

# 商用压缩机

系列产品介绍

Commercial Compressor Catalogue

产品 2015

商用制冷 R290 · R134a · R404A · R600a



商用制冷 For Commercial Refrigeration  
R290 · R134a · R404A · R600a

华意压缩机股份有限公司

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适用各种应用类型

For every type of application

齐全的产品系列

The most complete range of products



持续制冷

Sustainable Cooling

天然制冷剂

Natural Refrigerants



低能耗

Low energy consumption

销往全球

Worldwide presence



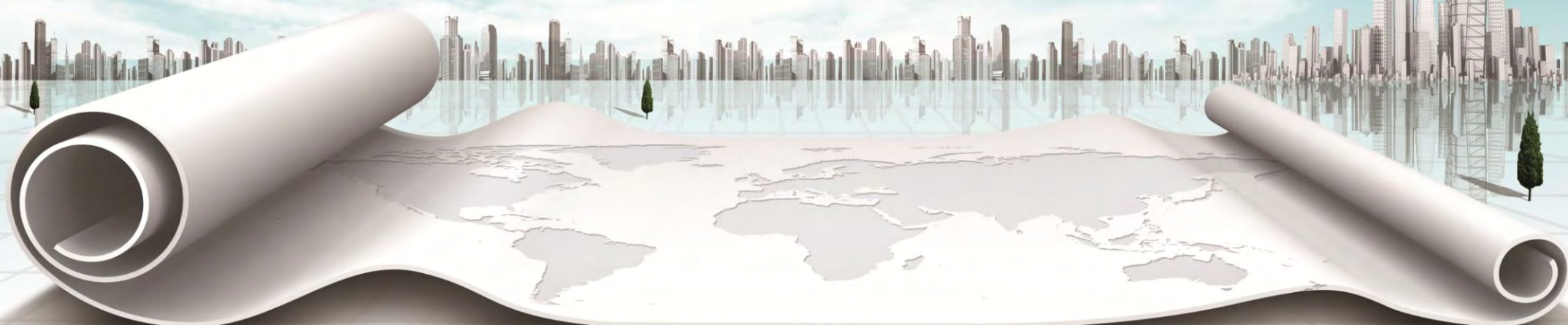
# 华意压缩 领先的压缩机制造商

华意压缩专注于发展先进的压缩机技术以满足全球商用制冷市场的需求。

## HUAYI COMPRESSOR

Leading manufacturer of compressors

focuses on developing advanced  
compressor technologies to meet  
the commercial refrigeration market  
requirements worldwide.



华意压缩 全球商用专家  
HuaYi Compressor  
Global Commercial Compressor Expert

**R290** Full Range  
Innovation  
明星阵容 Pioneer  
高大全典范



华意压缩 全球商用专家  
HuaYi Compressor  
Global Commercial Compressor Expert

中国商用示范工厂  
因为专业 所以领先

Chinese Commercial  
Demonstration Compressor Plant  
More Professional  
More Advanced



# 目录

## Index

### 1. 简介

公司
产品
压缩机系列
绿色制冷系列
轻型商用示范线
先进的商用产品实验中心
压缩机系列主要特征
铭牌和认证
命名规则
电压
应用
安全工作区
电机类型
产品概要
产品名录阅读指南

### 2. 压缩机产品名录

R290
R134a
R404A
R600a

### 3. 技术信息

一般技术信息
外形尺寸图
包装
附件
安装方式
电器接线原理图
接线示意图

### 1. General Information

The Company	4
The Product	6
The Compressor Range	7
The Green Cooling Rangs	9
Light Commercial Product Line	10
Advanced Commercial Products Laboratory Center	11
Compressor Ranges Main Characteristics	12
Identification Labels and Approvals	12
Compressor Nomenclature	13
Voltage	14
Applications	14
Safe Operating Area	15
Type of Electrical Motors	17
Compressor Product Summary	18
How to Read the Catalogue	19

### 2. Compressor Catalogue

R290	23
R134a	31
R404A	43
R600a	47

### 3. Technical Information

General Technical Information	51
Dimensional Drawings	53
Packaging	55
Fixings	56
Mounting Type	56
Electrical Diagram	57
Wiring Diagram	58

# 1.

## 简介 General Information



XINHUAYAN

真抓实干强基础 新华意 新起点 新闻

新华通讯社

## The Company

# 公司

华意集团遍布全球；总部在中国，在欧洲设有分公司。

Huayi group world widely presence; headquarters in China, and branch in Europe.

### 华意压缩机股份有限公司

### Huayi Compressor Co., Ltd.

华意压缩机股份有限公司于1990年创立于中国景德镇，是全球领先的压缩机制造商、规模化专业研发压缩机的国家级高新技术企业。

Huayi Compressor Co., Ltd. was founded in 1990, located in Jingdezhen China, and is a worldwide leader of compressor manufacturer and a national top high-tech enterprise, specialized in developing compressors.

2014年度产销冰箱压缩机3800多万台，经营规模连续十四年位居国内冰箱压缩机行业首位，连续二年稳居全球同行业第一，是全球最大的环保、节能、高效冰箱压缩机生产、出口基地，荣获“中国名牌”和“中国驰名商标”。

2014 Annual production and sales of refrigerators compressor about 38000000 pcs, operating scale for 13 consecutive years, ranking the first in the domestic refrigerator compressor industry, and keeping No.1 in the industry in last two consecutive years. It's the biggest manufacturing and export base in China for environmental energy saving, high efficiency refrigerator compressor. It's honored "Famous brand in China" and "Well-known brand in China".



研发 Research and Development

Leadership 影响力



可靠性 Reliability

Innovation 创新



尖端技术 Cutting-edge technology

People 人才





## 产品 The Product

### 齐全的产品系列 Extended range of compressors

以HUAYI和Cubigel® 双品牌满足不同客户需求，提供制冷量范围最完整的、适用于各个商用应用的100多种不同型号的全封闭式压缩机。压缩机排量范围从2.5-18cm<sup>3</sup>，适合大部分制冷剂 and 主流电压和应用工况。

The most complete range of hermetic compressors for every commercial application under the Huayil & Cubigel® Compressor brand. The offer includes more than 100 different models of compressors from ranges of 2.5 to 18cm<sup>3</sup>, in most refrigerant gases, main voltages and types of applications.

### 更小型高效 Smaller and higher efficiency

运用了最先进的仿真技术和PV测试技术，设计了更高效的阀组提高吸气效率，实现了紧凑、节材压缩机的创新突破，整机重量下降30%以上，效率提升15%以上；

Using the most advanced simulation technology and PV testing technology, design a more efficient valve group to improve suction efficiency, realize the innovative breakthrough of compact and segment compressor. The compressor weight decreases more than 30%, and efficiency increases more than 15%.

### R290绿色环保U系列 R290 green environmental U Range

R290 U系列产品具有冷量大、能效高、噪声低等优点。该制冷系列的先进设计，不会对臭氧层产生破坏，也不会产生温室效应，同时保障了效率的显著提高。

R290 U range products have the advantage of big cooling capacity, high efficiency, low noise etc. The advanced design of R290 green refrigerant, will not harm the ozone layer, and will not produce the green house effect. Meanwhile, it ensures the efficiency significantly increase.





# 压缩机系列 Compressor Ranges



## B 系列

## B range



**特点:**  
设计紧凑, 重量轻, 噪声小  
**范围:**  
2.5-4.1cm<sup>3</sup>  
**制冷剂:**  
R134a, R600a, R290  
**应用范围:**  
小型冰箱和冷柜

**Features:**  
Compact design, low weight, low noise  
**Range:**  
2.5-4.1cm<sup>3</sup>  
**Refrigerants:**  
R134a, R600a, R290  
**Applications:**  
Small Refrigerators and Freezers

## L 系列



**特点:**  
使用丙烷 (R290) 的高效能系列  
**范围:**  
6.0-9.0cm<sup>3</sup>  
**制冷剂:**  
R134a, R404A, R290  
**应用范围:**

家用冰箱, 瓶冷却器和冷柜, 罐冷却器, 冰柜, 自动贩卖机, 冰淇淋冷柜, 啤酒机, 制冰机, 饮料自动售货机。

## L range

## U range

## U 系列



**Features:**  
The highest efficient and complete range with propane(R290)  
**Range:**  
4.5-11.3cm<sup>3</sup>  
**Refrigerants:**  
R290, R134a, R404A, R600a  
**Applications:**  
Household Refrigerators, Freezers, Vending Machines, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers

**特点:**  
R290环保制冷剂应用最全的、最高效系列  
**范围:**  
4.5-11.3cm<sup>3</sup>  
**制冷剂:**  
R290, R134a, R404A, R600a  
**应用范围:**  
家用冰箱、冰柜、自动贩卖机、冰淇淋冷柜、啤酒机、制冰机、饮料自动售货机。

**Applications:**  
Household Refrigerators, Bottle Coolers and Freezers, Can Coolers, Freezers, Vending Machines, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers

**Features:**  
High efficiency range with propane(R290)  
**Range:**  
6.0-9.0cm<sup>3</sup>  
**Refrigerants:**  
R134a, R404A, R290



## H 系列

## H range



**特点:**  
高可靠性和高效率, 可以适应在苛刻条件下工作。  
**范围:**  
6.9-15.3cm<sup>3</sup>  
**制冷剂:**  
R134a  
**应用范围:**  
家用冰箱、冰柜、展示柜、冰淇淋冷柜、啤酒机、制冰机、饮料自动售货机。

**Features:**  
High reliability and efficiency, new design to work under heavy duty operation conditions  
**Range:**  
6.9-15.3cm<sup>3</sup>  
**Refrigerants:**  
R134a  
**Applications:**  
Household Refrigerators, Freezers, Display Cabinets, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers



## P 系列

**特点:**  
高效能系列  
使用丙烷 (R290) 和R404A的最高效系列  
**范围:**  
12.00 - 18.00cm<sup>3</sup>  
**制冷剂:**  
R134a, R404A, R290  
**应用范围:**

家用冰箱, 瓶冷却器和冷柜, 罐冷却器, 冰柜, 自动贩卖机, 冰淇淋冷柜, 啤酒机, 制冰机, 饮料自动售货机。

## P range

**Features:**  
High efficiency range  
The highest efficient range with propane (R290) and R404A  
**Range:**  
12.00-18.00cm<sup>3</sup>

**Refrigerants:**  
R134a, R404A, R290  
**Applications:**  
Household Refrigerators, Bottle Coolers and Freezers, Can Coolers, Chest Freezers, Vending Machines, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers



## 绿色制冷系列 The Green Cooling Ranges

节能降耗、可持续制冷、型号齐全的压缩机系列。

绿色制冷系列的先进设计可以提高效率，比标准版本降低能源消耗高达45%，二氧化碳排放量更低。

绿色制冷系列包括高效率，自然制冷剂和变频压缩机。

绿色制冷系列与标准系列相比，能改进压缩机COP20%至30%。

The Green Cooling range gets to improve the compressor COP between 20% and 30% in comparison with standard ranges.



