

## 冷冻冷藏专用

# For Refrigeration Application

涡旋压缩机

**SCROLL COMPRESSORS**

**R290**

**R1270**

**R448A**

**R449A**

**R410A**

**R404A**

**R22**

## Johnson Controls - Hitachi Air Conditioning

### HEAD QUARTER

New Pier Takeshiba South Tower  
1-16-1, Kaigan Minato-ku, Tokyo 105-0022, JAPAN  
<https://industrial.hitachiaircon.com/en/compressor/scroll>

### SALES OFFICES

**Johnson Controls - Hitachi Air Conditioning Europe SAS**  
2 Rue de Lombardie, Parc Aktiland II, 69800 Saint-Priest, France

**Johnson Controls - Hitachi Air Conditioning Singapore Pte. Ltd.**  
2 Serangoon North Avenue 5, #03-01 Singapore 554911

**Johnson Controls - Hitachi Air Conditioning North America LLC**  
8304 Esters Blvd. Suite 810, Irving, Texas, USA 75063

**Johnson Controls - Hitachi Wanbao Compressor (Guangzhou) Co., Ltd. (China)**  
No.1086 Cheng Ao East Road, Conghua City, Guangzhou 510935, China

### CERTIFICATION



Concerning [Quality Management Systems]  
ISO 9000 series  
Hitachi-Johnson Controls Air Conditioning, Inc.  
Shimizu Factory  
JQA-1084 obtained in November 1995



GB/T28001-2011 / OHSAS18001:2007  
Johnson Controls-Hitachi Wanbao Compressor (Guangzhou) Co., Ltd.  
Initial Issue Date: April 30, 2006  
[Certificate No. 15918S20003R4M]



Concerning [Environmental Management Systems]  
ISO 14000 series  
Hitachi-Johnson Controls Air Conditioning, Inc.  
Shimizu Factory  
EC97J1107 obtained in October 1997



GB/T19001-2016 / ISO9001:2015  
Johnson Controls-Hitachi Wanbao Compressor (Guangzhou) Co., Ltd.  
Initial Issue Date: July 8, 2004  
[Certificate No. 15918Q20011R6M]



Concerning [Occupational Health and Safety Management Systems]  
ISO 45001 / OHSAS 18001  
Hitachi-Johnson Controls Air Conditioning, Inc.  
Shimizu Factory  
WC18J0002 obtained in July 2018



GB/T24001-2016 / ISO14001:2015  
Johnson Controls-Hitachi Wanbao Compressor (Guangzhou) Co., Ltd.  
Initial Issue Date: April 30, 2006  
[Certificate No. 15918E20005R4M]





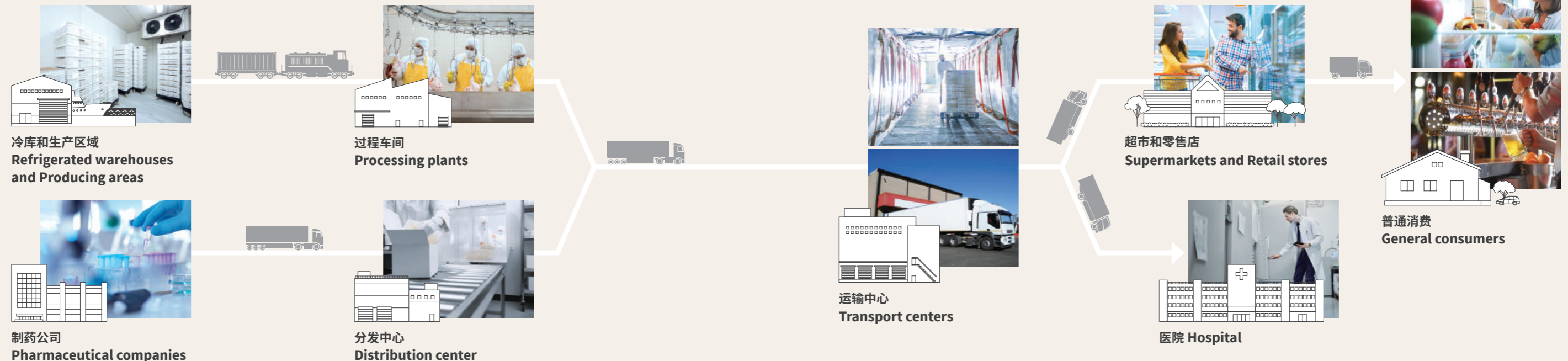
# 制冷, 冷冻冷藏整体解决方案 Total Solution For Refrigeration

