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SAIP ELECTRIC GROUP CO., LTD.

北京·上海·广州·温州·烟台·丽水

Beijing · Shanghai · Guangzhou · Wenzhou · Yantai · Lishui

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Products Manual

Thermostat & Heater
温控器、加热器选型手册

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关于斯普威尔

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Us.

斯普威尔电气是赛普电气集团旗下的电气公司，是全球箱体领域的引领者。主要业务涉及电气机柜、IT机柜、成套电器和新能源产品等核心领域。自2006年成立以来，一直助力产品的提质升级，传递安全、智能和幸福的价值理念。

斯普威尔电气引进国外资深管理与经验丰富的专业人事，以严谨的管理、有创意的研发团队、先进的营销理念，在传统产品的基础上创造和发展了更具前沿感、设计感和良好性价比的产品。

斯普威尔电气设有3大营销公司，分别在上海宝山、广州增城、温州瓯江口；4大生产基地，分布在浙江温州、浙江乐清、浙江丽水、山东烟台；并拥有超过100家的代理和遍布全球的销售网络。

提供产品，更提供智慧。斯普威尔与多家国际化公司建立了良好的长期合作伙伴关系，并一如既往地坚持“合作发展，共同提高”的服务宗旨，以真诚的合作态度来最大程度地满足客户的需求，助力电气行业实现可持续发展的期望，确立全球市场的领先地位。

Saipwell Electricity is a subsidiary of Saip Electric Group and is a leader in the global enclosure market. Its main business involves the manufacturing of electrical and IT enclosures, assembly of whole electrical switchgear systems and development of enclosures for use in new energy solutions. Since our company's inception in 2006, we have been improving and upgrading the quality of our products as we work towards our goal of delivering happiness to our customers through their use of our safe and intelligent products.

Saipwell Electricity has been actively recruiting employees with management experience in both local and foreign companies. With this wealth of experience, creative marketing strategies and innovative R&D, we strive to create and develop more cutting-edge, cost-effective and well-designed products than their predecessors.

Saipwell Electricity has 3 authorized distributors in Baoshan (Shanghai), Zengcheng (Guangzhou), Oujiangkou (Wenzhou) and a total of 4 production sites in Wenzhou (Zhejiang), Yueqing (Zhejiang), Lishui (Zhejiang), Yantai (Shandong). We also have a global sales network of more than 100 agents supporting our customers worldwide.

We provide not just products, but also solutions to our customers. Saipwell has established good long-term partnerships with many international companies over the years. Together with our partners, we aim to achieve our mission of collective development and improvement by adopting a sincere attitude in meeting the needs of our customers; and in the process play a role in helping the Chinese electrical industry establish sustainable development and a leading position in the global electrical market.



BRAND STORY.

品牌故事

SAIPWELL ELEC.

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斯普威尔logo形似一只可爱灵动的海豚，用它的灵性与友好向世人传递着美好、快乐与幸福。

早在古希腊人们就很喜欢海豚，他们认为看到海豚在船周围的波浪中是一个好兆头。传说阿里翁曾被所乘船上的水手抢劫，被迫跳海，一只海豚被他的歌声打动，因而把他救上岸。直至今日，海豚这种大海里的精灵仍然深受全世界人民的喜爱，一直在人类文化中扮演着重要的角色。斯普威尔也有着海豚般的聪慧与友爱，在您最需要我们的时候为您提供最大的支持，用我们的灵感和智慧，用最靠谱的性格，成为您最真诚的伙伴。

The inspiration of our logo came from the cute-looking dolphin and its spirit of friendliness and ability to bring happiness to everyone around it.

Since ancient Greek times, dolphins are well-loved animals and it is thought to be a good sign if one sees them in the waves or waters. Legend has it that Arion was robbed by sailors in his boat and forced to jump into the sea. Moved by his singing, a dolphin rescued him to shore. Today, dolphins, the spirits of the sea, are loved by people all over the world and play an important role in human culture. Saipwell too, with a dolphin-like intelligence and friendship will provide you with the greatest support when you need it. Using our inspiration and knowledge, we hope to become your most reliable and sincere partner.

Vision.

公司愿景



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“创领未来箱体”这一公司愿景恰恰反映了我们希望为世界带来积极的影响。斯普威尔拥有强大的研发设计能力，目前已拥有20余项箱体专利技术和著作权。最新落成的温州生产基地采用柔性钣金生产线（FMS），箱体的生产实现了自动上下料、自动切割、自动冲剪、机器人折弯、机器人焊接、交互式PU发泡和理光UV彩色打印。

专注研发生产和科技投入，这是斯普威尔扎根行业发展恒久不变的基调，未来的每一步成长，我们都愿意与您共同参与，相濡以沫，携手并进。

Creating Enclosures of the Future. This enterprise vision reflects our desire to make a positive impact on the world. Saipwell has strong R&D and design capabilities and currently has more than 20 enclosure design trademarks and technology patents. Our newly completed Wenzhou production base is fitted with an automated flexible sheet metal production line (FMS). Through automatic loading and unloading, automatic punching and cutting, robot bending, robot welding, interactive PU foaming and Ricoh UV color printing, product precision and costs efficiencies are achieved.

A focus on R&D and technological investments will continue to be cornerstones of Saipwell's development. We look forward to you participating in every step of our growth and making progress together, hand in hand.



铸造充满幸福的产品

To create products that deliver happiness to everyone





Concept.

经营理念 

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商业原则
BUSINESS
PRINCIPLE

做简单的生意 简单地做生意
To conduct business in a simple
straightforward manner.

企业精神
CORPORATE
SPIRIT

耐心 细心
Patience Dedication

人生观
HUMAN
PRINCIPLE

客户至上 员工第一
Customers are our topmost priority,
followed by our employees and stakeholders

工作观
WORKING
PRINCIPLE

快乐工作 幸福生活
To work and live happily

产品观
PRODUCT
PRINCIPLE

文化电气 / 幸福电气 / 品质电气 / 信息电气 / 便捷电气
To manufacture quality, innovative products that bring
convenience to its users

Value.

价值观



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平等——人人平等

拼搏——全力以赴，付出不亚于任何人的努力

创新——思想创新、产品创新、管理创新

信任——相信别人并敢于托付

感恩——活着就要感谢

利他——积善行，思利他

Equality – Everyone is equal

Fighting Spirit – Putting in the best effort in everything

Innovation – Innovative & creative product development and management

Trust – To trust and be trusted

Gratitude – Be grateful and appreciative

Altruism – Do good deeds and be considerate of others

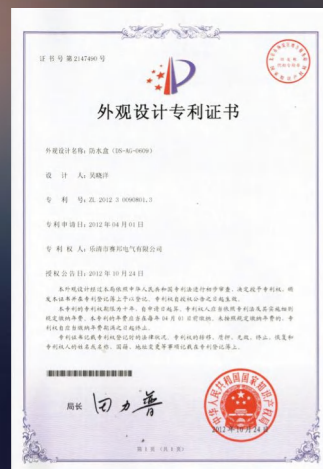
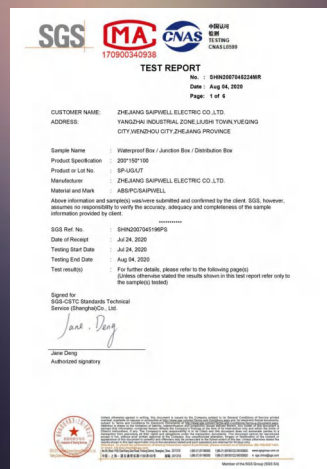


Honor

斯普威尔的证书 +

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铸造充满幸福的产品

To create products
that deliver happiness to everyone

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RCE016 5W, 9W

产品特性 Features

- 温度限定 Temperature limiting
- 电压范围宽 Wide voltage range
- 高效加热 Dynamic heating up
- 节能 Energy saving
- 轻巧 Compact

小型加热器主要用于开关箱，可预防产生凝露。

Small heaters designed to prevent condensation and to ensure a minimum operating temperature in small enclosures.

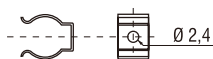
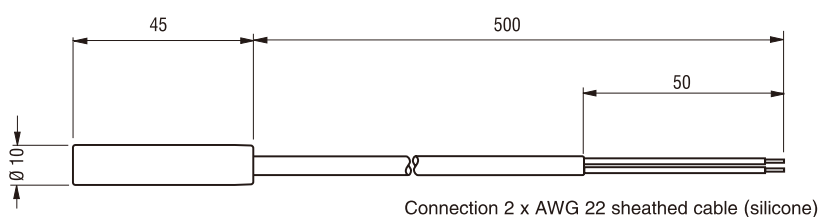
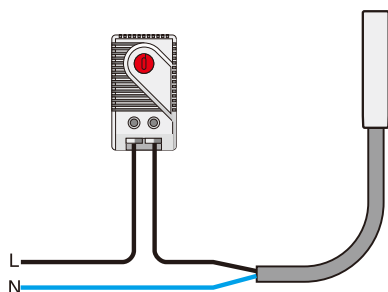
技术参数 Technical Data

操作电压 Operating voltage	120-240V AC/DC (min. 110V, max. 265V)
发热元件 Heating element	PTC发热体 resistor, self regulating and temperature limiting
放热体 Heater body	阳极处理铝型材 aluminium, anodised
安装方式 Connection	螺丝安装 screw fixing
安装位置 Installation position	任选 variable
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP32 / II (double insulated)
外观尺寸 Dimensions	长度45mm, 直径10mm length 45mm, $\Phi 10$ mm
配件 Accessories	安装夹 mounting clips (see illustration), Art.No.09008.0-01

*Operating with voltages below 140V AC/DC reduces heating performance by approx.10%.

