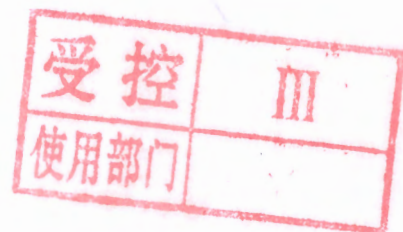


# 冷凝机组规格书

## Condensing Unit Specification

型号: HQHD-16KBP

Model: HQHD-16KBP



|                            |                  |                  |  |
|----------------------------|------------------|------------------|--|
| 客户确认<br>Customer Signature |                  |                  |  |
| 设计<br>Design               | 审核<br>Examine    | 批准<br>Approve    |  |
| 池明锐<br>2023.01.13          | 徐敏<br>2023.01.14 | 陈增辉<br>2023.1.17 |  |

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Zhejiang Boyang Compressor Co., LTD

## 1. 概述

本产品设计按照国家标准 GB/T 21363-2018《容积式制冷压缩冷凝机组》、GB4706.1-2005《家用和类似用途电器的安全》。适用于冷冻冷藏柜、超市岛柜、中低温实验设备及专用设备。应用于使用环保制冷剂 R404A 等，使用环境温度为 0~43℃（当环境温度低于 10℃时，需要增加冷凝温度控制），蒸发温度-40~-5℃，冷凝温度 30~60℃的制冷设备。

### 1. Summary

The condensing unit designed by China national standard GB/T21363-2018 《Positive displacement refrigerant compressor condensing unit》, GB4706.1-2005 《Household and similar electric appliance-Safety》. It is suitable for refrigerating refrigerator, supermarket island cabinet, medium and low temperature experimental equipment and special equipment. Applicable to refrigeration equipment using environmentally friendly refrigerants such as R404A. The ambient temperature range 0~43℃ (when the ambient temperature is lower than 10℃, the condensation temperature control needs to be added), the evaporation temperature range -40~-5℃, and the condensation temperature range 30~60℃.

## 2. 主要规格 Specifications

|                                    |                      |                                        |            |
|------------------------------------|----------------------|----------------------------------------|------------|
| 应用 Application ①                   |                      | 冷冻冷藏 Refrigeration & Freezing          |            |
| 机组型号 Model                         |                      | HQHD-16KBP                             |            |
| 名义输入功率 Nominal Input (W)           |                      | 1000                                   |            |
| 使用工质 Refrigerant (MAX Charge Kg) ② |                      | R404A 或等同品 R404A or Equivalent (1.5Kg) |            |
| 电源<br>Power<br>Supply              | 相数 Phase             |                                        | 1 PH       |
|                                    | 电压 Voltage           |                                        | 220-240V   |
|                                    | 频率 Frequency         |                                        | 50 Hz      |
| 启动方式 Starting Mode                 |                      | CSR                                    |            |
| 最大负载电流 Max Running Current (A)     |                      | 6.0                                    |            |
| 蒸发温度范围 Evap. Temp (℃)              |                      | -40~-5                                 |            |
| 环境温度范围 Ambient Temp. (℃) ③         |                      | 0~43                                   |            |
| 冷凝器<br>Condenser                   | 规格 Style             |                                        | 4*9 (hole) |
|                                    | 风扇电机<br>Fan<br>Motor | 风扇直径*数量 (mm)<br>Diameter*Quantity      | φ 230*2    |
|                                    |                      | 风量 Air Flow (m <sup>3</sup> /hr)       | 1460       |

|                                       |                               |                        |
|---------------------------------------|-------------------------------|------------------------|
| 接管 Pipe<br>(mm)                       | 吸气口 Gas Inlet (Diam.)         | 1/2" copper            |
|                                       | 排出口 Liquid Outlet (Diam.)     | 3/8" copper            |
| 外形尺寸<br>Dimension<br>(mm)             | 长 Length (mm)                 | 680 (±2)               |
|                                       | 宽 Width (mm)                  | 485 (±2)               |
|                                       | 高 Height (mm)                 | 263 (±3)               |
| 噪音 Noise (dB) A 级 ④                   |                               | 59                     |
| 成品重量 Weight (Kg)                      |                               | 31                     |
| 制冷量<br>(R404A)<br>Cooling<br>Capacity | 蒸发温度 Evap. Tem. (°C)          | 环境温度 Ambient Temp:32°C |
|                                       | -7°C(Standard Test Condition) | 1800W                  |
|                                       | -23°C                         | 1000W                  |
| 线径<br>Diameter<br>(mm <sup>2</sup> )  | <10m                          | 2.5                    |
|                                       | <20m                          | 2.5                    |
|                                       | <30m                          | 2.5                    |

注:

①机组应用于冷冻工况时，建议增加制冷电磁阀，使用负压停机方案；应用于冷藏工况时，建议增加制冷电磁阀；

②当机组加注制冷剂超出最大加注量时，需与我司确认补加冷冻油质量；

③当环境温度低于 10°C 时，需要增加冷凝温度控制；

④噪音检测点位置如图 1 所示。

①When the unit is used in freezing condition, it is recommended to add refrigeration solenoid valve and use negative pressure shutdown scheme; When used in refrigeration conditions, it is recommended to add refrigeration solenoid valve;

②When the unit filling refrigerant exceeds the maximum filling amount, the quality of filling chilled oil should be confirmed with our company.

