

# 幻冷系列

## R410A 低温直流变频冷凝机组



2.5~5HP



7~10HP

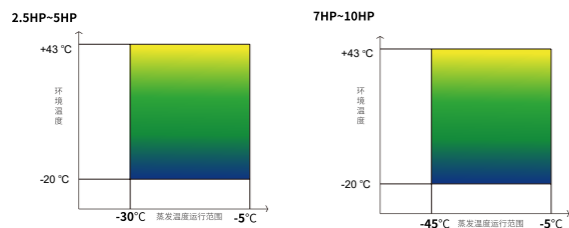
### 产品特点

- 冷冻冷藏一体应用，方便店面改造和维护
- 采用直流变频压缩机，可调范围广，能效高，运营费用低
- 采用变频风机，运营成本低
- 紧凑的结构设计，占地面积小
- 内部框架加隔音棉，噪音低
- 采用 R410A 制冷剂，管路安装费用低
- 对比定频机组节能达到 30%，噪音降低 ~4dBA

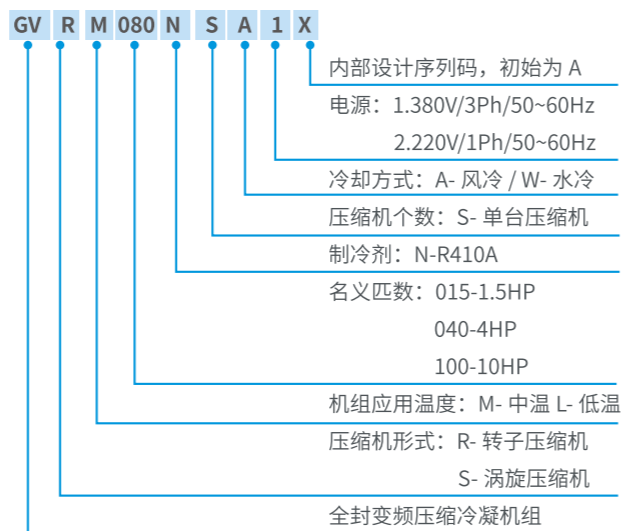
### 运行范围

| 型号    | 制冷剂   | 最小蒸发温度 <sup>°C</sup> | 额定冷量 /kW | 额定 COP | 最大制冷量 /kW |
|-------|-------|----------------------|----------|--------|-----------|
| 2.5HP | R410A | -30                  | 2.1      | 1.2    | 4.2       |
| 3.5HP |       |                      | 2.4      | 1.3    | 5.4       |
| 5HP   |       |                      | 3.5      | 1.3    | 6.9       |
| 7HP   | R410A | -45                  | 5.5      | 1.3    | 9.2       |
| 10HP  |       |                      | 9.0      | 1.5    | 14.6      |

\* 工况基于环温 32℃，蒸发温度 -30℃；额定工况为 60Hz



### 命名方式



### 应用场景



中小型冷库  
带中小型低温冷库的酒店冷库、连锁餐饮店、前置仓、食品储藏冷库

室温: -35℃ ~ +5℃

超市  
提供冷量给冷冻远程柜

食品温度: -35℃ ~ +5℃

## 低温直流变频冷凝机组技术参数

### 机组性能参数 - 低温机组

| 机组型号                    | GVRL 025NSA2A    | GVRL 035NSA2A | GVRL 050NSA2B | GVSL 070NSA1B    | GVSL 100NSA1B |
|-------------------------|------------------|---------------|---------------|------------------|---------------|
| 匹数                      | 2.5HP            | 3.5HP         | 5.0HP         | 7.0HP            | 10HP          |
| 冷媒                      | R410A            |               |               |                  |               |
| 机组供电电压                  | 220V/1PH/50~60Hz |               |               | 380V/3PH/50~60Hz |               |
| 冷冻机油类型                  | a68HES-H         |               |               | MEL32R           |               |
| 运转频率范围 (rps)            | 30~100           |               | 30~90         | 30~85            | 30~100        |
| 最小蒸发温度 (°C)             | -30              |               |               | -45              |               |
| 风扇数量                    | 1                |               |               | 2                |               |
| 风扇直径 (mm)               | 500              |               |               |                  |               |
| 风扇转速范围 (RPM)            | 300~850          |               |               |                  |               |
| 最大风量 (m³/h)             | 4030             |               |               | 7060             |               |
| 储液器容积 (L)               | 4.5              |               |               | 8.8              |               |
| 蒸发温度范围                  | -30℃ ~ -5℃       |               |               | -45℃ ~ -5℃       |               |
| 机组额定制冷量 (kW)            | 3.4              | 4.1           | 5.4           | 8.9              | 13            |
| 机组额定功率 (kW)             | 2.1              | 2.5           | 3.5           | 5                | 7.5           |
| 机组最大制冷量 (kW)            | 5.5              | 6.9           | 8.8           | 12               | 18.4          |
| 机组最大功率 (kW)             | 3.8              | 4.7           | 7.1           | 7.2              | 13.3          |
| 机组噪音 dBA@1m             | 54               | 54            | 54            | 57               | 60            |
| 机组启动电流 (A)              | --               |               |               |                  |               |
| 机组额定运行电流 (A)            | 10               | 12            | 16            | 10               | 13            |
| 最大运行电流 (A)              | 25               | 30            | 33            | 25               | 30            |
| 气管直径 (Inch)             | 1/2              | 5/8           |               | 3/4              | 1-1/8         |
| 液管直径 (Inch)             | 3/8              |               |               | 1/2              |               |
| 机组外形尺寸 (长 x 宽 x 高) (mm) | 1164x470x817     |               |               | 1164x470x1373    |               |
| 重量 (kg)                 | 112              | 112           | 112           | 172              | 186           |