Example of connection

Thermostat KTO 011(NC)
(contact breaker, normally closed) Heater RCE 016



Mounting clips Art. No. 09008.0-01 (1 packing unit = 2 pieces)

订货代码 Art. No.	功率 (50Hz) Heating capacity	最大电流 Inrush current max.	表面温度 Surface temperature (approx.)	接线方式 Connection	重量 Weight (approx.)
01623.0-00	5W	2.0A	165°C	2xAWG 22 sheathed cable(silicone)	20g
01622.0-00	9W	2.5A	175°C	2xAWG 22 sheathed cable(silicone)	20g

*at 20°C (68°F) ambient temperature

RC 016 8W,10W,13W

产品特性 Features

- 温度限定 Temperature limiting
- 电压范围宽 Wide voltage range
- 高效加热 Dynamic heating up
- 节能 Energy saving
- 轻巧 Compact

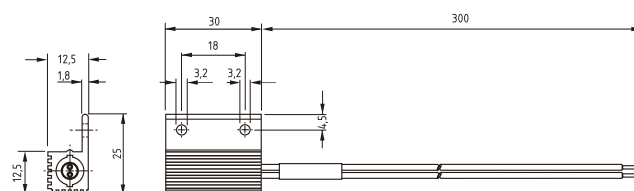
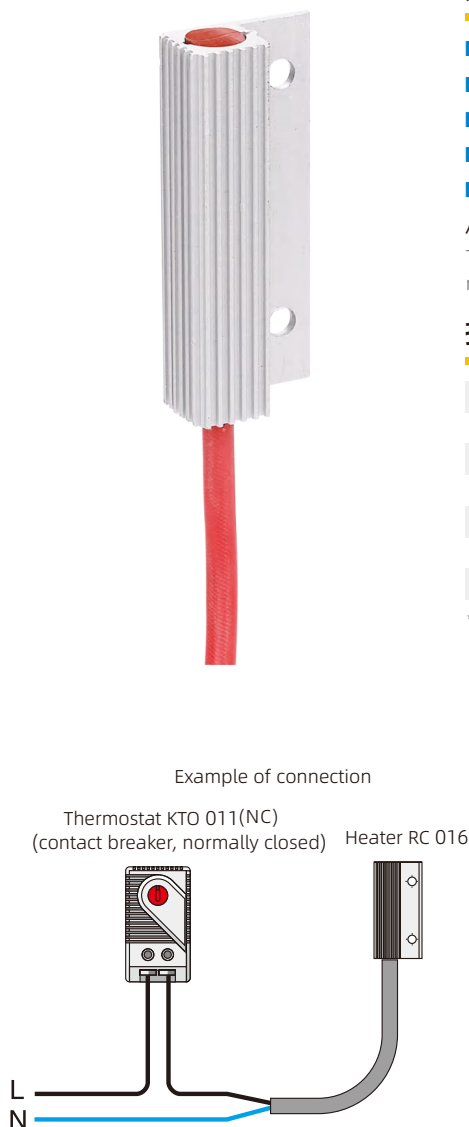
小型加热器主要用于开关箱，可预防产生凝露。

These small heaters are designed to prevent condensation and to ensure a minimum operating temperature in small enclosures.

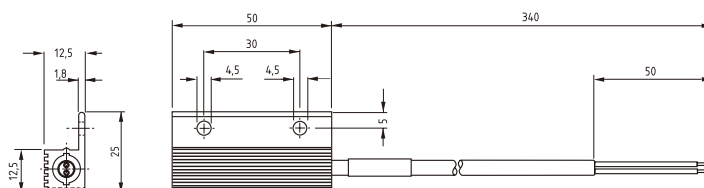
技术参数 Technical Data

操作电压 Operating voltage	120-240V AC/DC (min. 110V, max. 265V)
发热元件 Heating element	PTC 发热体 resistor, self regulating and temperature limiting
放热体 Heater body	阳极处理铝型材 aluminium, anodised
安装方式 Connection	螺丝安装 screw fixing
安装位置 Installation position	任选 variable
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP32 / II (double insulated)

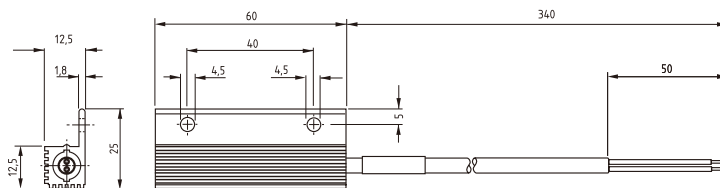
*Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.



Art. No. 01602.0-00: Connection 2 x AWG 18 stranded wire



Art. No. 01609.0-00: Connection 2 x AWG 22 sheathed cable (silicone)



Art. No. 01610.0-00: Connection 2 x AWG 22 sheathed cable (silicone)

订货代码 Art. No.	功率 Heating capacity	最大电流 Inrush current max.	表面温度 Surface temperature (approx.)	接线方式 Connection	重量 Weight (approx.)
01602.0-00	8W	2.0A	150°C	2 x AWG 18 stranded wire	20g
01609.0-00	10W	2.5A	155°C	2 x AWG 22 sheathed cable (silicone)	30g
01610.0-00	13W	3.0A	170°C	2 x AWG 22 sheathed cable (silicone)	40g

*at 20°C (68°F) ambient temperature



HGK 047 10W -30W

产品特性 Features

- 高效加热 Dynamic heating up
- 节能 Energy saving
- 电压范围宽 Wide voltage range
- 温度限定 Temperature limiting
- 导轨安装 DIN rail mounted

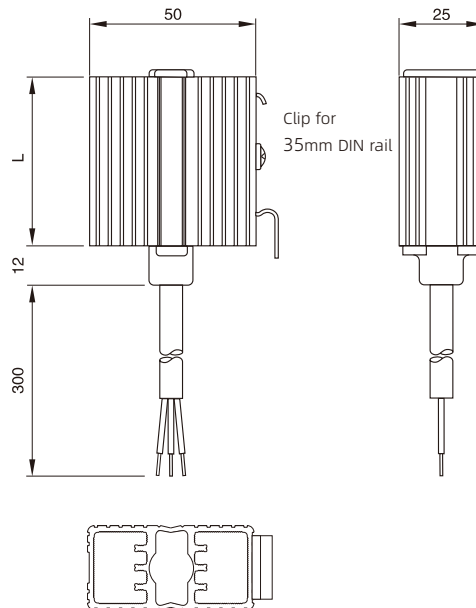
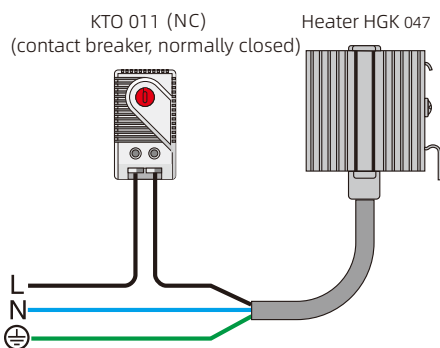
加热器主要用于开关箱，可避免产生凝露，预防温度降至零下或降至最小需求值时，用此方法可避免生锈，确保箱内温度恒定。

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured.

技术参数 Technical Data

发热元件 Heating element	PTC发热体，自我调节和温度控制 PTC resistor, self regulating and temperature limiting
发热体 Heater body	阳极处理挤压铝型材 extruded aluminium profile, anodised
安装方式 Mounting	35mm 导轨安装, EN 50022 clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直方向 vertical
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP54 / I (earthed)

Example of connection



订货代码	操作电压	功率	电流最大值	长度(L)	重量	接线方式
Art. No.	Operating voltage	Heating capacity ¹⁾	Inrush current max.	Length (L)	Weight(approx.)	Connection
04700.0-00	120-240V AC/DC	10W	1.0A	50mm	0.10kg	3 x 0.5mm ² x 300mm sheathed cable(silicone) 护套电缆
04701.0-00	120-240V AC/DC	20W	2.5A	60mm	0.20kg	3 x 0.5mm ² x 300mm sheathed cable(silicone) 护套电缆
04702.0-00	120-240V AC/DC	30W	3.0A	70mm	0.20kg	3 x 0.5mm ² x 300mm sheathed cable(silicone) 护套电缆
04700.9-00	110-120V AC/DC	10W	1.0A	50mm	0.10kg	3 x AWG 20 x 300mm sheathed cable 护套电缆
04701.9-00	110-120V AC/DC	20W	1.5A	70mm	0.20kg	3 x AWG 20 x 300mm sheathed cable 护套电缆
04702.9-00	110-120V AC/DC	30W	1.5A	100mm	0.20kg	3 x AWG 20 x 300mm sheathed cable 护套电缆

1) at 20°C(68°F) ambient temperature

2) (min. 110V, max 265V) Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.



HG 040 15W -150W

产品特性 Features

- 高效加热 Dynamic heating up
- 节能 Energy saving
- 电压范围宽 Wide voltage range
- 温度限定 Temperature limiting
- 导轨安装 DIN rail mounted

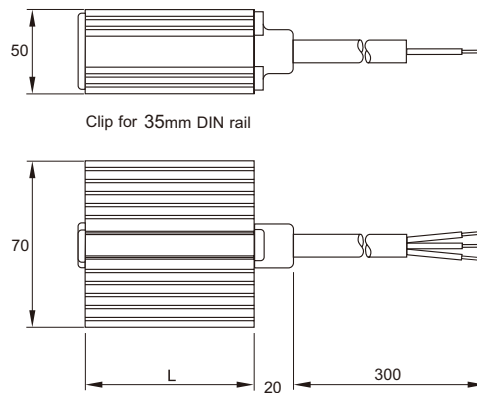
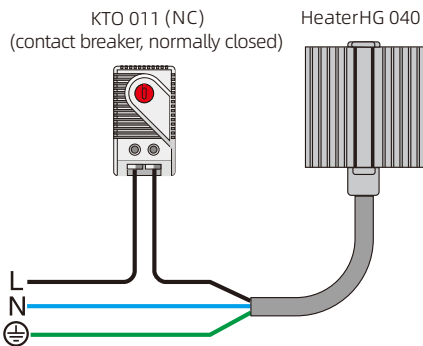
加热器主要用于开关箱，可避免产生凝露，预防温度降至零下或降至最小需求值时，用此方法可避免生锈，确保箱内温度恒定。

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured.