日立高品质的压缩机给冷链的不同阶段作出了贡献, 保证了产品无论在生产, 运输还是销售过程中一直处于低温环境  
Hitachi's high quality compressors contribute at various stages in the cold chain, by keeping products at low temperature without interruption between the producing, transporting and consuming processes.

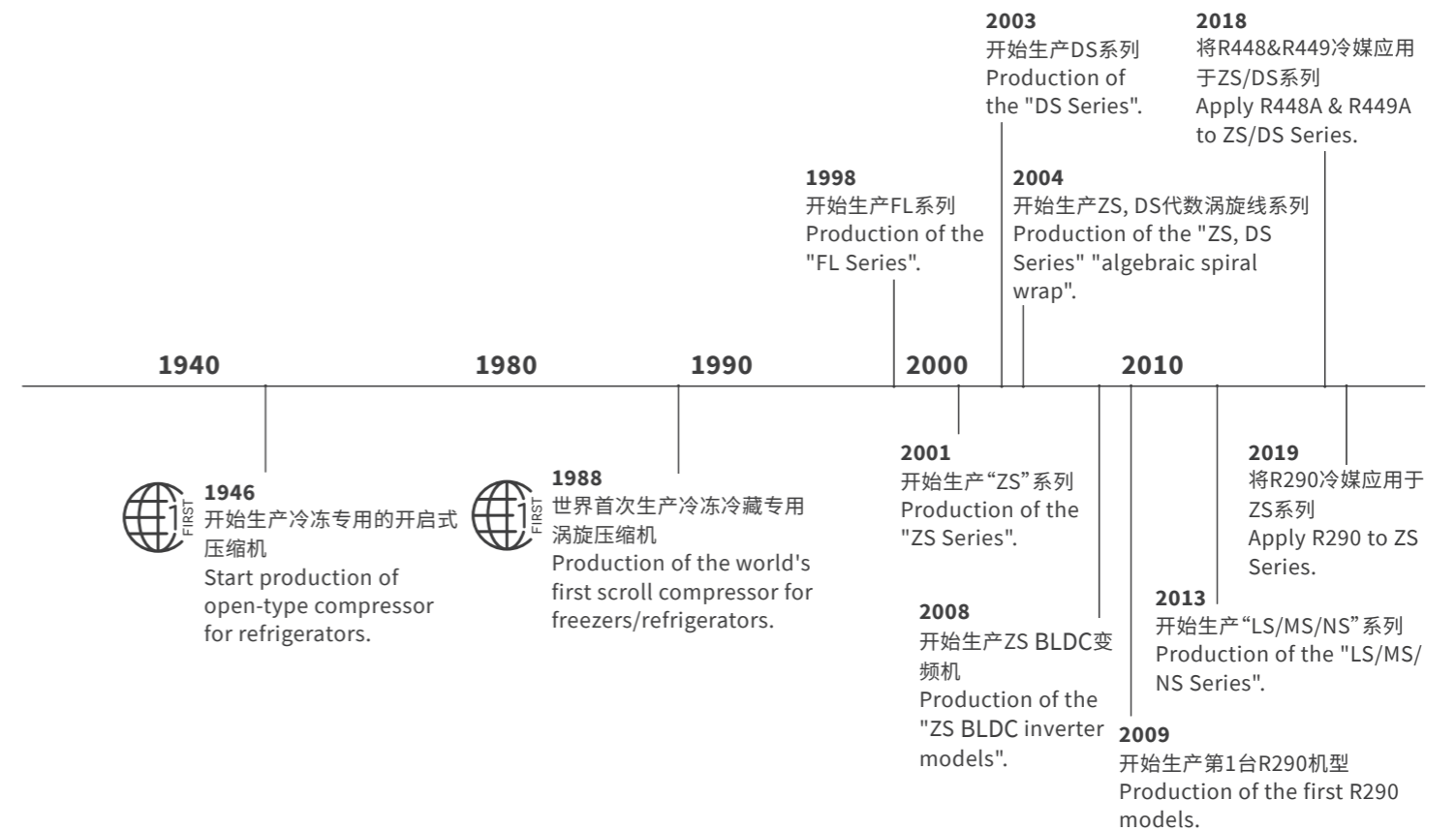
- 尺寸小,重量轻 Compact size & lightweight**
- 低噪音,低振动 Low sound level & Low vibration**
- 高可靠性,高品质 High reliability & quality**
- 先进技术造就高能效 High efficiency thanks to advanced technology**

