



环境试验箱

Environmental Testing

升级

使用说明书

适用型号 For Models:
DHTH/DHTC

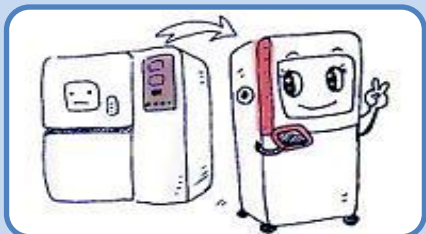


- 使用前请仔细阅读说明书
Please read this instruction carefully before use
- 请妥善保管，以备参阅
Please keep it properly for future reference

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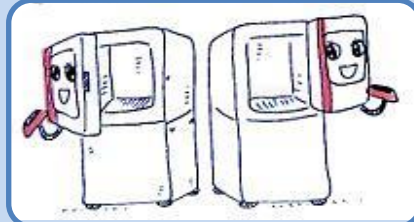
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■ 产品特点 Product Features:



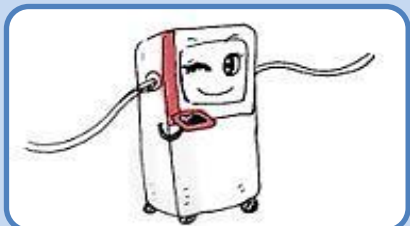
NO.1

我变瘦了，不怕试验门变窄了。



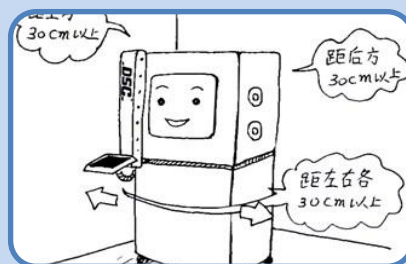
NO3.

门可以左开，也可以右开。

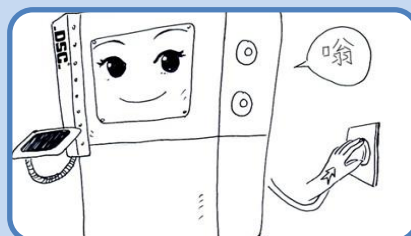


NO.2

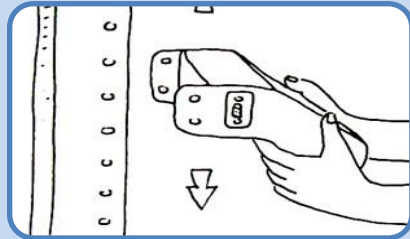
两边都可以通线出来。



NO.4我们的设备对安装距离要求不高，利于节约实验室空间。



NO.5我们的设备运行噪音很低，非常适合实验室使用。



NO.6控制器位置可以根据使用的需要上下调整。

德国品质，新升级，不一样！

Germany quality, new upgrade, brand new!

1. 我变瘦了，不怕实验门变窄了
I am thinner than ever before, not afraid of a narrow trial door any more
2. 两边都可以通线出来
lines may come out from both sides
3. 门可以左开也可以右开
The door can be opened from both left and right sides
4. 性能更好了，温度更低了，最低可以-80 度
Better performance and lower temperature with the lowest temperature of -80°C.
5. 绿色环保冷媒，更节能，更环保，永不淘汰
More energy-saving and environmental-friendly green coolants that will be never out of date
6. 寿命更长，最长 15 年寿命保障
Longer service life and maximum 15-year service life guarantee

■ 各部分构件名称 Names of Components:

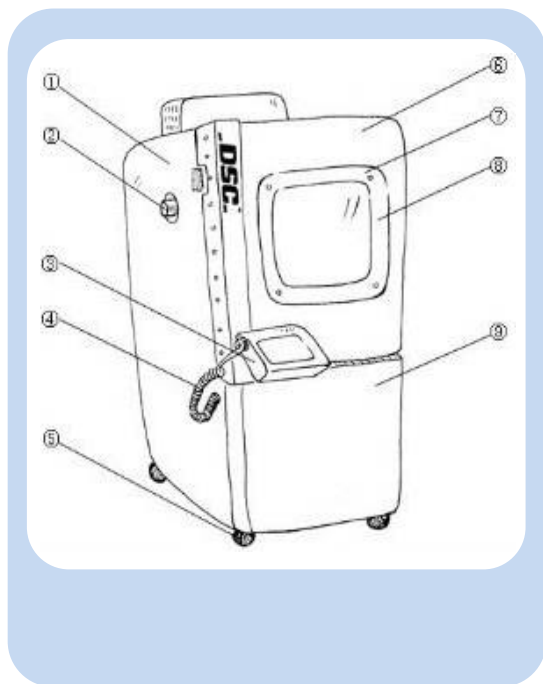


图 1 (Pic 1)

电气控制柜

Electric control cabinet

- ② 电缆测试孔
Cable Test Hole
- ③ 上下可凋控制器
Up and down adjustable controller
- ④ 控制器通讯线
Wheels Communication Line of Controller
- ⑤ 脚轮
Wheel
- ⑥ 工作室门
Chamber Door
- ⑦ 暗装照明灯
Concealed Installed Light
- ⑧ 防凝露观察窗
Anti-Condensing Observation Window
- ⑨ 可开启式机械室门
Openable Machine Room Door

后部风向舒流板（打开后可见加热、制冷部件）

Rear wind flow board (heating and refrigerating components inside after opening)

- ② 循环风机风叶
Circulating fan blades
- ③ 搁物架
Rack

④ 可抬起式下舒流板

Raiseable lower wind flow board

⑤ 温度/湿度传感器及湿布槽（掀起下舒流板，可见）

Temperature/humidity sensor and wet cloth slot
(below the lower wind flow board)