技术参数 Technical Data

操作电压 Operating voltage	120-240V AC/DC*(min.110V, Max.265V)
发热元件 Heating element	PTC发热体，自我调节和温度控制 PTC resistor, self regulating and temperature limiting
发热体 Heater body	阳极氧化挤压铝型材 extruded aluminium profile, anodised
安装方式 Mounting	35mm 导轨安装, EN50022 clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直方向 vertical
操作/储存环境 Operating/Storage temperature	-45 to +70 (-49 °C to +158°F)
防护等级 Protection type/Protection class	IP20 / I (earthed)

Example of connection



订货代码 Art. No.	功率 Heating capacity	最大电流 Inrush current max.	长度(L) Length (L)	重量 Weight (approx.)
04000.0-00	15W	0.5A	65mm	0.30kg
04001.0-00	30W	1.0A	65mm	0.30kg
04003.0-00	45W	1.0A	65mm	0.30kg
04005.0-00	60W	1.5A	140mm	0.50kg
04006.0-00	75W	1.8A	140mm	0.50kg
04007.0-00	100W	2.4A	140mm	0.50kg
04008.0-00	150W	4.5A	220mm	0.80kg

*at 20°C(68°F) ambient temperature



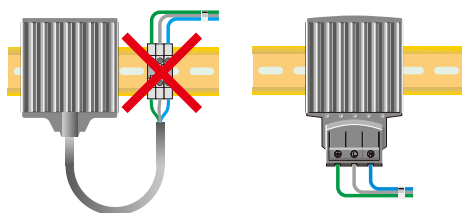
HG 140 15W -150W

产品特性 Features

- 端子式接线 Pressure clamp connectors
- 高效加热 Dynamic heating up
- 电压范围宽 Wide voltage range
- 温度限定 Temperature limiting
- 节能 Energy saving
- 导轨固定 DIN rail mounted
- 快速安装 Quick installation

电热器使用于开关箱当中预防产生凝露，防止温度降至零下或降至最低设定值。

These heaters are used in enclosures where damage from condensation must be prevented, or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

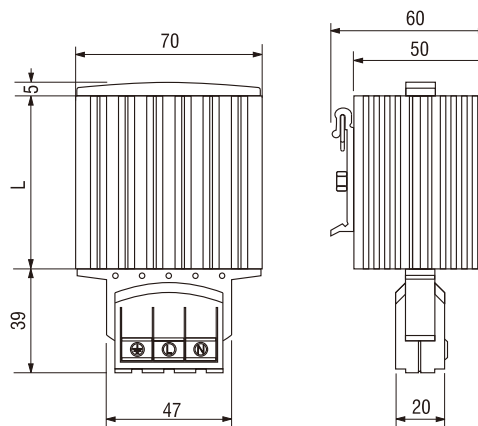
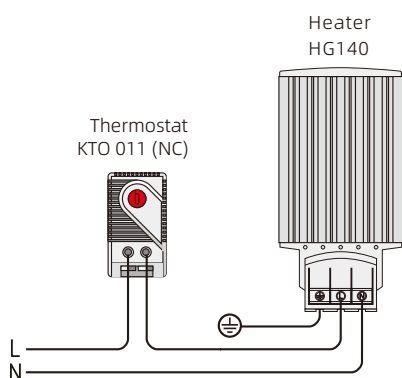


技术参数 Technical Data

操作电压 Operating voltage	120-240V AC/DC*(min.110V,max.265V)
发热原件 Heating element	PTC发热体 PTC resistor, self regulating and temperature limiting
发热体 Heater body	阳极处理挤压铝型材 extruded aluminium profile, anodised
接线方式 Connection	3个接线端子 接入线径 0.5-1.5mm ² 3 pressure clamps for stranded wire 0.5-1.5mm ² (with wire end ferrule) and rigid wire 0.5-2.5mm ²
外壳材料 Connection casing	黑色塑料, UL94V-0标准, V-0防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直 vertical
操作/储存环境 Operating/Storage temperature	-20 to +70°C (-4 to +158°F)
防护等级 Protection type/Protection class	IP54 / I (earthed)

*工作电压低于140VAC/DC时，加热性能降低约10%

*Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.



订货代码 Art. No.	功率 Heating capacity	最大电流 Inrush current max.	长度(L) Length (L)	重量 Weight (approx.)
14000.0-00	15W	1.5A	65mm	0.30kg
14001.0-00	30W	3.0A	65mm	0.30kg
14003.0-00	45W	3.5A	65mm	0.30kg
14004.0-00	50W	3.7A	65mm	0.30kg
14005.0-00	60W	2.5A	140mm	0.40kg
14006.0-00	75W	4.0A	140mm	0.50kg
14007.0-00	100W	4.5A	140mm	0.50kg
14008.0-00	150W	9.0A	220mm	0.70kg

*at 20°C(68°F) ambient temperature

CREx 020 50W, 100W

产品特性 Features

- 高效表面散热 Large convection surface
- 导轨安装 DIN rail mounted
- 使用方便 Ready for use
- 免维护 Maintenance free

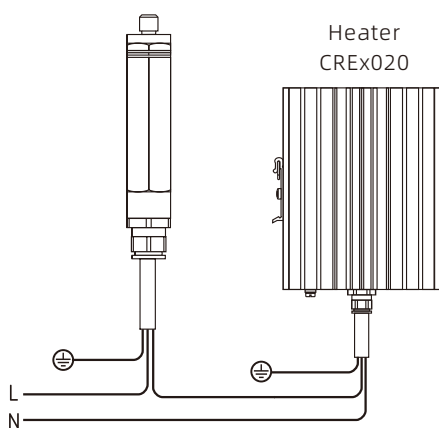
防爆加热器用于危险区域场所，防止因环境温度变化时形成凝露。

Compact convection heater for use in areas with explosion hazard for prevention of formation of condensation, temperature fluctuations and for protection against frost in transmitter housings, switch cabinets and measuring equipment.

技术参数 Technical Data

防爆认证EN Explosion protection according to EN	LCIE (Laboratoire Central des Industries Electriques)
符合的认证Conformity certificate	01 ATEX 6073/03, LCIE N°06 ATEX Q8011, IECEx LCI 07. 0020
发热元件Heating element	high performance cartridge
发热体Heater body	阳极处理铝合金aluminium profile, black anodised
接线方式Connection	Si HF-JZ 3 x 0.75mm ² cable, length 1m
连接PEConnection PE	4mm ²
安装方式Mounting	35mm 导轨安装 ,clip for 35mm DIN rail, EN 60715
安装位置Installation position	垂直方向vertical
操作/储存环境Operating/Storage temperature	-20 to +40°C(-4 to +104°F)/-45 to +70°C(-49 to +158°F)
防护等级Protection type/Protection class	IP65 / I (earthed)

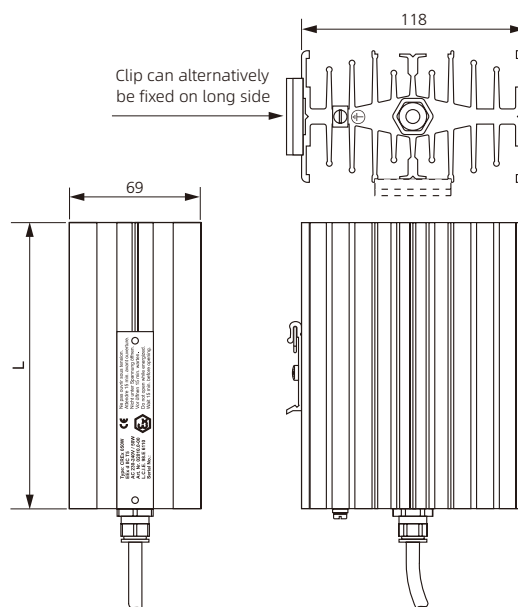
Hazardous Area Thermostat
REX 011



接线示意图 Example of connection



Hazardous area Thermostat REX 011
see page 39



订货代码 Art. No.	操作电压 Operating voltage	功率 Heating capacity	防爆保护类型 Ex protection type	表面温度 Surface temperature	长度(L) Length (L)	重量 Weight (approx.)
02010.0-00	230-240VAC	50W	Ex db IIC T4 Gb; Ex tb IIIC T130°C Db	100°F	150mm	1.30kg
02011.0-00	230-240VAC	100W	Ex db IIC T4 Gb; Ex tb IIIC T130°C Db	135°F	180mm	1.50kg
02010.0-01	110-120VAC	50W	Ex db IIC T4 Gb; Ex tb IIIC T130°C Db	100°F	150mm	1.30kg
02011.0-01	110-120VAC	100W	Ex db IIC T4 Gb; Ex tb IIIC T130°C Db	135°F	180mm	1.50kg



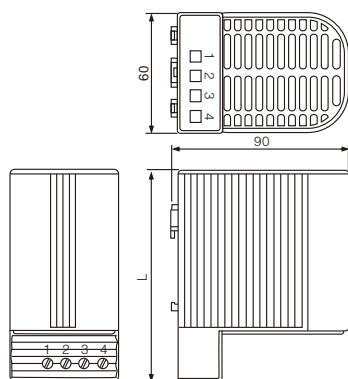
CS 060 50W-150W

产品特性 Features

- 表面温度低 Low surface temperature
- 导轨式安装 DIN rail mounted
- 双绝缘（塑料） Double insulated (plastic)
- 宽电压范围 Wide voltage range
- 小体积 Small size

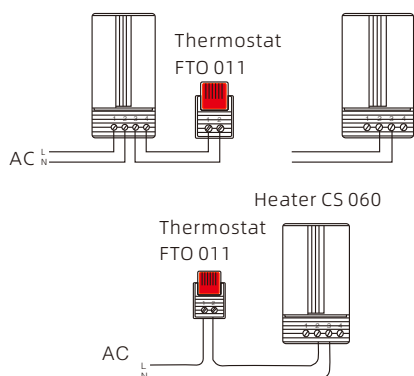
触摸安全型加热器主要用于有关电气和电子的配件的开关箱中，其设计采用自然对流方案，从产品加热体到外壳表面的设计采用温度逐渐降低的设计理念。我们全系列的温控器和湿度控制器均可直接连接到加热器CS 060上使用。其次该加热器也可与外挂恒温器连接，不用单独接线。

Touch-safe heater for the use in enclosures with electrical/electronic components. The design of the heater supports the natural convection which results in a high air-current of warm air. The surface temperatures on the accessible side surfaces of the housing are kept down as a result of the heater design. Our complete range of thermostats and hygrometers can directly be connected to the heater CS 060. This heater is also available in a version with plug-in thermostat requiring no additional wiring (CSF 060). Both versions are designed for permanent operation.