结合R290和高效系列的设计标准，保护环境。这些更先进的压缩机型号具备高效的机械设计，电机绕组设计和可选运行电容理念，与标准的R404A系列相比，可以节省高达50%的能耗。

The most extended range of compressors for sustainable refrigeration in terms of energy consumption reduction. The advanced design of the Green Cooling Ranges allows efficiency improvement, providing energy consumption reductions up to 45% compared with standard versions; consequently, lower CO<sub>2</sub> emissions to the atmosphere. The Green Cooling Ranges comprise High Efficiency, Natural Refrigerants and Variable Speed Compressors.

### 高效制冷 High Efficiency Ranges

高效型号与标准系列相比，能减少商用制冷电器能耗10%至30%。大部分高效型号都采用高效电机和“可选运行电容”相结合的模式，即，压缩机可以携带或不带运行电容（CSR/CSIR），使之具备与同档压缩机相同的效率。

The High Efficiency models reduce energy consumption of commercial refrigeration appliances between 10% and 30% compared with standard ranges. Most High-Efficiency models are equipped with electric motors, designed with the "optional run capacitor" concept, that is, the compressor can work with or without a running capacitor (CSR/CSIR), offering the level of efficiency with the same compressor.

### 天然制冷剂 Natural Refrigerants

丙烷（R290）和异丁烯（R600a）等天然制冷剂正在逐步引入商用电器，不仅用于替代对环境影响较大的H-CFC和HFC制冷剂，更是因为这些天然制冷剂更有效率，对电器的能耗更小。

丙烷制冷剂对全球气候变暖没有直接影响，且能耗比使用R404A的类似电器低10%至15%。Cubigel® R290压缩机制冷量和COP更高，体积小，节能降耗。

Natural refrigerants like propane (R290) and isobutene (R600a) are being gradually introduced in commercial appliances, not only due to the replacement of H-CFC's and HFC's refrigerants which have high impact on environment, but also because it is more efficient in terms of performance and applications' energy consumption. Refrigerant propane has no direct contribution to global warming and its energy consumption is between 10% to 15% lower than a similar application with R404A. The Cubigel Compressors® R290 compressors offer a higher cooling capacity and COP allowing energy saving consumption with smaller displacement.

The major environmental benefits are obtained combining the use of the R290 with the design criteria of high efficiency ranges. These compressor models, in their more advanced version can save up to 50% of energy when compared with standard efficiency series of R404A, thanks to its high-efficiency mechanics, its advanced motor winding design and the optional running capacitor concept.

## 轻型商用示范线

### Light Commercial Compressor Production Line



#### 自动化范围广

全面应用机器人换人，自动化率80%以上，提升产品质量；

#### Wide range of automation

Overall apply robots instead of human, automation rate reaches above 80%, bringing increase of products quality.



#### 信息化水平高

引入工业4.0设计理念，自动化和信息化高度集成，实现智能生产；

#### High level of information

Introducing industrial 4.0 design concept, high integrating automation and information technology, realize intelligent production.

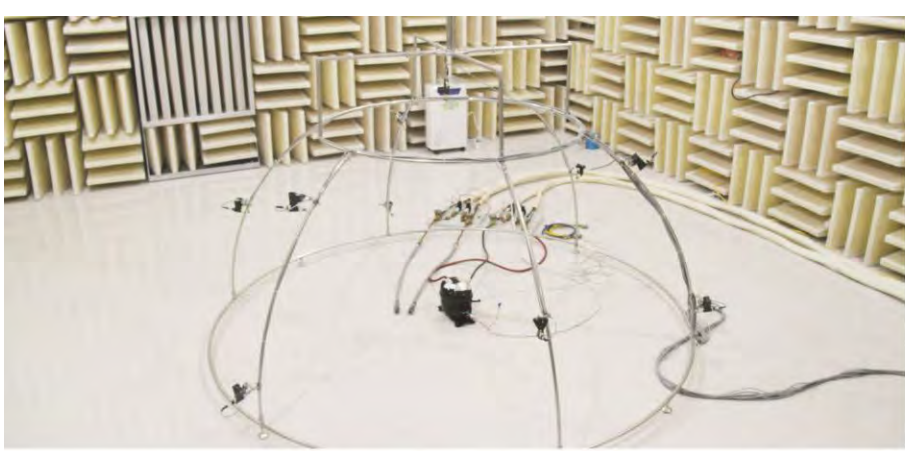


#### 柔性化效果好

兼容生产型号多，换型节拍快；

#### Flexible

Compatible with many types of productions, fast changeover.



## 先进的商用产品实验中心

### Advanced Commercial Products Laboratory Center

为保持商用压缩机核心科技的领先优势，华意压缩持续投入大量科研资源，引入欧洲成熟的商用压缩机测试和可靠性试验标准，建立了行业先进的商用压缩机声学实验室、性能实验室、可靠性寿命实验室、电机性能实验室、应用实验室等专业化实验室，旨在为客户提供可靠的产品和专业的服务。

To maintain the core technology of commercial compressor leading edge, HUAYI continues to invest lots of research resources, introduce the standard for testing and reliability testing of commercial compressors in Europe, establish advanced commercial compressors acoustical laboratory, performance laboratory, reliability life time laboratory, motor performance laboratory, application laboratory and other professional labs, aiming to provide reliability products and professional services.



## 压缩机系列主要特征

### Main Characteristics

压缩机系列-主要特征 Compressor Ranges-Main Characteristics

系列 Range	排量 Displacement (cm <sup>3</sup> )		制冷量 Cooling capacity (W) [*]				重量 (最大) Weight (max) (kg)
			低背压 LBP		中高背压 HMBP		
	min	max	min	max	min	max	
B	2.5	4.1	100	180	--	--	6.1
U/E	4.5	11.3	150	440	470	950	9.7
L	8.0	9.0	407	549	830	1326	12.7
H	6.9	15.3	200	435	745	1365	11.5
P	12	18	539	887	1067	2093	13.9

\*所有制冷剂/ ASHRAE额定工况50赫兹测量 \*All refrigerants/Measured at ASHRAE rating condition 50 Hz

## 铭牌和认证 Identification Labels and Approvals



型号 Model

电压 Voltage

认证 Approvals

条形码 Bar Code

制冷剂 Refrigerant

认证



Approvals

指令合规声明



Directive compliance declarations

可燃性气体



Flammable gases



# 命名规则

## Compressor Nomenclature

GLY 60 R A a 1

### 表示制冷剂种类 Indicates refrigerant

G=R134a N=R290  
M=R404A/R507 H=R600a

### 表示压缩机机型

U (对应E) 平台 (汽缸容积4.5-11.3cm³) P平台 (汽缸容积12-18cm³)  
L平台 (汽缸容积6.0-9.0cm³) B平台 (汽缸容积2.5-4.1cm³)  
H平台 (汽缸容积6.9-15.3cm³)

### Indicates compressor range

U(HYE)=4.5-11.3cm³ P=12-18cm³  
L=6.0-9.0cm³ B=2.5-4.1cm³ H=6.9-15.3cm³

### 表示压缩机效率水平

字母无, 省略=普效

M=cop 中等效率,

Y=高效 T=超高效 (以上3个字母适合于L、P平台)

C=cop1.30, H=cop1.45, G=cop1.55, K=cop1.65, T=cop1.76(此条适合B、U平台产品)

### Indicates energy efficiency level

Not appearing for standard efficiency

M=cop Medium,

Y=High efficiency T=Top efficiency (these 3 letters for L/P platform)

C=cop1.30, H=cop1.45, G=cop1.55, K=cop1.65, T=cop1.76 (for B/U platform)

### 表示压缩机的排气量

E/L 压缩机气缸容积的10倍

P 压缩机气缸容积

### Indicates compressor displacement

E/L 10 times the approx. Displacement in cm³/rev

P The approx. Displacement in cm³/rev

### 表示启动力矩, 应用范围, 冷却方式

#### Indicates the starting torque, application type and compressor cooling

A=LBP-LST-S G=LBP-LST-S(RSCR) T=HMBP-HST-FAN(CSR带电压式重锤)

B=LBP-LST-OC L=LBP-HST-FAN(电流式重锤Current Relay) (CSR versions with Potential Relay)

C=LBP-LST-FAN M=HMBP-LST/HST-S/FAN U=AC-LST/HST-FAN

D=LBP-HST-S N=MBP-LST/HST-S/FAN Y=VHBP-HST-FAN

E=LBP-HST-OC P=HMBP-HST-FAN

F=LBP-HST-FAN R=HMBP-HST-FAN(CSR带电流式重锤CSR versions with Current Relay)

### 表示电源: Indicates the rated voltage

A/B=220-240V 50Hz M/R=115V-127V 60Hz U=208-230V/60Hz

C/J=100V 50/60Hz L/N=200-220V 50Hz or 200-240V 50Hz

D/E=115V 60Hz 220-230V 60Hz (50°C)

G/F=200-220V 50Hz/220-230V 60Hz T=200-220 50Hz

a=不带运行电容

a=no use of running capacitor

b=带运行电容

b=use of running capacitor

c=自然冷却并且带启动电容

c=static cooling and with starting capacitor

d=风扇冷却并且带启动电容

d=fan cooling and with starting capacitor

### 表示改进状态 (效率不变):

1.表示第一次改进

2. ....

### Indicates the improvement status(same efficiency):

1.the first improvement

2. ....

# 电压 Voltage

标准的网络电压变化在其额定值的+ / - 6%, 但Cubigel压缩机®电机的设计是能够在最低-15%和最高+10%的条件下工作。

The standards consider the voltage variation of the network to be within +/-6% of its rated value, nevertheless the Cubigel Compressors® motors' design is able to work within -15% of the lowest rating and +10% of the highest rating.