⑥ 储水箱

water tank

⑦ 带电加热内视窗

Electrically heated observation window

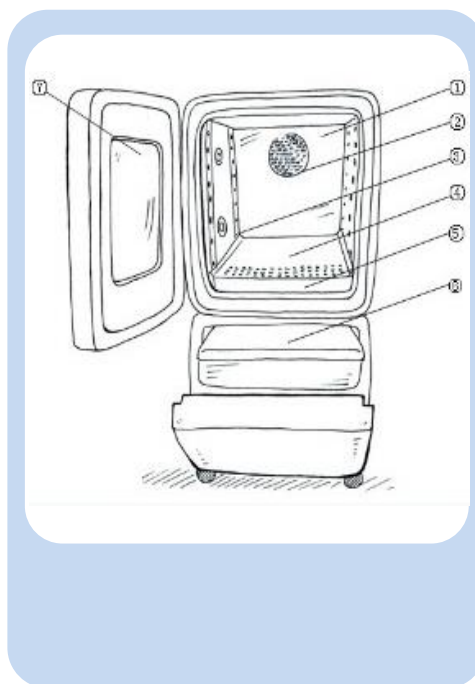
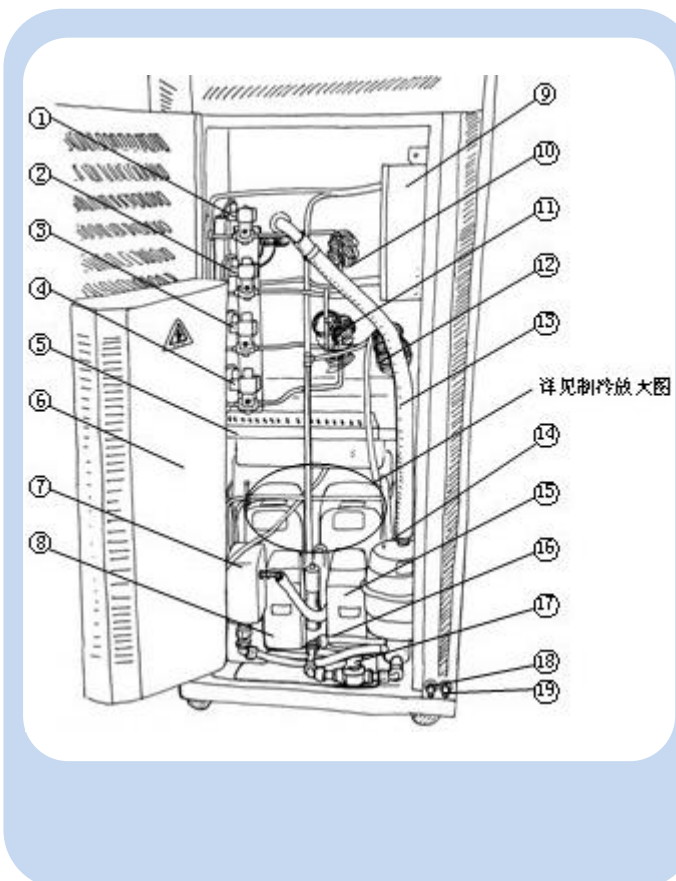


图 2 (Pic 2)



1. 制冷电磁阀
2. 除湿电磁阀
3. 2 级制冷电磁阀
4. 压缩机冷却电磁阀
5. 湿布槽水位控制器
6. 电气控制柜
7. 加湿器水位控制器
8. 1 级压缩机接线盒
9. 板式换热器
10. 2 级制冷毛细管

图 3 (Pic 3)

1. 风冷式冷凝器
2. 冷凝器电机
3. 404A 冷媒充注口
4. 卸荷阀
5. 储液罐
6. R23 冷媒充注口

11. 1 级制冷毛细管
12. 除湿毛细管
13. 加湿器蒸汽汽管
14. 加湿器总成
15. 二级制冷接线盒
16. 水箱排水水阀
17. 加湿器排水水阀

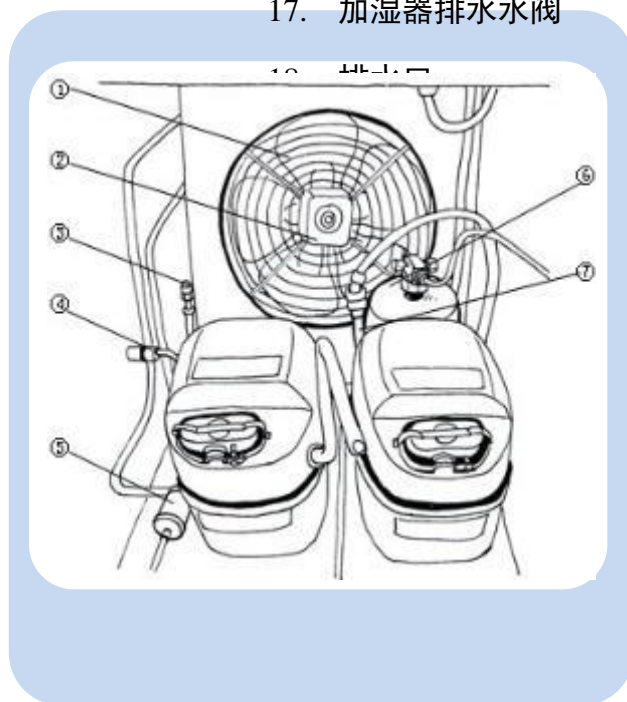


图 4 (Pic 4)

该系列试验箱执行部分下列国家标准：

This series of testing chambers implement the following national standards,

GB/T10586-2006 《湿热试验箱技术条件》
Specification for Damp Heat Test Chambers

GB/T10589-2008 《低温试验箱技术条件》
Specification for Low Temperature Test Chambers

GB/T10592-2008 《高低温试验箱技术条件》
Specification for Low/high Temperature Test Chambers

GB/T11158-2008 《高温试验箱技术条件》
Specification for High Temperature Test Chambers

尊敬的用户：

感谢您选择、使用我公司产品。

产品质量优，性能佳。为了方便您使用，请仔细阅读说明书，并按照说明书的步骤操作。

自始至终，我们的“星级服务”将伴随着您，使用时无论有什么问题，请按照保修证的电话、地址联系，我们时刻恭候为您服务。

由于产品的改进，您所购买的设备可能与说明书中介绍不完全一致，谨此致歉。

本说明书内容只作为广泛性使用指导用，不构成对您购买的设备性能的保障。您所购买的设备性能请参考你的设备订购合同。

Dear customers,

Thanks for choosing DOAHO products.

Our products are of good quality and perfect performance. For your convenience, please read the operating instruction carefully and carry out operations according to the instruction.

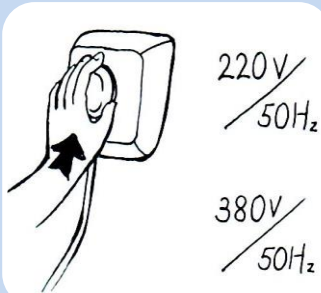
Our “star service” will always be with you. If any problem arises, please contact us by phone and address on the guarantee card. We are always at your service.

Due to the improvement of product, the product you purchased might be

slightly different with the instruction. Sorry for the inconvenience!

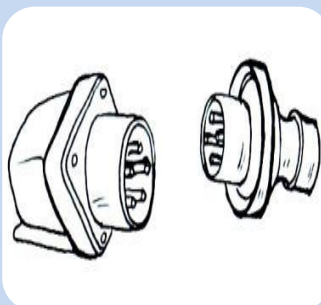
The instruction should be merely considered as general operation guidance, instead of a performance guarantee to the purchased equipment. Please refer to purchase contract for details of equipment performance.

