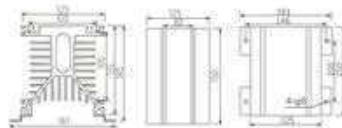
Q型散热器 Q type radiator



Q-70(4孔 重221g)

型号 model: Q-70(45x67)
长x宽x高(mm)
lengthxwidthxheight: 70x45x67
适用范围 application range: 适用于负载实际电流小于30A的一只长方形单相固态继电器。Applicable to load the actual current less than 30 A rectangular single-phase solid state relay.

L型散热器 L type radiator



L-150(4孔 重1710g)

型号 model: L-150(125x135)
**以下负载实际电流以L型系列散热器一端安装一只38x120x120(厚x长x宽)的冷却风扇计算, 散热扇后长度需加上38mm.
**The length should be increased by 38mm after the fan is installed, and its actual load current is counted by one 38mm x120mm x120mm(thickness x length x width) cooling fan installed in one end of L type radiator.

型号 Type	长x宽x高(mm) lengthxwidthxheight	适用范围 Application Range
L-80	80x25x35	1.适用于负载实际电流小于100A的一只单相长条形工业级固态继电器。 2.适用于负载实际电流(三相总和)小于90A的一只三相固态继电器。 1. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 100A. 2. Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 90A.
L-100	100x25x35	1.适用于负载实际电流(三相总和)小于150A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流(三相总和)小于150A的一只三相固态继电器。 3.适用于负载实际电流小于160A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 150A. 2. Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 150A. 3. Applied for one piece of elongated solid state relay of industrial level with actual load current less than 160A.
L-150	150x25x35	1.适用于负载实际电流(三相总和)小于220A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流(三相总和)小于210A的一只三相固态继电器。 3.适用于负载实际电流小于220A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 220A. 2. Applied for one piece of three-phase solid state relay with actual load current (three-phase amount) less than 210A. 3. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 220A.
L-200	200x25x35	1.适用于负载实际电流(三相总和)小于300A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流小于300A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 300A. 2. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 300A.
L-250	250x25x35	1.适用于负载实际电流(三相总和)小于350A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流小于350A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 350A. 2. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 350A.
L-300	300x25x35	1.适用于负载实际电流(三相总和)小于400A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流小于400A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 400A. 2. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 400A.
L-400	400x25x35	1.适用于负载实际电流(三相总和)小于500A的三只单相长条形工业级固态继电器。 2.适用于负载实际电流小于500A的一只单相长条形工业级固态继电器。 1. Applied for three pieces of single-phase elongated solid state relay of industrial level with actual load current (three-phase amount) less than 500A. 2. Applied for one piece of elongated single-phase solid state relay of industrial level with actual load current less than 500A.

ZKS系列



ZKS-2000系列



ZKS-3000系列



ZKS-2000(A)系列



ZKS-6000系列

一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 采用负反馈技术，具有稳压、断负载报警功能。
- ▲ 小功率型一体化，使其接线简单，安装方便。
- ▲ 操作简单，通过面板3个按键即可控制输出电压。
- ▲ 具有断电记忆，即每次上电会保持上次断电前状态。
- ▲ 广泛应用于各种单相电加热系统，照明系统等场合。

- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Adopting negative feedback technology, with voltage stabilization and load interruption alarm functions.
- ▲ Low power integrated, making it easy to connect and install.
- ▲ Easy to operate, the output voltage can be controlled through three buttons on the panel.
- ▲ It has power-off memory, which means that it will maintain the state before the last power-off every time it is powered on.
- ▲ Widely used in various single-phase electric heating systems, lighting systems, and other occasions.

二、产品规格/技术参数 Product Model/Technical Parameter

型号 Type	ZKS-2000系列		ZKS-3000系列		ZKS-2000(A)系列		ZKS-6000系列	
	ZKS-1	ZKS/50/50/51	ZKS-2B	ZKS-3B	ZKS-2A	ZKS-3A	ZKS-2A	ZKS-3A
外型尺寸 WxHxL Dimension (mm)	45x45x90	45x45x110	45x45x107		45x45x75		72x72x120	
开孔尺寸 LxW Dimension (mm)			45x45				67x67	
输入电压 Input Voltage	AC220V±10%(50/60Hz), 其他电压可定做。 AC220V±10%(50/60Hz), Other voltages can be customized.							
输出模式/电压 Output mode/voltage	移相调压: 5V-输入电压(稳压型)。 Phase shifting voltage regulation: 5V - input voltage (stabilized type).							
输出方式 Output Method	外接External SKXS或DV 模块module	外接负载(L≤650W) External load (L≤650W)	外接External SKXS或DV 模块module	外接SKKT模块 External SKKT module	外接External SKXS或DV 模块module	外接SKKT模块 External SKKT module	外接External SKXS或DV 模块module	外接SKKT模块 External SKKT module
控制信号 Control Signal	按键输入 Key-in	S1按键输入/S2/S3 按键输入/母表联动 Mother table linkage	按键输入 Key-in					
安装方式 Installation method	面板开孔嵌入式安装，卡扣固定。 Embedded installation with panel openings and buckle fixation.							
工作环境 work environment	温度: -20~65℃, 湿度: <90%RH以下。 Temperature: -20~65℃, humidity: < 90%RH.							

三、注意事项 Warning

- 一体式的电压调整器，请按产品端子标识连接好电源、N和OUT线；注意线头接触散热器，以免触电。多个表时，三相数量尽量分配均衡。
- 分体式的电压调整器，请按产品端子标识连接好电源、N和(G、T)、(G1、K1、G2、K2)触发线，其触发线必须与模块一一对应，并尽量采用屏蔽线，远离变频器、电机主线。同时模块的输入线必须与表的L线是同一组，否则造成输出失控或不稳定。
- 请使用在通风良好，不受日光照射，无腐蚀性，无可燃性的环境中。若出现故障，请联系专业人员，切勿私自拆卸该产品。

DVC系列



DVC-4



DVC-41



DVC-42



DVC-43

一、产品特点 Product Features

- ▲ 数字线性移相控制电路，稳定性好，精度高。
- ▲ 采用负反馈技术，具有稳压、断负载报警功能。
- ▲ 小功率型一体化，使其接线简单，安装方便。
- ▲ 操作简单，通过面板3个按键即可控制输出电压。
- ▲ 具有断电记忆，即每次上电会保持上次断电前状态。
- ▲ 广泛应用于各种单相电加热系统，照明系统等场合。

- ▲ Digital linear phase-shifting control circuit, with good stability and high accuracy.
- ▲ Adopting negative feedback technology, with voltage stabilization and load interruption alarm functions.
- ▲ Low power integrated, making it easy to connect and install.
- ▲ Easy to operate, the output voltage can be controlled through three buttons on the panel.
- ▲ It has power-off memory, which means that it will maintain the state before the last power-off every time it is powered on.
- ▲ Widely used in various single-phase electric heating systems, lighting systems, and other occasions.

二、产品规格/技术参数 Product Model/Technical Parameter

型号 Type	DVC系列			
	DVC-4	DVC-41	DVC-42	DVC-43
外型尺寸 WxHxL Dimension (mm)	52x52x95			
开孔尺寸 LxW Dimension (mm)	45x45			
输入电压 Input Voltage	AC220V±10%(50/60Hz), 其他电压可定做。 AC220V±10%(50/60Hz), Other voltages can be customized.			
输出模式/电压 Output mode/voltage	移相调压: 5V-输入电压(稳压型) Phase shifting voltage regulation: 5V - input voltage (stabilized type)			
输出方式 Output Method	外接负载(L≤650W) External load (L≤650W)	外接负载(L≤1000W) External load (L≤1000W)	外接负载(L≤650W) External load (L≤650W)	
控制信号 Control Signal	按键输入 Key-in		按键输入/母表联动 Key-in/Mother table linkage	
安装方式 Installation method	面板开孔嵌入式安装，卡扣固定。 Embedded installation with panel openings and buckle fixation.			
工作环境 work environment	温度: -20~65℃, 湿度: <90%RH以下。 Temperature: -20~65℃, humidity: < 90%RH.			

三、注意事项 Warning

- 一体式的电压调整器，请按产品端子标识连接好电源、N和OUT线；注意线头接触散热器，以免触电。多个表时，三相数量尽量分配均衡。
- 分体式的电压调整器，请按产品端子标识连接好电源、N和(G、T)、(G1、K1、G2、K2)触发线，其触发线必须与模块一一对应，并尽量采用屏蔽线，远离变频器、电机主线。同时模块的输入线必须与表的L线是同一组，否则造成输出失控或不稳定。
- 请使用在通风良好，不受日光照射，无腐蚀性，无可燃性的环境中。若出现故障，请联系专业人员，切勿私自拆卸该产品。

LTC系列



LTC-48



LTC-482



LTC-483

一、产品特点 Product Features

- ▲ 采用单片机数字化控制，精度高，性能稳定。
- ▲ 采用LED和数码管状态同步显示。
- ▲ 操作简单，通过面板区域按键即可设定全功率时间或联动操作。
- ▲ 驱动能力强，最多可达100个子表。
- ▲ 配合子表(ZKG-15, 42, 43, 52, 53等)，广泛应用于各种单相电加热系统、照明系统等场合。
- ▲ Adopting microcontroller digital control, high precision and stable performance.
- ▲ Adopting LED and digital tube status synchronous display.
- ▲ Easy to operate, set full power time or linkage operation through panel area buttons.
- ▲ Strong driving ability, up to 100 sub tables.
- ▲ Matching sub tables (ZKG-15, 42, 43, 52, 53, etc.) are widely used in various single-phase electric heating systems, lighting systems, and other applications.