## 压缩机电压类型 Compressor Voltage Versions

电压类型 Voltage version	压缩机额定值 Compressor rating	运行电压范围 Voltage operative range
A / B	220-240 V 50 Hz	187-264 V 50 Hz
C / J	100 V 50/60 Hz	85-110 V 50/60 Hz
D / E	115 V 60 Hz	98-127 V 60 Hz
G / F	200- 220/220-230 V 50/60 Hz	170-242/187-253 V 50/60 Hz
L / N		
M / R	115-127 V 60 Hz	98-140 V 60 Hz
T	200-220 V 50 Hz	187-242 V 50 Hz
U	208-230 V 60 Hz	177-253 V 60 Hz

# 应用 Applications

根据用途和系统特性, 压缩机按不同的应用分类加以区分。

Based on the characteristics of the system for which the compressor is intended, compressors are classified in different groups of application.

### 低背压压缩机

蒸发温度区间: -35~10°C [-31°F~+14°F] (使用R404A制冷剂最低-40°C [-40°F]).

额定工况: -25°C[-13°F](CECOMAF)或-23.3°C[-10°F] (ASHRAE).

### 中背压压缩机

蒸发温度区间: -25°C~ 0°C [-10°F ~32°F]

### 高中背压压缩机

蒸发温度区间: -25 ~ +10°C [-13°F ~ +50°F].

额定工况: +5°C[+41°F](CECOMAF)或+7.2°C[+45°F] (ASHRAE).

### 高背压压缩机

蒸发温度区间: -15°C ~ +10°C [+5°F ~ +50°F].

额定工况: +5°C[+41°F](CECOMAF)或+7.2°C[+45°F] (ASHRAE).

### 极高背压压缩机

蒸发温度区间: 0°C ~ +25°C[+32 ~ +77°F] 冷凝温度最高+75°C [+167°F].

额定工况根据Cubigel 压缩机®内部标准:  
Te = +10°C [+50°F].

### Low Back Pressure (LBP) Compressors.

Evaporating temperature range: -35 to -10°C [-31°F to -14°F] (down to -40°C [-40°F] for refrigerant R404A).

Rating condition: -25°C[-13°F](CECOMAF) or -23.3°C[-10°F] (ASHRAE).

### Medium Back Pressure (MBP) Compressors.

Evaporating temperature range: -25°C to 0°C [-10°F to 32°F].

### High Medium Back Pressure (HMBP) Compressors.

Evaporating temperature range: -25 to +10°C [-13°F to +50°F].

Rating condition: +5°C[+41°F](CECOMAF) or +7.2°C[+45°F] (ASHRAE).

### High Back Pressure (HBP) Compressors.

Evaporating temperature range: -15 to +10°C [+5°F to +50°F].

Rating condition: +5°C[+41°F](CECOMAF) or +7.2°C[+45°F](ASHRAE).

### Very High Back Pressure (VHBP) Compressors.

Evaporating temperature range 0°C to +25°C [+32 to +77°F] with condensing temperature up to +75°C [+167°F].

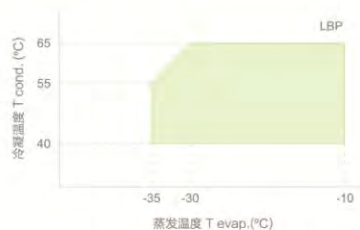
The rating condition is defined by an internal Cubigel Compressors® standard: Te = +10°C [+50°F].

# SOA - 安全工作区 SOA-Safe Operating Area

为保证压缩机可靠性，建议工作条件（吸气和排气压力）位于相应图形阴影区域的范围内。

In order to grant the compressor reliability it is recommended that the point representing the operating conditions (suction and discharge pressures) falls within the shadowed area of the corresponding graph.

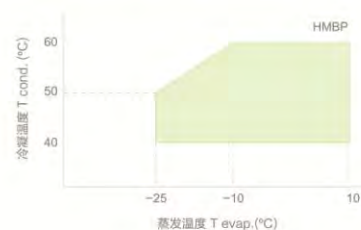
SOA R134a LBP



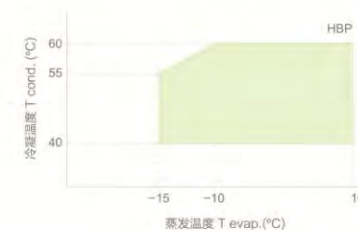
SOA R134a MBP



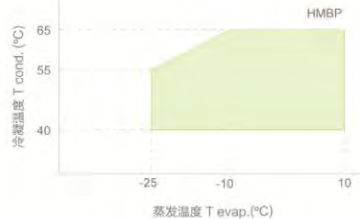
SOA R404A HMBP



SOA R404A HBP



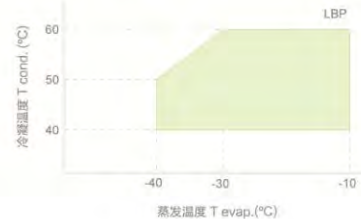
SOA R134a HMBP



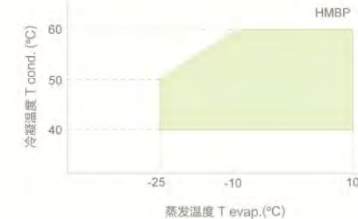
SOA R134a HBP



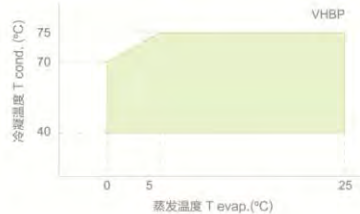
SOA R290 LBP



SOA R290 HMBP



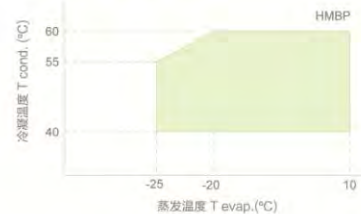
SOA R134a VHBP



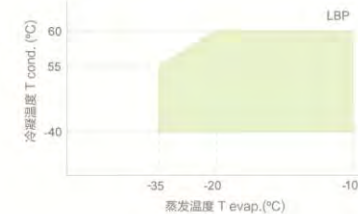
SOA R404A LBP



SOA R600a HMBP



SOA R600a LBP





## 电机类型 Type of Electrical Motors

### RSIR (电阻启动-异步运行)

LST电机。无电容。副相启动后断开。标准能效。

### CSIR (电容启动-异步运行)

HST电机。带启动电容。副相启动后断开。标准效率。

### RSCR (电阻启动-电容运转)

LST电机。带运行电容。启动后，副相保持连接。

用于小容量高效压缩机（特别是用于家用制冷）

### CSR (启动和运行电容)

HST电机。两个电容（启动和运行）。

启动后，副相保持连接。

用于高效小型压缩机和排量相对较大而电机尺寸较小的压缩机。

### RSIR (Resistance Start-Induction Run)

LST motor. No capacitors. Auxiliary winding is disconnected after start up. Standard energy efficiency.

### CSIR (Capacitor Start-Induction Run)

HST motor. With starting capacitor. Auxiliary winding is disconnected after start up. Standard efficiency.

### RSCR (Resistance Start-Capacitor Run)

LST motor. With running capacitor. Auxiliary winding remains connected after start up. Used for high efficiency in small capacity compressors (particularly in household refrigeration).

### CSR (Capacitor Start Run)

HST motor. Two capacitors (starting and running). Auxiliary winding remains connected after start up. Used for high efficiency in small compressors and for size reduced size motors in compressors with comparatively large displacements.

### 单相电动机分类 Single phase motor classification

电容类型 Capacitor type	HST 带启动电容 With starting capacitor		LST 不带启动电容 Without starting capacitor	
	电机类型: CSR Motor type: CSR	启动器: L&P系列使用电流继电器+NTC P,X,S系列电压继电器 Starting device: Current relay + NTC for L & P ranges Potential relay for P,X & S ranges	电机类型: RSCR Motor type: RCSR	启动器: PTC Starting device: PTC
带启动电容 With Running capacitor				
不带启动电容 Without Running capacitor	电机类型: CSIR Motor type: CSIR	启动器: 电流继电器 Starting device: Current relay	电机类型: RSIR Motor type: RSIR	启动器: 电流继电器或PTC Starting device: Current Relay or PTC

### 启动器类型

**电流继电器** - RSIR, CSIR和CSR电机。CSR电机电流继电器带NTC电阻串联启动电容，限制电流峰值负载。

**电压继电器** - (机电)。CSR大功率电机。

**PTC** - (正温度系数)，其电阻随温度而增加。仅在D, L和P系列RSIR或RSCR电机时使用。

**NTC** - (负温度系数)，电阻随着温度的降低。为了减少尺寸和部件而用于CSR电机。

### 扭矩类型

**LST** - 低启动扭矩 - 毛细管或平衡压力启动系统。

**HST** - 高启动扭矩 - 膨胀阀或毛细管不平衡压力启动系统。

### Type of starting device

Current relay-RSIR, CSIR and CSR motors (those with an NTC resistance in series with the starting capacitor to limit the current peak load).

Potential relay-(electromechanical). CSR high-power motors.

PTC-(Positive Temperature Coefficient), the resistance increases with the temperature. Device only with RSIR or RSCR motors in the D, L and P ranges.

NTC-(Negative Temperature coefficient), the resistance decreases with the temperature. Used in some CSR in order to reduce dimensions and components.

### Type of torque

LST-Low Starting Torque-Systems with capillary tube or balanced pressures at start up.

HST-High Starting Torque-Systems with expansion valve or capillary tube, with unbalanced pressures at start up.