制冷量与功率测试条件: 国标低温工况 GB/T21363-2018  
蒸发温度: -23℃, 环境温度: 32℃, 回气温度 5℃。

\* 所有对比基于上一代产品性能。

| 型号    | 环境温度<br>°C | 制冷量 Q<br>输入功率 P<br>(kW) | 蒸发温度°C |      |      |      |      |      |      |      |      |      |      |      |
|-------|------------|-------------------------|--------|------|------|------|------|------|------|------|------|------|------|------|
|       |            |                         | -5     |      | -10  |      | -15  |      | -20  |      | -25  |      | -30  |      |
|       |            |                         | 最小     | 最大   | 最小   | 最大   | 最小   | 最大   | 最小   | 最大   | 最小   | 最大   | 最小   | 最大   |
| 2.5HP | 27         | Q                       | 5.3    | 10.7 | 4.5  | 9.1  | 3.8  | 7.7  | 3.2  | 6.4  | 2.6  | 5.3  | 2.1  | 4.4  |
|       |            | P                       | 1.7    | 4.2  | 1.7  | 4.0  | 1.6  | 3.8  | 1.6  | 3.6  | 1.6  | 3.5  | 1.6  | 3.3  |
|       | 32         | Q                       | 5.1    | 10.2 | 4.3  | 8.7  | 3.6  | 7.3  | 3.0  | 6.2  | 2.5  | 5.1  | 2.1  | 4.2  |
|       |            | P                       | 1.9    | 4.6  | 1.8  | 4.3  | 1.8  | 4.1  | 1.8  | 4.0  | 1.7  | 3.8  | 1.7  | 3.6  |
|       |            | LST                     | 19.3   | 19.8 | 16.5 | 17.3 | 13.9 | 15.1 | 11.5 | 13.0 | 9.4  | 11.2 | 7.4  | 9.6  |
|       | 38         | Q                       | 4.8    | 9.2  | 4.1  | 8.0  | 3.5  | 6.9  | 2.9  | 5.8  | 2.4  | 4.8  | 2.0  | 3.9  |
|       |            | P                       | 2.1    | 4.7  | 2.1  | 4.6  | 2.0  | 4.6  | 2.0  | 4.4  | 1.9  | 4.2  | 1.9  | 4.0  |
|       |            | LST                     | 25.7   | 28.3 | 22.9 | 26.1 | 20.3 | 24.1 | 17.9 | 22.0 | 15.7 | 20.1 | 13.7 | 18.4 |
|       | 43         | Q                       | 4.6    | 8.3  | 3.9  | 7.2  | 3.3  | 6.3  | 2.7  | 5.4  | 2.3  | 4.6  | 1.9  | 3.7  |
| P     |            | 2.3                     | 4.6    | 2.3  | 4.6  | 2.2  | 4.6  | 2.2  | 4.6  | 2.1  | 4.5  | 2.1  | 4.3  |      |
| LST   |            | 26.5                    | 30.2   | 23.7 | 27.9 | 21.0 | 25.9 | 18.5 | 24.4 | 16.3 | 22.9 | 14.3 | 21.2 |      |
| 3.5HP | 27         | Q                       | 6.0    | 12.7 | 5.1  | 11.0 | 4.3  | 9.4  | 3.6  | 8.0  | 3.0  | 6.7  | 2.5  | 5.6  |
|       |            | P                       | 1.9    | 5.6  | 1.9  | 5.2  | 1.8  | 4.8  | 1.8  | 4.5  | 1.7  | 4.1  | 1.7  | 3.8  |
|       | 32         | Q                       | 5.8    | 12.2 | 4.9  | 10.5 | 4.2  | 9.0  | 3.5  | 7.7  | 2.9  | 6.5  | 2.4  | 5.4  |
|       |            | P                       | 2.1    | 6.1  | 2.1  | 5.7  | 2.0  | 5.2  | 2.0  | 4.9  | 1.9  | 4.5  | 1.9  | 4.2  |