■ 安全注意事项 Safety Precautions



该系列设备使用交流220V/50Hz或者380V50Hz电源，若电压波动范围较大（超过 $\pm 10\%$ ），有可能造成设备不启动，主控板和压缩机烧坏，或压缩机工作声音异常等故障，此时必须加装与设备相匹配的自动稳压器配合使用。

This series of equipments adopt AC 220V/50Hz or 380V/50Hz power supply. Huge voltage fluctuation (over $\pm 10\%$) might cause malfunctions such as equipment start failure, burnout of master control board and compressor, or abnormal noise of working compressor. Thus, an extra automatic voltage regulator is required to fit the equipment.



必须使用独立专用插座并进行可靠接地

本系列设备的电源线配有专用的工业防水插头（三线或者五线）。在任何情况下，切勿切除或拆除电源线的接地。设备安装到位后，插头应可触及，以方便插拔。警示！电源线插头应保持与插座牢固接触，否则可能导致火灾。

It is imperative to utilize independently special socket and reliable grounding. This series of equipments are equipped with customized industrial water-proof plugs (three wires or five wires), and standard industrial water-proof plugs (three wires or five wires). Please don't cut or remove grounding of power wire under any circumstance. After the equipment is properly installed, the plugs should be touchable for convenience of plug and unplug. Warning! The plug should be connected firmly to the socket; otherwise, it may cause fires.

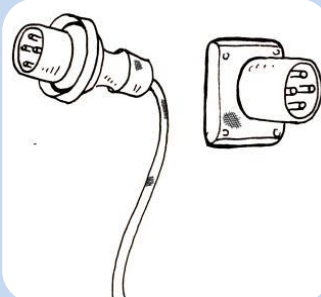


不要损坏电源线

1. 切勿以拉扯电源线的方法拔出设备的插头。一定要紧紧握住插头，从插座中直接拔出。
2. 不要让箱体压住电源线或人为踩踏电源线。
3. 将设备移离墙壁时，请小心谨慎，切勿滚压或损坏电源线。

Don't damage the power cord

1. Don't disconnect the plug by pull the cord. Please hold the plug firmly and unplug it from the socket.
2. Don't pin the cord with the equipment body or step on the cord.
3. When move the equipment away from the wall, please be careful and don't roll it over or damage the cord.



当电源线损坏时

当电源线出现破损或插头出现磨损时，切勿使用。

电源线磨损或损坏，必须由专业电工人员根据设备标牌供电要求更换。

When the cord is damaged

Please stop using it when the cord is damaged or the plug is worn out.

Damaged or worn-out cord must be replaced by professional electrician according to the power requirement on the equipment plate.



以下情况请拔下电源插头

1. 清洁及维修前，请拔下设备的电源插头。
2. 更换损坏的易损件时，应拔掉设备的电源插头，以防触电。

please pull out the power plug under following conditions
Before cleaning and repair, please pull out the plug.
when replace the wearing parts, please pull out the plug
to avoid electric shock.



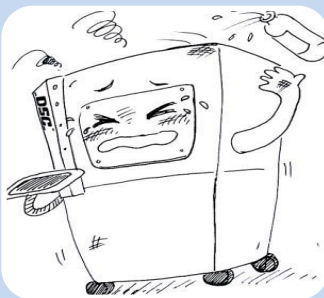
非特制设备内，严禁放入易燃、易爆的危险品，及强腐蚀性的酸、碱等。

Inflammable and explosive dangerous goods as well as corrosive acid and alkali are prohibited in non-special equipments.



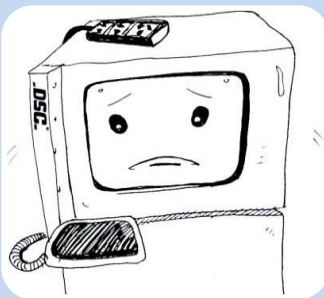
本产品为试验专用设备，按国家标准的规定，不能用于设备功能范围外的其他用途

The product is specialized equipment for testing.
According to national standards, it should not be used for purposes exceeding the scope of equipment functions.



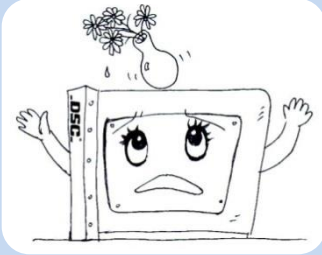
在设备附近，切勿存放或使用汽油及其它易燃物品，以免引起火灾。

Please don't store or use gasoline or other inflammable goods near to the equipment to prevent from fires.



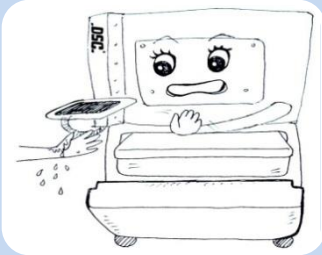
为保证安全，建议不要在设备台面上放置电源插座、稳压电源等电器；也不要再设备内部使用电器（推荐型号除外），以免发生电磁干扰或其他意外。

To ensure safety, it is suggest that electric equipments such as no power socket, regulated power supply should be not placed on the table of equipment. And no electric equipments (except recommended models) should be used inside the equipment so as to avoid interference and other accidents.



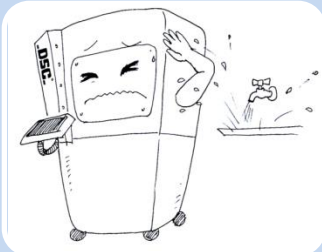
不要在设备上部放置不稳定的物品（重物、有水的容器），以免掉下伤人或溢水导致漏电。

Do not put unstable articles (heavy articles and containers with water) on the upper part of equipment for fear that they fall down to hurt people or overflow causes leakage of electricity.



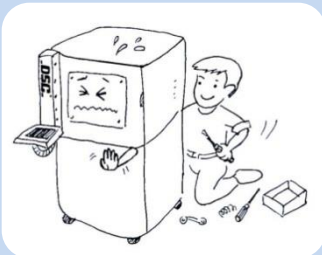
设备开始运行之后，切勿用手触摸冷冻室的冰冷表面，尤其是手湿的时候。否则，皮肤可能会粘在这些冰冷的表面上。

When the equipment start working, do not touch the freezing surface of the freezing chamber with your hands, especially wet hands. Otherwise, skin could stick to the freezing surface.



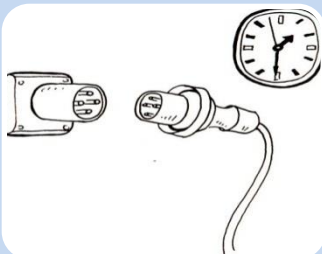
不要用水喷淋、冲洗设备，也不要将设备放置在潮湿、易溅上水的地方，以免影响设备的电气绝缘性能。

In order to avoid influence to the electric insulation of the equipment, please don't wash or spray water to the equipment, and don't put the equipment in moist place or some where near to splashing water.