二、产品规格/技术参数 Product Model/Technical Parameter

型号 Type	LTC系列		
	LTC-48	LTC-482	LTC-483
外型尺寸WxHxL Dimension (mm)	52x52x98		
开孔尺寸LxW1 Dimension (mm)	45x45		
工作电压 Working Voltage	AC220V±20%(50/60Hz)		
输出功能 Output Function	+、-联机K1, K2开关 +Online/K1, K2 switches	+、-FP联机 +、-FP, Online	+、-联机热电阻控制(0-600°C) +Online/thermocouple control (0-600 °C)
安装方式 Installation Method	面板开孔嵌入式安装，卡扣固定。Embedded installation with panel openings and buckle fixation.		
工作环境 Work Environment	温度：-20~65°C，湿度：≤90%RH以下。Temperature: -20~65 °C, humidity: ≤ 90% RH.		

三、注意事项 Warning

- LTC-48输出端子上的R1, R2, R3为联机+、-控制，接对应子表(ZKG-15)的R1, R2, R3，接错子表会失控，K1, K2为定时开关。
- LTC-482输出端子上的+、-为FP为联机控制，接对应子表(ZKG-42/52)的+、-，FP，接错子表会失控。
- LTC-483输出端子上的+、-为联机控制，接对应子表(ZKG-43/53)的+、-，接错子表会失控，TC+、-为外接K型热电阻。
- 其联机控制线尽量采用屏蔽线，并远离变频器、电机主线，以防止干扰(如失控或不稳定的情况)。
- 请使用在通风良好，不受阳光直射，无腐蚀性，无可燃性的环境中。若出现故障，请联系专业人员，切勿私自拆卸该产品。
- R1, R2, and R3 on the output terminal of LTC-48 are online + and - controls, connected to R1 of the corresponding sub table (ZKG-15). R2, R3, Connecting the wrong sub table will cause loss of control, K1 and K2 are timed switches.
- +、- on the output terminal of LTC-482, FP stands for online control, connected to the + and - of the corresponding sub table (ZKG-42/52). FP, Connecting the wrong sub table can lead to loss of control.
- The + and - on the output terminal of LTC-483 are for online control. Connect the + and - on the corresponding sub meter (ZKG-43/53). Connecting the wrong sub meter will cause loss of control. TC + and TC - are externally connected to K-type thermocouples.
- The online control line should be shielded as much as possible and kept away from the frequency converter and motor main line to prevent interference that may cause loss of control or instability.
- Please use in a well ventilated, non sunlight, non corrosive, and non flammable environment. If there is a malfunction, please contact a professional and do not disassemble the product without authorization.

DPC系列



DPC-1



DPC-2M



DPC-3M

一、产品特点 Product Features

- ▲ 开机自动全功率输出(快速加热)。
- ▲ 开机全功率输出时间可设定。
- ▲ LED状态显示。
- ▲ 具有断电记忆功能。
- ▲ 内置全功率手动控制。
- ▲ 输出功率稳定性：±1.5%。
- ▲ 设定功率比例范围：0-99%精度1%。
- ▲ 开机全功率输出时间设定：0-99分钟精度1分钟。
- ▲ 应用范围：适用于阻性加热设备，如塑料吸机等机械设备的温度调节。
- ▲ Automatic full power output upon startup (rapid heating).
- ▲ The full power output time during startup can be set.
- ▲ LED status display.
- ▲ Equipped with power-off memory function.
- ▲ External full power manual control.
- ▲ Output power stability: ±1.5%.
- ▲ Set power ratio range: 0-99% (accuracy 1%).
- ▲ Power on full power output time setting: 0-99 minutes (accuracy of 1 minute).
- ▲ Application scope: Suitable for temperature regulation of resistive heating equipment, such as plastic suction machines and other mechanical equipment.

二、产品规格/技术参数 Product Model/Technical Parameter

型号 Type	DPC系列		
	DPC-1	DPC-2M	DPC-3M
外型尺寸WxHxL Dimension (mm)	52x52x35	52x52x82	52x52x46
开孔尺寸LxW1 Dimension (mm)	45x45		
工作电压 Working Voltage	AC220V±20%(50/60Hz)		
输出模式 Output Function	过零均分调功(无稳功) Zero crossing equal power regulation (no steady power)	过零均分调功(稳功) Zero crossing equal power regulation (stable power)	
输出方式 Output Function	需外接SSR-DV模块 External SSR-DV module is required	外接负载(≤800W) External load (≤ 800W)	需外接SSR-AA模块 External SSR-AA module is required
安装方式 Installation Method	面板开孔嵌入式安装，卡扣固定。Embedded installation with panel openings and buckle fixation.		
工作环境 Work Environment	温度：-20~65°C，湿度：≤90%RH以下。Temperature: -20~65 °C, humidity: ≤ 90% RH.		

三、注意事项 Warning

- DPC-1需外接SSR-DV模块，L, N接工作电源，FP接时为全功率输出，G与模块对应，为触发控制端；L与模块输入必须同相，否则会失控。
- DPC-2M可直接驱动负载，L, N接工作电源，OUT为功率输出端，接负载，FP接时为全功率输出。
- DPC-3M需外接SSR-AA模块，L, N接工作电源，FP接时为全功率输出，G与模块对应，为触发控制端；L与模块输入必须同相，否则会失控。
- 其联机控制线尽量采用屏蔽线，并远离变频器、电机主线，以防止干扰引起失控或不稳定的情况。
- 请使用在通风良好，不受阳光直射，无腐蚀性，无可燃性的环境中。若出现故障，请联系专业人员，切勿私自拆卸该产品。
- DPC-1 requires an external SSR-DV module, with L and N connected to the working power supply. When FP is connected to L, it outputs at full power. G corresponds to the module and serves as the trigger control terminal. The input of the L module must be in phase, otherwise it will lose control.
- DPC-2M can directly drive loads, with L and N connected to the working power supply. OUT is the power output terminal, connected to the load, and FP is the full power output when connected to L.
- DPC-3M requires an external SSR-AA module, with L and N connected to the working power supply. When FP is connected to L, it outputs at full power. G corresponds to the module and serves as the trigger control terminal. The input of L and the module must be in phase, otherwise it will lose control.
- The online control line should be shielded as much as possible and kept away from the frequency converter and motor main line to prevent interference that may cause loss of control or instability.
- Please use in a well ventilated, non sunlight, non corrosive, and non flammable environment. If there is a malfunction, please contact a professional and do not disassemble the product without authorization.

XMT-2000/6000系列



一、产品特点 Product Features

- ▲ 热电偶、热电阻输入及量程范围均可自由设置。
- ▲ 软件调零满度、冷端单独测量、放大器自稳零、显示精度可优于1.0%FS。
- ▲ 模糊理论结合传统PID方法，控制快速平稳。
- ▲ 先进的PID参数自整定方法，整定时间较一般仪表缩短1/3以上时间。
- ▲ 主控输出可选：继电器触点、SSR驱动电平、4-20mA、1-5V。
- ▲ 报警输出：最多二路，可自定义的报警触点输出方式。
- ▲ 应用范围：热流道、吹塑机、塑料等各种加热行业。

二、产品性能 Product Performance

- ▲ 输入规格(一台仪表即可兼容)：热电偶：K、E、J、热电阻：Pt100、模拟量(只支持模拟量输出型)：1-5V(4-20mA)、0-5V(0-20mA)。
- ▲ 测量范围：K：50-1300/999℃、J：50-999℃、E：50-800℃、Pt100：50-650℃。
- ▲ 测量精度：1.0级(±1.0%FS±1)。
- ▲ 采样速率：2次/秒。
- ▲ 调节方式：智能PID调节，依据不同的P、I、D参数可组成PP、PI、PD、PID调节。
- ▲ 主控可为继电器触点开关输出、触发固态继电器的逻辑电平、4-20mA、1-5V。
- ▲ 报警功能：上限、下限、偏差值、绝对值。
- ▲ 触点容量(阻性负载)：AC250V/3A、DC30V/3A。
- ▲ 电源：220VAC±10%、50/60Hz、100-240V(其它电压需订做)。
- ▲ 电源功耗：≤3VA。
- ▲ 工作环境：温度-20-60℃、湿度≤85%RH(无腐蚀性场合)。

三、型号命名 Type Designation

XMT①-2/6②③④-⑤

其它 Other：其它备注信息 Other remarks information:

信号输入类型：1：热电偶；2：热电阻；3：模拟量
Signal input type: 1: Thermocouple; 2: thermistor; 3: Analog quantity

主控制输出：0：二位式(继电器)；3：位式PID(继电器通断比例)；8：PID调节直流电压输出(DC12V)；9：PID调节模拟量输出(例：4-20mA、1-5V)。
Main control output: 0: Two position type (relay); 3: Body basket, slag, speaker, deep parrot, shoulder curtain, rotary PID(Relay on-off rate); 8: PID regulation of DC voltage output (DC12V); 9: PID regulation of analog output (example: 4-20mA, 1-5V)

报警输出(辅助)：0：无报警功能；1：两路报警，默认上限为偏差，下限为绝对值报警；5：一路上限报警，默认为偏差值；6：一路下限报警，默认为绝对值。

Alarm output (auxiliary): 0: No alarm function; 1: Two way alarm; default upper limit is deviation, lower limit is absolute, and the alarm is triggered by the sensor; 5: One way upper limit alarm Default deviation value; 6: The lower limit of the be-al is set to absolute value by default.