Heater CS 060

Heater CS 060



接线示意图
Examples of connection

技术参数 Technical Data

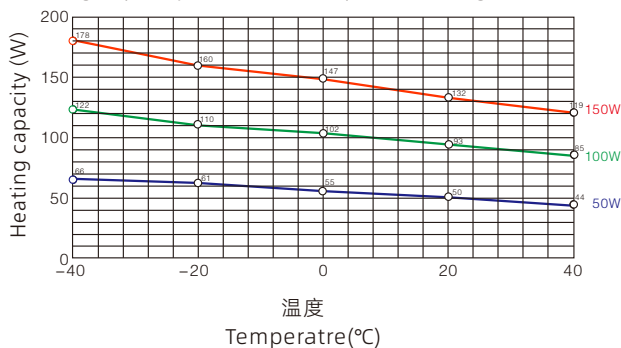
操作电压 Operating voltage	120-240V AC/DC* (min.110V, max.265V)
加热功率 Heating capacity	见下表 see table
加热原件 Heater element	PTC 限温元件 PTC resistor-temperature limiting
表面温度 Surface temperature	除了上部防护的网格均 <80°C (176°F) <80°C (176°F), except upper protective grille
接线方式 Connection	螺丝 4-pole terminal 2.5mm ² , torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0标准, V-0防火等级 Plastic according to UL94-V-0, black
安装方式 Mounting	35mm 导轨安装 clip for 35mm DIN rail, EN 50022
安装位置 Installation position	垂直 Vertical
操作储存环境 Operating/storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20/II (double insulated)
认证 Approvals	CE
注意 Note	其他电压可定做 other voltages on request

*工作电压低于140VAC/DC时，加热性能降低约10%

*Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.

加热功率

Heating capacity / Ambient temperature diagram CS 060



订货代码 Art. No.	功率 Heating capacity	电流最大值 Inrush current max.	空气出口温度 Air outlet temperature	尺寸 Dimensions	重量 Weight (approx.)
06000.0-00	50W	2.5A	+86°C (186.8°F)	110x60x90mm	0.30kg
06010.0-00	100W	4.5A	+120°C (248°F)	110x60x90mm	0.30kg
06020.0-00	150W	8A	+145°C (293°F)	150x60x90mm	0.30kg

1) ambient temperature-see Heating capacity/Ambient temperature diagram; 2) measured 50mm above protective grille;



CSF 060 50W-150W

产品特性 Features

- 表面温度低 Low surface temperature
- 导轨式安装 DIN rail mounted
- 双绝缘 (塑料) Double insulated (plastic)
- 宽电压范围 Wide voltage range
- 小体积 Small size
- 智能温控器 Integrated thermostat

触摸安全型加热器主要用于有关电气和电子配件的开关箱中, 其设计采用自然对流方案, 从产品加热体到外壳表面的设计采用温度逐渐降低的设计理念, 该加热器也可与外挂恒温器连接, 不用单独接线, 也可以在不加温控器的情况下使用。

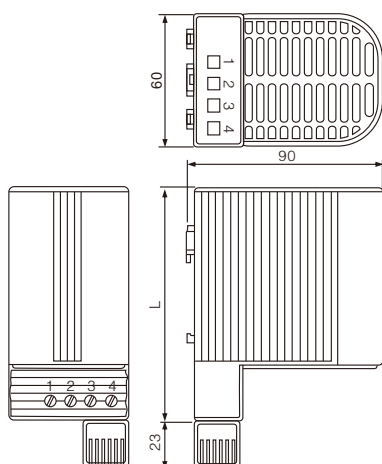
Touch-safe heater for the use in enclosures with electrical/electronic components. The design of the heater supports the natural convection which results in a high air-current of warm air. The surface temperatures on the accessible side surfaces of the housing are kept down as a result of the heater design. This model with plug-in thermostat does not require additional wiring. The heaters are designed for permanent operation. This heater is also available in a version without thermostat (CS 060).

技术参数 Technical Data

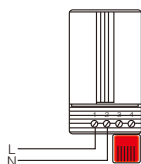
操作电压 Operating voltage	120-240V AC/DC* (min.110V, max.265V)
加热功率 Heating capacity	见下表 see table
加热原件 Heater element	PTC限温元件 PTC resistor-temperature limiting
表面温度 Surface temperature	除了上部防护的网格均 <80°C (176°F) <80°C (176°F), except upper protective grille
接线方式 Connection	螺丝 4-pole terminal 2.5mm ² , torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0标准, V-0防火等级 Plastic according to UL94-V-0, black
安装方式 Mounting	35mm 导轨安装 clip for 35mm DIN rail, EN 50022
安装位置 Installation position	垂直 Vertical
操作储存环境 Operating/storage temperature	-20 to +70°C (-4 to +158°F) / -45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20/II (double insulated)
认证 Approvals	VDE+UL File No.E15057 (according to UL499 in combination with UL508A)
注意 Note	其他电压可定做 other voltages on request

*工作电压低于140VAC/DC时, 加热性能降低约10%

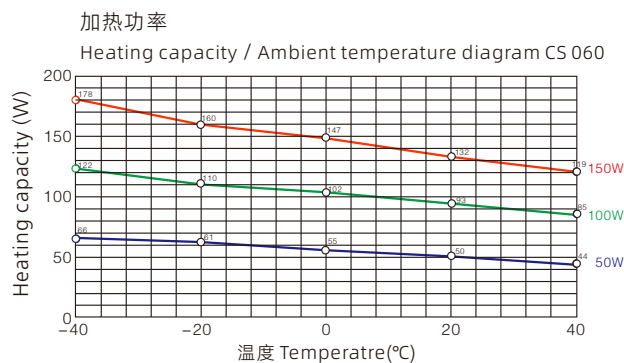
*Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.



Heater CS 060



接线示意图
Examples of connection



订货代码 Art. No.	功率 Heating capacity	电流最大值 Inrush current max.	空气出口温度 Air outlet temperature	关闸温度 Switch-off temperature	尺寸 Dimensions	重量 Weight (approx.)
06001.0-00	50W	2.5A	+86°C (186.8°F)	+15°C (59°F)	110x60x90mm	0.30kg
06002.0-00	50W	2.5A	+86°C (186.8°F)	+25°C (77°F)	110x60x90mm	0.30kg
06011.0-00	100W	4.5A	+120°C (248°F)	+15°C (59°F)	150x60x90mm	0.30kg
06012.0-00	100W	4.5A	+120°C (248°F)	+25°C (77°F)	150x60x90mm	0.30kg
06021.0-00	150W	8A	+145°C (293°F)	+15°C (59°F)	150x60x90mm	0.50kg
06022.0-00	150W	8A	+145°C (293°F)	+25°C (77°F)	150x60x90mm	0.50kg

1) ambient temperature-see Heating capacity/Ambient temperature diagram; 2) measured 50mm above protective grille;

HGL 046 250W-400W

产品特性 Features

- 紧凑的设计 Compact design
- 导轨式安装 DIN rail mounted
- 使用寿命长 Long service life
- 免维护 Maintenance free
- 安全温度断流功能 Temperature safety cut-out

轻巧型风机加热器可预防冷凝的形成，一体化高性能轴流风扇可提供强力空气循环，使开关箱内温度恒定。当风扇发生故障时，加热器内安全切断开关会自动停止加热器的工作。

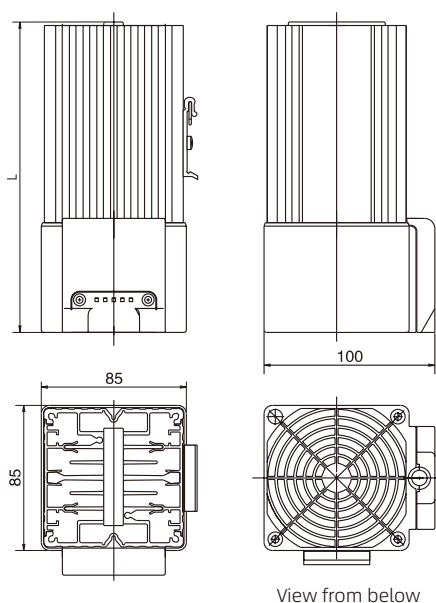
Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. With internal terminal connector.

技术参数 Technical Data

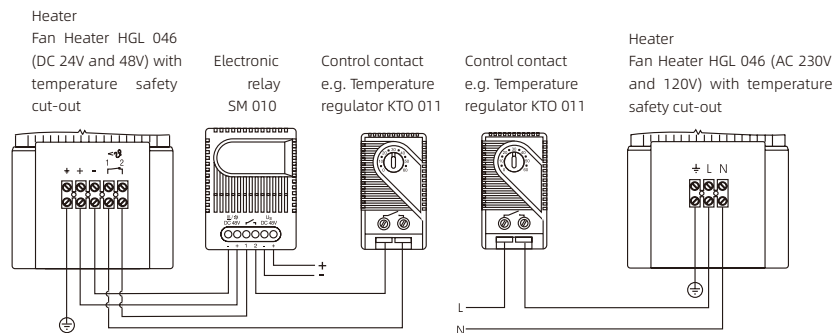
发热元件 Heating element	电阻加热器 resistance heater
温度保护 Temperature safety cut-out	防止过热引起风扇不运转 to protect against overheating in case of fan failure
发热体 Heater body	通过极化处理的铝型材 anodised extruded aluminium profile
表面温度 Surface temperature	最高 75°C max. 75°C (400W)
滚珠轴流式风扇 Axial fan, ball bearing	气流自由流动 Airflow, free flow AC: 45m³/h (50Hz) or 54m³/h (60Hz) DC: 54m³/h 使用寿命 50,000 小时 service life 50,000h at 25°C (77°F)
接线方式 Connection	1.5mm² 导线引入 internal connection terminal 1.5mm² with strain relief, clamping torque 0.8Nm max.
外壳材料 Connection casing	黑色塑料, UL94V-0 标准, V-0 防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直 vertical
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / I (earthed)

注意：在 24VDC 和 48VDC 情况下，风机加热器经过电子继电器转换，因此我们推荐我们的继电器 SM010 (Art. No. 01000.0-00 and 01001.0-00)

Note: In the case of 24VDC and 48VDC the fan heater has to be switched via a relay. For this purpose we recommend our electronic relay SM 010 (Art. No. 01000.0-00 and 01001.0-00).



