



全谷制冷空调(上海)有限公司  
Quangu Refrigeration Air-Condition(Shanghai) Co., Ltd

# 赛静

## 系列涡旋箱式冷凝机组

Silent-Joy Series Scroll Condensing Unit



涡旋风冷型冷凝机组  
Scroll Air-cooled Condensing Unit

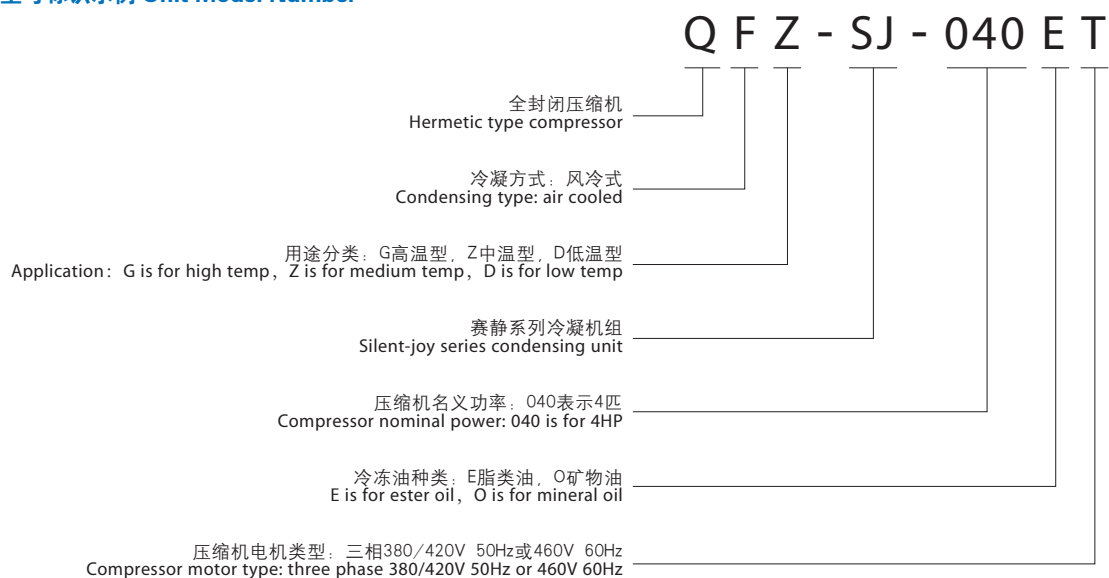
- 低噪音 Low Noise
- 紧凑型 Compact Design
- 户外使用 Outdoor Use



### 一. 产品主要特点

- 机组外形类似空调室外机型，美观大方，便于安装、维护。
- 采用谷轮涡旋压缩机，运行可靠、噪音低、效率高。
- 由于涡盘磨合的特性，机组在运行一段时间后性能会更好。
- 涡旋压缩机 100% 的容积效率，高效、节能。
- 提供 2 匹到 10 匹中高温应用、低温应用多个品种和规格，可满足各种用途。
- 蒸发温度范围：+ 7°C ~ - 40°C。

### 二. 型号标识示例 Unit Model Number



### 三. 机组的安装固定

- 机组必须由专业制冷公司和专业人员进行安装
- 机组应固定在清洁、干燥的地方，附近请勿放置易燃、易爆及有腐蚀性的物品。
- 机组四周应留出足够的空间，以便机组的通风和日常维护、维修。
- 机组背面与墙面距离应不小于 300mm，并防止地面积水损坏机组。
- 不能阻挡机组的进出风路径，特别是当多台机组安装在一起时更要合理布置，避免热风相互干扰，造成气流短路，从而影响制冷效果。
- 用于安装机组的支撑物必须牢固，保证足够承受机组的重量不致坠落，并有较好的防腐能力。
- 机组安装位置应尽量避免对周围居民和路人的干扰和影响。
- 为保证机组的使用寿命和运行效果，建议机组安装在阴凉、遮阳的地方。

### The product features

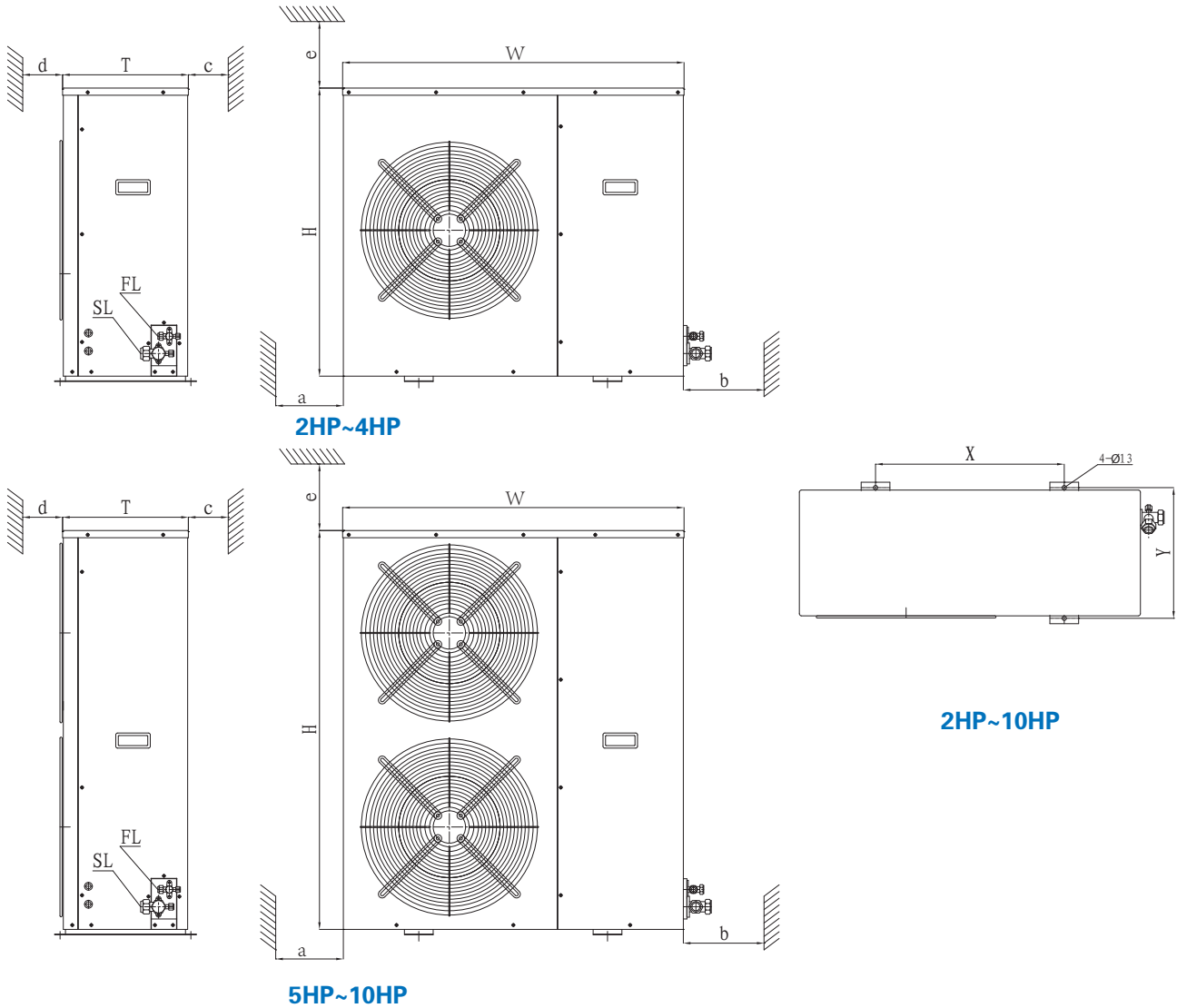
- The shape of the unit is quite similar with the outdoor unit of other air conditions which is beautiful and easy to install and maintain.
- Be equipped with the Copeland scroll compressor which is reliable and high efficient and with no noise.
- Due to the features of the turbo wheel running-in ability, the performance of the unit will be much better after it runs for some time.
- With one hundred percent volumetric efficiency, high efficiency and energy saving of the scroll compressor.
- Provide a variety specification for the middle-high temperature and low temperature application which the refrigeration capacity is ranged from 2HP to 10HP.
- The range of evaporating temperature: + 7°C ~ - 40°C