## 产品概要 Compressors Product Summary

Refrigerants  
制冷剂

R290  
R600a  
R134a  
R404A

Rated Voltages  
额定电压

220-240V  
100V  
115-127V  
200-240/220-230V  
200-220/230V

Frequency  
频率

50Hz  
50/60Hz  
60Hz  
50/60Hz  
50/60Hz

EU  
JAPAN  
USA - Latinamerica  
50Hz unstable net  
and 60Hz net

超过 More than 100 Models  
**100** 种型号

Application  
应用

LBP  
HMBP

Motor  
电机

RSIR  
RSCR  
CSIR  
CSR  
CSR + NTC

Starting Torque  
启动扭矩

HST  
LST

效率 Efficiency

STANDARD  
MEDIUM  
HIGH  
VARIABLE SPEED

排量 Displacement  
2.5 cm<sup>3</sup> - 18 cm<sup>3</sup>

制冷量 Cooling Capacity  
100W-2093W (ASHRAE)



# 产品名录阅读指南 How to Read the Catalogue

- ◆ **R134a**
    - ① R134a R290 R404A R600a
    - ② LBP MBP HMBP HBP VHBP
    - ③ 50Hz 60Hz
- LBP · 50Hz (HUAYI品牌)

系列 Range	型号 Model	排气量 Displ(Lcm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4 -23.3/54.4		制冷量Capacity (W)							
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature							
											W	W/W	-35	-30	-25	-20		
E	HYE55Y	5.5	LBP	S	220-240V 50Hz	RSIR	P	C	150	1.28	71	100	135	180	228	288	8.3	169
	HYE60Y	6.0	LBP	S	220-240V 50Hz	RSIR	P	C	170	1.28	81	113	153	203	258	326	8.0	169
	HYE69Y	6.7	LBP	S	220-240V 50Hz	RSIR	P	C	190	1.26	91	127	171	227	289	365	8.3	169
H	HY81Y	8.1	LBP	F	220-240V 50Hz	RSIR	P	C	235	1.25	100	142	202	269	350	444	10.2	193
	HY90Y	9.0	LBP	F	220-240V 50Hz	RSIR	P	C	265	1.30	127	178	239	317	404	512	11.0	193
	HY113Y	11.3	LBP	F	220-240V 50Hz	CSIR	R	C	330	1.30	140	200	283	378	492	623	11.2	193
	HY131Y	13.1	LBP	F	220-240V 50Hz	CSIR	R	C	380	1.30	187	259	347	450	582	723	11.2	193
	GH80AA	8.1	LBP	F	220-240V 50Hz	RSIR	P	C	235	1.25	100	142	202	269	350	444	10.2	193
	GH90AA	9.0	LBP	F	220-240V 50Hz	RSIR	P	C	265	1.30	127	178	239	317	404	512	11.0	193
	GH12FA	11.3	LBP	F	220-240V 50Hz	CSIR	P	C	330	1.30	140	200	283	378	492	623	11.2	193
	GH14FA	13.1	LBP	F	220-240V 50Hz	CSIR	R	C	380	1.30	187	259	347	450	582	723	11.2	193
	GH16FA	15.3	LBP	F	220-240V 50Hz	CSIR	R	C	435	1.30	206	296	399	521	668	842	11.2	193

① 制冷剂类型 Refrigerant

② 应用类型 Application

③ 额定频率类型 Rated Frequency

④ 型号选择 Model

⑤ 制冷量 Cooling Capacity

⑥ 运行蒸发温度范围 Range of Running Evaporating Temperature



# 2.

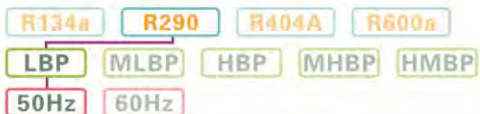
## 压缩机产品目录 Compressor Catalogue



# R290

LBP · 50Hz

(Cubigel品牌)

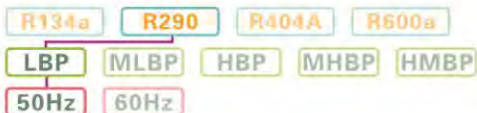


系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况							重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)								
									制冷量 Capacity	COP	蒸发温度(℃)   Evaporating Temperature								
											W	W/W	-40	-35	-30	-25	-20		
B	NBC25CA	2.5	LBP	S	220-240V 50Hz	RSIR	P	C	105	1.30	46	58	78	97	121	149	184	5.8	161.1
	NBG25CA	2.5	LBP	S	220-240V 50Hz	RSCR	P	C	105	1.52	46	58	78	97	121	149	184	5.9	161.1
	NBC35CA	3.5	LBP	S	220-240V 50Hz	RSIR	P	C	147	1.30	64	84	109	135	170	209	257	5.9	161.1
	NBG35CA	3.5	LBP	S	220-240V 50Hz	RSCR	P	C	147	1.55	64	84	109	135	170	209	257	6.0	161.1
	NBC41CA	4.1	LBP	S	220-240V 50Hz	RSIR	P	C	180	1.30	79	98	132	165	207	255	314	6.0	161.1
	NBG41CA	4.1	LBP	S	220-240V 50Hz	RSCR	P	C	180	1.55	79	98	132	165	207	255	314	6.1	161.1
U	NUC45LA	4.5	LBP	S/F	220-240V 50Hz	CSIR	R	C-V	210	1.30	92	115	155	193	242	298	367	8.1	173.5
	NUG45LA	4.5	LBP	S/F	220-240V 50Hz	CSIR	R	C-V	210	1.55	92	115	155	193	242	298	367	8.3	173.5
	NUC55LA	5.5	LBP	F	220-240V 50Hz	CSIR	R	C-V	260	1.30	114	143	192	239	300	370	455	8.3	173.5
	NUH55LA	5.5	LBP	F	220-240V 50Hz	CSIR	R	C-V	260	1.45	114	143	192	239	300	370	455	8.4	173.5
	NUG55CA	5.5	LBP	S/F	220-240V 50Hz	RSCR	P	C	260	1.55	114	143	192	239	300	370	455	8.6	173.5
	NUT55CA	5.5	LBP	S/F	220-240V 50Hz	RSCR	P	C	260	1.72	113	143	192	240	302	375	463	9.3	173.5
	NUC60LA	6.0	LBP	F	220-240V 50Hz	CSIR	R	C-V	290	1.30	119	158	209	268	355	414	505	8.6	173.5
	NUH60LA	6.0	LBP	F	220-240V 50Hz	CSIR	R	C-V	290	1.45	119	158	209	268	355	414	505	8.6	173.5

# R290

LBP · 50Hz

(Cubigel品牌)

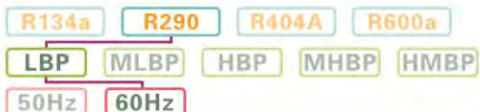


系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)	
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)								
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature								
									W	W/W	-40	-35	-30	-25	-20	-15			-10
U	NUG60CA	6.0	LBP	S/F	220-240V 50Hz	RSCR	P	C	290	1.55	119	158	209	268	355	414	505	8.6	173.5
	NUK60LA	6.0	LBP	F	220-240V 50Hz	CSIR	R	C-V	300	1.69	124	168	218	277	347	434	527	8.6	173.5
	NUT60CA	6.0	LBP	S/F	220-240V 50Hz	RSCR	P	C	300	1.76	124	168	218	277	347	434	527	9.4	173.5
	NUC70LA	6.7	LBP	F	220-240V 50Hz	CSIR	R	C-V	325	1.30	135	178	233	300	376	467	565	8.6	173.5
	NUH70LA	6.7	LBP	F	220-240V 50Hz	CSIR	R	C-V	325	1.48	135	178	233	300	376	467	565	8.7	173.5
	NUG70CA	6.7	LBP	F	220-240V 50Hz	RSCR	P	C	330	1.55	137	181	236	304	381	474	573	8.8	173.5
	NUT70CA	6.7	LBP	F	220-240V 50Hz	RSCR	P	C	330	1.76	138	186	241	306	383	474	587	9.4	173.5
	NUH80LA	8.1	LBP	F	220-240V 50Hz	CSIR	R	C-V	400	1.55	166	219	287	369	462	574	695	9.2	173.5
	NUH90LA	8.9	LBP	F	220-240V 50Hz	CSIR	R	C-V	440	1.55	183	241	316	406	508	631	765	9.3	173.5
L	NLY90LAB	9.09	LBP	F	220-240V 50Hz	CSR	R	C-V	411	1.44	161	211	277	356	446	554	671	11.1	198
P	NPY12LAB	12.1	LBP	F	220-240V 50Hz	CSR	R	C-V	539	1.49	224	295	387	497	622	773	937	12.3	210.5
	NPY14LAB	14.32	LBP	F	220-240V 50Hz	CSR	R	C-V	650	1.48	271	357	468	601	753	935	1134	12.8	210.5
	NPT16LA	16.15	LBP	F	220-240V 50Hz	CSR	R	C-V	742	1.52	309	407	534	685	858	1065	1293	12.8	210.5

# R290

LBP · 60Hz

(Cubigel品牌)



系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)	
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)								
									制冷量 Capacity	COP	蒸发温度(℃) Evaporating Temperature								
									W	W/W	-40	-35	-30	-25	-20	-15			-10
U	NUG45LR	4.5	LBP	F	115-127V 60Hz	CSIR	R	C-V	250	1.55	106	132	178	222	278	343	422	8.5	173.5
	NUG55LR	5.5	LBP	F	115-127V 60Hz	CSIR	R	C-V	335	1.55	142	177	239	297	373	459	566	8.6	173.5
	NUG60LR	6.0	LBP	F	115-127V 60Hz	CSIR	R	C-V	350	1.55	147	184	248	309	388	478	588	8.7	173.5
	NUG70LR	6.7	LBP	F	115-127V 60Hz	CSIR	R	C-V	388	1.55	162	202	273	340	427	525	647	8.8	173.5
	NUT55CR	5.5	LBP	F	115-127V 60Hz	RSCR	P	C-V	335	1.72	142	177	239	297	373	459	566	9.6	173.5
	NUT60CR	6.0	LBP	F	115-127V 60Hz	RSCR	P	C-V	350	1.72	147	184	248	309	388	478	588	9.6	173.5
	NUT70CR	6.7	LBP	F	115-127V 60Hz	RSCR	P	C-V	388	1.80	162	202	273	340	427	525	647	9.7	173.5

# R290

HMBP · 50Hz

(Cubigel品牌)