View from below



订货代码 Art. No.	操作电压 Operating voltage	功率 Heating capacity	长度(L) Length (L)	重量 Weight (approx.)
04640.0-00	230VAC, 50/60Hz	250W	182mm	1.10kg
04641.0-00	230VAC, 50/60Hz	400W	222mm	1.40kg
04640.9-00	120VAC, 50/60Hz	250W	182mm	1.10kg
04641.9-00	120VAC, 50/60Hz	400W	222mm	1.40kg
04640.1-00	24VDC	250W	182mm	1.10kg
04640.2-00	48VDC	250W	182mm	1.10kg
04641.2-00	48VDC	400W	222mm	1.40kg

HV 031/HVL 031 100W- 400W

产品特性 Features

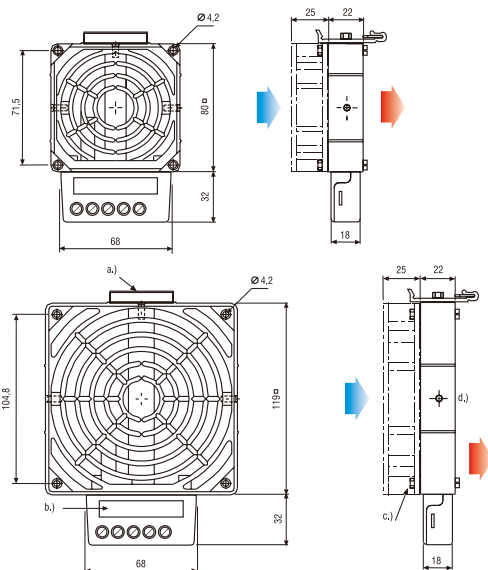
- 紧凑 Compact
- 扁平设计 Flat design
- 空气流动性好 High air through-flow
- 温度安全保护开关 Temperature safety cut-out
- 导轨安装 DIN rail mounted

紧凑高性能风机加热器可预防凝露的形成，该产品有带风机式加热器，型号为HVL031，也有不带风机式的，型号为HV031。

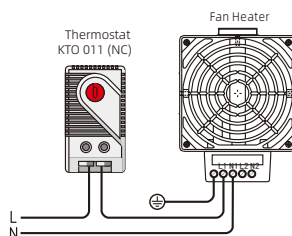
The compact high-performance fan heater prevents formation of condensation in control or switch systems and provides an evenly distributed interior air temperature in enclosures. This fan heater is available without fan (HV 031) as well as with fan (HVL 031).

技术参数 Technical Data

HV 031	无风机加热器 Heater without fan (fan mounting kit included)
HVL 031	带风机加热器 Heater with fan
发热元件 Heating element	高性能芯子 high performance cartridge
温度安全保护 Temperature safety cut-out	保护过热引起的风扇不工作 to protect against overheating in case of fan failure
加热体材料 Heater body	铝 die-cast aluminium (glass bead blasted)
接线方式 Connection	3极钳压 2.5mm ² , 最大扭矩 0.8Nm 3-pole screw connector 2.5mm ² clamping torque 0.8Nm max.
端子接线盒材料 Connection casing	黑色塑料, UL94V-0标准, V-0防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	水平 horizontal
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / I (earthed)
滚珠风机 Axial fan, ball bearing	使用寿命 50,000 小时 25°C (77°F) airflow see table service life 50,000h at 25°C (77°F)
风机连接方式 Connection (axial fan)	2极螺丝连接 2.5mm ² 导线 (L2/N2) 2-pole screw connector 2.5mm ² (L2/N2)



a.) Clip b.) Type plate c.) Axial fan d.) Air direction



重要！加热器只能与风扇一起操作，过热危险！
Important! Heater may only be operated together with fan. Danger of overheating!

订货代号 Art. No. HV 031	订货代号 Art. No. HV 031	功率	尺寸	重量
230VAC, 50/60Hz	120VAC, 50/60Hz	Heating capacity	Dimensions	Weight (approx.)
03100.0-00	03100.9-00	100W	80 x 112 x 22mm	0.40kg
03101.0-00	03101.9-00	150W	80 x 112 x 22mm	0.40kg
03110.0-00	03110.9-00	200W	119 x 151 x 22mm	0.50kg
03111.0-00	03111.9-00	300W	119 x 151 x 22mm	0.50kg
03112.0-00	03112.9-00	400W	119 x 151 x 22mm	0.50kg

订货代号 Art. No. HVL 031	订货代号 Art. No. HVL 031	功率	最小风流量	尺寸	重量
230VAC, 50/60Hz	120VAC, 50/60Hz	Heating capacity	Airflow min., free flow	Dimensions	Weight (approx.)
03102.0-00	03102.9-00	100W	35m ³ /h	80 x 112 x 47mm	0.60kg
03103.0-00	03103.9-00	150W	35m ³ /h	80 x 112 x 47mm	0.60kg
03113.0-00	03113.9-00	200W	108m ³ /h	119 x 151 x 47mm	0.90kg
03114.0-00	03114.9-00	300W	108m ³ /h	119 x 151 x 47mm	0.90kg
03115.0-00	03115.9-00	400W	108m ³ /h	119 x 151 x 47mm	0.90kg

CR027 400W-650W

产品特性 Features

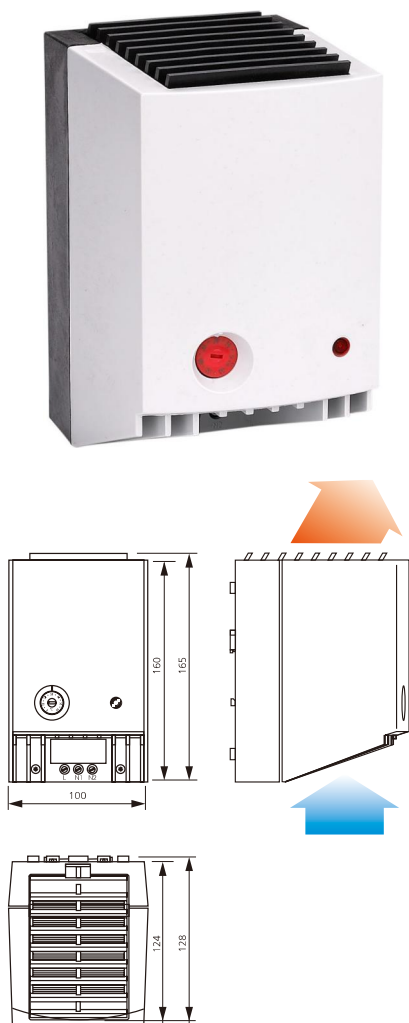
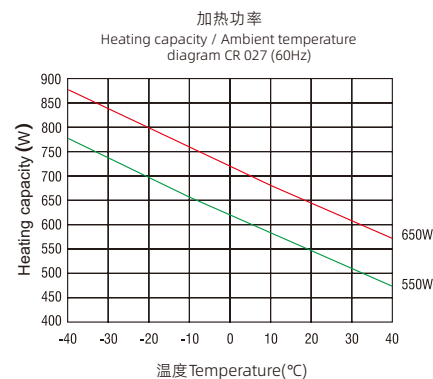
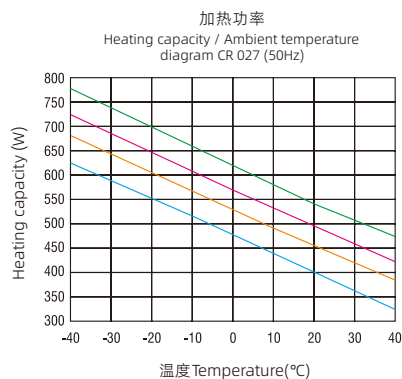
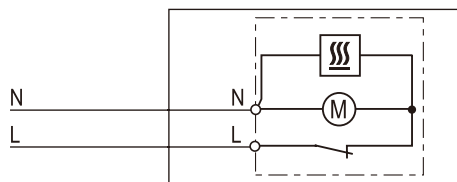
- 紧凑型加热器 Compact heater
- 加热功率可调 Heating capacity adjusts to ambient temperature
- 温度范围可调 Adjustable temperature range
- 导轨安装 DIN rail mounted
- 信号指示 Optical indicator
- 温度安全保护 Temperature safety cut-out

半导体式风机加热器主要用于配电柜体内，防止产生凝露，一体设计的调节器用于调整温度的变化。

Semiconductor fan heaters prevent the formation of condensation and ensure an even temperature in switch and control equipment. The built-in regulator is used to set the desired temperature.