### The unit installation and fix

- The unit must be installed by the professional people of the refrigeration company.
- The unit should be fixed in the clean and dry place, besides, the inflammable, explosive and corrosible substance can not be put next to the unit.
- The enough space around the unit should be remained for the smooth air flow and maintenance.
- The distance between the back of the unit and the wall should be no less than 300mm, besides, the user should also prevent the unit from the damage of the excess surface water.
- The air inlet and outlet route of the unit can not be blocked, especially when there are more than one unit are installed together, then these units need to be arranged more reasonable so as to avoid the problem of air short circuit by the mutual interference of the hot air.
- The support used to the installation of the unit must be firm and with good anticorrosive ability so as to ensure it can undertake the enough weight of the unit.
- The user should choose the right installation place of the unit to avoid the interference to the inhabitant and the passer.
- The unit is suggested to install in the cool place without sunshine so as to guarantee its service life and running efficiency.

四. 机组结构和安装尺寸 The unit construction and installation size

1. 机组外形和安装尺寸 Unit appearance and installation size



2. 安装尺寸表 Installation size sheet

| 规格<br>Specification | W    | H    | T   | X   | Y   | 吸气管<br>Suction pipe | 供液管<br>Liquid pipe | a   | b   | c   | d    | e   |
|---------------------|------|------|-----|-----|-----|---------------------|--------------------|-----|-----|-----|------|-----|
|                     | mm   | mm   | mm  | mm  | mm  | inc                 | inc                | mm  | mm  | mm  | mm   | mm  |
| 2-4HP               | 950  | 840  | 350 | 532 | 375 | 5/8                 | 3/8                | 300 | 500 | 300 | 1000 | 500 |
| 5-7HP               | 950  | 1130 | 350 | 532 | 375 | 3/4                 | 1/2                | 300 | 500 | 300 | 1000 | 500 |
| 8HP                 | 1100 | 1410 | 480 | 850 | 506 | 1 1/8               | 5/8                | 300 | 500 | 300 | 1000 | 500 |
| 9-10HP              | 1100 | 1410 | 480 | 850 | 506 | 1 3/8               | 5/8                | 300 | 500 | 300 | 1000 | 500 |

## 五. 制冷系统连接

### 1. 管道连接

- 管道连接前先排空机组内的氮气
- 使用制冷空调专用的干净磷脱氧铜管
- 系统中水平管道应顺制冷剂液体流动方向向下倾斜 1/100 - 2/100
- 蒸发器安装位置高于压缩机时，高度差应在 5 米以内，并在蒸发器回汽管出口处设置 U 形弯，回汽管应高于蒸发器上平面后在与吸汽立管连接。
- 蒸发器安装位置低于压缩机时，应在回汽立管底部设置 U 形回油弯。如高度差大于 5 米时，应每隔 5 米设置一个回油弯，且总高度差不超过 20 米。
- 回油弯应尽量小。
- 制冷管道应牢固支撑或固定，避免管道下垂形成油陷阱。
- 回汽管道应采取隔热措施，以减少冷量损失。

### 2. 气密性试验

- 在管道连接完毕后进行气密性试验，试验应包括机组、蒸发器和连接管道在内的整个系统
- 试验气体可采用氮气或氮气 / 制冷剂混合气体，严禁采用可燃气体
- 试验方法可采用气泡法、保压法或卤素检漏法

### 3. 抽真空

- 必须使用真空泵对整个系统抽真空，严禁使用本机组的压缩机对整个系统抽真空，否则会造成压缩机不可修复的损坏
- 抽真空时应将整个系统的所有阀门全部开启，从高低压两侧同时进行。建议采用两次真空法
- 抽真空时应取出气门芯，以提高效率
- 真空度值标准：30Pa 以下

### 4. 加注制冷剂

- 加注制冷剂应在系统抽真空后立即进行
- 接通电磁阀，从高压阀加液口加注液态制冷剂
- 加液管道上应有干燥过滤器，以防止水分和杂质进入系统
- 制冷剂加注量应根据系统的容积和运行条件确定，一次加注不易过多
- 系统运行稳定后，从低压阀检测口适当补充气态制冷剂

调试完成后的压缩机排气温度低于 90°C，特别注意吸气压力要符合设计蒸发温度的对应值。下表是 ZB 和 ZF 型机组使用不同制冷剂时的参考吸气压力范围和最低吸气压力（表压）：

|         | R22                        |                     | R404A                      |                     |
|---------|----------------------------|---------------------|----------------------------|---------------------|
|         | Value for reference<br>参考值 | Lowest value<br>最低值 | Value for reference<br>参考值 | Lowest value<br>最低值 |
| ZB unit | 2.5-2.8bar                 | 2.3bar              | 1.5-3.8bar                 | 1.3bar              |
| ZF unit | 0.1-2.8bar                 | 0bar                | 0.4-3.8bar                 | 0.3bar              |

## The refrigeration system connection

### 1. Pipe connection

- The nitrogen inside the unit must be evacuated before the connection between the pipes.
- The user should choose the clean special phosphorous deoxidize copper tube for the refrigeration air condition.
- The direction of the horizontal pipe should be downward sloping to the liquid refrigerant flow direction from 1/100 to 2/200.
- When the installation position of the evaporator is higher than the compressor, the difference in height should be within 5 meters, besides, the U-turn should be equipped next to the outlet of the gas return pipe of the evaporator, and the gas return pipe should be higher than the top surface of the evaporator before it is connected with the sniffer pipe. Picture 8
- When the installation position of the evaporator is lower than the compressor, the oil return U-turn should be accordingly equipped under the gas return stand pipe. If the difference in height is more than 5 meters, the oil return U-turn should be installed every 5 meters and the total difference in height can not be over 20 meters. Picture 9
- Oil return U-turn should be as possible as small.
- The refrigeration pipe should be firmly supported or fixed to avoid the forming of the oil trap by the droop of the pipe.
- The gas return pipe should be heat insulated so as to reduce the loss of the refrigeration capacity.