型号 Type	XMTG	XMTD	XMTA	XMTE
外形尺寸(mm) Dimensions	48x48x93(B2)	72x72x93(F0)	96x96x75	48x96x70
开孔尺寸(mm) Dimensions	45x45	68x68	92x92	45x92

XMT-7000系列



一、产品特点 Product Features

- ▲ 热电偶、热电阻输入及量程范围均可自由设置。
- ▲ 软件调零满度、冷端单独测量、放大器自稳零、显示精度可优于1.0%FS。
- ▲ 模糊理论结合传统PID方法，控制快速平稳。
- ▲ 先进的PID参数自整定方法，整定时间较一般仪表缩短1/3以上时间。
- ▲ 主控输出可选：继电器触点、SSR驱动电平、4-20mA、1-5V。
- ▲ 报警输出：最多二路，可自定义的报警触点输出方式。
- ▲ 应用范围：热流道、吹塑机等加热行业。

二、产品性能 Product Performance

- ▲ 输入规格(一台仪表即可兼容)：热电偶：K、E、J、热电阻：Pt100、模拟量(只支持模拟量输出型)：1-5V(4-20mA)、0-5V(0-20mA)。
- ▲ 测量范围：K：50-1300/999℃、J：50-999℃、E：50-800℃、Pt100：50-650℃。
- ▲ 测量精度：1.0级(±1.0%FS±1)。
- ▲ 采样速率：2次/秒。
- ▲ 调节方式：智能PID调节，依据不同的P、I、D参数可组成PP、PI、PD、PID调节。
- ▲ 主控可为继电器触点开关输出、触发固态继电器的逻辑电平、4-20mA、1-5V。
- ▲ 报警功能：上限、下限、偏差值、绝对值。
- ▲ 触点容量(阻性负载)：AC250V/3A、DC30V/3A。
- ▲ 电源：DC/AC100-240V、50/60Hz(其它电压需订做)。
- ▲ 电源功耗：≤3VA。
- ▲ 工作环境：温度-20-60℃、湿度≤85%RH(无腐蚀性场合)。

三、型号命名 Type Designation

XMT①-7②③④-⑤

其它 Other：其它备注信息 Other remarks information:

外壳接线类型：A：可拔插式外壳；B：插拔式端子外壳
Shell wiring type: A: Plug and unplug shell; B: Wired terminal housing

主控制输出：0：二位式(继电器)；3：位式PID(继电器通断比例)；8：PID调节直流电压输出(DC12V)；9：PID调节模拟量输出(例：4-20mA、1-5V)。
Main control output: 0: Two position type (relay); 3: Body basket, slag, speaker, deep parrot, shoulder curtain, rotary PID(Relay on-off rate); 8: PID regulation of DC voltage output (DC12V); 9: PID regulation of analog output (example: 4-20mA, 1-5V)

报警输出(辅助)：0：无报警功能；1：一路上限报警默认偏差值；2：两路报警输出上限默认偏差值，下限默认绝对值。
Alarm output (auxiliary): 0: No alarm function; 1: Along the way, the alarm song believes that the deviation value is limited; 2: The default upper limit of the two alarm outputs is the deviation value, and the default lower limit is the absolute value.

型号 Type	XMTG	XMTD	XMTA	XMTE
外形尺寸(mm) Dimensions	48x48x96	72x72x76	96x96x76	48x96x76
开孔尺寸(mm) Dimensions	45x45	68x68	92x92	45x92

XMT-900系列



一、产品特点 Product Features

- ▲ 热电偶、热电阻输入及量程范围均可自由设置。
- ▲ 软件调零准确，冷端单独测温，放大端自稳零，显示精度可优于1.0%FS。
- ▲ 模糊理论结合传统PID方法，控制快速平稳。
- ▲ 先进的PID参数自整定方法，整定时间较一般仪表缩短1/3以上时间。
- ▲ 支持RS485标准Modbus-RTU协议通讯可选项。
- ▲ 应用范围：热管道、吹塑机、塑料等各种加热行业。

- ▲ The thermocouple, thermistor input, and range can be freely set.
- ▲ Software zeroing full degree, separate temperature measurement at the cold end, amplifier self stabilizing zero, display accuracy can be better than 1.0% FS.
- ▲ Combining fuzzy theory with traditional PID methods to achieve fast and stable control.
- ▲ Advanced PID parameter self-tuning method reduces tuning time by more than one-third compared to general instruments.
- ▲ Supports RS485 (standard Modbus-RTU protocol) communication (optional).
- ▲ Application scope: Various heating industries such as hot runners, blow molding machines, plastics, etc.

二、产品性能 Product Performance

- ▲ 输入规格(一台仪表即可兼容)：热电偶K, E, J; 热电阻Pt100。
- ▲ 测量范围：K(-50-1500°C), J(-50-1000°C), E(-50-1000°C), Pt100(-50-650°C)。
- ▲ 测量精度：1.0级(±1.0%FS±1)。
- ▲ 采样速率：2次/秒。
- ▲ 调节方式：智能PID调节，依据不同的P, I, D参数可组成PI, PD, PID调节。
- ▲ 主控可为继电器触点开关输出，触发固态继电器逻辑电平，4-20mA, 1-5V。
- ▲ 报警：最多两路输出，可独立自由设定为上限/下限/偏差/绝对值/值，有上电报警功能选择。
- ▲ 输出：继电器类：触点容量(阻性负载)：AC250V/3A, DC30V/3A, 电压(逻辑电子)输出类：DC15V(最大)，最大负载电流60mA, 电流输出类：4-20mA/0-20mA, 最大负载阻抗：650Ω。
- ▲ 工作电源：AC/DC100-240V(其它电压需定制)。
- ▲ 功耗功耗：≤3VA。
- ▲ 工作环境：温度-20-60°C, 湿度≤85%RH(无腐蚀性场合)。

- ▲ Input specifications (compatible with one instrument): Thermocouple K, E, J; Thermal resistance: Pt100.
- ▲ Measurement range: K (-50-1500/999°C), J (-50-1000°C), E (-50-1000°C), Pt100(-50-650°C).
- ▲ Measurement accuracy: 1.0 level (±1.0% FS ± 1).
- ▲ Sampling rate: 2 times per second.
- ▲ Adjustment method: Intelligent PID adjustment, which can form PI, PD and PID adjustments based on different P, I, and D parameters.
- ▲ The main control can output relay contact switches, trigger logic levels of solid-state relay, 4-20mA, 1-5V.
- ▲ Alarm: Up to two outputs, can be independently and freely set as upper limit, lower limit, deviation value, absolute value, with power on alarm free function selection.
- ▲ Output: Relay class: Contact capacity (resistive load): AC250V/3A, DC30V/3A, Voltage (logic level) output class: DC15V (maximum), maximum load current 60mA, Current output class: 4-20mA/0-20mA, Maximum load impedance: 650 ohms.
- ▲ Working power supply: AC/DC100-240V (other voltages need to be customized).
- ▲ Power consumption: ≤ 3VA.
- ▲ Working environment: Temperature -20-60°C, humidity ≤ 85% RH, non-corrosive environment.

三、型号命名 Type Designation

XMT①-⑨②③④⑤

其它 Other: 产品其它备注信息 Other product remarks and information.

空 无其它功能 T 支持RS485通讯功能 A
Empty: No other functions T: Supports RS485 communication Message function: A

主控制输出: 0: 二位式继电器; 3: 三位式PID继电器(通断比例); 8: PID调节直流电压输出(DC12V); 9: PID调节模拟量输出(例: 4-20mA, 1-5V)。
Main control output: 0: Two position type-relay; 3: Body basket, slag, spear, deep parrot, shoulder curtain, rotary PID(relay on-off ratio); 8: PID regulation of DC voltage output (DC12V); 9: PID regulation of analog output (example: 4-20mA, 1-5V).

报警输出(辅助): 0: 无报警功能; 1: 一路报警默认上限报警; 2: 两路报警一路为上限报警, 一路为下限绝对值。
Alarm output (auxiliary): 0: No alarm function; 1: One way alarm: default to upper limit deviation value; 2: Two alarms: one is the upper limit deviation value and the other is the lower limit absolute value.