## 冷链管理 Cold Chain Management

冷链在新鲜果蔬的运输过程, 保证药品处于安全, 新鲜的状态都扮演了重要的角色  
Cold chains play an important role in delivering fresh foods and pharmaceutical drugs in a safe, fresh state to consumers.



## 历程 History



# 型谱总览 Line Up Overview



## 测试条件 Test Condition

	Te(°C)	Tc(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0



## Z 系列 Z Series



- 额定输出功率 Rated Output: 400W~1,500W
- 卧式安装高度尺寸更低  
Low Height due to Horizontal Type
- 适用于 R290, R1270, R448A, R449A, R410A, R404A 等多种冷媒  
Suitable for multiple refrigerant such as R290, R1270, R448A, R449A, R410A, R404A...
- BLDC 变频技术 BLDC inverter technology
- 中低温宽广的运行范围  
Wide working range for Medium and Low temperature
- 适用于独立展示柜  
Suitable for self-contained type showcase
- 适用于水循环解决方案 Suitable for water-loop solution

## FL 系列 FL Series



- 额定输出功率 Rated Output: 2,200W~6,000W
- 卧式安装高度尺寸更低  
Low Height due to Horizontal Type
- 更大的制冷能力  
Large cooling capacity
- 中低温宽广的运行范围  
Wide working range for Medium and Low temperature
- 适用于从独立式到远置式展示柜的整体设计  
Suitable for overall design from self-contained to remote type showcase

## DS 系列 DS Series



- 额定输出功率 Rated Output: 1,500W~2,200W
- 卧式安装高度尺寸更低  
Low Height due to Horizontal Type
- 适用于 R1270, R448A, R449A, R404A 等多种冷媒  
Suitable for multiple refrigerant such as R1270, R448A, R449A, R404A
- 中低温宽广的运行范围  
Wide working range for Medium and Low temperature
- 适用于独立展示柜  
Suitable for self-contained type showcase
- 适用于水循环解决方案 Suitable for water-loop solution

## LS, NS, N 系列 LS, NS, N Series



- 额定输出功率 Rated Output: 2,200W~4,500W
- 立式 Vertical Type
- 特有的温度区间设计  
Exclusive design for each temperature range
- 喷液技术 Liquid injection available
- 观油镜可实时观察油面 Oil sight glass available
- 可供并联 Tandem ready configurations
- 适用于冷库和展示柜  
Suitable for cold room and showcases