|       |            | LST                     | 26.3   | 32.7 | 21.0 | 26.9 | 16.5 | 21.9 | 12.9 | 17.7 | 10.1 | 14.4 | 8.1  | 11.9 |
|       | 38         | Q                       | 5.5    | 10.6 | 5.1  | 9.4  | 4.7  | 8.3  | 4.0  | 7.2  | 3.3  | 6.2  | 3.0  | 5.2  |
|       |            | P                       | 2.4    | 5.7  | 2.4  | 5.6  | 2.3  | 5.4  | 2.3  | 5.3  | 2.2  | 5.0  | 2.2  | 4.7  |
|       |            | LST                     | 30.8   | 34.7 | 25.5 | 29.4 | 21.0 | 25.0 | 17.3 | 21.6 | 14.5 | 18.8 | 12.5 | 16.3 |
|       | 43         | Q                       | 5.2    | 9.3  | 4.5  | 8.6  | 3.8  | 7.7  | 3.2  | 6.8  | 2.6  | 5.9  | 2.2  | 4.9  |
| P     |            | 2.6                     | 5.5    | 2.6  | 5.7  | 2.5  | 5.6  | 2.4  | 5.6  | 2.3  | 5.4  | 2.3  | 5.1  |      |
| LST   |            | 34.8                    | 37.7   | 29.5 | 32.7 | 25.0 | 28.4 | 21.3 | 25.3 | 18.4 | 22.7 | 16.4 | 20.2 |      |
| 5HP   | 27         | Q                       | 8.7    | 14.9 | 7.4  | 13.5 | 6.3  | 12.0 | 5.3  | 10.2 | 4.4  | 8.6  | 3.6  | 7.2  |
|       |            | P                       | 3.1    | 8.2  | 2.9  | 8.3  | 2.8  | 7.8  | 2.7  | 6.9  | 2.5  | 6.1  | 2.4  | 5.3  |
|       | 32         | Q                       | 8.4    | 13.7 | 7.1  | 12.5 | 6.0  | 11.3 | 5.1  | 9.8  | 4.2  | 8.2  | 3.5  | 6.9  |
|       |            | P                       | 3.5    | 8.2  | 3.4  | 8.3  | 3.2  | 8.2  | 3.0  | 7.6  | 2.9  | 6.7  | 2.7  | 5.9  |
|       |            | LST                     | 27.9   | 37.6 | 23.2 | 33.8 | 19.0 | 30.4 | 15.3 | 26.4 | 12.0 | 22.4 | 9.3  | 18.8 |
|       | 38         | Q                       | 7.9    | 12.0 | 6.7  | 10.9 | 5.7  | 9.9  | 4.8  | 8.9  | 4.0  | 7.8  | 3.3  | 6.6  |
|       |            | P                       | 4.1    | 7.9  | 3.9  | 7.8  | 3.7  | 8.0  | 3.5  | 7.9  | 3.3  | 7.6  | 3.1  | 6.7  |
|       |            | LST                     | 31.5   | 40.5 | 27.0 | 36.8 | 22.9 | 34.1 | 19.4 | 31.5 | 16.3 | 29.0 | 13.8 | 25.6 |
|       | 43         | Q                       | 7.5    | 10.5 | 6.4  | 9.5  | 5.4  | 8.5  | 4.6  | 7.7  | 3.8  | 6.9  | 3.1  | 6.3  |
| P     |            | 4.6                     | 7.3    | 4.3  | 7.3  | 4.1  | 7.3  | 3.9  | 7.3  | 3.7  | 7.3  | 3.5  | 7.4  |      |
| LST   |            | 35.1                    | 42.4   | 30.7 | 39.0 | 26.8 | 36.0 | 23.4 | 33.8 | 20.5 | 32.3 | 18.1 | 31.9 |      |
| 7HP   | 27         | Q                       | 13.7   | 23.0 | 11.7 | 19.7 | 9.9  | 16.7 | 8.3  | 14.0 | 6.9  | 11.6 | 5.7  | 9.6  |
|       |            | P                       | 4.4    | 8.5  | 4.2  | 7.9  | 4.0  | 7.3  | 3.8  | 6.8  | 3.7  | 6.3  | 3.6  | 6.0  |