R134a **R290** R404A R600a  
LBP MLBP HBP MHBP **HMBP**  
50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况								重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4	7.2/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(℃) Evaporating Temperature									
									W	W/W	-25	-20	-15	-10	-5	0	5	10		
U	NUY45RA	4.5	HMBP	F	220-240V 50Hz	CSIR	R	C-V	615	2.65	183	213	253	308	378	456	548	648	8.6	173.5
	NUY55RA	5.5	HMBP	F	220-240V 50Hz	CSIR	R	C-V	720	2.65	226	256	304	370	453	547	657	778	8.6	173.5
	NUY60RA	6.0	HMBP	F	220-240V 50Hz	CSIR	R	C-V	840	2.65	260	300	356	433	530	640	769	910	8.7	173.5
	NUY70RA	6.7	HMBP	F	220-240V 50Hz	CSIR	R	C-V	950	2.65	280	330	392	475	583	704	846	1000	8.7	173.5
L	NLY80RAa	8.1	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1110	2.60	285	359	454	568	701	855	1028	1221	11.4	185.6
	NLY80RAb	8.1	HMBP	F	220-240V 50Hz	CSCR	R	C-V	1110	2.80	285	359	454	568	701	855	1028	1221	11.4	185.6
	NLY90RAa	9.09	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1256	2.56	375	436	517	627	770	929	1117	1320	11.4	198
P	NPY12RAb	12.1	HMBP	F	220-240V 50Hz	CSCR	R	C-V	1744	2.70	439	553	701	884	1097	1340	1614	1919	12.3	210.5

## ASHRAE测试条件 Test conditions

项目 Items	ASHRAE测试工况	
	LBP/MLBP	HMBP
蒸发温度℃ Evaporating temperature	-23.3	7.2
冷凝温度℃ Condensing temperature	54.4	54.4
过冷温度℃ Subcooling temperature	32.2	46.1
吸气温度℃ Suction temperature	32.2	35
环境温度℃ Ambient temperature	32.2	35

单位换算 Measurement conversion
1W=3.41Btu/h
1W=0.86Kcal/h
1Kcal/h=3.97Btu/h
1立方英尺(cu)=28.32升(L)
1立方英寸(in)=16.39立方厘米(cc)

表中字母说明 Indication of letters
F 风冷 Fan cooling
S 自然冷却 Static
P PTC启动器 PTC Starter
R 重锤启动器 Relay
C 毛细管 Capillar and tube
V 膨胀阀 Expansion Valve

## ◆ R134a

LBP · 50Hz

(HUAYI品牌)

R134a

R290

R404A

R600a

LBP

MLBP

HBP

MHBP

HMBP

50Hz

60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)							
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature							
									W	W/W	-35	-30	-25	-20	-15	-10		
E	HYE55Y	5.5	LBP	S	220-240V 50Hz	RSIR	P	C	150	1.28	71	100	135	180	228	288	8.3	169
	HYE60Y	6.0	LBP	S	220-240V 50Hz	RSIR	P	C	170	1.28	81	113	153	203	258	326	8.0	169
	HYE69Y	6.7	LBP	S	220-240V 50Hz	RSIR	P	C	190	1.26	91	127	171	227	289	365	8.3	169
	HYE81Y	8.1	LBP	F	220-240V 50Hz	RSIR	P	C	235	1.30	100	142	202	269	350	365	8.5	173.5
H	HY81Y	8.1	LBP	F	220-240V 50Hz	RSIR	P	C	235	1.25	100	142	202	269	350	444	10.2	193
	HY90Y	9.0	LBP	F	220-240V 50Hz	RSIR	P	C	265	1.30	127	178	239	317	404	512	11.0	193
	HY113Y	11.3	LBP	F	220-240V 50Hz	CSIR	R	C	330	1.30	140	200	283	378	492	623	11.2	193
	HY131Y	13.1	LBP	F	220-240V 50Hz	CSIR	R	C	380	1.30	187	259	347	450	582	723	11.2	193
	HY153Y	15.3	LBP	F	220-240V 50Hz	CSIR	R	C	435	1.30	206	296	399	521	668	842	11.2	193

## ◆ R134a

LBP/MLBP · 115V/60Hz

(Cubigel品牌)

R134a

R290

R404A

R600a

LBP

MLBP

HBP

MHBP

HMBP

50Hz

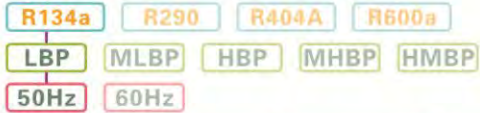
60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)		
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature									
									W	W/W	-35	-30	-25	-20	-15	-10			-5	0
U	GUY60NR	6.0	MLBP	S/F	115-127V 60Hz	CSIR	R	C-V	210	1.49	100	140	190	252	320	404	494	590	7.9	173.5
	GUY70NR	6.7	MLBP	S/F	115-127V 60Hz	CSIR	R	C-V	239	1.49	114	160	217	287	365	461	563	672	8.3	173.5
	GUY80NR	8.1	MLBP	S/F	115-127V 60Hz	CSIR	R	C-V	284	1.47	136	190	258	342	434	549	641	766	8.3	173.5
	GUH12LF	11.3	LBP	F	220-240V 60Hz	CSIR	R	C	380	1.38	201	281	378	501	639	809	--	--	9.5	173.5
H	GP11FE	11.3	LBP	F	115V 60Hz	CSIR	R	C	380	1.30	161	230	325	434	565	716	--	--	11.4	193

## ◆ R134a

LBP · 50Hz

(Cubigel品牌)



系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)							
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature							
									W	W/W	-35	-30	-25	-20	-15	-10		
U	GU70AA	6.7	LBP	S	220-240V 50Hz	RSIR	P	C	190	1.15	91	127	171	227	289	365	8.3	169
	GUH12LA	11.3	LBP	F	220-240V 50Hz	CSIR	R	C	330	1.35	175	245	329	436	556	704	9.3	173.5
H	GH80AA	8.1	LBP	F	220-240V 50Hz	RSIR	P	C	235	1.25	100	142	202	269	350	444	10.2	193
	GH90AA	9.0	LBP	F	220-240V 50Hz	RSIR	P	C	265	1.30	127	178	239	317	404	512	11.0	193
	GH12FA	11.3	LBP	F	220-240V 50Hz	CSIR	R	C	330	1.30	140	200	283	378	492	623	11.2	193
	GH14FA	13.1	LBP	F	220-240V 50Hz	CSIR	R	C	380	1.30	187	259	347	450	582	723	11.2	193
	GH16FA	15.3	LBP	F	220-240V 50Hz	CSIR	R	C	435	1.30	206	296	399	521	668	842	11.2	193

## ◆ R134a

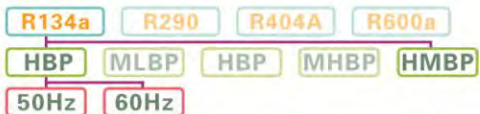
LBP · 50/60Hz

(Cubigel品牌)



系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)							
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature							
									W	W/W	-35	-30	-25	-20	-15	-10		
U	GE55AG	5.5	LBP	S	220-240V 50/60Hz	RSIR	P	C	150	1.15	71	100	135	180	228	288	7.9	169
	GE60AG	6.0	LBP	S	220-240V 50/60Hz	RSIR	P	C	170	1.15	81	113	153	203	258	326	8.3	169
	GU70AG	6.7	LBP	F	220-240V 50/60Hz	RSIR	P	C	190	1.15	91	127	171	227	289	365	8.3	169
	GUG80LG	8.1	LBP	F	220-240V 50/60Hz	CSCR	R	C	240	1.50	127	178	239	317	404	512	9.0	173.5

# R134a



HBP/HMBP · 50/60Hz

(HAIYI品牌)

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况								重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4	7.2/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature									
									W	W/W	-25	-20	-15	-10	-5	0	5	10		
E	HYE69YZ	6.7	HMBP	F	220-240V 50Hz	CSIR	R	C-V	720	2.50	185	230	284	347	439	548	670	807	8.9	173.5
	HYE81YZ	8.1	HMBP	F	220-240V 50Hz	CSIR	R	C-V	830	2.20	215	270	327	399	505	630	771	928	8.9	173.5
H	HY69YZ	6.9	HBP	F	220-240V 50Hz	CSIR	R	C-V	645	2.20	--	--	238	304	373	474	575	698	11.1	193
	HY81YZ	8.1	HBP	F	220-240V 50Hz	CSIR	R	C-V	745	2.20	--	--	286	376	465	571	716	866	10.8	193
	HY94YZ	9.4	HBP	F	220-240V 50Hz	CSIR	R	C-V	860	2.20	--	--	320	406	524	643	752	905	10.8	193
	HY113YZ	11.3	HBP	F	220-240V 50Hz	CSIR	R	C-V	1050	2.20	--	--	396	508	639	795	795	1185	10.8	193
	HY131YZ	13.1	HBP	F	220-240V 50Hz	CSIR	R	C-V	1218	2.20	--	--	459	588	741	921	1131	1374	10.8	193
	HY153YZ	15.3	HBP	F	220-240V 50Hz	CSIR	R	C-V	1350	2.30	--	--	530	679	834	1059	1251	1477	11.5	193
	HY69YZ42	6.9	HBP	F	115V 60Hz	CSIR	R	C-V	740	2.02	--	--	286	347	434	552	685	839	11.1	193
	HY81YZ42	8.1	HBP	F	115V 60Hz	CSIR	R	C-V	870	2.02	--	--	322	407	511	646	792	988	10.8	193