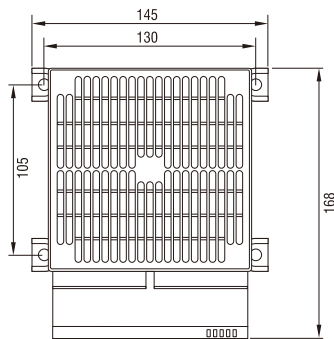
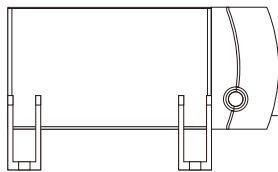
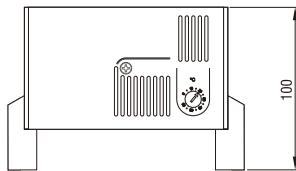
技术参数 Technical Data

发热体 Heater body	PTC resistor, self regulating and temperature limiting
温度保护 Temperature safety cut-out	过热保护 to protect against overheating in case of fan failure
滚珠风机 Axial fan, ball bearing	风量见如下图表 airflow see table service life 50,000h at 25°C (77°F)
接线方式 Connection	两极钳压 2.5mm ² , 最大扭矩 0.8Nm 2-pole clamp max. 2.5mm ² clamping screw torque 0.8Nm max.
外壳材料 Casing	浅灰色塑料, UL94V-0标准, V-0防火等级 plastic according to UL94 V-0, light grey
信号指示 Optical indicator	恒温控制灯 thermostat control lamp
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直 vertical
外观尺寸 Dimensions	100 x 128 x 165mm
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / II (double insulated)

接线示意图
Connection Diagram

订货代码 Art. No.	工作电压 Operating voltage	功率(50Hz) Heating capacity	功率(60Hz) Heating capacity	最大电流 Inrush current max.	风量 Airflow, free flow	温度范围 Setting range Temp. regulator	重量 Weight
02700.0-00	220-240VAC, 50/60Hz	475W	550W	11.0A	35m ³ /h	0 to +60°C	0.90kg
02701.0-00	220-240VAC, 50/60Hz	550W	650W	13.0A	45m ³ /h	0 to +60°C	1.10kg
02700.9-00	100-120VAC, 50/60Hz	400W	550W	14.0A	35m ³ /h	+32 to +140°F	0.90kg
02701.9-00	100-120VAC, 50/60Hz	510W	650W	15.0A	45m ³ /h	+32 to +140°F	1.10kg

*at 20°C (68°F) ambient temperature



CR 030 750W,850W,950W

产品特性 Features

- 紧凑型设计 Compact design
- 双绝缘 Double insulated
- 智能温控器 Integrated thermostat (optional)

这种紧凑高性能风机加热器能防止产生凝露，为机箱内部提供温度分布均匀的空气环境。塑料外壳具有双绝缘功能，起接触保护作用。这款风机加热器可提供集成的恒温器或恒湿器用于温度或湿度控制。CR030通常被固定在配电柜的底部使用，如果需要壁挂使用，推荐使用CR130。

The compact high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures with electric/electronic components.

The plastic enclosure provides double insulation and acts as protection against contact. The fan heater is available with integrated thermostat or pre-set hygostat for temperature or humidity control. The CR 030 was designed as a stationary unit for the bottom of the enclosure.

For wall fixing the fan heater CR 130 is recommended.

技术参数 Technical Data

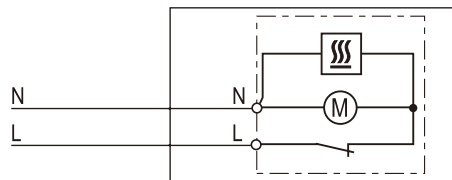
加热元件 Heater element	高性能管壳 High performance cartridge
温度保护 Temperature safety cut-out	过热保护 to protect against overheating in case of fan failure
	自动复位 automatic reset
加热主体 Heater body	极化处理铝型材 extruded aluminium profile
滚珠轴流式风机 Axial fan, ball bearing	气流 160m³/h, 自由流动 Airflow 160m³/h, free flow
	使用寿命 50,000 小时 at 25°C (77°F) service life 50,000h at 25°C (77°F)
接线方式 Connection	2-极点最大值。2.5mm² 固定螺丝溢放口力矩最大值 2-pole max. 2.5mm², clamping screw with strain relief, torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0 标准, V-0 防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	螺丝固定 (M5) screw fixing (M5)
安装位置 Installation position	水平 horizontal
外观尺寸 Dimensions	168 x 145 x 100mm
重量 Weight	大约 1.40 千克 approx. 1.40kg
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / II 双绝缘 (double insulated)
备注 Note	功率达到 2000W 以上可定制 Other heating capacities from 200W up available on request

*加热器的工作温度: 0 到 +60°C (+32 to +140°F)

Operating temperature of heater with integrated hygostat: 0 to +60°C (+32 to +140°F)

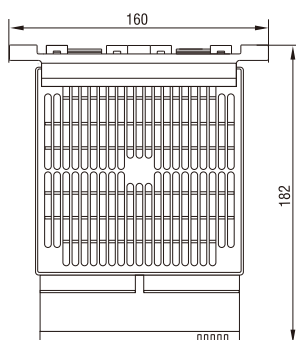
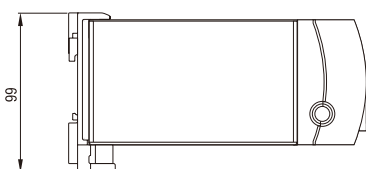
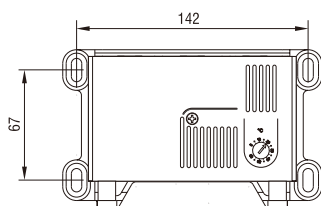
接线示意图

Connection Diagram



订货代码 Art. No.	型号 Model	工作电压 Operating voltage	功率 Heating capacity	设定范围 Setting range
03051.0-00	支持恒温器的暖风机 Fan Heater with thermostat	230VAC, 50/60Hz	950W	0 to +60°C
03051.0-01	支持恒湿器的暖风机 Fan Heater with hygostat	230VAC, 50/60Hz	950W	65% RH, Factory-set
03059.9-00	支持恒温器的暖风机 Fan Heater with thermostat	120VAC, 50/60Hz	950W	+32 to +140°F

*根据 UL499 并结合 UL508A; according to UL499 in combination with UL508A



CR 130 750W,850W,950W

产品特性 Features

- 紧凑型设计 Compact design
- 双绝缘 Double insulated
- 智能温控器 Integrated thermostat (optional)
- 导轨或螺丝固定 DIN rail or screw fixing

这种紧凑高性能风机加热器能防止产生凝露，为机箱内部提供温度分布均匀的空气环境。塑料外壳具有双绝缘功能，起接触保护作用。这款风机加热器可提供集成的恒温器或恒湿器用于温度或湿度控制。CR130通常是壁挂使用，如果需要固定在配电柜底部，推荐使用CR030。

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with integrated thermostat or pre-set hygrostat for temperature or humidity control. The CR 130 was designed as a stationary unit for wall fixing. For fixing on the bottom of the enclosure the fan heater CR 030 is recommended.

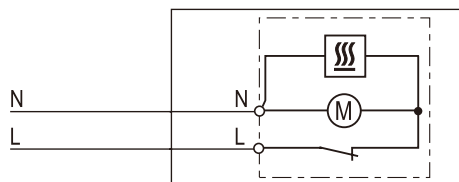
技术参数 Technical Data

加热元件 Heater element	高性能管壳 High performance cartridge
温度保护 Temperature safety cut-out	过热保护 to protect against overheating in case of fan failure
	自动复位 automatic reset
加热主体 Heater body	极化处理铝型材 extruded aluminium profile
滚珠轴流式风机 Axial fan, ball bearing	气流 160m³/h, 自由流动 Airflow 160m³/h, free flow
	使用寿命 50,000 小时 at 25°C (77°F) service life 50,000h at 25°C (77°F)
接线方式 Connection	2-极点最大值, 2.5mm² 固定螺丝 溢放口力矩最大值 2-pole max. 2.5mm², clamping screw with strain relief, torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0 标准, V-0 防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, Clip for 35mm Din rail, EN 50022, Screw fixing (M6)
安装位置 Installation position	水平 horizontal
外观尺寸 Dimensions	182 x 160 x 99mm
重量 Weight	大约 1.45 千克 approx. 1.45kg
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / II 双绝缘 (double insulated)
备注 Note	功率达到 2000W 以上可定制 Other heating capacities from 200W up available on request

*加热器的工作温度: 0到+60°C (+32 to +140°F)

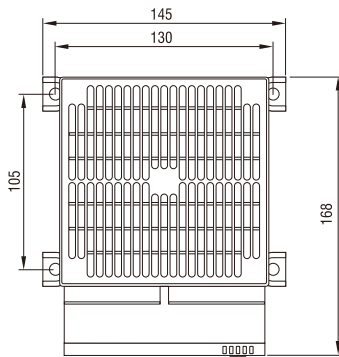
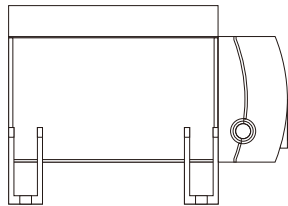
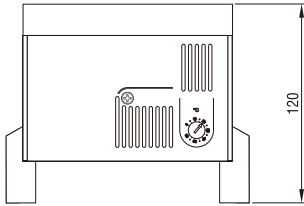
Operating temperature of heater with integrated hygrostat: 0 to +60°C (+32 to +140°F)

接线示意图
Connection Diagram



订货代码 Art. No.	型号 Model	工作电压 Operating voltage	功率 Heating capacity	设定范围 Setting range
13051.0-00	支持恒温器的暖风机 Fan Heater with thermostat	230VAC, 50/60Hz	950W	0 to +60°C
13051.0-01	支持恒湿器的暖风机 Fan Heater with hygrostat	230VAC, 50/60Hz	950W	65% RH, Factory-set
13059.9-00	支持恒温器的暖风机 Fan Heater with thermostat	120VAC, 50/60Hz	950W	+32 to +140°F

*根据UL499并结合UL508A; according to UL499 in combination with UL5080A



CS 030 700W,950W,1200W

产品特性 Features

- 紧凑型设计 Compact design
- 双绝缘 Double insulated
- 智能温控器 Integrated thermostat (optional)
- 导轨或螺丝固定 DIN rail or screw fixing

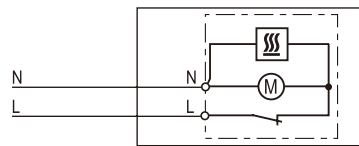
这种紧凑高性能风机加热器能防止产生凝露，为机箱内部提供温度分布均匀的空气环境。塑料外壳具有双绝缘功能，起接触保护作用。这款风机加热器可提供内置的恒温器用于温度控制。CS030通常被固定在配电柜的底部使用，如果需要壁挂使用，推荐使用CS130。

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with optional integrated thermostat for temperature control. The CS 030 was designed as a stationary unit for the bottom of the enclosure. For wall fixing the fan heater CS 130 is recommended.