# 多种应用领域 Various Range of Application

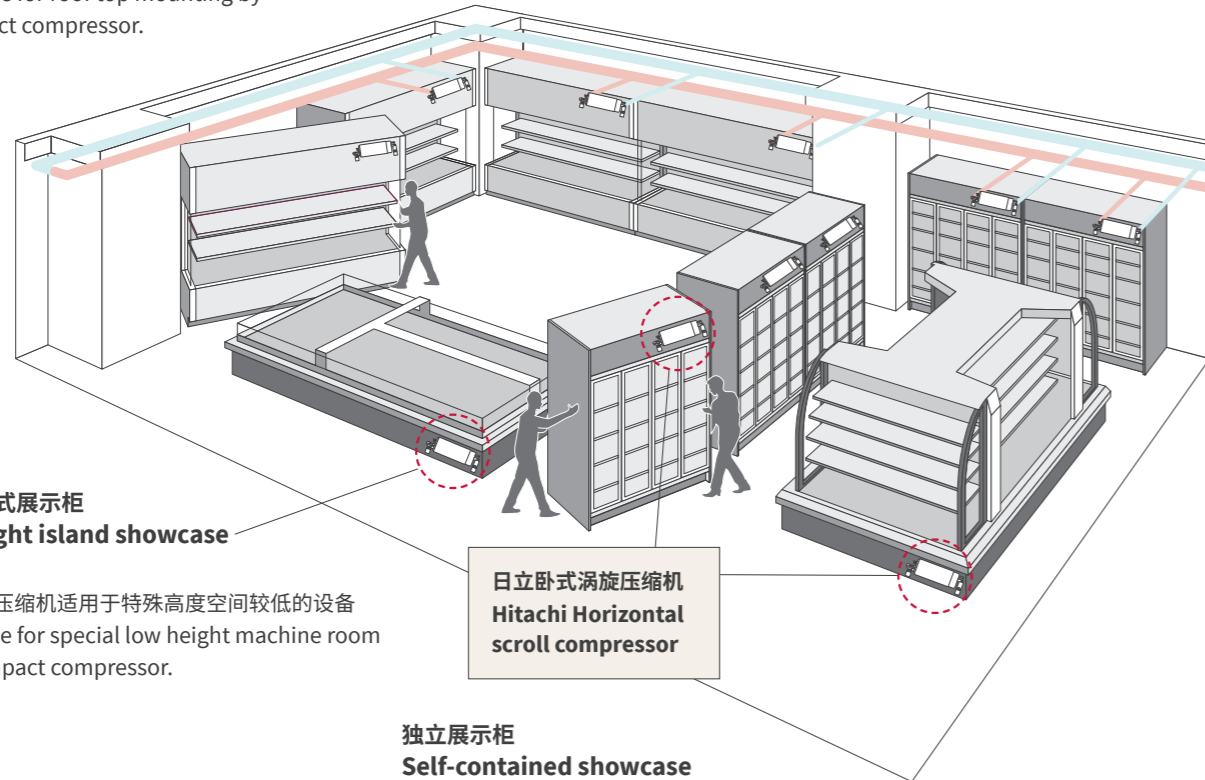
## 省空间的零售解决方案 Space-Saving Retail Solution

- 应用紧凑的压缩机以获得更大的展示空间 More display space by smaller machine room with compact compressor.
- 没有户外单元需要安装 No out door unit to be installed.
- 低噪音，振动小可减少维修成本 Less maintenance cost by Low-noise, low vibration.
- BLDC 变频压缩机更节能 Energy saving by BLDC inverter compressor.

### 独立陈列柜的水循环系统

#### Water-loop system by self-contained showcase

- 紧凑型压缩机便于柜顶安装 Suitable for roof top mounting by compact compressor.