### 2. Air tight test

- The air tight test should be started after the pipes have been connected, the test should include the unit, the evaporator and the whole system with the connected pipes.
- The user could use nitrogen or the mixed gas by nitrogen and refrigerant for the test, the inflammable gas is forbidden to use.
- The way of the test can be gas bubble method, pressure hold method and halogen leak detect method.

### 3. Vacuumization

- The whole system must be vacuumized by the vacuum pump, the user can not use the compressor of the unit itself to vacuumize the system or that will cause the compressor can not be repaired any more.
- All the valves of the whole system should be open before the unit is vacuumized at both of the high pressure side and the low pressure side. It is suggested the vacuumization need to be done twice.
- The valve core should be taken out before the unit is vacuumized so as to increase the efficiency.
- The standard to the degree of vacuum: less than 30Pa

### 4. The refrigerant charge

- The charge of refrigerant should be done at once after the vacuumization of the system.
- Put through the magnetic valve, the liquid refrigerant should be charged from the liquid filler of the high pressure valve.
- The charge pipe should be equipped with drier filter to prevent the system from the entrance of water and impurity.
- The charge quantity should be subjected to the volume and working condition of the system, the charge quantity in one time can not be too much.
- The gaseous refrigerant should be properly supplemented from the detect mouth of the low pressure valve after the running of the system is stable.
- The proper charge quantity: the intuitive charge quantity is about 1-2Kg extra after the bubble disappears from the sight glass, which is subjected to the suction and exhaust pressure.

After the unit adjustment, the compressor discharge temp should be lower than 90°C, and the suction pressure should meet the corresponding value according to the designed evaporating temp. The sheet below is for the corresponding pressure value of the ZB and ZF condensing unit ( pressure gauge value) :

### 六. 电气系统连接

- 机组应使用合格的专用电源：380V±10%，50Hz，3相5线，不要与其它设备共用
- 每相电线规格应符合低压电气规范
- 安装适当容量的漏电保护器，以免触电及发生火灾
- 安照机组电路图及电气规范正确接线
- 请勿使电线碰到高温部件
- 接地线应正确固定在机组电气箱的接地螺栓上
- 接线完成后须测试电路对地绝缘，最低阻值必须在2兆欧以上

### 七. 开机及调整

#### 1. 开机前检查

- 首次运行或长期停机后重新启动前，应将曲轴加热器提前通电4~12小时
- 确认电气接线正确及接线牢固
- 确认各截止阀均已开启

#### 2. 启动机组

涡旋压缩机不能反转运行，请在启动机组时确认转向正确。

#### 3. 压力控制器

- 高压设定：机组高压控制采用可调节的机械式压力控制器
- 低压设定：机组低压控制采用可调节的机械式压力控制器
- 设定压力值时，须确保压缩机不会超范围运行

#### 4. 运行注意事项

- 机组运行时切勿触摸电气部件，检查电路时务必先切断电源
- 请勿触摸机组高温部件，以防烫伤
- 正常运行时，压缩机每小时启动次数应少于10次，开停间隔大于3分钟
- 注意观察压缩机运行时吸、排气压力和温度有无异常。如发现压缩机在超出规定压力范围运行时，应通过调整过热度（膨胀阀的开启度）使机组在规定的压力范围内运行

### 八. 维护与保养

- 机组的维护与保养应由专业人员进行
- 冷凝器翅片应定期清洁，发现灰尘或污物堵塞应及时清除

### The electrical machine system connection

- The unit should use the eligible special power: 380V±10%, 50Hz, 3 phase supply with 5 routes, the power can not be used with the other equipments.
- The specification of each electrical wire should conform to the standard of low voltage electrical machine.
- The user should install the leakage protector with proper capacity to avoid the electric shock and fire.
- Connect the wires according to the unit circuit diagram and electrical machine.
- Do not let the electric wires touch the high temperature parts.
- The ground wire should be rightly fixed on the ground bolt of the unit electrical machine box.
- After the wires have been connected, the user should test the ground insulation of the circuit, the lowest resistance value must be over 2 megohm.

### The unit start-up and adjustment

#### 1. The inspection before the unit start-up

- Before the start-up of the unit, the crankshaft heater should be electrified for 4~12 hours in advance when the unit runs in the first time or after it is closed for a long time.
- Ensure the right and firm wires connection of the electrical machine.
- Ensure each break valve is open.

#### 2. Unit start

The scroll unit could not be run in its reverse way, the user should ensure its right running direction.

#### 3. Pressure controller

- The high pressure setup: The high pressure control system of the unit should use the adjustable mechanical type pressure controller.
- The low pressure setup: The low pressure control system of the unit should use the adjustable mechanical type pressure controller.
- When setting up the pressure value, the user should make sure the compressor will not run out of its working range.

#### 4. The running attention

- The user can not touch the electrical parts when the unit in running, and the power must be cut off when checking the circuit.
- The high temperature parts of the unit can not be touched in case of scald.
- The start-up times of the compressor in one hour should be less than 10, the time between start-up and close should be more than 3 minutes.
- Watch the compressor and find whether the suction pressure, exhaust pressure and the temperature is abnormal or not. If the user finds the compressor is running under the pressure which is over the specified range, then the degree of superheat should be adjusted to make the unit run under the specified range of pressure.

### Repair and maintenance

- The maintenance and repair should be in the charge of the professional people.
- The condenser wings should be cleaned periodically, if the user finds any dust in the wings or blocked by the dirt, it need to be cleaned at once.