# R134a

R134a R290 R404A R600a

HBP/MHBP · 50Hz HBP MLBP HBP MHBP HMBP

(Cubigel品牌) 50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况								重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4		制冷量Capacity (W)									
									制冷量 Capacity W	COP W/W	蒸发温度(°C) Evaporating Temperature									
											-25	-20	-15	-10	-5	0	5	10		
U	GUY60RA	6.0	HMBP	F	220-240V 50Hz	CSIR	R	C-V	640	2.50	168	209	230	291	375	471	581	771	8.9	173.5
	GE70TB	7.0	HMBP	F	220-240V 50Hz	CSIR	R	C-V	720	2.50	185	230	284	347	439	548	670	807	8.9	173.5
	GE80TB	8.1	HMBP	F	220-240V 50Hz	CSIR	R	C-V	830	2.20	215	270	327	399	505	630	771	928	8.9	173.5
	GUY80TB	8.1	HMBP	F	220-240V 50Hz	CSIR	R	C-V	830	2.60	215	270	327	399	505	630	771	928	9.1	173.5
	GU90TB	8.9	HBP	F	220-240V 50Hz	CSIR	R	C-V	930	2.30	--	--	360	455	570	703	868	1051	8.9	173.5
	GUY90TB	8.9	HMBP	F	220-240V 50Hz	CSIR	R	C-V	910	2.60	234	294	360	455	570	703	868	1051	9.1	173.5
H	GH12TB	11.3	HBP	F	220-240V 50Hz	CSIR	R	C-V	1050	2.20	--	--	396	508	639	795	975	1185	10.8	193
	GH14TB	13.1	HBP	F	220-240V 50Hz	CSIR	R	C-V	1218	2.20	--	--	459	588	741	921	1131	1374	10.8	193
	GH16TB	15.3	HBP	F	220-240V 50Hz	CSIR	R	C-V	1365	2.15	--	--	536	687	866	1075	1321	1605	11.5	193
P	GPY12RAa	12.1	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1183	2.35	290	365	455	558	712	883	1087	1316	12.6	210.5
	GPY12RAb	12.1	HMBP	F	220-240V 50Hz	CSR	R	C-V	1183	2.58	290	365	455	558	712	883	1087	1316	12.6	210.5
	GPY14RAa	14.32	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1380	2.27	350	430	530	651	830	1029	1268	1534	12.6	210.5
	GPY14RAb	14.32	HMBP	F	220-240V 50Hz	CSR	R	C-V	1380	2.58	350	430	530	651	830	1029	1268	1534	12.6	210.5
	GPY16RAa	16.15	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1500	2.20	380	467	576	708	902	1119	1378	1667	12.8	210.5
	GPY16RAb	16.15	HMBP	F	220-240V 50Hz	CSR	R	C-V	1500	2.40	380	467	576	708	902	1119	1378	1667	12.8	210.5
	GPT18RA	18	HBP	F	220-240V 50Hz	CSR	R	C-V	1700	2.20	--	--	660	850	1061	1292	1574	1870	12.8	210.5



# ◆ R134a

R134a R290 R404A R600a

LBP/MHBP · 50Hz/60Hz LBP MLBP HBP MHBP HMBP

(Cubigel品牌) 50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况								重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4	7.2/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature									
									W	W/W	-25	-20	-15	-10	-5	0	5	10		
U	GU45TG	4.5	HMBP	F	220-230 50/220-240V 60Hz	CSIR	R	C-V	470	2.50	96	128	167	211	272	341	421	515	8.6	193
	GU60TG	6.0	HBP	F	220-230 50/220-240V 60Hz	CSIR	R	C-V	640	2.40	--	--	230	291	375	471	581	711	8.7	193
	GE70TG	6.7	HBP	F	220-240 50/230V 60Hz	CSIR	R	C-V	720	2.20	--	--	284	347	439	548	670	807	8.7	173.5
	GE80TG	8.1	HBP	F	220-240 50/230V 60Hz	CSIR	R	C-V	830	2.20	--	--	327	399	505	630	771	928	8.7	173.5
P	GP12TG	12.05	HMBP	F	200-220 50/220-230V 60Hz	CSIR	R	C-V	1067	2.02	261	329	410	503	641	795	979	1186	11.2	210.5
	GP14TG	14.17	HMBP	F	200-220 50/220-230V 60Hz	CSIR	R	C-V	1183	2.03	290	365	455	558	712	883	1087	1316	12.9	210.5
	GP16TG	16.15	HBP	F	220-240 50/230V 60Hz	CSIR	R	C-V	1383	2.09	--	--	530	651	830	1029	1268	1534	12.9	210.5
	GPT16RG	16.15	HBP	F	200-220 50/220-230V 60Hz	CSR	R	C-V	1500	2.35	--	--	576	708	902	1119	1378	1667	12.3	210.5

# R134a

R134a R290 R404A R600a

HBP/MHBP · 60Hz LBP MLBP HBP MHBP HMBP

(Cubigel品牌) 50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况						重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4	7.2/54.4	制冷量Capacity (W)							
									制冷量 Capacity	COP	蒸发温度(℃) Evaporating Temperature							
									W	W/W	-15	-10	-5	0	5	10		
U	GU60ME	6.0	HMBP	F	115V 60Hz	RSIR	P	C-V	760	2.20	278	351	460	557	696	849	8.7	173.5
H	GH70TE	6.9	HBP	F	115V 60Hz	CSIR	R	C-V	740	2.02	286	347	434	552	685	839	11.1	193
	GH80TE	8.1	HBP	F	115V 60Hz	CSIR	R	C-V	870	2.02	322	407	511	646	792	998	10.8	193
P	GPY14RMb	14.32	HBP	F	115-127V 60Hz	CSR	R	C-V	1706	2.36	670	850	1047	1281	1529	1851	12.8	210.5

## ASHRAE测试条件Test conditions

项目 Items	ASHRAE测试工况	
	LBP/MLBP	HMBP
蒸发温度℃ Evaporating temperature	-23.3	7.2
冷凝温度℃ Condensing temperature	54.4	54.4
过冷温度℃ Subcooling temperature	32.2	46.1
吸气温度℃ Suction temperature	32.2	35
环境温度℃ Ambient temperature	32.2	35

单位换算 Measurement conversion
1W=3.41Btu/h
1W=0.86Kcal/h
1Kcal/h=3.97Btu/h
1立方英尺(cu)=28.32升(L)
1立方英寸(in)=16.39立方厘米(cc)

表中字母说明 Indication of letters
F 风冷 Fan cooling
S 自然冷却 Static
P PTC启动器 PTC Starter
R 重锤启动器 Relay
C 毛细管 Capillar and tube
V 膨胀阀 Expansion Valve

# R404A

LBP · 50Hz

(Cubigel品牌)



系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况							重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)								
									制冷量 Capacity	CDP	蒸发温度(°C) Evaporating Temperature								
									W	W/W	-40	-35	-30	-25	-20	-15	-10		
U	MUY45LA	4.5	LBP	S	220-240V 50Hz	CSIR	R	C-V	260	1.45	101	138	184	238	302	373	461	8.3	173.5
	MUY50LA	5.1	LBP	F	220-240V 50Hz	CSIR	R	C-V	300	1.45	116	159	212	274	347	429	530	8.4	173.5
	MUY60LA	6.0	LBP	F	220-240V 50Hz	CSIR	R	C-V	354	1.45	137	188	250	323	410	506	625	8.5	173.5
L	MLY80LAa	8.1	LBP	F	220-240V 50Hz	CSIR	R	C-V	407	1.28	157	216	287	372	472	582	719	11.6	198
	MLY80LAb	8.1	LBP	F	220-240V 50Hz	CSCR	R	C-V	407	1.38	157	216	287	372	472	582	719	11.6	198
	MLY90LAa	9.09	LBP	F	220-240V 50Hz	CSIR	R	C-V	458	1.28	177	244	324	420	533	661	813	11.9	198
	MLY90LAb	9.09	LBP	F	220-240V 50Hz	CSCR	R	C-V	458	1.40	177	244	324	420	533	661	813	11.9	198
P	MP14FB	14.17	LBP	F	220-240V 50Hz	CSIR	R	C-V	626	1.12	255	352	466	605	768	952	1170	13.9	210.5
	MPT12LA	12.1	LBP	F	220-240V 50Hz	CSR	R	C-V	661	1.42	255	352	466	605	768	952	1170	13.0	210.5
	MPT14LA	14.32	LBP	F	220-240V 50Hz	CSR	R	C-V	777	1.40	325	438	577	742	948	1156	1376	13.4	210.5
	MPT16LA	16.15	LBP	F	220-240V 50Hz	CSR	R	C-V	887	1.40	346	484	627	813	1026	1274	1557	12.8	210.5
L	MLT90LD	9.09	LBP	F	115V 60Hz	CSR	R	C-V	549	1.40	212	293	389	504	640	793	976	10.3	198
P	MLT12LD	12.1	LBP	F	115V 60Hz	CSR	R	C-V	754	1.41	291	401	531	690	876	1085	1334	11.5	210.5

◆ **R404A** R134a R290 R404A R600a  
**LBP · 50/60Hz** LBP MLBP HBP MHBP HMBP  
**(Cubigel品牌)** 50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况							重量 Weight(kg)	整机高度 Height(mm)
									-23.3/54.4	-23.3/54.4	制冷量Capacity (W)								
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature								
									W	W/W	-40	-35	-30	-25	-20	-15	-10		
P	MP12FG	12.05	LBP	F	200-220 50/ 220-230V 60Hz	CSIR	R	C-V	522	1.16	202	278	368	478	606	752	923	12.7	210.5
	MP14FG	14.17	LBP	F	200-220 50/ 230V 60Hz	CSIR	R	C-V	610	1.12	242	333	441	573	727	902	1108	13.0	210.5
	MP16FG	16.15	LBP	F	200-220 50/ 230V 60Hz	CSR	R	C-V	887	1.40	346	484	627	813	1026	1274	1557	13.0	210.5

◆ **R404A** R134a R290 R404A R600a  
**MHBP · 50/60Hz** LBP MLBP HBP MHBP HMBP  
**(Cubigel品牌)** 50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况							重量 Weight(kg)	整机高度 Height(mm)	
									7.2/54.4	7.2/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature									
									W	W/W	-25	-20	-15	-10	-5	0	5			10
L	ML80TG	7.57	HMBP	F	200-240 50/ 220-230V 60Hz	CSIR	R	C-V	1105	1.99	220	300	403	528	675	845	1038	1253	11.2	198
	ML90TG	8.86	HMBP	F	200-240 50/ 220-230V 60Hz	CSIR	R	C-V	1326	1.98	264	360	483	633	810	1014	1246	1504	12.7	198
P	MP12RB	12.05	HMBP	F	220-240V 50Hz	CSIR	R	C-V	1838	2.30	369	504	676	886	1134	1420	1744	2106	13.5	210.5
	MP14RB	14.17	HMBP	F	220-240V 50Hz	CSIR	R	C-V	2093	2.14	405	554	743	974	1247	1562	1918	2317	13.5	210.5

ASHRAE测试条件 Test conditions

项目 Items	ASHRAE测试工况	
	LBP/MLBP	HMBP
蒸发温度°C Evaporating temperature	-23.3	7.2
冷凝温度°C Condensing temperature	54.4	54.4
过冷温度°C Subcooling temperature	32.2	46.1
吸气温度°C Suction temperature	32.2	35
环境温度°C Ambient temperature	32.2	35