严禁私自拆卸、改造设备，禁止损坏制冷管路。维修设备必须由专业人员进行。

Private disassemble, modification and damage to refrigeration pipeline are prohibited. Equipment maintenance must be conducted by professional personnel.



停电或清洁时，应拔下电源插头，至少保持间隔五分钟，才能再次接通电源，以防因连续启动而损坏压缩机。

In the event of power cut or Cleaning, please pull out the plug. Don't reconnect the power within five minutes to prevent damage to compressor due to continuous start.

设备废弃不用时，请专业回收公司回收，防止不当处置。

Abandoned equipment should be recovered by professional recycling company to

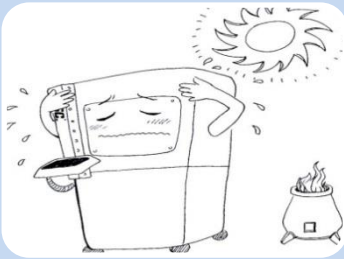
prevent improper disposal.

■ 放置环境 Place Environment



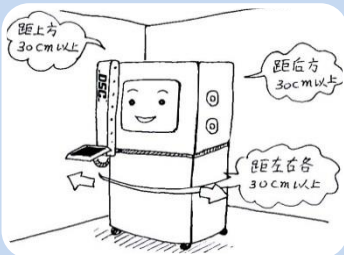
设备需放置于平坦坚固的地面，如需垫高，亦需选择平稳、坚硬、不可燃的垫块，切勿将设备的包装泡沫垫块用来垫高设备。如果稍有不稳，可调整设备前部的黑色可调底脚；按顺时针方向旋转可调底脚，可以提高设备高度；按逆时针方向旋转，可以降低设备高度。

The equipment should be placed on flat and solid ground. If any plate is needed, please select flat, solid and unflammable cushion block, and be sure not to adopt packing foam pad. If slightly instability occurs, please swing the adjustable foot screw, clockwise up to raise the equipment and anticlockwise down to lower the equipment.



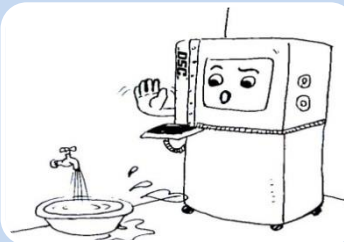
放置设备应该远离热源并避免太阳光直射、强磁环境，以免影响设备的工作性能。

The equipment should be kept away from heat, direct sunlight and strong magnetic environment to avoid influence on performance of the equipment.



应放置于通风良好的地方，设备周围包括后背应留有30cm以上的空间。

The equipment should be placed in well-ventilated place, minimum 30cm away from the top, back, right and left.



不要放在潮湿或易溅水的地方，溅的水及污物应及时用软布擦干净。

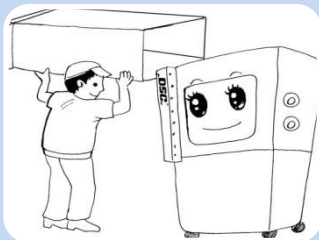
Do not put the equipment in moist places or places near to splashing water. Splashing water and dirt should be cleaned with soft cloth in time.



不要放置在太冷（低于5℃）的环境中，也不要放在户外和雨中使用。

Do not place the equipment in extremely cold environment (under 5°C), outdoor space or exposure to rain.

■ 使用准备 Use Preparation



① 拆除所有包装组件

包括泡沫底座及固定附件用的胶带也必须拆除。

Remove all packing accessories

Including foam base and the adhesive tape utilized to fix accessories.

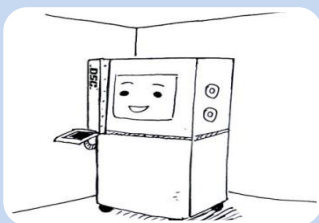


② 清点随机附件和资料

箱内物品请按装箱单内容对照检查，如有出入，请向销售商店查询。

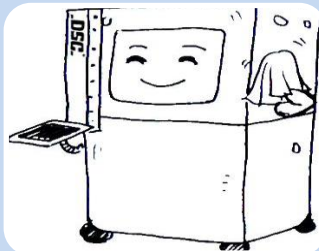
Please check the attached items in the box according to the packing list.

Check the attached accessories and documents, If any discrepancy happens, please contact the distributor.



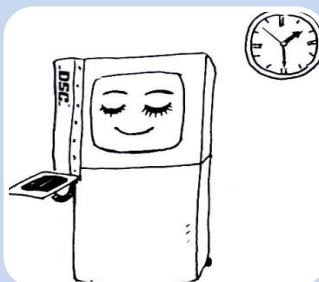
③ 将设备摆放到合适的位置

Put the equipment in a proper place.



④ 使用前最好先进行清洁

Please clean the equipment before use



⑤ 静置

设备安放调平、清洁完毕后，先不要接通电源，让设备静置30分钟以上，再接通电源，以确保设备正常运转。

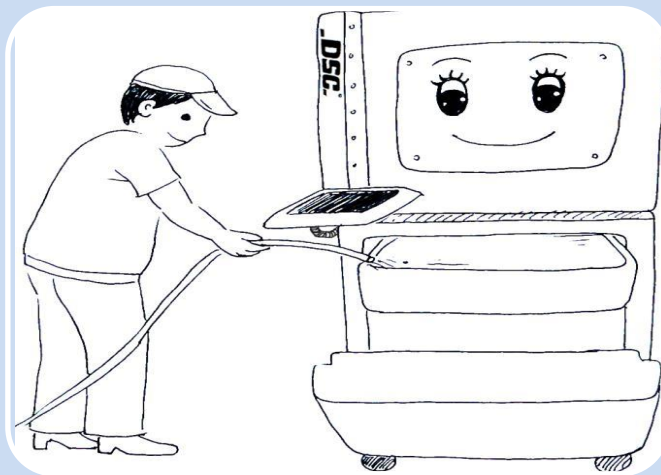
Rest

After place, level and clean the equipment, please do not connect the power immediately. To ensure normal operation, please allow the equipment to rest for 30 minutes before connecting power.

【注意】为便于查询，开箱后请将设备型号和出厂编号抄写在保修证中。

【Attention】 For Convenience Of Inquiry, Please Write The Model Number And Manufacturing Number On The Guarantee Card After Opening Box.