### 低矮的岛式展示柜 Low height island showcase

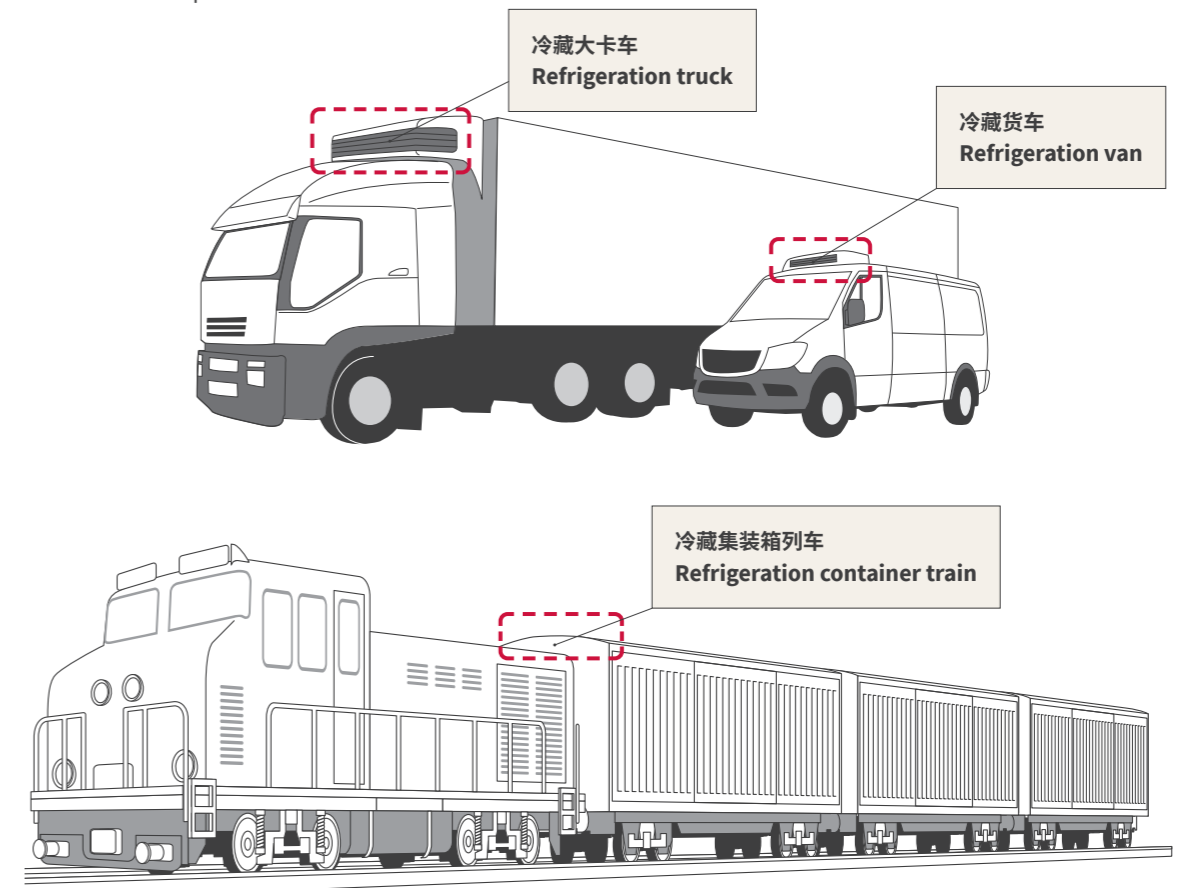
- 紧凑型压缩机适用于特殊高度空间较低的设备 Suitable for special low height machine room by compact compressor.

### 独立展示柜 Self-contained showcase

- 紧凑型压缩机便于柜顶和展示空间下的安装 Suitable for roof-top mounting and under display space mounting.