|       | 32         | Q                       | 13.2   | 21.9 | 11.3 | 18.8 | 9.5  | 16.0 | 8.0  | 13.4 | 6.7  | 11.1 | 5.5  | 9.2  |
|       |            | P                       | 5.0    | 9.3  | 4.7  | 8.6  | 4.5  | 8.0  | 4.3  | 7.5  | 4.2  | 7.0  | 4.1  | 6.6  |
|       |            | LST                     | 26.2   | 30.0 | 20.9 | 24.3 | 16.3 | 19.2 | 12.2 | 14.7 | 8.7  | 10.7 | 5.7  | 7.4  |
|       | 38         | Q                       | 12.5   | 20.6 | 10.7 | 17.7 | 9.1  | 15.0 | 7.6  | 12.7 | 6.4  | 10.5 | 5.3  | 8.7  |
|       |            | P                       | 5.6    | 10.2 | 5.4  | 9.5  | 5.1  | 8.9  | 5.0  | 8.3  | 4.8  | 7.9  | 4.8  | 7.5  |
|       |            | LST                     | 30.3   | 34.2 | 25.0 | 28.4 | 20.2 | 23.3 | 16.1 | 18.7 | 12.5 | 14.7 | 9.6  | 11.3 |
|       | 43         | Q                       | 11.9   | 19.5 | 10.2 | 16.8 | 8.7  | 14.3 | 7.3  | 12.0 | 6.1  | 10.0 | 5.0  | 8.2  |
| P     |            | 6.2                     | 11.0   | 6.0  | 10.3 | 5.7  | 9.7  | 5.6  | 9.1  | 5.5  | 8.6  | 5.4  | 8.2  |      |
| LST   |            | 33.9                    | 37.9   | 28.6 | 32.2 | 23.8 | 27.0 | 19.7 | 22.4 | 16.1 | 18.4 | 13.1 | 14.9 |      |
| 10HP  | 27         | Q                       | 20.8   | 31.9 | 18.0 | 28.0 | 15.4 | 24.3 | 13.1 | 20.8 | 11.1 | 17.8 | 9.3  | 15.0 |
|       |            | P                       | 7.1    | 16.6 | 6.7  | 15.2 | 6.3  | 13.9 | 6.0  | 12.8 | 5.7  | 11.8 | 5.4  | 10.9 |
|       | 32         | Q                       | 20.1   | 30.7 | 17.4 | 27.0 | 14.9 | 23.4 | 12.7 | 20.2 | 10.7 | 17.2 | 9.0  | 14.6 |
|       |            | P                       | 7.9    | 17.9 | 7.4  | 16.4 | 7.1  | 15.1 | 6.7  | 14.0 | 6.4  | 12.9 | 6.1  | 12.0 |
|       |            | LST                     | 37.9   | 42.3 | 30.1 | 34.7 | 23.3 | 28.1 | 17.3 | 22.4 | 12.3 | 17.6 | 8.2  | 13.7 |
|       | 38         | Q                       | 19.1   | 25.2 | 16.6 | 22.5 | 14.3 | 20.6 | 12.2 | 19.0 | 10.3 | 16.5 | 8.6  | 14.0 |
|       |            | P                       | 8.9    | 13.8 | 8.4  | 13.6 | 8.0  | 14.0 | 7.6  | 15.0 | 7.2  | 14.3 | 6.9  | 13.4 |
|       |            | LST                     | 38.3   | 44.3 | 31.3 | 38.2 | 25.2 | 34.1 | 20.0 | 31.3 | 15.8 | 27.9 | 12.4 | 24.8 |
|       | 43         | Q                       | 15.2   | 20.1 | 15.9 | 18.7 | 13.7 | 18.2 | 11.7 | 17.8 | 9.9  | 15.9 | 8.3  | 13.5 |
| P     |            | 7.8                     | 11.0   | 9.2  | 11.5 | 8.8  | 13.1 | 8.4  | 15.5 | 8.0  | 15.6 | 7.7  | 14.6 |      |
| LST   |            | 35.9                    | 37.9   | 29.5 | 33.4 | 24.1 | 32.4 | 19.5 | 32.9 | 15.8 | 31.2 | 13.1 | 28.8 |      |

1) 该技术参数为选型参数范围, 不是实际的运行范围  
2) LST 为供液温度, 仅供膨胀阀选型使用