■ 开始使用 Start To Use



① 关闭设备排水阀（其上手柄与管口垂直），并在右边的溢水口下放盛水盆一只或用水沟方式排水（当箱内和积水槽水太多时会从下后溢水口中自动溢出）

② 加入加湿自来水（无需加湿的设备省略此步）

③ 放置好湿度传感器的专用纱布

④ 合上断路器接通电源时，设备自动进入待机状态，温度湿度显示区显示工作室温度和湿度

【如合上断路器，接通电源后机器显示无电，应检查并调整电源相序（380v设备有此设置，220v无此设置）】

When connect the power by closing the circuit breaker, the equipment will automatically enter standby mode and the display spaces of temperature and humidity show the temperature and humidity of the working room.

⑤ 设定所需要的温度、湿度，运行设备。设定方法参考仪表说明书部分

Set the required temperature and humidity, and start the equipment. Please refer to meter instruction for setting method.

【建议】

在设备的适用温度和湿度范围内，无论环境温度怎样变化，只要您运行后，就不需再进行其它任何调节，即能保持最佳试验效果，使您更加省心、省力。

【Suggestions】

Once the equipment is started, no matter how the environment temperature changes (within proper scope of temperature and humidity of the equipment), it is capable to offer you the best trial result with no other adjustments.

【注意】

温度和湿度设定改变时，工作室内温度和湿度需经过一段时间后才能达到平衡。且这段时间的长短，取决于温度和湿度设定改变的大小、周围环境温度的高低、开门频次及工作室内存放样品的多少等。

【Notice】

When the settings of temperature and humidity are changed, the temperature and humidity inside the chamber will reach a new balance after a period. The duration depends on the amplitude of temperature and humidity variation, surrounding environment temperature, door opening frequency and sample's quantity inside chamber.

■ 停用 Stop Use

【停电时的处理】

- 停电后即使是夏季，几个小时之内，仍可以毫无问题地维持低温。
- 停电后，不要再放入新试样，尽量不开设备门。

【Power cut treatment】

- Even in summer, the equipment can maintain low temperature within several hours after power cut.
- After power cut, do not put new samples in and try not to open equipment's door.

【停止使用】

- 如果设备需要停止使用较长时间，应拔下电源插头，切断电源，并照前面所述的方法清洁设备。
- 设备停止使用时应敞開箱门，以防设备内试验样品产生不良气味。
- 应打开放水阀（其上手柄与管口平行），将工作室内加湿器及水杯内放干，并擦干箱内工作室水分，取出纱布。
- 设备停机不用时应做驱潮处理，具体方法如下，将箱内水放干，温度设定在40℃，运行5小时，并每隔两小时开一次门放掉潮气，处理完毕存放。

【Stop use】

- If the equipment is required to be out of service for a long period, please pull out the plug, cut off the power supply and clean the equipment as mentioned above.
- The door should be opened when the equipment is out of service in case samples will generate unpleasant odor inside the equipment.

【注意】

- 一般情况下不要停用设备，以免影响设备使用寿命。
- 拔下电源后，至少保持间隔五分钟，才能再次插电。

【Notice】

- Normally, It Is Not Suggested Stopping Using The Equipment So As Not To Exert An Influence On The Service Life Of The Equipment.
- After Unplug The Power Cord; Please Connect The Power After Five Minutes Pass.

【假期时】

- 若是短期度假假期，请将易变质的试验取出，将设备门完全关好。
- 若长度假，需将设备电源切断，请将工作室内样品取出，待霜溶化后，清洁内部，擦干后把设备门打开，以免产生不良气味。
- 应将各排水阀打开，排空储水箱以及加湿器内的水，防止结垢。

【On vacation】

- In the event of short vacation, please take out the perishable sample, and close the equipment's door.
- In the event of long vacation, please cut off the power and get out the sample. After the frost melts, clean the chamber, and wipe it with cloths, as well as keep the door open in order not to cause unpleasant odor.

【警告】

- 器具报废后，应妥善处理或交由专业人员处理，不应随便丢弃以免对环境造成危害或引发其它危险。

【Warning】

- Scrapped equipment should be handled by professional personnel in a proper way to prevent damage to environment or other danger.

【搬运时】

- .拔下电源插头，切断电源。
- .取出设备内所有样品。
- .用胶带固定搁物架等活动部件。
- .关紧设备门，以免移动时被打开。
- .搬运设备时，最大倾斜角度不能超过45度（与垂直方向之间的夹角），以免造成制冷系统故障，影响正常使用。

【Transportation】

- Pull out the plug, and disconnect the power supply.
- Take out all samples
- Fix the moving parts such as racks with adhesive tapes.
- Close the door to avoid opening during transportation
- When move the equipment, the inclination angle should not exceed 45° (the angle between the equipment and the vertical line), so as not to cause damage to refrigerating system.

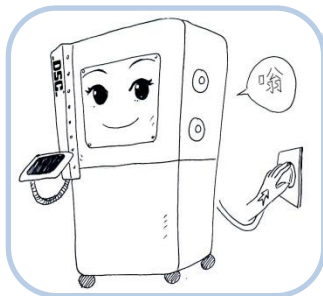
【注意】

- 任何时候都不可以将设备放倒。

【Notice】

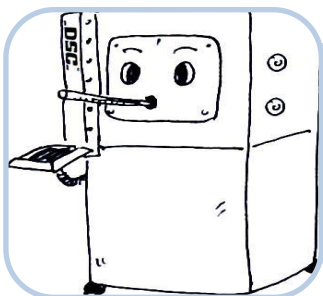
- Do not lay down the equipment in any case.

■ 疑问解答 Q&A



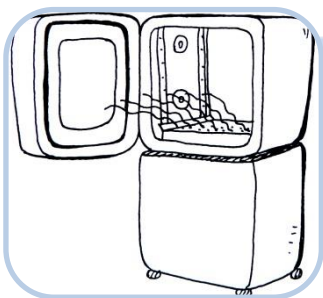
设备在初次使用或在启动时，由于设备的运行状态没有稳定，故设备在开始运行时，会发出较大的“嗡嗡”声；运行稳定后，声音就会减小。

Under the circumstance of first usage or start of equipment, there might be a “buzz” sound, due to unstable operation status. The sound will vanish when the operation becomes stable.



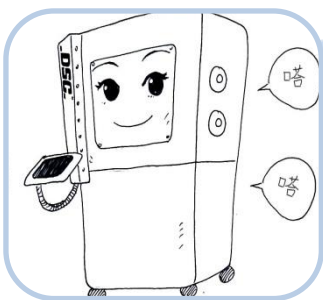
设备初次使用时，会出现工作时间长，设备箱体温度高，压缩机温度高的现象，这是正常现象。

Under the condition of first use, the phenomenon of long time operation, the high equipment temperature and high compressor temperature, taking place, are normal phenomena



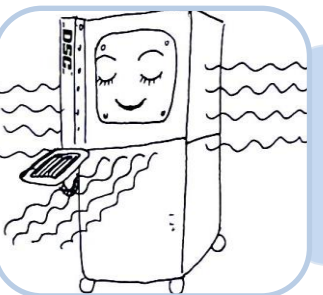
设备在工作时，因有风扇在工作，由此而产生的轻微吹风声是正常的。

When the equipment is working, it is normal to have a slight wind noise because of the rotating fan.