| 冷凝机组<br>Condensing unit | 压缩机<br>排气量 *<br>Displacement | 最大<br>工作电流 **<br>Max.Oper.<br>Current | 储液罐<br>容积<br>Receiver | 风机数量<br>Fan | 风机风量<br>Air Flow | 外形尺寸<br>Overall Dimension |         |         | 安装尺寸<br>Instaling Measure |         |         | 接管尺寸<br>Tube<br>Connection |        | 重量<br>Gross<br>Weight |
|-------------------------|------------------------------|---------------------------------------|-----------------------|-------------|------------------|---------------------------|---------|---------|---------------------------|---------|---------|----------------------------|--------|-----------------------|
|                         |                              |                                       |                       |             |                  | B<br>mm                   | T<br>mm | H<br>mm | b<br>mm                   | t<br>mm | Φ<br>mm | SL inc                     | FL inc |                       |
| QFZ-SJ-020ET            | 5.92                         | 6.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 86                    |
| QFG-SJ-020OT            | 5.92                         | 6.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 86                    |
| QFG-SJ-025ET            | 6.8                          | 6.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 88                    |
| QFG-SJ-025OT            | 6.8                          | 6.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 88                    |
| QFZ-SJ-030ET            | 8.6                          | 8.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 95                    |
| QFG-SJ-030OT            | 8.6                          | 8.45                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 95                    |
| QFZ-SJ-035ET            | 9.90                         | 10.45                                 | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 96                    |
| QFG-SJ-035OT            | 9.90                         | 10.45                                 | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 96                    |
| QFZ-SJ-040ET            | 11.40                        | 11.45                                 | 2                     | 1           | 5600             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 101                   |
| QFG-SJ-040OT            | 11.40                        | 11.45                                 | 2                     | 1           | 5600             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 101                   |
| QFZ-SJ-050ET            | 14.50                        | 13.34                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 121                   |
| QFG-SJ-050OT            | 14.50                        | 13.34                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 121                   |
| QFZ-SJ-060ET            | 17.20                        | 16.95                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 128                   |
| QFG-SJ-060OT            | 17.20                        | 16.95                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 128                   |
| QFZ-SJ-070ET            | 18.80                        | 16.95                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 128                   |
| QFG-SJ-070OT            | 18.80                        | 16.95                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 128                   |
| QFZ-SJ-080ET            | 22.10                        | 23.96                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-1/8"                     | 5/8"   | 173                   |
| QFZ-SJ-080OT            | 22.10                        | 23.96                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-1/8"                     | 5/8"   | 173                   |
| QFZ-SJ-090ET            | 25.70                        | 25.16                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-3/8"                     | 5/8"   | 190                   |
| QFZ-SJ-090OT            | 25.70                        | 25.16                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-3/8"                     | 5/8"   | 190                   |
| QFZ-SJ-100ET            | 28.80                        | 27.86                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-3/8"                     | 5/8"   | 208                   |
| QFZ-SJ-100OT            | 28.80                        | 27.86                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-3/8"                     | 5/8"   | 208                   |
| QFD-SJ-020ET            | 5.92                         | 6.53                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 88                    |
| QFD-SJ-030ET            | 8.04                         | 8.03                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 90                    |
| QFD-SJ-035ET            | 9.95                         | 9.53                                  | 2                     | 1           | 4500             | 950                       | 350     | 840     | 532                       | 375     | 13      | 5/8"                       | 3/8"   | 95                    |
| QFD-SJ-050ET            | 14.37                        | 14.06                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 126                   |
| QFD-SJ-060ET            | 17.06                        | 14.06                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 3/4"                       | 1/2"   | 128                   |
| QFD-SJ-080ET            | 21.39                        | 18.46                                 | 6                     | 2           | 9000             | 950                       | 350     | 1130    | 532                       | 375     | 13      | 7/8"                       | 1/2"   | 138                   |
| QFD-SJ-100ET            | 28.90                        | 23.30                                 | 10                    | 2           | 11000            | 1100                      | 480     | 1410    | 850                       | 506     | 13      | 1-3/8"                     | 5/8"   | 192                   |

\* 压缩机电机名义转速 2900 rpm 时的理论排气量。  
The theoretical displacement when the compressor revolving speed is 2900rpm.

\*\* 最低允许电压 (50Hz) 时的最大值。  
The maximum of the allowed lowest voltage(50Hz).

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient<br>temperature<br>°C | 蒸发温度 Evaporating Temperature °C |       |       |       |       |       |     |     |     |     |     |     |     |  |
|-------------------------|---|--------------------------------------|---------------------------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|--|
|                         |   |                                      | 7                               | 5     | 0     | -5    | -7    | -10   | -15 | -20 | -23 | -25 | -30 | -35 | -40 |  |
| QFG-SJ-0200T            | Q | 27                                   | 5660                            | 5410  | 4720  | 4120  | 3880  | 3510  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 5550                            | 5300  | 4600  | 3980  | 3740  | 3350  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 5350                            | 5070  | 4390  | 3750  | 3530  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 4190  | 3550  | 3340  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 1670                            | 1600  | 1520  | 1450  | 1430  | 1400  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 1780                            | 1750  | 1670  | 1590  | 1570  | 1530  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 1960                            | 1940  | 1860  | 1790  | 1760  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 2020  | 1960  | 1930  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0250T            | Q | 27                                   | 6990                            | 6640  | 5770  | 5000  | 4700  | 4250  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 6660                            | 6440  | 5590  | 4800  | 4410  | 4040  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 6500                            | 6120  | 5300  | 4510  | 4210  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   | 6240                            | 5840  | 5030  | 4270  | 3960  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 1740                            | 1710  | 1630  | 1570  | 1550  | 1530  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 1910                            | 1870  | 1790  | 1720  | 1690  | 1670  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 2120                            | 2080  | 2010  | 1940  | 1910  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   | 2320                            | 2290  | 2210  | 2140  | 2100  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0300T            | Q | 27                                   | 8160                            | 7790  | 6800  | 5920  | 5570  | 5070  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 8020                            | 7620  | 6650  | 5710  | 5370  | 4860  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 7720                            | 7300  | 6340  | 5430  | 5070  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 6040  | 5170  | 4800  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 2350                            | 2300  | 2170  | 2080  | 2040  | 2000  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 2580                            | 2530  | 2400  | 2290  | 2250  | 2190  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 2850                            | 2800  | 2690  | 2580  | 2540  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 2920  | 2820  | 2780  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0350T            | Q | 27                                   | 9890                            | 9380  | 8160  | 7100  | 6690  | 6100  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 9510                            | 9180  | 7950  | 6850  | 6320  | 5860  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 9320                            | 8800  | 7590  | 6510  | 6130  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 7250  | 6210  | 5830  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 2460                            | 2410  | 2300  | 2200  | 2170  | 2140  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 2730                            | 2680  | 2560  | 2450  | 2420  | 2380  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 3070                            | 3030  | 2900  | 2800  | 2780  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 3250  | 3140  | 3110  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0400T            | Q | 27                                   | 10990                           | 10480 | 9160  | 7980  | 7520  | 6830  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 10580                           | 10270 | 8930  | 7720  | 7100  | 6550  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 10400                           | 9840  | 8530  | 7310  | 6850  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 8140  | 6940  | 6490  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 3020                            | 2950  | 2800  | 2680  | 2640  | 2580  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 3310                            | 3250  | 3090  | 2940  | 2900  | 2840  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 3680                            | 3610  | 3450  | 3300  | 3260  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 3820  | 3640  | 3600  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0500T            | Q | 27                                   | 13610                           | 12960 | 11350 | 9910  | 9330  | 8470  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 13090                           | 12700 | 11080 | 9570  | 8820  | 8130  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 12870                           | 12190 | 10590 | 9070  | 8490  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 10120 | 8610  | 8040  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 3840                            | 3750  | 3560  | 3400  | 3350  | 3280  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 4200                            | 4130  | 3920  | 3740  | 3680  | 3610  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 4680                            | 4590  | 4370  | 4210  | 4140  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 4830  | 4640  | 4560  |       |     |     |     |     |     |     |     |  |
| QFG-SJ-0600T            | Q | 27                                   | 16540                           | 15760 | 13760 | 11990 | 11310 | 10290 |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 15910                           | 15410 | 13420 | 11600 | 10700 | 9890  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 15630                           | 14810 | 12830 | 11010 | 10320 |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 12270 | 10480 | 9770  |       |     |     |     |     |     |     |     |  |
|                         | P | 27                                   | 4310                            | 4220  | 4030  | 3890  | 3830  | 3740  |     |     |     |     |     |     |     |  |
|                         |   | 32                                   | 4730                            | 4650  | 4470  | 4300  | 4230  | 4130  |     |     |     |     |     |     |     |  |
|                         |   | 38                                   | 5290                            | 5210  | 5000  | 4850  | 4780  |       |     |     |     |     |     |     |     |  |
|                         |   | 43                                   |                                 |       | 5550  | 5380  | 5300  |       |     |     |     |     |     |     |     |  |