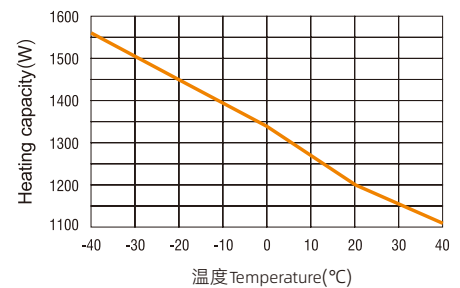
技术参数 Technical Data

温度保护 Temperature safety cut-out	过热保护 to protect against overheating in case of fan failure
滚珠风机 Axial fan, ball bearing	气流 160m ³ /h, 自由流动 160m ³ /h, free flow,
	使用寿命 50,000小时 service life 50,000h at 25°C (77°F)
接线方式 Connection	2-极点最大值。2.5mm ² 固定螺丝溢放口力矩最大值 2-pole clamp max. 2.5mm ² clamping screw torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0标准, V-0防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	螺丝安装 (M5) Screw fixing (M5)
安装位置 Installation position	横向 horizontal
外观尺寸 Dimensions	168 x 145 x 120mm
重量 Weight	大约 1.20 千克 approx. 1.20kg
工作温度 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / II 双绝缘 (double insulated)

接线示意图
Connection Diagram

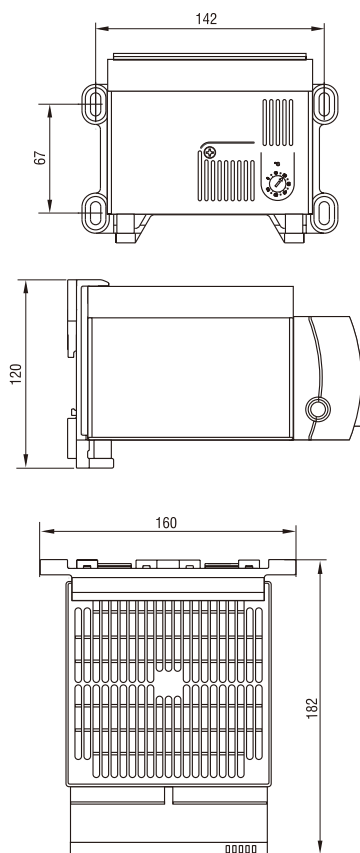


加热功率 CS 030
Heating capacity / Ambient temperature diagram CS 030



订货代码 Art. No.	型号 Model	工作电压 Operating voltage	功率 Heating capacity	最大电流 Inrush current max.	设定范围 Setting range
03060.0-00	支持恒温器的暖风机 Fan Heater with thermostat	230VAC, 50/60Hz	1200W	13A	0 to +60°C
03060.0-01	不支持恒温器的暖风机 Fan Heater without thyrostat	230VAC, 50/60Hz	1200W	13A	-
03060.9-00	支持恒温器的暖风机 Fan Heater with thermostat	120VAC, 50/60Hz	1200W	16A	+32 to +140°F
03060.9-01	不支持恒温器的暖风机 Fan Heater without thyrostat	120VAC, 50/60Hz	1200W	16A	-

* 室温 at 20°C (68°F), at 20°C (68°C) ambient temperature



CS 130 700W,950W,1200W

产品特性 Features

- 紧凑型设计 Compact design
- 高效率散热 High heating performance
- 双绝缘 Double insulated
- 智能温控器 Integrated thermostat (optional)
- 导轨或螺丝固定 DIN rail or screw fixing

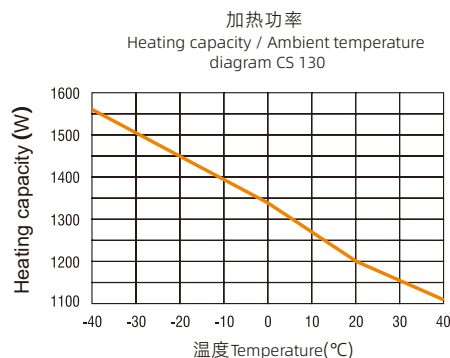
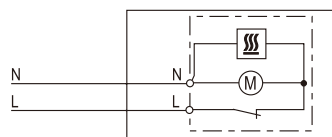
这种紧凑高性能风机加热器能防止产生凝露，为机箱内部提供温度分布均匀的空气环境。塑料外壳具有双绝缘功能，起接触保护作用。这款风机加热器可提供内置的恒温器用于温度控制。CS130通常是壁挂使用，如果需要固定在配电柜内使用，推荐使用CS030。

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with optional integrated thermostat for temperature control. The CS 130 was designed as a stationary unit for wall fixing. For fixing on the bottom of the enclosure the fan heater CS 030 is recommended.

技术参数 Technical Data

加热元件 Heater element	PTC自动限温调节元件 PTC resistor, self regulating and temperature limiting
温度保护 Temperature safety cut-out	过热保护 to protect against overheating in case of fan failure
滚珠风机 Axial fan, ball bearing	风量 airflow 160 m³/h, free flow
接线方式 Connection	螺丝 2-pole clamp max. 2.5mm² clamping screw torque 0.8Nm max.
外壳材料 Casing	黑色塑料, UL94V-0标准, V-0防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	横向 horizontal
外观尺寸 Dimensions	182 x 160 x 120mm
重量 Weight	大约 1.25 千克 approx. 1.25kg
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / II (double insulated)

接线示意图
Connection Diagram



订货代码 Art. No.	型号 Model	工作电压 Operating voltage	功率 Heating capacity	最大电流 Inrush current max.	设定范围 Setting range
13060.0-00	Fan Heater with thermostat	230VAC, 50/60Hz	1,200W	13A	0 to +60°C
13060.0-01	Fan Heater without thermostat	230VAC, 50/60Hz	1,200W	13A	-
13060.9-00	Fan Heater with thermostat	120VAC, 50/60Hz	1,200W	16A	+32 to +140°F
13060.9-01	Fan Heater without thermostat	120VAC, 50/60Hz	1,200W	16A	-

* 室温 at 20°C (68°F), * at 20°C (68°F) ambient temperature

HGM050 200W-1500W

产品特性 Features

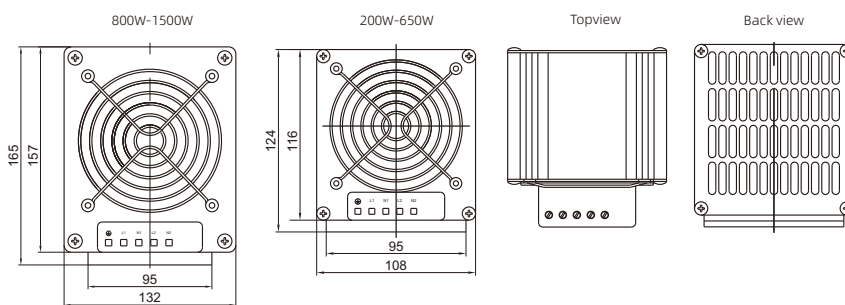
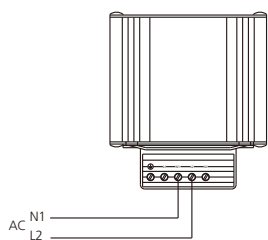
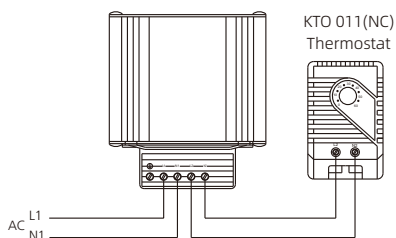
- 紧凑的设计 Compact design
- 导轨式安装 DIN rail mounted
- 使用寿命长 Long service life
- 免维护 Maintenance free
- 安全温度断流功能 Temperature safety cut-out

轻巧型风机加热器可预防冷凝的形成，一体化高性能轴流风扇可提供强力空气循环，使开关箱内温度恒定。当风扇发生故障时，加热器内安全切断开关会自动停止加热器的工作。

Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. With internal terminal connector.

技术参数 Technical Data

发热元件 Heating element	PTC
温度保护 Temperature safety cut-out	防止过热引起风扇不运转 to protect against overheating in case of fan failure
发热体 Heater body	通过极化处理的铝型材 anodised extruded aluminium profile
表面温度 Surface temperature	最高 75°C max. 75°C
滚珠轴流式风扇 Axial fan, ball bearing	气流自由流动 Airflow, free flow AC: 45m³/h (50Hz) or 54m³/h (60Hz) DC: 54m³/h 使用寿命 50,000 小时 service life 50,000h at 25°C (77°F)
接线方式 Connection	导线引入 internal connection terminal 1.5mm² with strain relief, clamping torque 0.8Nm max.
外壳材料 Connection casing	黑色塑料, UL94V-0 标准, V-0 防火等级 plastic according to UL94 V-0, black
安装方式 Mounting	35mm 导轨安装, clip for 35mm DIN rail, EN 60715
安装位置 Installation position	垂直 vertical
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP20 / I (earthed)

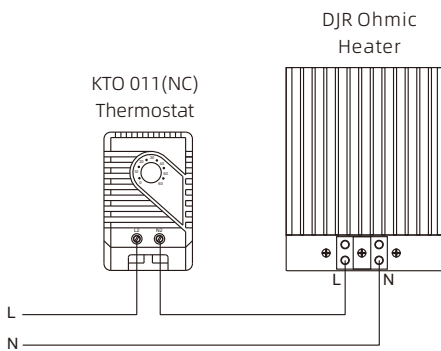


订货代码 Art. No.	工作电压 Operating voltage	功率 Heating capacity	长度(L) Length (L)	重量 Weight (approx.)
05040.0-00	230VAC, 50/60Hz	200W	122mm	0.90kg
05041.0-00	230VAC, 50/60Hz	250W	122mm	0.93kg
05042.0-00	230VAC, 50/60Hz	300W	122mm	0.95kg
05043.0-00	230VAC, 50/60Hz	400W	122mm	1.00kg
05044.0-00	230VAC, 50/60Hz	650W	132mm	1.15kg
05045.0-00	230VAC, 50/60Hz	800W	136mm	1.50kg
05046.0-00	230VAC, 50/60Hz	1000W	136mm	1.54kg
05047.0-00	230VAC, 50/60Hz	1200W	136mm	1.58kg
05049.0-00	230VAC, 50/60Hz	1500W	136mm	1.65kg