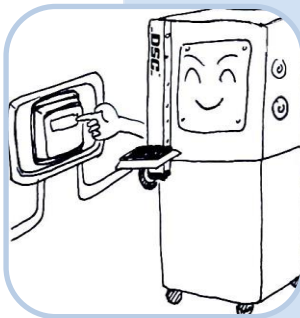
设备内制冷剂流动的声音，压缩机工作时发出的声音，以及开、停机时压缩机发出的“嗒嗒”声，这是正常现象。

The flowing noise of the coolant inside the equipment, the noise of working compressor, and tap-tap sound resulting from the start and shut-down of equipment are normal phenomena.



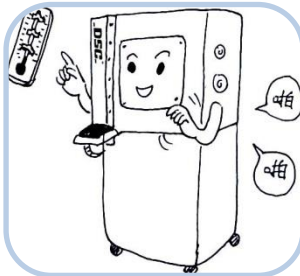
设备利用电气控制箱两侧板孔、上侧板空散发热量，温度较高，这是正常现象。

The equipment emits heat from two-side plates and upside plat of the electric control cabinet. Thus, it is normal to appear high temperature in these areas.



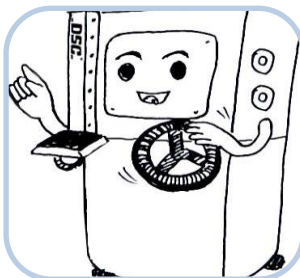
技术数据中所标注技术指标是按国家标准，在5-35℃的环境温度下，相对湿度小于85%，大气压80-106kPa，周围无强烈振动，无阳光直射和其他热源辐射，无电磁和其他腐蚀影响，未放入试验样品，并且达到设定值不开门，稳定后2小时候测得的指标。当放入样品较多，环境温度较高或开门频繁时，实际指标高于标注值是正常的。

In line with national standards, the technical indexes marked in technical data are tested under the circumstance of environment temperature from 5°C to 35°C; relative humidity of below 85%; air pressure of 80-106kPa, no strong surrounding vibrations, no direct sunlight or other thermal radiations, no influence of magnetic and other corrosions, no samples, set value attained with door closed and two hours after stabilization. It is normal to achieve the actual indexes higher than the stated values in the event of many samples, high environment temperature or opening the door frequently.



设备在工作时，由于温度的变化，蒸发器和管路会由于热胀冷缩发出“啪啪”的声音。

When the equipment is working, evaporator and pipelines will make “poop” sound due to expansion and contraction caused by temperature fluctuation.



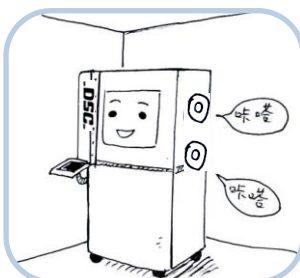
夏季环境温度较高，降温工作时间较长为正常现象。

It is normal to have longer cooling time under high temperature environment in summer.



空气湿度较大时设备外部可能出现水珠，用软布擦干即可。

In case of high air humidity, the exterior surface of the equipment may generate water droplets. Just wipe it with soft cloth.



设备在开停时，主控板、启动继电器、热保护器等电气件会由于动作而发出“咔嗒”声。

When starting or shutting down the equipment, there is “clatter” sound arising from electrical components such as master control board, start relay, thermal protector because of action.

【注意】

- 每次使用设备前，必须检查纱布是否完好，如纱布发生变硬，变脆或因水质造成变黄及水垢的，只要影响吸水能力必须更换。
- 在打开电源开关，加湿的前提下，水会自动流入湿度水槽及加湿水槽，若无水应检查管道是否有堵塞现象，应排除后使用。
- 当设定温度为零度以下时，湿度不显示，这属正常现象。
- 在设备长期低温（低于环境温度时）运行时，每隔半个月，开40℃运行2H左右，进行“除霜”后，再投入运行。
- 加湿器清洗：设备连续运行高湿2到3个月后，需要清洗加湿器水垢。
- 定期检查压缩机压力值是否在正常范围内。低压过低，可能的原因是制冷剂泄露，请致电本公司加注制冷剂。

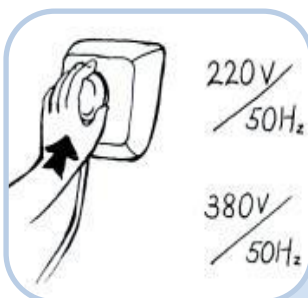
■ 售后服务 After-sale service

【注意】维修之前请确认如下事项：

- 维修维护时检查设备必须处于断电状态
- 如果设备工作不正常，请按下述方法检查处理。
- 如还不能改变情况，请及时联系当地售后服务中心。
- 一定要详细提供型号名称、附件明细和设备编号等。

【Notice】 Please confirm the following issues before repairing:

- The power must be cut off when repairing or checking the equipment
- In the event of malfunction, please check the equipment according to following steps.
- If you can not fix the problems, please contact local After-sale service center.
- Do remember to provide information, such as, model, accessories and equipment serious number.

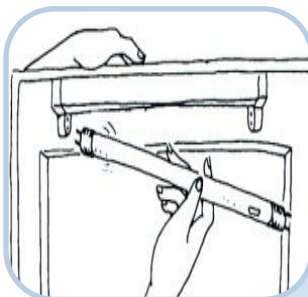


设备不工作

1. 电源是否接通（插头、插座、保险等）
2. 设备温度湿度设定是否正确，设备是否置于运行状态。电源电压是否过低，缺相、断相、相序错误，请检查电源，或者保险丝管是否已断电源开关坏或未开，请检查接线是否脱落

The Equipment Doesn't Work

1. Check Power Connection (Plug, Socket, Fuse Wire And So On)
2. Check The Temperature And Humidity Settings Check The Working Status. Check If The Power Voltage Is Over Low