型号 Type	XMTG	XMTD	XMTA	XMTF
外形尺寸(mm) Dimensions	48x48x95	72x72x95	96x96x95	48x96x95
开孔尺寸(mm) Dimensions	45x45	68x68	92x92	45x92

XMT-760V/7602系列



一、产品特点 Product Features

- ▲ 3种热电偶输入及量程范围均可自由设置，显示精度可优于1.0%FS。
- ▲ 具有手动输出功能，即使热电偶有故障也不影响生产。
- ▲ 模糊理论结合传统PID方法，控制快速平稳。
- ▲ 具有除湿/软启动功能，具有自动控制状态下查看输出功率功能。
- ▲ 移相触发脉冲：可接双向可控硅，SSR-cDV, SKKT模块进行移相调压。
- ▲ 移相与过零触发自由设定，负载电源：50-60Hz通用。
- ▲ 应用范围：热管道、吹塑机、塑料等各种加热行业。

- ▲ Three types of thermocouple inputs and range can be freely set, with display accuracy better than 1.0% FS.
- ▲ With manual output function, even if the thermocouple malfunctions, it will not affect production.
- ▲ Combining fuzzy theory with traditional PID method to achieve fast and stable control.
- ▲ It has dehumidification/soft start function and the ability to view output power in automatic control mode.
- ▲ Phase shift trigger pulse: can be connected to bidirectional thyristor SSR-cDV, SKKT modules for phase shift voltage regulation.
- ▲ Free setting of phase shift and zero crossing trigger, load power supply: 50-60Hz.
- ▲ Application scope: New intelligent instruments specifically developed for the hot runner and

二、产品性能 Product Performance

- ▲ 输入规格(一台仪表即可兼容)：热电偶K, E, J; 。
- ▲ 测量范围：最大600度。
- ▲ 测量精度：1.0级(±1.0%FS±1)。
- ▲ 采样速率：2次/秒。
- ▲ 调节方式：智能PID调节，依据不同的P, I, D参数可组成PI, PD, PID调节。
- ▲ 触发信号输出：可控输出型:300mA; 脉冲变压器输出型: 8V/60mA。
- ▲ 报警功能：上、下限绝对值，上、下限报警，可设置上电免报警(触点容量:AC250V/2A阻性负载)。
- ▲ 仪表电源：230VAC, 50/60Hz, 100-240VAC/DC, 电源功耗: ≤3W。
- ▲ 工作环境：温度-20-60°C, 湿度≤85%RH(无腐蚀性场合)。

- ▲ Input specifications (compatible with one instrument): Thermocouple K, E, J.
- ▲ Measurement range: up to 600 degrees.
- ▲ Measurement accuracy: 1.0 level (±1.0% FS ± 1).
- ▲ Sampling rate: 2 times per second.
- ▲ Adjustment method: Intelligent PID adjustment, which can form PI, PD, and PID adjustments based on different P, I, and D parameters.
- ▲ Trigger signal output: controllable output type: 300mA; Pulse transformer output type: 8V/60mA.
- ▲ Alarm function: Absolute values of upper and lower limits, deviation values of upper and lower limits, can be set to exempt alarms when powered on (contact capacity: AC250V/2A resistive load).
- ▲ Instrument power supply: 230VAC, 50/60Hz, 100-240VAC/DC, Power consumption: ≤ 3W.
- ▲ Working environment: Temperature -20-60°C, humidity ≤ 85% RH, non-corrosive environment.

三、型号命名 Type Designation

XMT①-⑦②③④⑤

其它 Other:

输出类型: 1: 两线SSR; 2: 四线脉冲变压器输出(驱动SKKT/MTC用)。
Output type: 1: Two line SSR; 2: Four wire pulse transformer output (Drive SKKT/MTC for use).

报警输出(辅助): 0: 无报警; 1: 一路报警;
Alarm output (auxiliary): 0: no alarm; 1: 1 channel alarm;

主控制输出方式: 6: 移相调压或过零输出型仪表(默认为移相输出)。
Main control output mode: 6: phase regulating or zero crossing output type instrument (Default is phase shifted output).

型号 Type	XMTG	XMTF
外形尺寸(mm) Dimensions	48x48x112	48x96x95
开孔尺寸(mm) Dimensions	45x45	92x45

TC(B)系列



一、产品特点 Product Features

- ▲ 采用32位处理器，运算能力强，控制算法先进。
- ▲ 采用16位Σ-AD，采样精度高，并能有效抑制工频干扰。
- ▲ 多种控制方法包括：PID控制、手动控制、上位机控制。
- ▲ 具有PID自整定功能。
- ▲ 使用隔离DC-DC变换器，独立热电偶输入和开关量输出接口抗干扰能力强。
- ▲ 模块内置测温元件，软件完成热电偶冷端温度补偿。
- ▲ 电源过压电路和欠压电路，提高恶劣环境下可靠运行性。
- ▲ 应用范围：注塑机、吹塑机等各种加热行业。

二、产品性能 Product Performance

- ▲ 传感器：K、J、E、N、S、R、T型热电偶，Pt100热电阻（两线制）。
- ▲ 分辨率：0.1℃。
- ▲ 电路精度：±0.2℃。
- ▲ 冷端补偿误差：±0.2℃。
- ▲ 50Hz与60Hz工频干扰抑制：CMR>120dB，NMR>80dB。
- ▲ 电流输出：4-20mA/0-20mA，负载电压<DC15V。
- ▲ 开关量输出（阻性2A/220V），逻辑电平（非反，集电极开路输出），每路最大电流200mA，电压<DC30V。
- ▲ 通讯：RS485+Modbus-RTU，波特率可选1200-115200，通信地址可选1-63（最多）。
- ▲ 供电电源：DC24V，本机功耗：≤3W。
- ▲ 环境温度：0℃-60℃。
- ▲ 相对湿度：≤85%无凝露。

三、型号命名 Type Designation

TC/B-①②③④⑤

T: 仅支持热电偶输入; R: 仅支持热电阻输入; 其它: 到另定。
T: Only supports thermocouple input; R: Only supports thermal resistance input; Other: to be determined separately.
辅助输出的输出类型: V为电压(晶体管集电极开路输出)。
Output type of auxiliary output: V is voltage (transistor collector open circuit output).
辅助输出的输出路数: 2为2路辅助输出; 4为4路辅助输出; 6为6路主控输出; 8则为8路辅助输出。
The number of output channels for auxiliary output: 2 is 2 auxiliary outputs; 4 is 4 auxiliary outputs; 6 represents 6 main control outputs; while 8 represents 8 auxiliary outputs.
主控输出的输出类型: V为电压(晶体管集电极开路输出); A为模拟量输出(4-20mA, 0-20mA等)。
The output type of the main control output: V is voltage (transistor collector open circuit output); A is the analog output (4-20mA, 0-20mA, etc.).
主控输出的输出路数: 2为2路主控输出; 4为4路主控输出; 6为6路主控输出; 8则为8路主控输出。
The number of output channels for the main control output: 2 represents 2 main control outputs; 4 represents 4 main control outputs; 6 represents 6 main control outputs; while 8 represents 8 main control outputs.

型号 Type	TCB-2V2V	TC-4V4V	TC-4V4V-T TC-4A4V-T	TC-8V4V-T TC-8V4V	TC-8V4V-T TC-8A8V-T
尺寸(mm) Size	42x108x65	116x91x45	65x108x65	145x91x45	110x108x65

ZKC系列



一、产品特点 Product Features

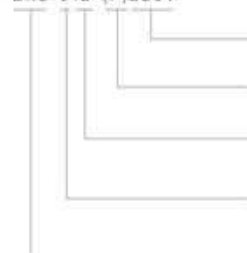
- ▲ 电压调整器以单片机为核心，本组调整器具有极佳的稳压/稳功性能。
- ▲ 具有良好的调整线性。
- ▲ 每个电压调整器可单独使用，也可组合使用。
- ▲ 调整器采用RS485总线接口及通用Modbus-RTU通讯协议，使接线更方便简洁，触摸屏调用更方便。
- ▲ 优势：具有精度高、抗震性强、可靠性好、抗干扰能力强等优点。
- ▲ 应用范围：广泛适用于吸塑机、吹塑机等机械设备的温度调节。

二、产品性能 Product Performance

- ▲ 负载电源输入：三相三线/三相四线输入(可选)，50/60Hz通用。(本机功耗功率小于5W)。
- ▲ 继电器触点容量：3A/250VAC(阻性负载)。
- ▲ 工作环境：温度0-60℃，相对湿度不超过95%的非腐蚀性气体场合。
- ▲ 移相调压最大移相角：不小于170°。
- ▲ 通讯：RS485两线总线式，通用标准Modbus-RTU协议。
- ▲ 两路模拟量输出，DC0-10V(每路输出电流不大于20mA)(ZKC-9系列)。

三、型号命名 Type Designation

ZKC-912-(P)220V



负载电压：“220V”：为220V电压；“380V”：为380V电压。
Load voltage: “220V” For a voltage of 220V; “380V” For 380V voltage.

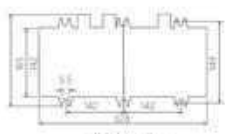
L: 三相三线制; P: 三相四线制。
L: Three phase three wire system; P: Three phase four wire system;

多路组合类: 12: 共12路; 18: 共18路;
Multi channel combination class: 12: a total of 12 channels; 18: a total of 18 channels.