蒸发温度 -15°C以上基于吸气温度 18°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。

The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant

# R22

制冷量 (瓦) Capacity (Watts)

380/420V-3Ph-50Hz

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient temperature<br>°C | 蒸发温度 Evaporating Temperature °C |       |       |       |       |       |     |     |     |     |     |     |     |
|-------------------------|---|-----------------------------------|---------------------------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|
|                         |   |                                   | 7                               | 5     | 0     | -5    | -7    | -10   | -15 | -20 | -23 | -25 | -30 | -35 | -40 |
| QFG-SJ-0700T            | Q | 27                                | 18180                           | 17340 | 15120 | 13170 | 12430 | 11350 |     |     |     |     |     |     |     |
|                         |   | 32                                | 17510                           | 16970 | 14740 | 12770 | 11770 | 10900 |     |     |     |     |     |     |     |
|                         |   | 38                                | 17190                           | 16270 | 14110 | 12120 | 11340 |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       | 13510 | 11520 | 10740 |       |     |     |     |     |     |     |     |
|                         | P | 27                                | 4870                            | 4770  | 4560  | 4400  | 4340  | 4240  |     |     |     |     |     |     |     |
|                         |   | 32                                | 5330                            | 5250  | 5040  | 4850  | 4780  | 4660  |     |     |     |     |     |     |     |
|                         |   | 38                                | 5930                            | 5840  | 5640  | 5480  | 5380  |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       | 6240  | 6070  | 5920  |       |     |     |     |     |     |     |     |
| QFZ-SJ-0800T            | Q | 27                                |                                 | 19750 | 17260 | 14940 | 14070 | 12720 |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 19450 | 16930 | 14530 | 13320 | 12200 |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 18800 | 16240 | 13760 | 12800 |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 13020 | 12060 |       |     |     |     |     |     |     |     |
|                         | P | 27                                |                                 | 5800  | 5500  | 5250  | 5180  | 6070  |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 6330  | 6060  | 5800  | 5710  | 5590  |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 7010  | 6770  | 6510  | 6420  |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 7210  | 7100  |       |     |     |     |     |     |     |     |
| QFZ-SJ-0900T            | Q | 27                                |                                 | 22850 | 19960 | 17360 | 16350 | 14880 |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 22460 | 19570 | 16890 | 15530 | 14380 |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 21680 | 18840 | 16120 | 15100 |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 15390 | 14420 |       |     |     |     |     |     |     |     |
|                         | P | 27                                |                                 | 6280  | 5920  | 5670  | 5600  | 5450  |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 6870  | 6530  | 6270  | 6180  | 6010  |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 7620  | 7290  | 7050  | 6970  |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 7830  | 7740  |       |     |     |     |     |     |     |     |
| QFZ-SJ-1000T            | Q | 27                                |                                 | 26610 | 23300 | 20330 | 19140 | 17450 |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 26100 | 22850 | 19780 | 18220 | 16850 |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 25280 | 22030 | 18900 | 17700 |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 18080 | 16870 |       |     |     |     |     |     |     |     |
|                         | P | 27                                |                                 | 7390  | 6910  | 6600  | 6510  | 6340  |     |     |     |     |     |     |     |
|                         |   | 32                                |                                 | 8120  | 7710  | 7360  | 7240  | 7040  |     |     |     |     |     |     |     |
|                         |   | 38                                |                                 | 9070  | 8690  | 8320  | 8220  |       |     |     |     |     |     |     |     |
|                         |   | 43                                |                                 |       |       | 9240  | 9120  |       |     |     |     |     |     |     |     |

蒸发温度 -15°C以上基于吸气温度 18°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。  
The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant

# R404A

制冷量 (瓦) Capacity (Watts)

380/420V-3Ph-50Hz

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient temperature<br>°C | 蒸发温度 Evaporating Temperature °C |      |      |      |      |      |      |      |     |     |     |     |     |
|-------------------------|---|-----------------------------------|---------------------------------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
|                         |   |                                   | 7                               | 5    | 0    | -5   | -7   | -10  | -15  | -20  | -23 | -25 | -30 | -35 | -40 |
| QFZ-SJ-020ET            | Q | 27                                |                                 | 5730 | 5000 | 4360 | 4110 | 3740 | 3100 | 2570 |     |     |     |     |     |
|                         |   | 32                                |                                 | 5450 | 4740 | 4120 | 3850 | 3490 | 2840 | 2330 |     |     |     |     |     |
|                         |   | 38                                |                                 | 5000 | 4340 | 3720 | 3480 | 3140 | 2480 | 1990 |     |     |     |     |     |
|                         |   | 43                                |                                 |      |      | 3350 | 3130 | 2830 | 2170 | 1700 |     |     |     |     |     |
|                         | P | 27                                |                                 | 1730 | 1670 | 1650 | 1640 | 1630 | 1610 | 1600 |     |     |     |     |     |
|                         |   | 32                                |                                 | 1920 | 1870 | 1850 | 1840 | 1830 | 1800 | 1790 |     |     |     |     |     |
|                         |   | 38                                |                                 | 2140 | 2120 | 2110 | 2120 | 2120 | 2120 | 2130 |     |     |     |     |     |
|                         |   | 43                                |                                 |      |      | 2330 | 2350 | 2370 | 2390 | 2430 |     |     |     |     |     |



| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient temperature<br>°C | 蒸发温度 Evaporating Temperature °C |      |       |       |       |       |       |       |       |     |     |     |     |
|-------------------------|---|-----------------------------------|---------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
|                         |   |                                   | 7                               | 5    | 0     | -5    | -7    | -10   | -15   | -20   | -23   | -25 | -30 | -35 | -40 |
| QFG-SJ-025ET            | Q | 27                                | 7630                            | 7280 | 6370  | 5530  | 5240  | 4770  | 3950  | 3330  |       |     |     |     |     |
|                         |   | 32                                | 7160                            | 6960 | 6060  | 5220  | 4840  | 4480  | 3660  | 3070  |       |     |     |     |     |
|                         |   | 38                                | 6780                            | 6430 | 5590  | 4780  | 4510  | 4080  | 3290  | 2730  |       |     |     |     |     |
|                         |   | 43                                |                                 |      | 5150  | 4390  | 4130  | 3740  | 2960  | 2450  |       |     |     |     |     |
|                         | P | 27                                | 2000                            | 1980 | 1930  | 1880  | 1870  | 1840  | 1800  | 1760  |       |     |     |     |     |
|                         |   | 32                                | 2220                            | 2200 | 2140  | 2080  | 2060  | 2030  | 1990  | 1960  |       |     |     |     |     |
| 38                      |   | 2480                              | 2460                            | 2410 | 2350  | 2340  | 2320  | 2270  | 2230  |       |       |     |     |     |     |
|                         |   |                                   |                                 | 2660 | 2610  | 2590  | 2570  | 2510  | 2480  |       |       |     |     |     |     |
| QFZ-SJ-030ET            | Q | 27                                |                                 |      | 7220  | 6320  | 5970  | 5470  | 4560  | 3860  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 6920  | 6000  | 5660  | 5160  | 4270  | 3580  |       |     |     |     |     |
|                         |   | 38                                |                                 |      | 6420  | 5530  | 5190  | 4730  | 3840  | 3190  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 4760  | 4340  | 3470  | 2860  |       |     |     |     |     |
|                         | P | 27                                |                                 |      | 2390  | 2320  | 2300  | 2260  | 2190  | 2140  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 2650  | 2570  | 2550  | 2500  | 2410  | 2360  |       |     |     |     |     |
| 38                      |   |                                   |                                 | 2970 | 2900  | 2870  | 2840  | 2770  | 2710  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      | 3140  | 3120  | 3060  | 3010  |       |       |       |     |     |     |     |
| QFZ-SJ-035ET            | Q | 27                                |                                 |      | 8520  | 7470  | 7070  | 6480  | 5370  | 4540  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 8160  | 7110  | 6560  | 6110  | 5000  | 4210  |       |     |     |     |     |
|                         |   | 38                                |                                 |      | 7560  | 6540  | 6150  | 5570  | 4490  | 3750  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 5650  | 5090  | 4040  | 3350  |       |     |     |     |     |
|                         | P | 27                                |                                 |      | 2730  | 2660  | 2630  | 2590  | 2510  | 2460  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 3040  | 2960  | 2920  | 2870  | 2780  | 2720  |       |     |     |     |     |
| 38                      |   |                                   |                                 | 3410 | 3340  | 3350  | 3270  | 3180  | 3120  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      | 3680  | 3630  | 3540  | 3470  |       |       |       |     |     |     |     |
| QFZ-SJ-040ET            | Q | 27                                |                                 |      |       | 8560  | 8100  | 7420  | 6180  | 5220  |       |     |     |     |     |
|                         |   | 32                                |                                 |      |       | 8150  | 7530  | 7010  | 5770  | 4840  |       |     |     |     |     |
|                         |   | 38                                |                                 |      |       | 7500  | 7060  | 6420  | 5190  | 4330  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 6480  | 5880  | 4690  | 3880  |       |     |     |     |     |
|                         | P | 27                                |                                 |      |       | 3110  | 3070  | 3020  | 2930  | 2860  |       |     |     |     |     |
|                         |   | 32                                |                                 |      |       | 3450  | 3400  | 3350  | 3230  | 3160  |       |     |     |     |     |
| 38                      |   |                                   |                                 |      | 3880  | 3850  | 3790  | 3690  | 3620  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      | 4260  | 4210  | 4100  | 4020  |       |       |       |     |     |     |     |
| QFZ-SJ-050ET            | Q | 27                                |                                 |      |       | 10740 | 10140 | 9300  | 7750  | 6560  |       |     |     |     |     |
|                         |   | 32                                |                                 |      |       | 10230 | 9630  | 8800  | 7230  | 6070  |       |     |     |     |     |
|                         |   | 38                                |                                 |      |       | 9430  | 8870  | 8050  | 6520  | 5420  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       |       | 7370  | 5900  | 4860  |       |     |     |     |     |
|                         | P | 27                                |                                 |      |       | 3960  | 3920  | 3850  | 3730  | 3640  |       |     |     |     |     |
|                         |   | 32                                |                                 |      |       | 4390  | 4340  | 4260  | 4120  | 4020  |       |     |     |     |     |
| 38                      |   |                                   |                                 |      | 4930  | 4890  | 4820  | 4700  | 4610  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      |       | 5300  | 5190  | 5100  |       |       |       |     |     |     |     |
| QFZ-SJ-060ET            | Q | 27                                |                                 |      | 14520 | 12730 | 12050 | 11030 | 9200  | 7760  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 13920 | 12100 | 11200 | 10420 | 8580  | 7190  |       |     |     |     |     |
|                         |   | 38                                |                                 |      | 12920 | 11160 | 10480 | 9530  | 7710  | 6410  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 9610  | 8730  | 6940  | 5750  |       |     |     |     |     |
|                         | P | 27                                |                                 |      | 4520  | 4390  | 4350  | 4280  | 4150  | 4050  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 5030  | 4860  | 4820  | 4730  | 4570  | 4490  |       |     |     |     |     |
| 38                      |   |                                   |                                 | 5630 | 5470  | 5460  | 5380  | 5220  | 5130  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      | 6060  | 5960  | 5780  | 5670  |       |       |       |     |     |     |     |
| QFZ-SJ-070ET            | Q | 27                                |                                 |      | 16000 | 14040 | 13260 | 12140 | 10110 | 8540  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 15320 | 13350 | 12340 | 11470 | 9440  | 7910  |       |     |     |     |     |
|                         |   | 38                                |                                 |      | 14210 | 12290 | 11560 | 10480 | 8480  | 7060  |       |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 10610 | 9600  | 7650  | 6340  |       |     |     |     |     |
|                         | P | 27                                |                                 |      | 5090  | 4960  | 4910  | 4830  | 4690  | 4580  |       |     |     |     |     |
|                         |   | 32                                |                                 |      | 5640  | 5480  | 5420  | 5330  | 5160  | 5060  |       |     |     |     |     |
| 38                      |   |                                   |                                 | 6300 | 6160  | 6120  | 6030  | 5880  | 5770  |       |       |     |     |     |     |
|                         |   |                                   |                                 |      | 6770  | 6670  | 6500  | 6380  |       |       |       |     |     |     |     |
| QFZ-SJ-080ET            | Q | 27                                |                                 |      | 22070 | 19340 | 16940 | 16010 | 14650 | 12150 | 10080 |     |     |     |     |
|                         |   | 32                                |                                 |      | 21220 | 18610 | 16160 | 14940 | 13870 | 11320 | 9260  |     |     |     |     |
|                         |   | 38                                |                                 |      | 19850 | 17330 | 14930 | 14020 | 12680 | 10070 | 8040  |     |     |     |     |
|                         |   | 43                                |                                 |      |       |       | 13800 | 12890 | 11610 | 8970  | 6970  |     |     |     |     |
|                         | P | 27                                |                                 |      | 6450  | 6210  | 5980  | 5900  | 5780  | 5570  | 5400  |     |     |     |     |
|                         |   | 32                                |                                 |      | 7030  | 6810  | 6560  | 6460  | 6320  | 6090  | 5960  |     |     |     |     |
| 38                      |   |                                   |                                 | 7770 | 7530  | 7320  | 7240  | 7120  | 6940  | 6840  |       |     |     |     |     |
|                         |   |                                   |                                 |      | 8070  | 7980  | 7860  | 7680  | 7600  |       |       |     |     |     |     |

蒸发温度 -15°C以上基于吸气温度 18°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。  
 蒸发温度 -20°C以下基于吸气温度 5°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。  
 The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant  
 The capacity Q and input power P is based on the below -20°C evaporating temp, 5°C suction temp and zero K subcooling for the liquid refrigerant