## 运输解决方案 Transportation Solution\*

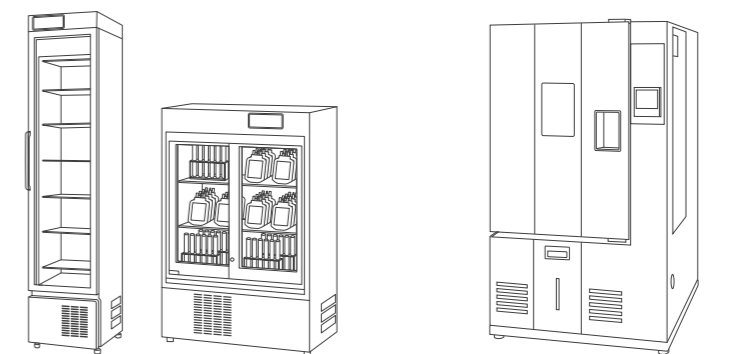
- 轻量化压缩机可节省能源 Energy saving by light compressor.
- 紧凑型压缩机使得设备占用空间小而可利用的冷藏空间更大 Small machine room and larger refrigeration space by compact compressor.
- 适用电动交通工具 Suitable for EV vehicles.
- 精确的温控 Precise temperature control.



\* 需要评估应用场合 Application review is required

## 生物科技, 制药, 化工解决方案 Bio-Technological, Medical, And Chemical Solution

- -45°C的超低温 Ultra low temperature until -45.0°C.
- BLDC 变频压缩机可实现特殊精准的温控 Special precise temperature control by BLDC inverter compressor.
- 表现为低噪音低振动的高级别品质 High level quality control by Low-noise, low-vibration.
- 节省能源 Energy saving.
- 紧凑型压缩机适用于定制设计 Suitable for customized design by compact compressor.



生物医学冷冻柜 Biomedical freezer

环境检测设备 Environmental testing equipment



# 低噪音 & 低振动 Low Sound Level & Low Vibration

低噪音低振动的压缩机可提供安全愉悦的低温环境  
Low-noise low-vibration compressors provide a safe and pleasant low-temperature environment.

## 特性 Features

### 低噪音 Low Noise

人类对低频噪音是很敏感的，所以低频率的噪音会造成极度的不舒适。日立压缩机可实现消除低频噪音，大大降低刺耳的机械声  
The human ear is sensitive to low-frequency sounds, so noise generated in low frequencies causes particular discomfort. With Hitachi scroll compressors there is little low-frequency noise and ear-grating mechanical sounds are greatly reduced.


- 低振动 Low Vibration.
- 较其他型号的压缩机而言，扭矩波动更小  
Less torque fluctuation than other type of compressors.

### 噪音等级 Noise level

ZS7516S1 → 55dB(A)

DS1836S1 → 63dB(A)

当我们在一个离压缩机表面30cm远的地点测量时 (at EVP/COND=-10.0/45.0°C)  
When measured at a position 30cm away from the compressor surface (at EVP/COND=-10.0/45.0°C)

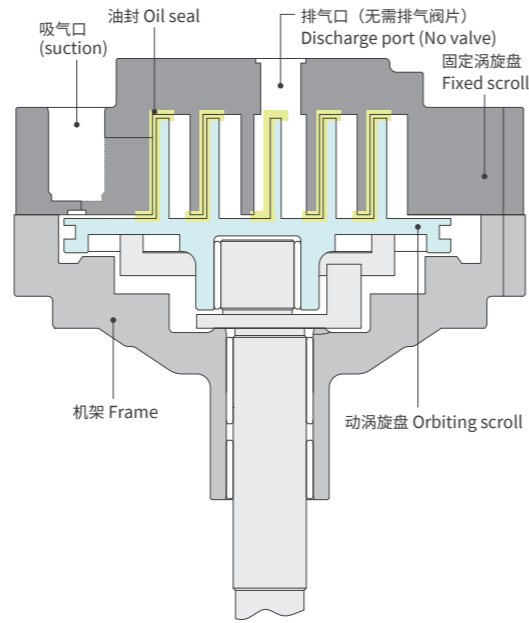
 涡旋压缩机产生的噪音比转子压缩机小得多  
Scroll compressors generate much less noise than rotary compressors.