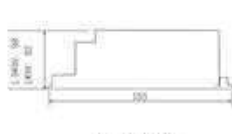
系列号:
Serial number:

型号 Type	ZKC-712(380V)	ZKC-812(380V)	ZKC-912(380V)
底座尺寸(mm) Dimensions	155x71x161	160x70x150	155x71x161
横截面积尺寸(mm) Dimensions	171x52	110x68	171x52

ZK6系列

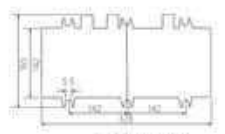


底部平面图尺寸
Bottom plan dimensions

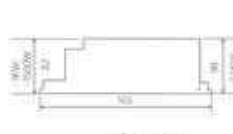


横截面图尺寸
Dimensions of cross-sectional view

ZK7系列



底部平面图尺寸
Bottom plan dimensions



横截面图尺寸
Dimensions of cross-sectional view

一、产品特点 Product Features

- ▲ 温度调整器是以单片机为核心，本组调整器具有较好的稳压/稳功性能。
- ▲ 具有PID模糊控制算法，可得到更准确的温度控制。
- ▲ 每个调整器可单独使用，也可组合使用。
- ▲ 调整器采用 RS485总线接口及通用 Modbus-RTU 通讯协议，接线更方便简洁，触摸屏调用更方便。
- ▲ 优势：具有精度高、抗震性强、可靠性好、抗干扰能力强等优点。
- ▲ 应用范围：广泛应用于吸塑机、吹瓶机等机械设备的温度调节。

- ▲ The temperature regulator is based on a microcontroller, and the group of regulators has good voltage and power stability performance.
- ▲ Equipped with PID fuzzy control algorithm, it can achieve more accurate temperature control.
- ▲ Each adjuster can be used individually or in combination.
- ▲ The adjuster adopts RS485 bus interface and universal Modbus-RTU communication protocol, making wiring more convenient and concise, and touch screen calling more convenient.
- ▲ Advantages: It has the advantages of high precision, strong earthquake resistance, good reliability, and strong anti-interference ability.
- ▲ Application scope: Widely applicable for temperature regulation of mechanical equipment such as suction molding machines and blow molding machines.

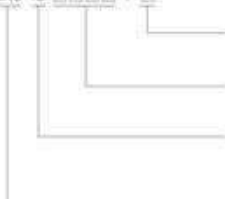
二、产品性能 Product Performance

- ▲ 电源输入：单相 AC220V±10% 或三相四线制 (AC380V±10% 输入，50/60Hz 通用，本机功耗功率小于 5W，总功率取决于负载功率)。
- ▲ 每路独立自带保险丝保护装置 (ZK6-15-1KW，保险丝容量 10A, 250V; ZK6-15-1.5KW，保险丝容量 13A, 250V)；保险丝断保护指示功能。
- ▲ 输出电压：AC0-220V，移相调压最大导通角：不小于 170°。
- ▲ 输出功率(驱动阻性负载)：单路输出最小功率不小于 100W，最大(通风散热条件良好情况下)功率：分“1000W”和“1500W”两个系列。
- ▲ 工作环境：温度 0-60℃，相对湿度不超过 85% 的无腐蚀性气体场合。
- ▲ 通讯：RS485 两线制总线式，通用标准 Modbus-RTU 协议。

- ▲ Power cord input: single-phase (AC220V±10%) or three-phase four wire (AC380V±10%) input, universal at 50/60Hz, (local power consumption is less than 5W, total power depends on load power).
- ▲ Each circuit is equipped with an independent fuse protection device (ZK6-15-1KW, fuse capacity 10A, 250V; ZK6-15-1.5KW, Fuse capacity 13A, 250V). Fuse open circuit protection indication function.
- ▲ Output voltage: AC0-220V, Maximum conduction angle of phase-shifting voltage regulator: not less than 170°.
- ▲ Output power (driving resistive load): The minimum power output of a single channel is not less than 100W, and the maximum power (under good ventilation and heat dissipation conditions) is divided into "1000W" and "1500W" (two series).
- ▲ Working environment: Non corrosive gas environment with a temperature of 0-60 °C and a relative humidity not exceeding 85%.
- ▲ Communication: RS485 two-wire bus type, universal standard Modbus-RTU protocol.

三、型号命名 Type Designation

ZK6-15-□□□□-*/□



其它信息：升级序号、订制功能代号等。
Other information, such as upgrade serial number, customized function code, etc.

可驱动阻性负载的功率数：“650W”为 650W，“1KW”为 1000W，“1.5KW”为 1500W。
Number of powers that can drive resistive loads: “650W” For 650W, “1KW” For 1000W, “1.5KW” For 1500W.

组合温度调整器级数：“15”即为 15 路。
Combination temperature regulator stage: “15” means 15 channels.

一体化多路组合温度调整器系列号。
Integrated multi-channel combination temperature regulator series number:

型号 Type	ZK6-15-1KW	ZK6-15-1.5KW
底面尺寸(mm) Dimensions	328x165x149	328x165x149
横截面尺寸(mm) Dimensions	165x82	165x98

一、产品特点 Product Features

- ▲ 温度调整器是以单片机为核心，本组调整器具有较好的稳压/稳功性能。
- ▲ 具有良好的调整线性。
- ▲ 每个电压调整器可单独使用，也可组合使用。
- ▲ 调整器采用 RS485总线接口及通用 Modbus-RTU 通讯协议接线更方便简洁，触摸屏调用更方便。
- ▲ 优势：具有精度高、抗震性强、可靠性好、抗干扰能力强等优点。
- ▲ 应用范围：广泛应用于吸塑机、吹瓶机等机械设备的温度调节。

- ▲ The temperature regulator is based on a microcontroller, and the group of regulators has good voltage and power stability performance.
- ▲ Has good adjustment linearity.
- ▲ Each voltage regulator can be used individually or in combination.
- ▲ The adjuster adopts RS485 bus interface and universal Modbus-RTU communication protocol to make wiring more convenient and concise, and touch screen calling more convenient.
- ▲ Advantages: It has the advantages of high precision, strong earthquake resistance, good reliability, and strong anti-interference ability.
- ▲ Application scope: Widely applicable for temperature regulation of mechanical equipment, such as suction molding machines and blow molding machines.

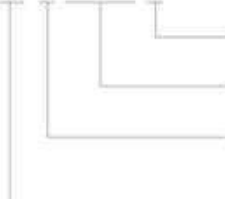
二、产品性能 Product Performance

- ▲ 电源输入：单相 AC220V±10% 或三相四线制 (AC380V±10% 输入，50/60Hz 通用，本机功耗功率小于 5W，总功率取决于负载功率)。
- ▲ 每路独立自带保险丝保护装置 (ZK7-15-1KW，保险丝容量 10A, 250V; ZK7-15-1.5KW，保险丝容量 13A, 250V)；保险丝断保护指示功能。
- ▲ 输出电压：AC0-220V，移相调压最大导通角：不小于 170°。
- ▲ 输出功率(驱动阻性负载)：单路输出最小功率不小于 100W，最大(通风散热条件良好情况下)功率：分“1000W”和“1500W”两个系列。
- ▲ 工作环境：温度 0-60℃，相对湿度不超过 85% 的无腐蚀性气体场合。
- ▲ 通讯：RS485 两线制总线式，通用标准 Modbus-RTU 协议。

- ▲ Power cord input: single-phase (AC220V±10%) or three-phase four wire (AC380V±10%) input, universal at 50/60Hz, (local power consumption is less than 5W, total power depends on load power).
- ▲ Each circuit is equipped with an independent fuse protection device (ZK7-15-1KW, fuse capacity 10A, 250V; ZK7-15-1.5KW, Fuse capacity 13A, 250V). Fuse open circuit protection indication function.
- ▲ Output voltage: AC0-220V, Maximum conduction angle of phase-shifting voltage regulator: not less than 170°.
- ▲ Output power (driving resistive load): The minimum power output of a single channel is not less than 100W, and the maximum power (under good ventilation and heat dissipation conditions) is divided into "1000W" and "1500W" (two series).
- ▲ Working environment: Non corrosive with a temperature of 0-60 °C and a relative humidity not exceeding 85% gas environment.
- ▲ Communication: RS485 two-wire bus type, universal standard Modbus-RTU protocol.

三、型号命名 Type Designation

ZK7-15-□□□□-□



其它信息：升级序号、订制功能代号等。
Other information, such as upgrade serial number, customized function code, etc.

驱动阻性负载功率：“650W”为 650W，“1KW”为 1000W，“1.5KW”和“1500W”为 1500W。
Drive resistive load power: “650W” For 650W, “1KW” For 1000W, “1.5KW” and “1500W” For 1500W.

调整器级数：“12”即为 12 路；“15”即为 15 路。
voltage regulator stage: “12” means 12 channels; “15” means 15 channels.

一体化多路组合电压调整器系列号。
Integrated multi-channel combination temperature regulator series number:

型号 Type	ZK7-12-650W	ZK7-12-1.5KW	ZK7-15-1KW/1500W	ZK7-15-1.5KW
底面尺寸(mm) Dimensions	338x105x147	338x155x147	328x165x149	328x165x149
横截面尺寸(mm) Dimensions	155x55	165x73	165x82	165x98

ZK62系列

底部平面图尺寸
Bottom plan dimensions横截面图尺寸
Dimensions of cross-sectional view

一、产品特点 Product Features

- ▲ 温度调整器以单片机为核心, 本组调整器具有较好的温度调整性。
- ▲ 具有PID模糊控制算法, 可得到更准确的温度控制。
- ▲ 调整器具有联动功能, 既可作主控制输出也可作旁控。
- ▲ 调整器采用 RS485总线接口及通用Modbus-RTU通信协议, 使接线更方便简洁, 触摸屏调用更方便。
- ▲ 优势: 具有精度高, 抗震性强, 可靠性好, 抗干扰能力强等优点。
- ▲ 应用范围: 广泛应用于注塑机设备, 箱包机设备等机械设备温度调节。

- ▲ The temperature regulator is based on a microcontroller, and this group of regulators has good temperature performance. Degree adjustable.
- ▲ Equipped with PID fuzzy control algorithm, it can achieve more accurate temperature control.
- ▲ The adjuster has a linkage function, which can be used as the main control output or controlled.
- ▲ The adjuster adopts RS485 bus interface and universal Modbus-RTU communication protocol. Discussion makes wiring more convenient and concise, and touch screen calling more convenient.
- ▲ Advantages: High precision, strong seismic resistance, good reliability, and anti-interference ability. Strong advantages.
- ▲ Application scope: Widely applicable to mechanical equipment such as injection molding machines and luggage machines. Prepare temperature regulation.