照明灯不亮

1. 灯泡是否损坏
2. 电源是否接通

No illumination

1. Check the bulb
2. Check the power connection

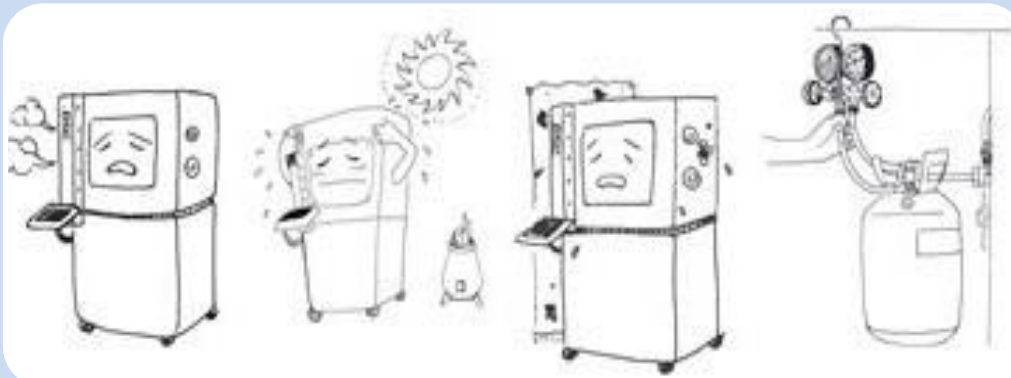


噪音大或运转有异常声音

地面是否平坦、设备放得是否稳固
 设备某一部分是否接触外界物体或墙壁
 风机坏或风机与风道板磨擦，压缩机（强排力）风扇松脱或者故障，压缩机紧固处松脱

Too Much Noise

To check if the ground is flat and if the equipment is placed stably.
 To check if there is any contact with external objects or wall



箱内温度不够低

1. 门没关严或频繁开启设备门、开门时间过长
2. 放置位置是否受阳光直射或太靠近暖气等热源
3. 通风不良，是否有东西挡住了设备左右两侧板或后背钢板，或者是这些位置太脏
4. 制冷剂泄漏，请联系DSC售后服务

Insufficient Interior Low Temperature

1. The door is not well closed or frequently opened or opened for a long time
2. Exposure to direct sunlight or near to thermal sources such as heating
3. Poor ventilation. To check if the left and right side boards and back steel board are blocked or these places are too dirty.
4. In the event of coolant leakage, please contact DSC After-sale service

湿度失控（或不能设置）或湿度显示100%

- 原因可能是，或湿度传感器上未挂纱布或湿度水槽中根本无水；温度传感器和湿度传感器反装。处理方法是：挂纱布或管道疏通后将湿度水槽中的水引至纱布上；正确安装温度湿度传感器。

湿度不显示

- 如果设定温度零度以下，会出现这种情况，请改变设定温度为零度以上。

不升温或失控

- 控温仪坏或接头脱落，加热器坏或接头脱落，温度传感器接触不良。

压缩机启动/关闭频繁

- 压缩机热保护器启动，压缩机（保护器）烧坏（有烧焦味），制冷电气故障，冷凝器结冰过多，制冷功率小，SSR已坏，无法执行断开

压缩机长时间运转

- 初次使用时，运行时间较长，这是正确现象
- 设备中一次放入大量样品需要冷却或冷冻
- 天气炎热，频繁开启设备门
- 设备门未关严
- 参阅“开始使用”一节
- 通风不良

Long time operation of compressor

- On first use, it is normal to have a long compressor operation time
- If many samples are put in the equipment, it takes some time to cool down or freeze.
- Frequently open the door in hot weather
- The door is not tightly closed
- Refer to the section of “Start to use”
- Poor ventilation

设备按键操作无效

- 请检查设备是否处于断电状态
- 按键操作是否有误，请按“功能介绍”一切正确操作

Invalid button operation

- To check power connection
- To check button operation, and please follow the correct operation of “functions”

工作后壁结露严重

- 温度湿度设定不当，参阅“开始用”一节 ·门未关严或样品将门顶住未能关上
- 门开启太频繁
- 天气炎热
- 湿度过大
- 通风不良

Serious condensation in back wall incorrect temperature setting, please refer to the section of “start to use”

- The door is not well closed or the sample keeps the door from closing
- To Open The Door Frequently
- Hot Weather
- High Humidity
- Poor Ventilation

工作室底部有水或水外溢

- 冷藏室后壁上的出水孔可能堵塞，请用透孔销疏通

Water Spills From The Bottom Of The Chamber

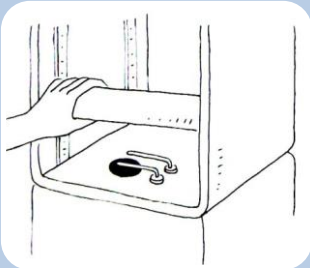
- The hole in the back wall of the refrigerating chamber might be blocked, please thrust it with hole-pin

■ 设备维护 Equipment Maintenance

湿布的检查以及更换 Checking and replacement of the wet cloth

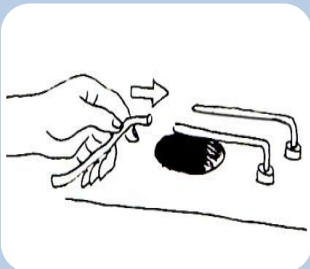
湿布的安装和更换：经过数月的使用湿布需要更换时，请按照以下步骤进行简单更换

Checking and replacement of the wet cloth: after months of use, the wet cloth should be replaced. Please follow the steps as follows:



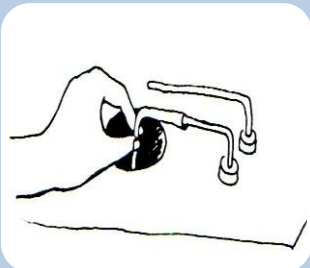
第一步 掀起下舒流板 检查水位和湿布情况（下舒流板的位置请见结构部分）

First, lift the lower flow board and check the water level and the wet cloth (see the structure section for location of flow board)



第二步 将准备好的湿布套入传感器30mm

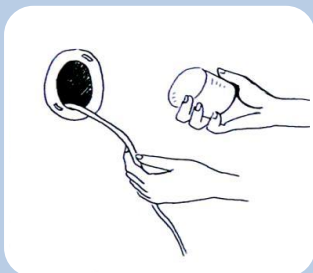
Second, cover the sensor deep into 30mm with prepared wet cloth



第三步完成安装

Third Compete installation

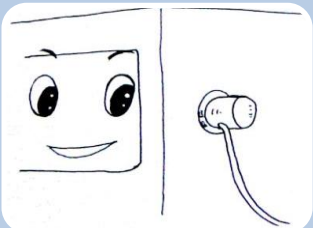
通电测试孔的使用和密封 Use and seal of electricity testing hole



电缆测试孔的位置请见结构部分
See structure section for location of electricity testing hole



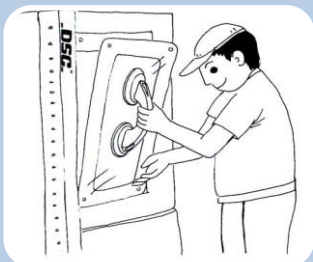
第一步 取下电缆孔密封塞
First, take off the sealing plug of the cable hole