## 制冷量 (瓦) Capacity (Watts)

380/420V-3Ph-50Hz

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient<br>temperature<br>°C | 蒸发温度 Evaporating Temperature °C |       |       |       |       |       |       |     |     |     |     |     |     |
|-------------------------|---|--------------------------------------|---------------------------------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|
|                         |   |                                      | 7                               | 5     | 0     | -5    | -7    | -10   | -15   | -20 | -23 | -25 | -30 | -35 | -40 |
| QFZ-SJ-090ET            | Q | 27                                   | 25070                           | 21930 | 19190 | 18190 | 16670 | 13880 | 11710 |     |     |     |     |     |     |
|                         |   | 32                                   | 23980                           | 20940 | 18220 | 16890 | 15720 | 12940 | 10850 |     |     |     |     |     |     |
|                         |   | 38                                   | 22280                           | 19430 | 16800 | 15850 | 14380 | 11650 | 9660  |     |     |     |     |     |     |
|                         |   | 43                                   |                                 |       | 15490 | 14610 | 13190 | 10530 | 8630  |     |     |     |     |     |     |
|                         | P | 27                                   | 7230                            | 6860  | 6620  | 6510  | 6390  | 6170  | 5960  |     |     |     |     |     |     |
|                         |   | 32                                   | 7830                            | 7500  | 7240  | 7110  | 7000  | 6740  | 6570  |     |     |     |     |     |     |
|                         |   | 38                                   | 8590                            | 8280  | 8080  | 7990  | 7880  | 7630  | 7470  |     |     |     |     |     |     |
|                         |   | 43                                   |                                 |       | 8860  | 8810  | 8670  | 8390  | 8250  |     |     |     |     |     |     |
| QFZ-SJ-100ET            | Q | 27                                   |                                 |       | 21580 | 20470 | 18790 | 15690 | 13240 |     |     |     |     |     |     |
|                         |   | 32                                   |                                 |       | 20730 | 19200 | 17900 | 14740 | 12300 |     |     |     |     |     |     |
|                         |   | 38                                   |                                 |       | 19270 | 18160 | 16500 | 13330 | 10980 |     |     |     |     |     |     |
|                         |   | 43                                   |                                 |       |       |       | 15220 | 12070 | 9840  |     |     |     |     |     |     |
|                         | P | 27                                   |                                 |       | 7920  | 7800  | 7600  | 7270  | 6990  |     |     |     |     |     |     |
|                         |   | 32                                   |                                 |       | 8700  | 8560  | 8350  | 7970  | 7680  |     |     |     |     |     |     |
|                         |   | 38                                   |                                 |       | 9660  | 9530  | 9340  | 9020  | 8780  |     |     |     |     |     |     |
|                         |   | 43                                   |                                 |       |       |       | 10320 | 9960  | 9720  |     |     |     |     |     |     |

蒸发温度 -15°C以上基于吸气温度 18°C, 制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。

蒸发温度 -20°C以下基于吸气温度 5°C, 制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。

The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant  
The capacity Q and input power P is based on the below -20°C evaporating temp, 5°C suction temp and zero K subcooling for the liquid refrigerant

## 制冷量 (瓦) Capacity (Watts)

380/420V-3Ph-50Hz

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient<br>temperature<br>°C | 蒸发温度 Evaporating Temperature °C |   |   |    |    |      |      |      |      |      |      |      |      |      |
|-------------------------|---|--------------------------------------|---------------------------------|---|---|----|----|------|------|------|------|------|------|------|------|------|
|                         |   |                                      | 7                               | 5 | 0 | -5 | -7 | -10  | -15  | -20  | -23  | -25  | -30  | -35  | -40  |      |
| QFD-SJ-020ET            | Q | 27                                   |                                 |   |   |    |    |      |      | 2530 | 2360 | 1970 | 1570 | 1280 |      |      |
|                         |   | 32                                   |                                 |   |   |    |    |      |      | 2380 | 2220 | 1840 | 1470 | 1190 |      |      |
|                         |   | 38                                   |                                 |   |   |    |    |      |      | 2170 | 2030 | 1670 | 1350 | 1090 |      |      |
|                         |   | 43                                   |                                 |   |   |    |    |      |      | 2000 | 1860 | 1530 | 1240 | 1000 |      |      |
|                         | P | 27                                   |                                 |   |   |    |    |      |      |      | 1660 | 1630 | 1530 | 1450 | 1370 |      |
|                         |   | 32                                   |                                 |   |   |    |    |      |      |      | 1770 | 1730 | 1640 | 1570 | 1500 |      |
|                         |   | 38                                   |                                 |   |   |    |    |      |      |      | 1940 | 1900 | 1810 | 1730 | 1640 |      |
|                         |   | 43                                   |                                 |   |   |    |    |      |      |      | 2090 | 2050 | 1960 | 1890 | 1770 |      |
| QFD-SJ-030ET            | Q | 27                                   |                                 |   |   |    |    | 4720 | 4030 | 3480 | 3150 | 2950 | 2470 | 1970 | 1590 |      |
|                         |   | 32                                   |                                 |   |   |    |    |      | 4550 | 3810 | 3280 | 2950 | 2770 | 2310 | 1860 | 1490 |
|                         |   | 38                                   |                                 |   |   |    |    |      | 4260 | 3510 | 3000 | 2700 | 2530 | 2100 | 1690 | 1350 |
|                         |   | 43                                   |                                 |   |   |    |    |      |      |      | 2750 | 2480 | 2310 | 1920 | 1520 | 1210 |
|                         | P | 27                                   |                                 |   |   |    |    |      | 2290 | 2130 | 2010 | 1940 | 1900 | 1810 | 1750 | 1710 |
|                         |   | 32                                   |                                 |   |   |    |    |      | 2440 | 2280 | 2150 | 2080 | 2040 | 1950 | 1900 | 1870 |
|                         |   | 38                                   |                                 |   |   |    |    |      | 2620 | 2470 | 2350 | 2290 | 2250 | 2180 | 2120 | 2090 |
|                         |   | 43                                   |                                 |   |   |    |    |      |      |      | 2520 | 2460 | 2430 | 2370 | 2320 | 2290 |
| QFD-SJ-035ET            | Q | 27                                   |                                 |   |   |    |    | 6130 | 5200 | 4460 | 4060 | 3790 | 3180 | 2540 | 2060 |      |
|                         |   | 32                                   |                                 |   |   |    |    |      | 5890 | 4920 | 4200 | 3740 | 3560 | 2980 | 2390 | 1930 |
|                         |   | 38                                   |                                 |   |   |    |    |      | 5470 | 4510 | 3820 | 3470 | 3230 | 2700 | 2170 | 1740 |
|                         |   | 43                                   |                                 |   |   |    |    |      |      |      | 4130 | 3480 | 3170 | 2940 | 2450 | 1930 |
|                         | P | 27                                   |                                 |   |   |    |    |      | 2710 | 2530 | 2380 | 2300 | 2260 | 2150 | 2080 | 2030 |
|                         |   | 32                                   |                                 |   |   |    |    |      | 2880 | 2690 | 2530 | 2460 | 2410 | 2310 | 2240 | 2200 |
|                         |   | 38                                   |                                 |   |   |    |    |      | 3110 | 2920 | 2770 | 2690 | 2650 | 2540 | 2470 | 2420 |
|                         |   | 43                                   |                                 |   |   |    |    |      |      |      | 3120 | 2970 | 2900 | 2850 | 2750 | 2730 |