二、产品性能 Product Performance

- ▲ 电源输入: 单相(AC220V±10%)或三相四线(AC380V±10%)输入, 50/60Hz通用, 电源功率取决于负载功率。
- ▲ 每路独立自保护保险丝保护装置(保险丝容量10A, 250V), 保险丝断路保护指示功能。
- ▲ 一路温度测量, 支持K(-50~1300°C), E(-50~1000°C), R(-50~1000°C), Ni(-50~1000°C)型热电偶, 可切换默认类型。
- ▲ 输出设置: 0~100%温控模式, 温控模式下设置0~220有效, 单路输出最大功率阻性负载通风散热条件下最大1000W。
- ▲ 过零调功和移相调功两种模式, 出厂默认为过零调功, 移相调压工作模式下, 其移相调压最大导通角不小于170°。
- ▲ 工作环境: 温度0~50°C, 相对湿度不超过85%的无腐蚀性气体场合。
- ▲ 通讯: RS485总线式, 通用标准MODBUS-RTU协议, 理论上支持最多可99台同时通讯。

- ▲ Each circuit is independently equipped with a built-in fuse protection device (fuse capacity: 10A, 250V). Fuse circuit breaker protection indication function.
- ▲ Continuous temperature measurement, supports K-type (-50 to 1300°C) and E-type (-50 to 1000°C), Type J (-50 to 1000°C) and Type Ni (-50 to 1000°C) thermocouples, switchable, default to Type K.
- ▲ Output Setting: 0-100% (Effective range 0-220 in temperature control mode and voltage regulation mode). Maximum single-output power (resistive load, under favorable ventilation and cooling conditions): Maximum 1000W.
- ▲ Two modes are available: zero-crossing phase control and phase shifting control, with zero-crossing phase control as the factory default. In the phase-shift voltage regulation working mode, the maximum conduction angle of phase-shift voltage regulation shall not be less than 170 degrees. Two-wire bus-type, universal standard MODBUS-RTU protocol, theoretically it supports up to 99 devices communicating on the same bus.
- ▲ Working Environment: Temperature 0-50°C, relative humidity not exceeding 85% in a non-corrosive atmosphere environment.

三、型号命名 Type Designation

ZK62-15-1KW-□

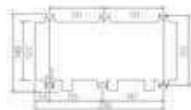
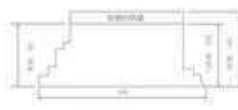
其它信息, 例: 升级序号, 订做功能代号等, 常规产品为空白。
Other information, e.g., upgrade sequence numbers, custom feature codes, etc. For standard products, leave blank.

可驱动阻性负载的最大功率值 1KW即为1千瓦。
The maximum power value that can drive a resistive load: 1kW, which is 1 kilowatt.

一体化多路组合温度调整器系列型号:
Integrated Multi-Channel Combination Temperature Regulator Series Model:
组合电压调整器级数 "15" 即为15级。
Combined voltage regulator stages: "15" means 15 circuits.

型号/Type	ZK62-15-1KW
底部尺寸(mm) Dimensions	360x65x46
横截面尺寸(mm) Dimensions	360x152

ZK72系列

底部平面图尺寸
Bottom plan dimensions横截面图尺寸
Dimensions of cross-sectional view

一、产品特点 Product Features

- ▲ 电压调整器以单片机为核心, 本组调整器具有较好的稳压/稳功性能。
- ▲ 具有良好的调整线性。
- ▲ 每个电压调整器可单独使用, 也可组合使用。
- ▲ 调整器采用 RS485总线接口及通用Modbus-RTU通信协议, 使接线更方便简洁, 触摸屏调用更方便。
- ▲ 具有"保护温度目标值"设置功能, 可明显改善移相前后的温度差异大的现象。
- ▲ 优势: 具有抗震性强, 可靠性好, 抗干扰能力强等优点。
- ▲ 应用范围: 广泛应用于注塑机等机械设备的温度调节。

- ▲ The voltage regulator is based on a microcontroller, and this group of regulators has good stability. Pressure/stability performance.
- ▲ Has good adjustment linearity.
- ▲ Each voltage regulator can be used individually or in combination.
- ▲ The adjuster adopts RS485 bus interface and universal Modbus-RTU communication protocol. Make the wiring more convenient and concise, and the touch screen call more convenient.
- ▲ It has the function of setting "target values for furnace relocation", which can significantly improve the performance before and after furnace relocation. The phenomenon of large temperature differences.
- ▲ Advantages: It has strong seismic resistance, good reliability, and strong anti-interference ability.
- ▲ Application scope: Widely applicable for temperature regulation of mechanical equipment such as vacuum forming machines.

二、产品性能 Product Performance

- ▲ 电源输入: 单相(AC220V±10%)或三相四线(AC380V±10%)输入, 50/60Hz通用(本机功耗功率小于5W, 总功率取决于负载功率)。
- ▲ 每路独立自保护保险丝保护装置(保险丝容量根据功率不同有10A/250V/15A/250V和20A/250V三种), 并有保险丝开路指示功能。
- ▲ 移相调功和过零调功输出模式可切换(默认为移相调功), 输出电压: AC0~200V, 移相调压最大导通角: 不小于170°(过零调功0~100%)。
- ▲ 一路温度测量支持K(-50~1300°C), E(-50~1000°C), R(-50~1000°C), Ni(-50~1000°C)型热电偶, 可切换默认类型, 测量精度±0.5%。
- ▲ 输出功率(驱动阻性负载)单路输出最小功率不小于100W, 最大通风散热条件下功率: 1000W, 1500W和3000W三个系列。
- ▲ 工作环境: 温度0~50°C, 相对湿度不超过85%的无腐蚀性气体场合。

- ▲ Power cord input, single-phase (AC220V±10%) or three-phase four wire (AC380V±10%) input, universal at 50/60Hz. (local power consumption is less than 5W, total power depends on load power).
- ▲ Each circuit is equipped with an independent fuse protection device (ZK7-15-3KW fuse capacity 10A, 250V; ZK7-5-15KW, Fuse capacity 15A, 250V). Fuse open circuit protection indication function.
- ▲ Output voltage: AC0~200V, Maximum conduction angle of phase-shifting voltage regulation not less than 170°.
- ▲ Output power (driving resistive load): The minimum power output of a single channel is not less than 100W, and the maximum power (under good ventilation and heat dissipation conditions) is divided into "1000W" and "1500W" (two series).
- ▲ Output power (driving resistive load): The minimum power output of a single channel shall not be less than 100W (under good ventilation and heat dissipation conditions), divided into "1000W" and "1500W" and "3000W" (three series).
- ▲ Working environment: Non-corrosive with a temperature of 0-50°C and a relative humidity not exceeding 85%. Gas environment.

三、型号命名 Type Designation

ZK72-12-□-□

空时为标准产品, 有其它代码产品其它信息。
The product is a standard item, other product details are available if other codes are present.

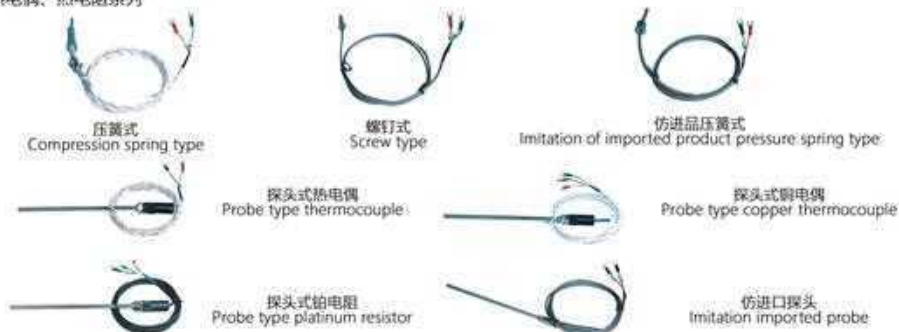
驱动阻性负载功率: 1KW 为1000W, 1.5KW 为1500W, 3KW 为3000W。
Driving resistive load power: 1KW is 1000W, 1.5KW is 1500W, and 3KW is 3000W.

组合电压调整器级数 "12" 即为12路输出, "15" 即为15路输出。
Number of series-connected voltage regulators: "12" indicates 12 output channels, "15" indicates 15 output channels.