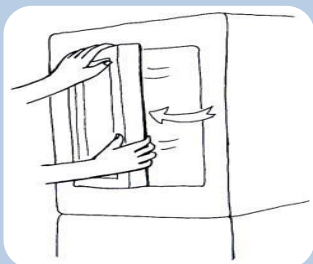
第二步 重新塞好电缆孔密封塞
Third, put the sealing plug back to the cable hole

照明灯管的安装以及更换 Installation and replacement of lighting lamp

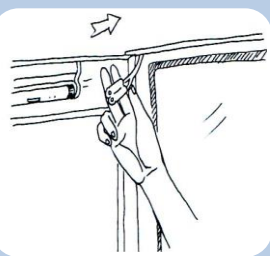
第一步 使用工具 打开外视窗玻璃四角固定螺丝
First, use tools to open the anchor screws of the glasses of the exterior window



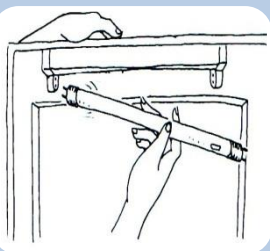
第二步取下玻璃
Second, take off the glasses



第三步从右侧打开内玻璃压框至45度
Third, open the interior glasses pressing frame to 45°from right hand side



第四步 拔出灯管电源线
Fourth, unplug the power line of the lamp



第五步 更换损坏的灯管
Fifth, replace the damaged lamp

售后服务的保证

1. 保修证：当您需要正常咨询或维修时，请持保修证和购机发票与我公司当地售后服务中心联系，并将保修证妥善保管。
2. 保修期内整机免费保修一年（自购买日起）

Guarantee card:

1. For regular consultant or maintenance, please contact the local after-sale service center with guarantee card and purchasing invoice. Please keep the guarantee card properly.
2. One year guarantee for the whole equipment (since the purchasing date)

■ 技术数据 Technical data

内容 content 型号 model	气候类型 Weather types	防触电保护类别 Protection Type For Anti Electric Shock	有效容积(L) Total effective volume (L)	工作室尺寸 (D*W*H)mm	外形尺寸 (D*W*H)mm
DH*-27-*	SN.N.ST	I 类 I type	27L	300*300*300	840*500*690
DH*-100-*	SN.N.ST	I 类 I type	100L	500*400*500	1030*850*1100
DH *-250-*	SN.N.ST	I 类 I type	250L	520*630*780	1300*920*1770
DH *-500-*	SN.N.ST	I 类 I type	500L	700*800*900	1470*1090*1890
DH *-1000-	SN.N.ST	I 类 I type	1000L	1000*1000*1000	1780*1290*2032

【注意】根据国际规定,气候类型为SN.N.ST时,设备使用环境温度为10~38℃。

【Note】According To International Regulation, When The Weather Type Is Sn.N.St, The Environment Temperature For Applying Equipment Is 10~38℃.

容积	加热 (kw)	加湿 (kw)	制冷功率 (单位: 匹) 1 匹=735w								
			0~150℃			-20~150℃			-40~150℃		
			冷机 型号	功率 (P)	电源	冷机 型号	功率 (P)	电源	冷机型号	功率 (P)	电源
DH*-27-*	0.5	0.5	2415	1/4		1380	1/4		2424		
DH*-100-*	1.5	2	4440	1/3	220	9510	1	220/380	2480	2	220/380
DH *-250-*	3	2	9510	1	220/380	2446	1	220/380	2446 复叠	2	220/380
DH*-500-*	3	2	4517	1-1/4	220/380	2464	1-1/2	220/380	2464 复叠	3	220/380

DH *-1000-	4.5	2	4522	2	220/380	2480	2	380	2480 复叠	4	380
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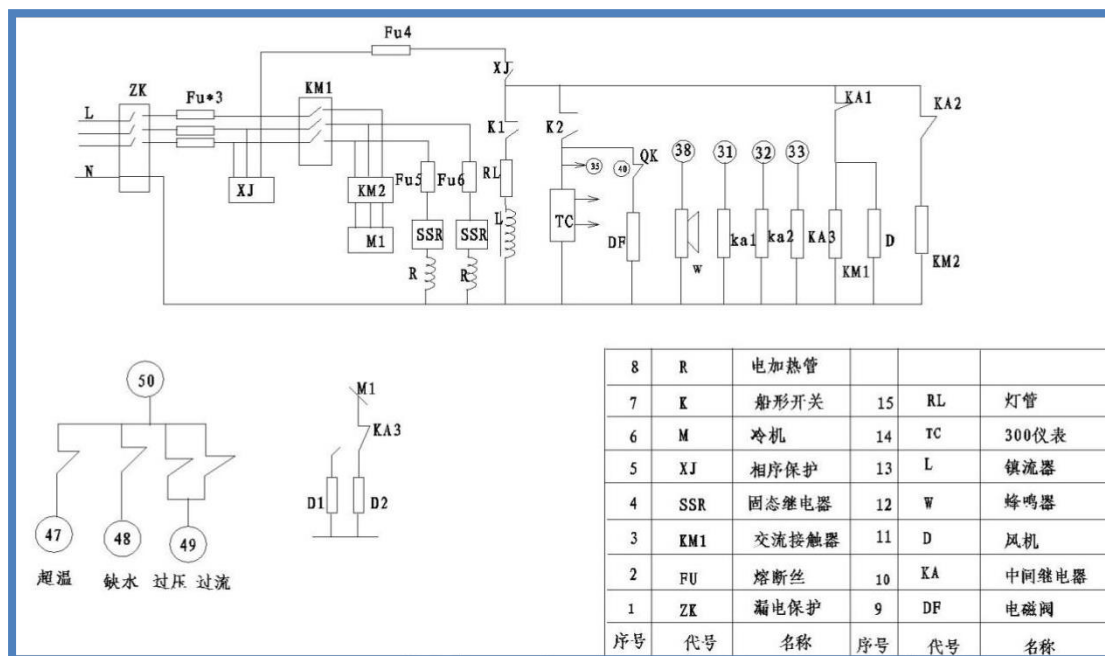
【注意】本公司注重科技更新，参数更改后，恕不另行通知)

【Note】our company pays much attention to technology improvement. The parameters are subject to change without prior notice.

■ 装箱单 Packing List

项目	主机	控制器	样品架	湿布	钥匙	设备说明书	仪表说明书	电源线
数量	1	1	2	2	1	1	1	1

■ 线路图 Circuit diagram



【注意】本公司注重科技更新，参数更改后，恕不另行通知）

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