③When the ambient temperature is lower than 10°C, the condensation temperature control needs to be added;

④The position of noise detection point is shown in Figure 1.

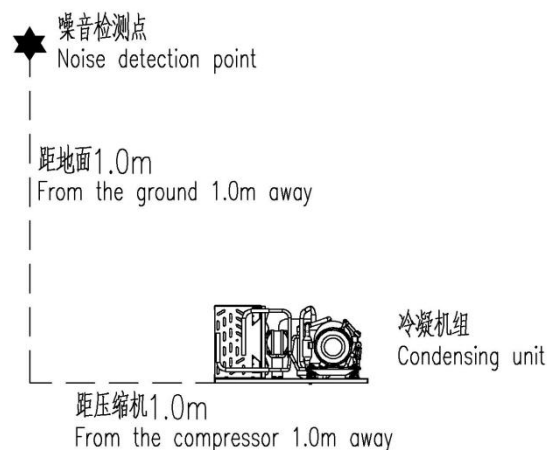


图1 Figure 1

### 3. 机组配置清单 Parts List

| 序号 No. | 品名 Parts Name                                | 型号 Model                                                         | 数量 Qty |
|--------|----------------------------------------------|------------------------------------------------------------------|--------|
| 1      | 钣金 Sheet Metal                               | 680*485*15 $\delta=2.0\text{mm}$                                 | 1      |
| 2      | 压缩机 Compressor                               | QHD-16K                                                          | 1      |
| 3      | 配电箱 Distribution Box                         | PD-16E (JZ)                                                      | 1      |
| 4      | 冷凝器 Condenser                                | HQHD-16KB-LN-01e                                                 | 1      |
| 5      | 冷凝电机风叶 Motor Blade                           | $\varnothing 230$ , $34^\circ$                                   | 2      |
| 6      | 冷凝电机 Motor                                   | 罩极电机 Shaded Pole Motor 16W                                       | 2      |
| 7      | 高低压力控制器 High & Low Pressure Controller (Mpa) | High Pressure 2.7 OFF manual reset<br>Low Pressure 0 OFF, 0.2 ON | 1      |
| 8      | 单向阀 Check Valve                              | SR-06                                                            | 1      |
| 9      | 储液器 Reservoir                                | 0.8L                                                             | 1      |
| 10     | 干燥过滤器 Filter Drier                           | 083S                                                             | 1      |
| 11     | 气液分离器 liquid-vapor Separator                 | 650cc                                                            | 1      |
| 12     | 消音棉 Silencing Cotton                         | HQHD-13KB-00-18                                                  | 1      |

注：该机组可配置 HQHD-16KB-00-13a 防尘网。

The unit can be configured with HQHD-16KB-00-13a dust screen.

### 4. 机组使用要求：

- 1、抽真空应抽至真空度 20Pa 以内（建议抽至 5Pa 以下），低压端保压压力不能超过 1.5Mpa（表压），避免对低压部件造成损坏；
- 2、压缩机每小时开停次数不能超过 6 次，每次间隔时间为 5 分钟以上；
- 3、机组初次加注制冷剂（从高压端充注），等待高低压力平衡后，再进行开机调试；
- 4、冷凝器清理建议每月一次，当有柳絮季节或工作恶劣场所，应加大清理频次。清洗时可用长毛刷刷拭，或用压缩空气吹净换热器表面浮尘，切勿用自来水冲洗。
- 5、冷媒加注量超过机组最大加注量时，需与我司另行协商；
- 6、机组应用于冷冻工况时，建议增加制冷电磁阀，使用负压停机方案；应用于冷藏工况时，建议增加制冷电磁阀；
- 7、机组运输时，需在压缩机下方垫泡沫块，避免运输过程对机组管路造成损伤，设备到达终端后，使用前需取下。

### 4. Attention:

1. Vacuum should be pumped to within 20Pa (it is recommended to pump below 5Pa), and the low pressure end pressure pressure should not exceed 1.5 Mpa (gauge pressure) to

avoid damage to the low-pressure parts;

2.The start and stop times of the compressor should not exceed 6 times per hour, and the interval between each time should be more than 5 minutes;

3.When the unit is charged with refrigerant for the first time (charge from the high-pressure end), waiting for the high and low pressure balance, and then start debugging;

4.Condenser cleaning is recommended once a month.When there is catkin season or bad working places, the frequency of cleaning. When cleaning, you can use a long brush to wipe, or blow to clean the dust of the heat exchanger with compressed air. Don't rinse with tap water.

5.If the refrigerant filling amount exceeds the maximum filling amount of the unit, we shall negotiate with our company separately;

6.When the unit is used in freezing condition, it is recommended to add refrigeration solenoid valve and use negative pressure shutdown scheme;When used in refrigeration conditions, it is recommended to add refrigeration solenoid valve;

7.During the transportation of the unit, the foam block should be placed under the compressor to avoid the damage caused to the unit pipeline during the transportation process. After the equipment reaches the terminal, it should be removed before use.

## 5. 规格书有效期

本规格书经贵公司确认之日后即生效。若更改须重新确认生效，以前的规格书自动失效。

### ***5.The Period of Validity***

This document shall be effective after the date confirmed by your company.If any change is made it must be reconfirmed to take effect, and the previous specification will automatically become invalid.

外形图 Outline drawing