一体化多路组合电压调整器系列号:
Integrated Multi-Channel Combinatorial Voltage Regulator Series Number:

型号/Type	ZK72-12-1KW	ZK72-12-1.5KW	ZK72-12-3KW
底部尺寸(mm) Dimensions	330x122x135		
横截面尺寸(mm) Dimensions	149X90	149X106	149X145

热电偶、热电阻系列



一、产品规格 Product Model

名称 Name	型号 Type	分度号 Graduation Mark	结构特征 Structure Character
压簧式热电偶 Compression Spring Type Thermocouple	WRWT-01	E(EA-2)	固定螺纹 Tixed screw thread
	WRNT-01	K(EU-2)	固定螺纹 Tixed screw thread
	仿进口 Imitation Imports	E, K, J	英制螺纹 British screw thread
螺钉式热电偶 Screw Nail Type Thermocouple	RWET-02	E(EA-2)	固定螺纹 Tixed screw thread
	RWNT-02	K(EU-2)	固定螺纹 Tixed screw thread
	仿进口 Imitation Imports	E, K, J	英制螺纹 British screw thread
探头式热电偶 Probe Type Thermocouple	WRPT-03	E(EA-2)	固定螺纹 Tixed screw thread
	WRNT-03	K(EU-2)	固定螺纹 Tixed screw thread
	仿进口 Imitation Imports	E, K, J, Pt100	英制螺纹 British screw thread
探头式热电阻 Probe Type Thermal Resistance	WZCT-03	Cu50 G	固定螺纹 Tixed screw thread
	WZPT-03	Pt100, Pt10	固定螺纹 Tixed screw thread

二、型号命名 Type Designation



HN-DP系列



一、产品特点 Product Features

- ▲ 经济型的数字式显示仪表。
- ▲ 具有测量精度高、稳定性好、读数直观、抗干扰能力强等特点。
- ▲ 应用范围：可广泛应用于各种电压等级的城乡变电站、发电厂、企事业单位配电室、智能大厦/小区、冶金、石化、机场、铁路、港口、医院、学校、市政等诸多领域。

- ▲ Economical digital display instrument.
- ▲ It has the characteristics of high measurement accuracy, good stability, intuitive reading, and strong anti-interference ability.
- ▲ Application scope: It can be widely used in various voltage levels of urban and rural substations, power plants, power distribution rooms of enterprises/institutions, intelligent buildings/communities, metallurgy, petrochemicals, airports, railways, ports, hospitals, schools, municipal and many other fields.

二、产品性能 Product Performance

- ▲ 电压表：直接测量，DC，AC0-600V，外附装置：AC0-9999KV(外附)/100V互感器。
- ▲ 电流表：直接测量，DC，AC0-5A；外附装置：DC，AC0-9999KA(直流外附)/75mV分流器，交流外附/5A互感器。
- ▲ 类比表：模拟量直接输入，DC0-10V，0-20mA等，最大显示：-9999-9999。
- ▲ 温度表：对应各分度号全量程。
- ▲ 准确度： $\pm 0.5\%$ (2个半字温度表 $\pm 1/6$ FS ± 2 个字)。
- ▲ 采样速率：约1次/s，显示方式：四位LED数码管显示；分辨率：末位数一个半字。
- ▲ 辅助电源：AC220V $\pm 10\%$ (其它电源可订制)辅助电源功耗： < 3 VA。
- ▲ 溢出指示：正超出显示 HHHH，负超出显示 LLLL。
- ▲ 高低表极性指示：负信号自动显示“-”号，正信号不显示。
- ▲ 工作环境：温度-20-60℃，湿度 $\leq 85\%$ RH(无腐蚀性气体场合)。

- ▲ Voltage meter: direct measurement, DC, AC0-600V External device: AC0-9999KV (external /100V transformer).
- ▲ Ammeter: Direct measurement, DC, AC0-5A External device: DC, AC0-9999KA (DC external /75mV); Diverter, AC external /5A transformer).
- ▲ Analogy table: Analog input directly, DC0-10V, 0-20mA, etc; Maximum display: -9999-9999.
- ▲ Temperature gauge: corresponding to the full range of each division mark.
- ▲ Accuracy: $\pm 0.5\%$ FS ± 2 words (thermometer $\pm 1/6$ FS ± 2 words).
- ▲ Sampling rate: about 3 times/s; Display mode: Four digit LED digital display; Resolution: Last digit of one word.
- ▲ Auxiliary power supply: AC220V $\pm 10\%$ (other power supplies can be customized); Auxiliary power consumption ≤ 3 VA.
- ▲ Overflow indication: HHHH is displayed for positive overflow, LLLL is displayed for negative overflow.
- ▲ Polarity indication of DC meter: Negative signal automatically displays a“-” sign, positive signal does not display.
- ▲ Working environment: Non corrosive gas environment with temperature of -20-60℃ and humidity $\leq 85\%$ RH.

三、型号命名 Type Designation



HN-SX系列



一、产品特点 Product Features:

- ▲ 经济型的数字式显示仪表。
- ▲ 具有测量精度高、稳定性好、读数直观、抗干扰能力强等特点。
- ▲ 应用范围：可广泛应用于各种电压等级的城乡变电站、发电厂、企事业单位变电站、智能大厦/小区、冶金、石化、机场、铁路、港口、医院、学校、市政等诸多领域。

二、产品性能 Product Performance

- ▲ 电压表：直接测量：DC、AC0-600V，外附装置：AC0-9999KV(外附1/100互感器)。
- ▲ 电流表：直接测量：DC、AC0-5A；外附装置：DC、AC0-9999KA(直流外附1/75mV分流器，交流外附1/5A互感器)。
- ▲ 类比表：模拟量直接输入，DC0-10V，0-20mA等，最大显示：-9999-9999(注：HN1205X最大显示-99-999)。
- ▲ 温度表：对应表分度号全量程。
- ▲ 准确度： $\pm 0.5\%$ FS+2个字(温度表 $\pm 0.5\%$ FS+2个字)。
- ▲ 采样速率：约3次/s，显示方式：四位LED数码管显示，分辨率：末位数字一个。
- ▲ 辅助电源：AC220V $\pm 10\%$ (其它电源可订做)；辅助电源功耗： $\leq 3VA$ 。
- ▲ 溢出指示：正溢出显示HHHH，负溢出显示LLLL。
- ▲ 直流表极性指示：负信号自动显示“-”号，正信号不显示。
- ▲ 工作环境：温度+20-60℃，湿度 $\leq 85\%$ RH(无腐蚀性气体场合)。

- ▲ Economical digital display instrument.
- ▲ It has the characteristics of high measurement accuracy, good stability, intuitive reading and strong anti-interference ability.
- ▲ Application scope: It can be widely used in various voltage levels of urban and rural substations, power plants, power distribution rooms of enterprises/institutions, intelligent buildings/com munities, metallurgy, petrochemicals, airports, railways, ports, hospitals, schools, municipal and many other fields.

三、型号命名 Type Designation

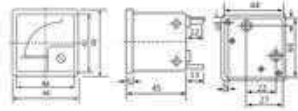
- HN①SX②③/④⑤
- 其它：如订做类编号等。 Others such as customized class codes etc.
 - 仪表工作电源：如220VAC、12、24等。 Instrument working power supply: such as 220VAC, 12/24, etc.
 - 输入信号：如AC500V、AC5A、DC0-10V等。 Input signals: such as AC500V, AC5A, DC0-10V, etc.
 - 显示范围：如1500rpm、50.0Hz、500V、100.0A等。 Display range: such as 1500rpm, 50.0Hz, 500V, 100.0A, etc.

仪表外形选择：如下表格所述。 Instrument appearance selection: as described in the table below.

型号 Type	HN-725X	HN-805X	HN-245X	HN-1205X
外形尺寸(mm) Dimensions	72X64X48	80X42X50	96X48X98	124X120X110
开孔尺寸(mm) Dimensions	69X34	73X40	91X45	230X105

HN-48

外形/开孔尺寸(毫米)
Appearance and opening size

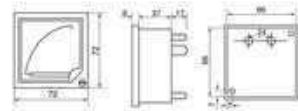


外形尺寸 External dimensions 48x48
开孔尺寸 Hole size 45x45

- 名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
COSφ 功率因数表 Single Phase Power Factor Meter;
Hz 频率表 Frequency Meter;
等级 Class: 1.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 75A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 75A in addition;
DCV: 1-600V, 750, 1000, 1500V 附 F1-17; 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 75A以上配电流互感器, 过载 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand
80-120V, 180-220V, 300-450V;
COSφ: 220V/5A, 380V/5A;
Hz: 45-55, 55-65Hz; 电压: 220, 380.

HN-72/722

外形/开孔尺寸(毫米)
Appearance and opening size



外形尺寸 External dimensions 72x72
开孔尺寸 Hole size 68x68

- 名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
COSφ 功率因数表 Single Phase Power Factor Meter;
Hz 频率表 Frequency Meter;
等级 Class: 1.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 75A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 75A in addition;
DCV: 1-600V, 750, 1000, 1500V 附 F1-17; 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 75A以上配电流互感器, 过载 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand
80-120V, 180-220V, 300-450V;
COSφ: 220V/5A, 380V/5A;
Hz: 45-55, 55-65Hz; 电压: 220, 380V.

HN-6L2/6C2

外形/开孔尺寸(毫米)
Appearance and opening size

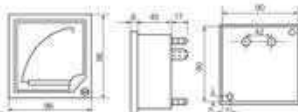


外形尺寸 External dimensions 82x82
开孔尺寸 Hole size 78x78

- 名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
COSφ 功率因数表 Single Phase Power Factor Meter;
Hz 频率表 Frequency Meter;
等级 Class: 1.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 75A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 75A in addition;
DCV: 1-600V, 750, 1000, 1500V 附 F1-17; 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 75A以上配电流互感器, 过载 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand
80-120V, 180-220V, 300-450V;
COSφ: 220V/5A, 380V/5A;
Hz: 45-55, 55-65Hz; 电压: 220, 380V.