## 优势 Benefits

低噪音低振动的压缩机在商品保鲜及维护方面很有优势，能营造一个更加愉悦也更加安全的低温环境  
Using a low-noised and low-vibration compressor has advantages in terms of maintenance and freshness of the products. Creating a pleasanter and safer low-temperature environment.

使用了日立立式涡旋压缩机的展示柜  
Showcase using Hitachi horizontal scroll compressor

- 低振动不会对周边设备造成损坏  
Low vibration so less damage to surrounding equipment
- 降低维护成本 Reduced maintenance costs
- 没有刺耳的噪音，营造了一个愉悦的环境  
Little grating noise and a pleasant environment
- 无需为解决噪音和振动问题投入成本  
No expenditure on noise and vibration countermeasures
- 新鲜的产品不会变质 No deterioration of fresh produce



涡旋压缩机截面图  
Cross section of scroll compressor

# 高性能得益于先进的技术 High Efficiency By Advanced Technology

代数螺旋型涡旋线的设计，在低温环境使用时依旧具备高性能  
High Efficiency at Low Temperature Usage by "Algebraic Spiral Wrap"

相比于渐开线型压缩机，涡旋压缩机腔体在涡旋中部更小，压缩比更大。因此压缩机在低温区域的使用效率更高效。

The compressor chamber volume in the tooth profile center is smaller and the compression ratio is larger, compared with the involute, thus efficiency is higher in a low temperature zone.

渐开线型涡旋线  
Involute wrap

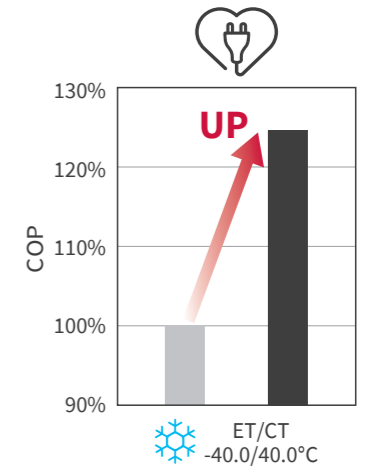
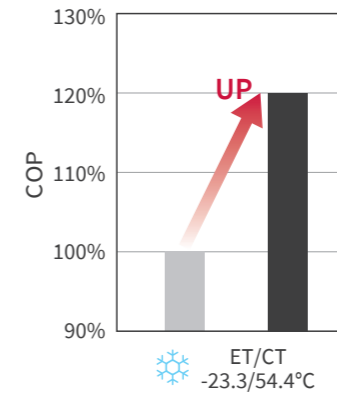
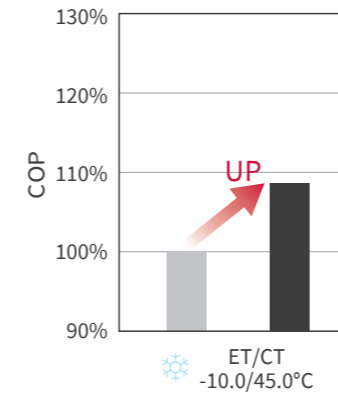


代数螺旋型涡旋线  
Algebraic spiral wrap



涡旋盘齿厚向中心加厚  
The tooth profile is thickened toward the center.

**优势 Benefit**  
→ 更高的压力比  
High compression ratio  
→ 更高的效率  
Better efficiency



■ 渐开线 Involute ■ 代数螺旋线 Algebraic  
\* 蒸发温度 / 冷凝温度 Evaporating Temperature/Condensing Temperature