单位换算 Measurement conversion
1W=3.41Btu/h
1W=0.86Kcal/h
1Kcal/h=3.97Btu/h
1立方英尺(cu)=28.32升(L)
1立方英寸(in)=16.39立方厘米(cc)

表中字母说明 Indication of letters
F 风冷 Fan cooling
S 自然冷却 Static
P PTC启动器 PTC Starter
R 重锤启动器 Relay
C 毛细管 Capillar and tube
V 膨胀阀 Expansion Valve

# R600a

R134a R290 R404A R600a

HMBP · 50Hz

HBP MLBP HBP MHBP HMBP

(Cubigel品牌)

50Hz 60Hz

系列 Range	型号 Model	排气量 Displ (cm <sup>3</sup> )	应用类型 Application	冷却方式 Cooling Type	电压/频率 Voltage/Frequency	电机类型 Motor Type	启动器类型 Starting	节流装置 Expansion	标准点 Check Point Data		ASHRAE工况								重量 Weight(kg)	整机高度 Height(mm)
									7.2/54.4	7.2/54.4	制冷量Capacity (W)									
									制冷量 Capacity	COP	蒸发温度(°C) Evaporating Temperature									
									W	W/W	-25	-20	-15	-10	-5	0	5	10		
U	HUY55MA	5.5	HMBP	S	220-240V 50Hz	RSIR	P	C	332	2.70	70	92	122	153	191	236	284	337	8.8	173.5
	HUY70MA	6.7	HMBP	S	220-240V 50Hz	RSIR	P	C	400	2.70	86	113	149	199	235	190	350	414	8.9	173.5

## ASHRAE测试条件 Test conditions

项目 Items	ASHRAE测试工况	
	LBP/MLBP	HMBP
蒸发温度 °C Evaporating temperature	-23.3	7.2
冷凝温度 °C Condensing temperature	54.4	54.4
过冷温度 °C Subcooling temperature	32.2	46.1
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C 毛细管 Capillar and tube
V 膨胀阀 Expansion Valve



# 3.

技术信息  
Technical Information

# 一般技术信息 General Technical Information

- 1、压缩机在真空条件下的不得加高电压测试或进行启动测试；
- 2、压缩机可在不大于下表中的平衡压力下85%的标称电压值下启动；

制冷剂	平衡压力 ( kgf/cm <sup>2</sup> ) (表压)	
	LBP	HMBP
R290	6.7	9.7
R134a	5.0	6.9
R404A	9.0	13.0
R600a	2.5	3.1

- 3、冷媒封入时，会出现冷媒在上、冷冻机油在下的分层状态，此时请不要立即启动压缩机，若启动由于冷冻机油润滑不足，导致机械部件划伤；且压力未及时平衡，会导致启动不良。

1. The compressor under vacuum condition should not be tested at high voltage or tested for startup.
2. The compressor can be started under the nominal voltage under not more than 85% of equilibrium pressure in the table below.

Refrigerant	Balance Pressure ( kgf/cm <sup>2</sup> ) (gauge pressure)	
	LBP	HMBP
R290	6.7	9.7
R134a	5.0	6.9
R404A	9.0	13.0
R600a	2.5	3.1

3. When filling the refrigerant into the compressor, there will appear the phenomenon of stratification that the refrigerant oil is at bottom, in this case, please don't immediately start up the compressor, if you do so , the mechanical components may be scratched due to insufficient amount of lubricating refrigerator oil; moreover, the pressure has not achieved equilibrium, which will cause poor startup.



性能检测  
Performance Test



安装说明  
Installation and Use

- 1、压缩机搬运过程中需要保持压缩机垂直，不能倒置，并尽量避免撞击和振动；
- 2、压缩机启动器、保护器等电装品必须使用配套制定的式样；
- 3、拔出橡皮塞，请在5分钟内将压缩机与制冷系统连接，不允许有任何空气中的灰尘或潮气进入压缩机里面；
- 4、不要对吸气管、排气管施加强制性弯曲力；
- 5、不得往压缩机内注入任何非指定液体；
- 6、制冷系统不能含氯系列残留物（除锈剂、清洗剂（包含R113）等），有机物的残渣量在100mg以下；
- 7、冷媒充注不要超过规定量；
- 8、压缩机外接电源线不能接错，若发生误接线，压缩机逆转，压缩机不能使用；
- 9、压缩机端子罩内的配线须使用耐热性高的配线。

1. During the handing of the compressor, it is required to keep the compressor in vertical position, don't place it upside down and avoid impact and vibration as far as possible.
2. Electric components like starter, protector etc. of the compressor must adopt the specifications specified by our company.
3. Pull out the rubber plug, please connect the compressor with the refrigerating system within 5 minutes, it is not allowed to let any dust or moisture in the air enter the compressor.
4. Do not apply positive bending force to the suction and exhaust pipes.
5. It is forbidden to fill any non-specified liquid into the compressor.
6. The refrigerating system should not contain chlorine series residue ( rust remover, cleaning agent ( containing R113 etc.), and the amount of residual organic matter should be below 100mg.
7. The refrigerant charge should not exceed the specified amount.
8. Do not wrongly connect the external power lines of compressor, if they are connected wrongly, the compressor will be reversed and can not be used any longer.
9. The wires in the terminal cover of the compressor must use high temperature resistant ones.



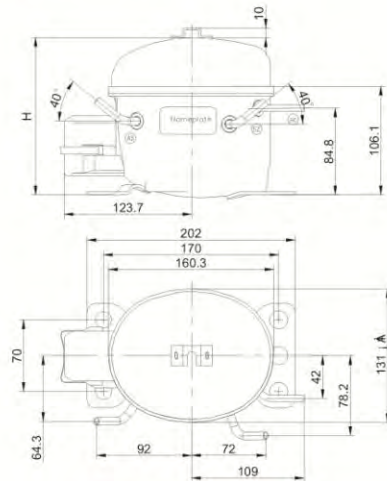
存放说明  
Storage Instructions

- 1、压缩机出厂后的库存期最好不要超过6个月。如果超过6个月，请检查压缩机内的干燥氮气是否充足，必要时应补充；
- 2、请将压缩机储存于通风干燥的地方，尽量避免湿气。

1. The warehouse storage period of the compressor after delivery should preferably not exceed 6 months; If the storage period exceeds 6 months, please check if the dry nitrogen gas in the compressor is sufficient, and make up it, if necessary.
2. Please store the compressor in a well ventilated dry place and try to avoid moisture.

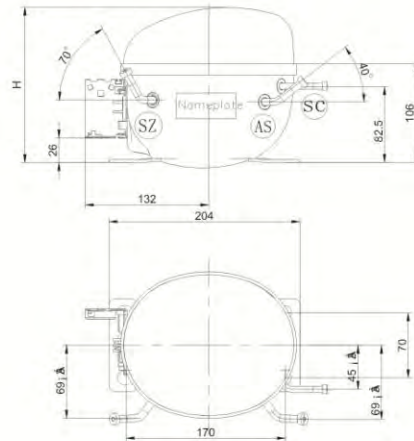
# 外形尺寸图 Compressor Dimensional Drawings

## B系列 B Range



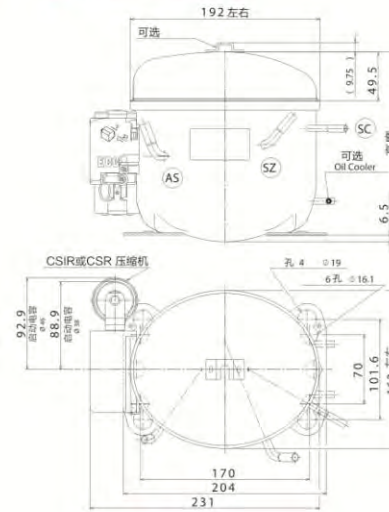
图例 Legend		
AS	吸气	Suction
SC	排气	Discharge
SZ	工艺	Process

## U系列 U Range



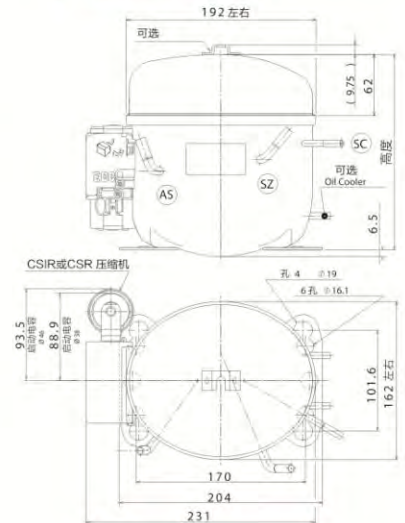
图例 Legend		
AS	吸气	Suction
SC	排气	Discharge
SZ	工艺	Process

## L系列 L Range



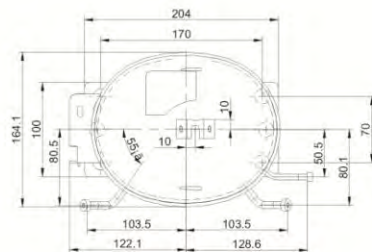
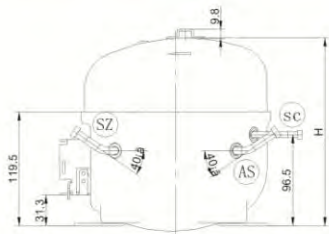
图例 Legend		
AS	吸气/工艺	Suction/Process
SC	排气	Discharge
SZ	工艺/吸气	Process/Suction