HN-96

外形/开孔尺寸(毫米)
Appearance and opening size

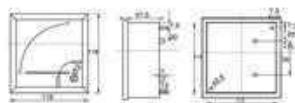


外形尺寸 External dimensions 96x96
开孔尺寸 Hole size 92x92

- 名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
COSφ 功率因数表 Single Phase Power Factor Meter;
Hz 频率表 Frequency Meter;
等级 Class: 1.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 75A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 75A in addition;
DCV: 1-600V, 750, 1000, 1500V 附 F1-17; 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 75A以上配电流互感器, 过载 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand
80-120V, 180-220V, 300-450V;
COSφ: 220V/5A, 380V/5A;
Hz: 45-55, 55-65Hz; 电压: 220, 380V.

HN-42C3/42L6

外形/开孔尺寸(毫米)
Appearance and opening size

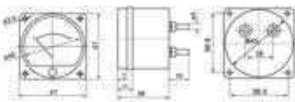


外形尺寸 External dimensions 118x118
开孔尺寸 Hole size 114x114

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
COSφ 功率因数表 Single Phase Power Factor Meter;
Hz 频率表 Frequency Meter;
等级 Class: 1.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 75A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 75Ain addition;
DCV: 1-600V, 750, 1000, 1500V附 FJ-17; 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 75A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;
COSφ: 220V/5A, 380V/5A;
Hz: 45-55, 55-65Hz; 电压: 220, 380V;

HN-45

外形/开孔尺寸(毫米)
Appearance and opening size

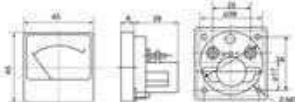


外形尺寸 External dimensions 47x47
安装尺寸 Installation size 36.5x36.5
开孔尺寸 Dimension Φ47

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-91C4/91L4

外形/开孔尺寸(毫米)
Appearance and opening size

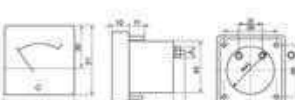


外形尺寸 External dimensions 45x45
安装尺寸 Installation size 34x34
开孔尺寸 Dimension Φ40

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-50

外形/开孔尺寸(毫米)
Appearance and opening size

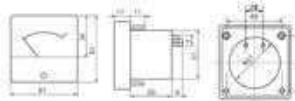


外形尺寸 External dimensions 51x51
安装尺寸 Installation size 38x38
开孔尺寸 Dimension Φ47

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-60

外形/开孔尺寸(毫米)
Appearance and opening size



外形尺寸 External dimensions 61x61
安装尺寸 Installation size 49x49
开孔尺寸 Dimension Φ52

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-65

外形/开孔尺寸(毫米)
Appearance and opening size

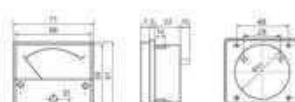


外形尺寸 External dimensions 65.5x65.5
安装尺寸 Installation size 50.5x50.5
开孔尺寸 Dimension Φ54

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-670

外形/开孔尺寸(毫米)
Appearance and opening size



外形尺寸 External dimensions 71x61
安装尺寸 Installation size 48x48
开孔尺寸 Dimension Φ52

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-680

外形/开孔尺寸(毫米)
Appearance and opening size

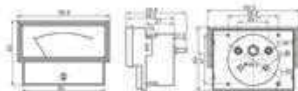


外形尺寸 External dimensions 80x60
安装尺寸 Installation size 48x47
开孔尺寸 Dimension Φ52

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50Ain addition;
DCV: 1-600, 600V以上电压配 FJ-17 定值电阻器;
Attach FJ-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V, Expand 80-120V, 180-220V, 300-450V;

HN-680-K

外形/开孔尺寸(毫米) Appearance and opening size



外形尺寸 External dimensions 89 8x63
安装尺寸 Installation size 48 4x47.7
开孔尺寸 Dimension Φ 52

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-80

外形/开孔尺寸(毫米) Appearance and opening size

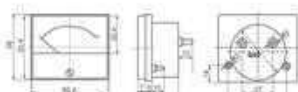


外形尺寸 External dimensions 81x81
安装尺寸 Installation size 66x66
开孔尺寸 Dimension Φ 65

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-85

外形/开孔尺寸(毫米) Appearance and opening size

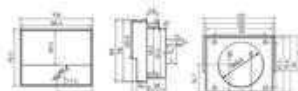


外形尺寸 External dimensions 68x58
安装尺寸 Installation size 51
开孔尺寸 Dimension Φ 51

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-100S

外形/开孔尺寸(毫米) Appearance and opening size

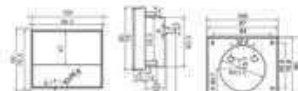


外形尺寸 External dimensions 100x78.5
安装尺寸 Installation size 83x62.5
开孔尺寸 Dimension Φ 66

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-100S-K

外形/开孔尺寸(毫米) Appearance and opening size

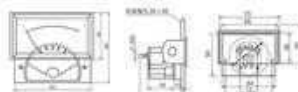


外形尺寸 External dimensions 100x80
安装尺寸 Installation size 83x62.8
开孔尺寸 Dimension Φ 65

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-85L17

外形/开孔尺寸(毫米) Appearance and opening size

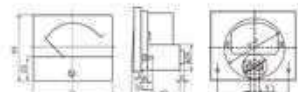


外形尺寸 External dimensions 64x59
安装尺寸 Installation size 49
开孔尺寸 Dimension Φ 50

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-69L9/69L13

外形/开孔尺寸(毫米) Appearance and opening size

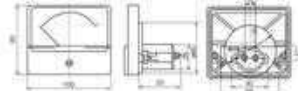


外形尺寸 External dimensions 79x65
安装尺寸 Installation size 62
开孔尺寸 Dimension Φ 60

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

HN-44C2/44L1

外形/开孔尺寸(毫米) Appearance and opening size



外形尺寸 External dimensions 100x80
安装尺寸 Installation size 68
开孔尺寸 Dimension Φ 60

名称 Description:
直流电流表 DCA Meter; 直流电压表 DCV Meter;
交流电流表 ACA Meter; 交流电压表 ACV Meter;
等级 Class: 2.5
测量范围 Measuring Range:
DCA: 1-500mA, 1-50A, 50A以上外附 FL-2 分流器;
Attach FL-2 Shunt over 50A in addition;
DCV: 1-600, 600V以上电压配 F1-17 定值电阻器;
Attach F1-17 Constant Resistor;
ACA: 0.5-50A; 50A以上配电流互感器, 过载 0.5A, 5A;
Equipped with current transformers above 75A, overload 0.5A, 5A;
ACV: 3-600V 展开 80-120V, 180-220V, 300-450V Expand
80-120V, 180-220V, 300-450V;

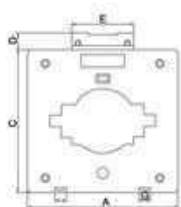
MSQ(出口型)系列电流互感器 Series Current Transformers



MSQ-30(Small)
BH=0.66-30(Small)



MSQ-60
BH=0.66-60



MSQ结构图 Outer drawing of MSQ



一、技术参数 Technical Data

- ▲ 电流互感器根据IEC-185标准生产
 - ▲ 精度等级：0.5-1.0(见表格)
 - ▲ 额定电压：600V(见表格)
 - ▲ 额定二次电流：5A(或1A)
 - ▲ 保安系数：F55
 - ▲ 工作温度范围：-20℃~+65℃
 - ▲ 外壳由ABS塑料材料制造
 - ▲ 二次电流输出的端子有端子保护罩
 - ▲ 用于互感器安装的配件有三件
- ▲ The current transformer is produced according to the IEC-185 standard
 - ▲ Accuracy level: 0.5-1.0 (see table)
 - ▲ Rated voltage: 600V (see table)
 - ▲ Rated secondary current: 5A (or 1A)
 - ▲ Security coefficient: F55
 - ▲ Working temperature range: -20℃~+65℃
 - ▲ The shell is made of ABS plastic material
 - ▲ The terminal for secondary current output has a terminal protection cover
 - ▲ There are three accessories used for the installation of transformers

二、产品规格 Product Model

单位 Unit: mm

型号 Type	A	B	C	D	E	F	G	H
MSQ-30(Small)	60	36	67	17	60	31	10	59
MSQ-30	75	43	82	17	60	31	10	71
MSQ-40	75	43	82	17	60	31	10	71
MSQ-60	101	44	111	17	60	31	10	71
MSQ-100	145	45	139	17	60	31	10	72
MSQ-130	196	46	210	17	60	34	11	72

型号 Type	额定电流一次/二次 Rated Current(A) Primary/Secondary	汇流排安装孔尺寸 Busbar Hole Dimension(mm)	额定负载 Rated Burden(VA)	精度等级 Accuracy Class	额定电压 Rated Voltage (V)	额定频率 Rated Frequency (Hz)
MSQ-30	30/5A-300/5A	30X10	1.5-2.5	0.5-1.0	600	50/60
MSQ-40	150/5A-800/5A	40X10	5-10	1.0-0.5	600	50/60
MSQ-60	400/5A-1200/5A	60X20	5-10	1.0-0.5	600	50/60
MSQ-100	800/5A-3000/5A	100X10	15	1.0-0.5	600	50/60
MSQ-130	1500/5A-5500/5A	130X10	15	1.0-0.5	600	50/60

Enterprise qualification

www.aoyidq.cn

企业资质

奥仪以质量立业，严把质量关，不断完善以客户为中心的管理模式，实行质量多元化管理，用先进可靠的质量检测设备进行完善的产品性能检测。

AOYI is strictly controlling the product quality and unceasingly improving the customer-oriented management. We carry out complete product performance inspection with the advanced and reliable testing and inspection machine.



HuangShan AOYI Electric CO.,LTD.