*注意: 110VAC; 24VDC; 48VDC可订做 Notice: 110VAC; 24VDC; 48VDC available

DJR

产品特性 Features



DJR加热器，是根据国标(GB/T-15470-1995)研制生产的散热式电加热器。该产品采用6063-T5特制铝合金型材为传导散热体，为增大其散热面积，每个散热片上都设计有细小的波纹。其内部采用优质Ni80Cr20镍铬合金电阻丝为发热芯，精工制作而成。该产品体积小，重量轻，散热面积大，使用寿命长。接线装置安全可靠，不易损坏。整体设计，结构合理，外型美观。主要应用于高低压开关柜、中置柜、环网柜、端子箱、箱式变电站等电力设备防潮、防凝露、提高电气元器件工作环境温度及一切需要除湿加热的场所，与我司的KTO011系列凝露温度监控器配套使用，可实现除湿升温自动化。该加热器具有加热效果好，使用安全可靠，平均无故障工作时间长，安装方便，国内各型号加热器通用等特点。

DJR Heater. is the development and Production of the heat dissipation electrical heater based on national standard GB/T-15470-1995. The Product adopts a special aluminum extrusions of 6063-T5 for conducting the radiator, in order to increase the cooling area, and designs small ripples on each heat sink. Its internal uses the quality Ni80Cr20 nickel-chromium alloy resistance wire for heater, seiko produced The Product has small size, light weight, big heat dissipation area and long service life. And the terminal device is safe and reliable, not easy to damage. As for the overall design, it has reasonable structure and beautiful appearance, mainly used in high and low voltage switch cabinet, centrally installed cabinet, ring counter, terminal box, box-type substation and other power equipment for moisture-proof, anti-condensation, dehumidification to improve the working environment temperature and all the spaces need dehumidification and heating. Supporting the use of KTO011 series condensation temperature division monitor can realize the dehumidification and warming automation. The heater has the features of good heating effect, safe and reliable usage, long working time without failures, easy installation and universally used for the domestic various models of heater.

技术参数 Technical Data

工作电压: AC110V、220V、380V或DC220V、380V(客户根据需求来选型)
Working voltage: AC110V、220V、380V or DC220V、380V(to select by the custom)

工作频率: 50Hz(仅适用于交流电压)
Operating frequency: 50Hz(only apply to the AC voltage)

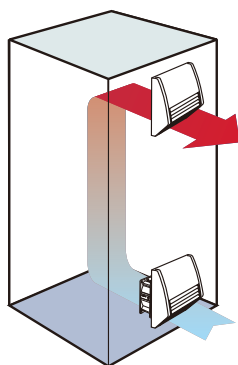
绝缘电阻: >50M欧姆
Insulation resistance: >50M Ohm

抗电强度: >2000V(接线端与铝介质之间)
Dielectric strength: >2000V(between terminal and aluminum medium)

连续工作时间: >5000小时
Continuous working time: >5000 hours

额定功率: 50-500W
Rated power: 50-500W

订货代码	工作电压	功率	外观尺寸 (MM)	安装孔距 (MM)
Art. No.	Operating voltage	Heating capacity	Dimensions	Mounting Holes
DJR-A-1	110V/220V	50-300W	148 X 75 X 22	55
DJR-A-2	110V/220V	50-600W	200 X 104 X 22	55
DJR-B-1	110V/220V	50-300W	132 X 85 X 23	55
DJR-B-2	110V/220V	50-300W	163 X 100 X 28	55
DJR-B-3	110V/220V	50-300W	155 X 100 X 25	55



Enclosure air-conditioning using
a filter fan and exit filter
机箱空调使用一个过滤器
的风机和出口过滤器

FF 018 200M/3H

产品特性 Features

- 低噪音 Very low noise
- 体积小 Minimal depth in enclosure
- 多功能设计 Functional design
- 易安装 Time-saving installation
- 防腐蚀, 防紫外线
- Weather proof and UV resistant

技术参数 Technical Data

轴流式滚珠风机 Axial fan, ball bearing	使用寿命最小50,000小时 service life min. 50,000h at 25°C/77°F (65% RH) fan body aluminium, rotor plastic
连接方式 Connection	2 wires with pressure clamps 2.5mm ² , length 100mm
外壳材料 Casing (filter fan and exit filter)	淡灰色塑料, UL94V-0, V-0 防火等级 plastic according to UL94 V-0, light grey
机罩 (风机过滤器和风机出口) Hood (filter fan and exit filter)	淡灰色塑料, UL94V-0, V-0 防火等级 plastic according to UL94 V-0, light grey 防腐和防紫外线 UL746C (f1) weather proof and UV light resistant according to UL746C (f1)
安装架 Mounting frame	用工业双面粘剂固定在外的附件上, 在确定操作的情况下可以用另外的螺丝。 with double-sided industrial adhesive band for fixing to the outside of enclosure; certain operating circumstances can make the additional use of screws necessary (see drilling template); included in the delivery of the filter fans is a template for the enclosure cut-out
过滤垫 Filter mat	过滤度 94%, G4 acc. to DIN EN 779, filtering degree 94%
过滤材料 Filter material	高级合成纤维构造, 100°C 耐高温, F1 型自灭材料, 可循环清洗或用吸尘器清理 synthetic fibre with progressive construction, temperature resistant to 100°C, self-extinguishing class F1; moisture resistant to 100% RH, reusable-cleaning by washing or vacuuming
操作/储存环境 Operating/Storage temperature	-45 to +70°C (-49 to +158°F)
防护等级 Protection type/Protection class	IP54 / I (earthed)

*可用 F5 过滤器增加保护等级到 IP55, 但会减少空气流量。

*Using fine filter mats type F5 increases the protection type to Ip55, but reduces the air volume.

1. 安装架带粘性的封条阻止了灰尘和水进入到柜内。
The advantage is that the filter mat does not get so quickly contaminated with dirt and thus does not need to be exchanged so often.
2. 通风口多功能的设计有效阻止了掉落的灰尘和水, 其优势是过滤垫不会很快的被灰尘弄脏, 这样就不需要经常更换。
3. 风道使风机过滤器在操作中特别安静。
4. 多功能和现代化的设计使安装时间减少。
5. 所有的风机过滤器, 都有气流监控器。
6. EMC 版本和其它电压可按要求提供。
7. 空气的方向可以随轴流式风机方向的改变而改变。

订货代号 Art. No.	操作电压 Operating voltage	空气流量 Air volume free flow	空气流量 (带过滤罩) Air volume free flow	电流 Current consumption	功率 Power consumption	平均噪音 (DIN EN ISO4871) Average noise level	箱体深度 Depth in enclosure	开孔尺寸 Enclosure cut-out	重量 (approx.) Weight
01800.0-00	230VAC, 50Hz	21m ³ /h	16m ³ /h	80mA	13W	31dB (A)	45mm	97 x 97mm + 0.4	0.60kg
01801.0-00	230VAC, 50Hz	55m ³ /h	42m ³ /h	100mA	15W	40dB (A)	58mm	125 x 125mm + 0.4	1.00kg
01802.0-00	230VAC, 50Hz	102m ³ /h	68m ³ /h	100mA	15W	39dB (A)	86mm	176 x 176mm + 0.4	1.30kg
01800.0-01	120VAC, 60Hz	24m ³ /h	18m ³ /h	160mA	13W	31dB (A)	45mm	97 x 97mm + 0.4	0.60kg
01801.0-01	120VAC, 60Hz	63m ³ /h	48m ³ /h	180mA	15W	40dB (A)	58mm	125 x 125mm + 0.4	1.00kg
01802.0-01	120VAC, 60Hz	117m ³ /h	78m ³ /h	180mA	15W	39dB (A)	86mm	176 x 176mm + 0.4	1.30kg



选型说明 Selection Guide

$$Q_t = 1.2 \times (Q_i + Q_r)$$

$$Q_r = 5.5 \times A \times \Delta T$$

Qt: 所需制冷量 Required cooling capacity

Qi: 柜内发热 Internal heat load
Qr: 柜体传热 Heat transfer

A: 表面积 Surface area

ΔT: 温差 Temperature difference (optional)

SP-AC 500W~2500W

产品特性 Features

■ 密闭制冷结构 Sealed cooling system

内部空气与外界完全隔离，防尘、防油、防腐蚀

No air exchange between internal and ambient air, effectively preventing dust, oil, and corrosive gases

■ 温湿度控制 Temperature & humidity control

具备温度调节及除湿功能

Maintains optimal temperature and reduces condensation through efficient dehumidification

■ 高效制冷系统 High-efficiency cooling system

旋转式压缩机，能耗低、可靠性高

Equipped with a rotary compressor for low energy consumption and high reliability

■ 大风量循环设计 Optimized airflow design

高静压离心风机，避免气流短路

High static pressure centrifugal fan ensures strong airflow and prevents air short-circuiting

■ 智能监控（可选）Intelligent monitoring (optional)

报警输出，运行状态监测

Supports alarm output and real-time operating status monitoring

■ 结构紧凑 Compact structure

安装便捷，维护简单

Space-saving design with easy installation and maintenance

技术参数 Technical Data

制冷剂 Refrigerant	R134a
工作电压 Operating Voltage	220V 50/60Hz
安装形式 Mounting Type	侧挂式 Side-mounted
结构类型 Structure Type	钣金箱体（带进风口 / 出风口分区） Sheet metal enclosure (separate air inlet and outlet design)
冷凝水处理 Condensate Management	排水管 / 接水瓶 / 接水盒 / 无水装置（可选） Drain pipe / collection bottle / collection tray / no-drain system (optional)
使用环境 Ambient Temperature	-5 ~ 55°C
压缩机品牌 Compressor Brand	日立电器 Hitachi
防护等级 Protection Rating	IP20

订货代码 Art. No.	制冷量 Cooling	电流 Current	功率 Power Input	尺寸 Dimensions (mm)	重量 Weight
SP-AC-W50	500W	1.7A	350W	286×500×173	19kg
SP-AC-W80	800W	2.3A	500W	350×630×203	28kg
SP-AC-W100	1000W	3.5A	770W	370×855×231	35kg
SP-AC-W150	1500W	4.3A	950W	370×855×231	37kg
SP-AC-W200	2000W	5.5A	1170W	435×1160×275	70kg
SP-AC-W250	2500W	7.0A	1400W	435×1160×275	73kg