蒸发温度 -15°C以上基于吸气温度 18°C, 制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。

蒸发温度 -20°C以下基于吸气温度 5°C, 制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。

The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant  
The capacity Q and input power P is based on the below -20°C evaporating temp, 5°C suction temp and zero K subcooling for the liquid refrigerant

| 冷凝机组<br>Condensing Unit |   | 环境温度<br>Ambient<br>temperature<br>°C | 蒸发温度 Evaporating Temperature °C |   |   |    |       |       |       |       |       |      |      |      |      |
|-------------------------|---|--------------------------------------|---------------------------------|---|---|----|-------|-------|-------|-------|-------|------|------|------|------|
|                         |   |                                      | 7                               | 5 | 0 | -5 | -7    | -10   | -15   | -20   | -23   | -25  | -30  | -35  | -40  |
| QFD-SJ-050ET            | Q | 27                                   |                                 |   |   |    |       | 8320  | 7110  | 6140  | 5580  | 5220 | 4390 | 3480 | 2780 |
|                         |   | 32                                   |                                 |   |   |    |       | 8020  | 6770  | 5770  | 5260  | 4900 | 4100 | 3260 | 2600 |
|                         |   | 38                                   |                                 |   |   |    |       | 7480  | 6190  | 5260  | 4770  | 4430 | 3700 | 2950 | 2370 |
|                         |   | 43                                   |                                 |   |   |    |       |       |       |       | 4790  | 4330 | 4030 | 3360 | 2670 |
|                         | P | 27                                   |                                 |   |   |    |       | 4020  | 3690  | 3430  | 3300  | 3210 | 3010 | 2830 | 2650 |
|                         |   | 32                                   |                                 |   |   |    |       | 4320  | 3990  | 3710  | 3560  | 3470 | 3260 | 3070 | 2890 |
|                         |   | 38                                   |                                 |   |   |    |       | 4670  | 4350  | 4090  | 6100  | 3840 | 3620 | 3420 | 3220 |
|                         |   | 43                                   |                                 |   |   |    |       |       |       | 4400  | 4250  | 4150 | 3940 | 3720 | 3520 |
| QFD-SJ-060ET            | Q | 27                                   |                                 |   |   |    | 10470 | 8860  | 7620  | 6920  | 6470  | 5440 | 4340 | 3480 |      |
|                         |   | 32                                   |                                 |   |   |    | 10030 | 8370  | 7170  | 6370  | 6060  | 5080 | 4090 | 3280 |      |
|                         |   | 38                                   |                                 |   |   |    | 9310  | 7670  | 6530  | 5910  | 5510  | 4610 | 3700 | 2960 |      |
|                         |   | 43                                   |                                 |   |   |    |       |       | 7040  | 5970  | 5390  | 5030 | 4200 | 3300 | 2630 |
|                         | P | 27                                   |                                 |   |   |    |       | 4460  | 4170  | 3930  | 3790  | 3700 | 3520 | 3350 | 3210 |
|                         |   | 32                                   |                                 |   |   |    |       | 4750  | 4450  | 4190  | 4040  | 3960 | 3770 | 3600 | 3460 |
|                         |   | 38                                   |                                 |   |   |    |       | 5120  | 4830  | 4570  | 4430  | 4340 | 4140 | 3960 | 3800 |
|                         |   | 43                                   |                                 |   |   |    |       |       |       | 5170  | 4900  | 4760 | 4670 | 4460 | 4280 |
| QFD-SJ-080ET            | Q | 27                                   |                                 |   |   |    |       |       |       |       | 9000  | 8360 | 6480 | 5530 | 4510 |
|                         |   | 32                                   |                                 |   |   |    |       |       |       | 8570  | 7870  | 5410 | 5210 | 4250 |      |
|                         |   | 38                                   |                                 |   |   |    |       |       |       | 7850  | 7230  | 5350 | 4820 | 3950 |      |
|                         |   | 43                                   |                                 |   |   |    |       |       |       |       | 7180  | 6680 | 5520 | 4500 | 3720 |
|                         | P | 27                                   |                                 |   |   |    |       |       |       |       | 6950  | 4560 | 4360 | 3920 | 3580 |
|                         |   | 32                                   |                                 |   |   |    |       |       |       |       | 5010  | 4870 | 4520 | 4170 | 3780 |
|                         |   | 38                                   |                                 |   |   |    |       |       |       |       | 5410  | 5270 | 4840 | 4430 | 4000 |
|                         |   | 43                                   |                                 |   |   |    |       |       |       |       | 5750  | 5600 | 5160 | 4630 | 4160 |
| QFD-SJ-100ET            | Q | 27                                   |                                 |   |   |    |       | 14190 | 12250 | 11180 | 10450 | 8810 | 7050 | 5670 |      |
|                         |   | 32                                   |                                 |   |   |    |       | 13530 | 11610 | 10570 | 9860  | 8280 | 6640 | 5300 |      |
|                         |   | 38                                   |                                 |   |   |    |       | 12480 | 10640 | 9670  | 9010  | 7530 | 6020 | 4760 |      |
|                         |   | 43                                   |                                 |   |   |    |       |       |       | 8860  | 8260  | 6870 | 5390 | 4220 |      |
|                         | P | 27                                   |                                 |   |   |    |       | 7770  | 7240  | 6950  | 6750  | 6300 | 5870 | 5480 |      |
|                         |   | 32                                   |                                 |   |   |    |       | 8320  | 7770  | 7460  | 7240  | 6740 | 6300 | 5870 |      |
|                         |   | 38                                   |                                 |   |   |    |       | 8980  | 8450  | 8120  | 7910  | 7390 | 6870 | 6410 |      |
|                         |   | 43                                   |                                 |   |   |    |       |       |       | 8670  | 8460  | 7930 | 7370 | 6890 |      |

蒸发温度 -15°C以上基于吸气温度 18°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。  
 蒸发温度 -20°C以下基于吸气温度 5°C，制冷剂液体过冷度 0K 时的制冷量 Q (W) 和输入功率 P (W)。  
 The capacity Q and input power P is based on the above -15°C evaporating temp, 18°C suction temp and zero K subcooling for the liquid refrigerant  
 The capacity Q and input power P is based on the below -20°C evaporating temp, 5°C suction temp and zero K subcooling for the liquid refrigerant

## 全谷产品手册 < 4 >



全谷制冷空调(上海)有限公司是一家专业制造,销售压缩冷凝机组,商用空调和冷风机等产品的制造工厂,产品主要配件全部采用国内外知名品牌。产品远销海内外,并受到国内外客户的一致好评。

Shanghai QuanGu Refrigeration Air-condition(Shanghai) Company is a famous manufacturer which is specialized in the production and sales of condensing unit, commercial air conditioner and air cooler, also our company can produce the units according to the standard from the customers, such as the single pole and the multi pole unit. The products of our company have been exported to many countries of the world and have a very good reputation.

- 通过ISO9001-2000质量体系认证
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- 产品曾用于航天工业产品实验
- 广泛应用于四,五星级宾馆厨房冷库
- 为国际著名快餐行业提供冷冻机组
- Be certificated by the ISO9001-2000 Quality System
- Be authorized to produce by the National Refrigeration Association
- The professional manufacturer of the Copeland condensing unit
- With a variety of products for the middle-end and high-end users
- Was used for the laboratory equipments of the space industry
- Be widely used for the kitchen refrigeratory of the four-star and five-star hotels
- Provide refrigeration units for the international fast-food industry



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