## P系列 P Range



图例 Legend		
AS	吸气/工艺	Suction/Process
SC	排气	Discharge
SZ	工艺/吸气	Process/Suction

## H系列 H Range



图例 Legend		
AS	吸气	Suction
SC	排气	Discharge
SZ	工艺	Process

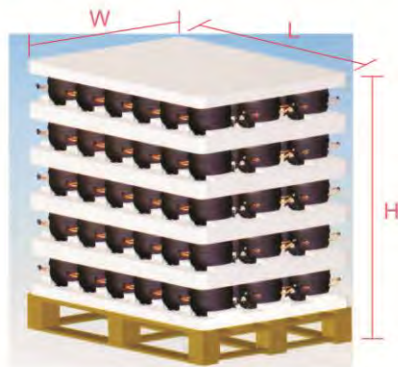
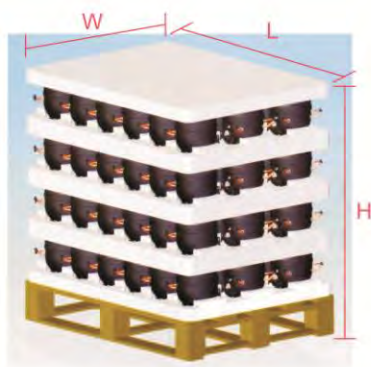
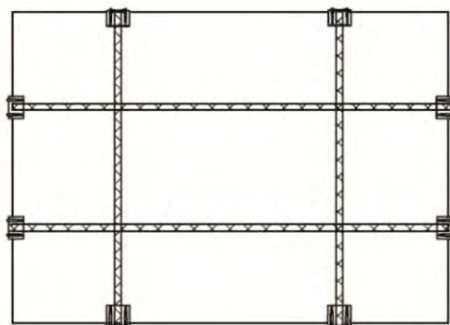
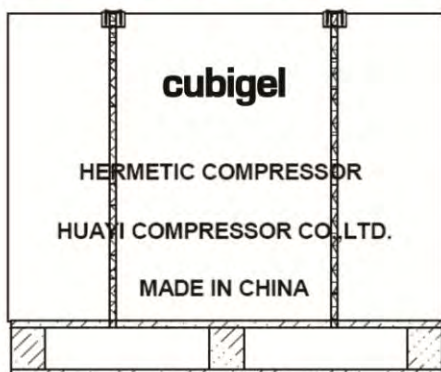




## 包装 Packaging

压缩机类型 Compressor Type	包装数量(台/包) Quantity	包装外形尺寸(长×宽×高) Overall dimensions(L×W×H)	适用包装类型 Applicable packaging types	备注 Notes
U压缩机 U SERIES	90	1120×820×1150	国内 Domestic	5层 5Layers
	72	1120×820×960	出口 Export	4层 4Layers
L压缩机 L SERIES	72	1120×820×1040	国内 Domestic	4层 4Layers
	54/72	1120×820×810/1120×820×1040	出口 Export	3/4层 3/4Layers
P压缩机 P SERIES	72	1120×820×1080	国内 Domestic	4层 4Layers
	54/72	1120×820×810/1120×820×1040	出口 Export	3/4层 3/4Layers
H压缩机 H SERIES	90	1120×820×1250	国内 Domestic	5层 5Layers
	72	1120×820×1020	出口 Export	4层 4Layers

### 包装整体图 Package diagram



## 附件 Fixings

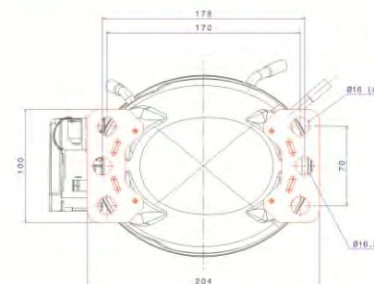
电器具的生产厂家可以通过安装附件将压缩机固定在箱体底板上,使压缩机和制冷系统连接在一起。

Fixings allow the manufacturer of appliances to fix the compressor to the appliance base, connecting it to the cooling system.

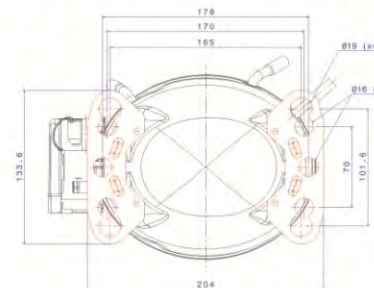
### 底脚板 Mounting feet

系列 Range	底脚板 Mounting feet	
B/U/L/P/HY	欧洲版本 一组4个直径16.5毫米的孔,轴间距:70×170毫米	美洲版本 两组4个孔: 1.-一组4个直径16.5毫米的孔,轴间距:70×170毫米 2.-一组1/4英寸(19毫米)直径的孔,轴间距:4×6 1/2英寸(101.6×165毫米)
	European type Set of 4 holes of 16.5mm DIA with inter-axes: 70×170mm	American type 1.-set of 16.5mm DIA with inter-axes:70×170mm 2.-set of 3/4 inch(19mm) DIA with inter-axes:4×6 1/2 inch (101.6×165mm)

### 欧洲底脚板 European mounting feet

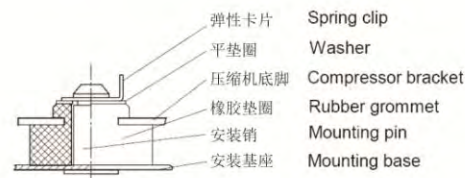


### 美洲底脚板 American mounting feet

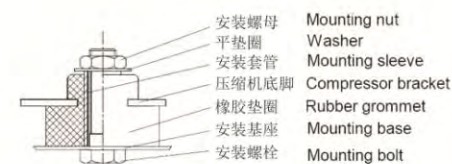


## 安装方式 Mounting Type

### 安装方式 1 Mounting Type 1

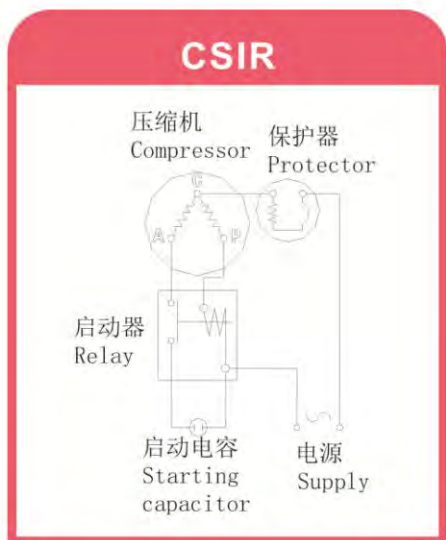


### 安装方式 2 Mounting Type 2

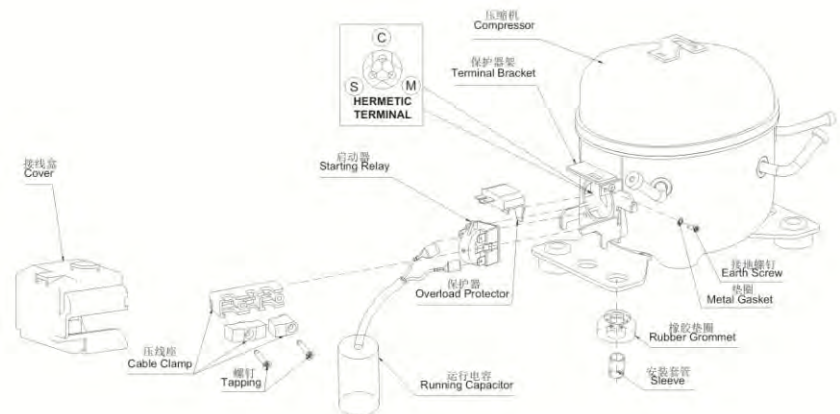


# 电器接线原理图 Electrical Diagram

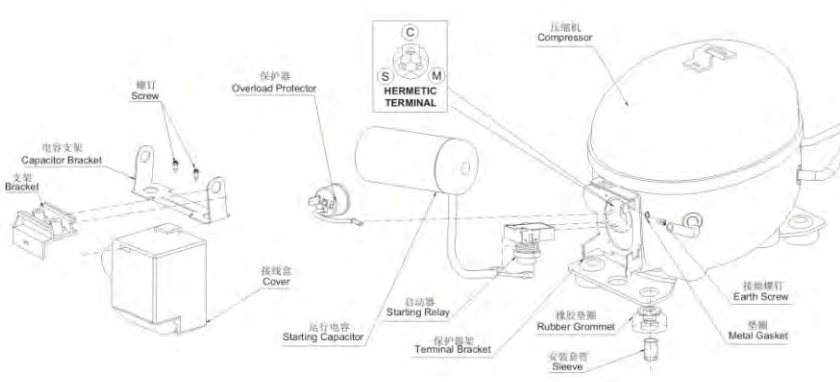
# 接线示意图 Wiring Diagram



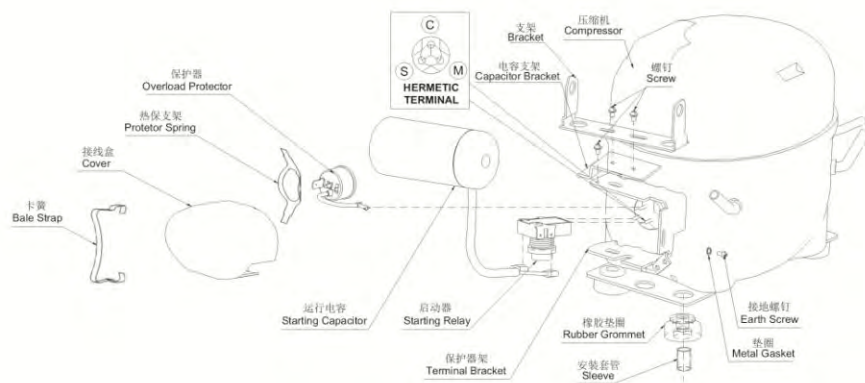
B系列整体支架两器分体式 B range standard type



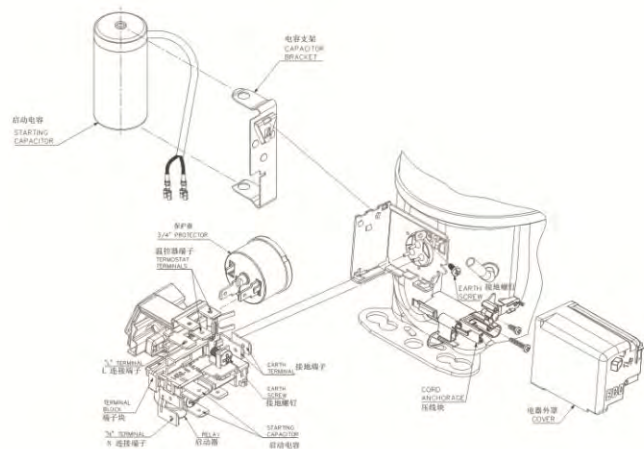
U系列C型支架两器分体式 U range C series standard type



H系列 II 型支架两器分体式 H range II series standard type



L/P/U系列HCB型支架两器整体式 L/P/U range HCB combo type



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