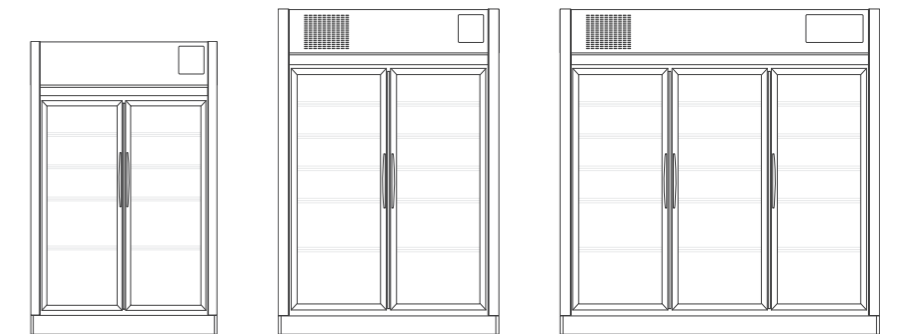
## 平台设计 Platform Design

基于各种能力需求的设计，我们的压缩机能够覆盖很大范围的排量要求，仅单台变频压缩机就能适用于各种形状和各种尺寸的货柜  
With its ability to cover a wide range of capacities, a single inverter compressor model can be used in showcases of varying shapes and sizes.

2HP class

3HP class

5HP class



使用常规 2P, 3P, 5P 定速机的货柜  
Showcases using conventional 2HP class, 3HP class and 5HP class fixed compressors



所有这些货柜只需要1台变频压缩机就能正常运行  
All the showcases can be operated by a single inverter compressor

# 高可靠性 & 舒适性 High Reliability & Comfortable Operation

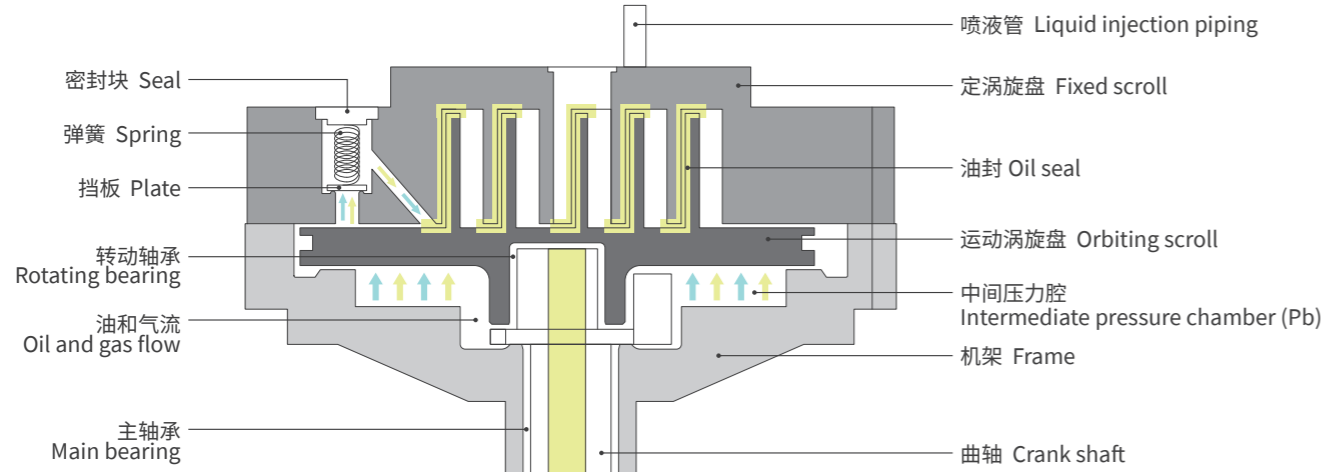
## ☆ 优势 Advantages

### 日立开创性高压腔设计的优点 Merits of Hitachi Pioneering High-Side Pressure Design

#### (1) 结构简单, 零部件少 A simple structure leading to fewer superfluous parts

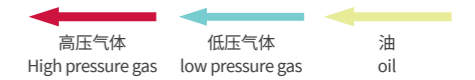
- 损坏减少, 可靠性提高 Damage is abated, improving reliability
- 压缩机效率得以提高 Compressor efficiency is improved

#### 中间压力控制阀 Intermediate pressure control valve

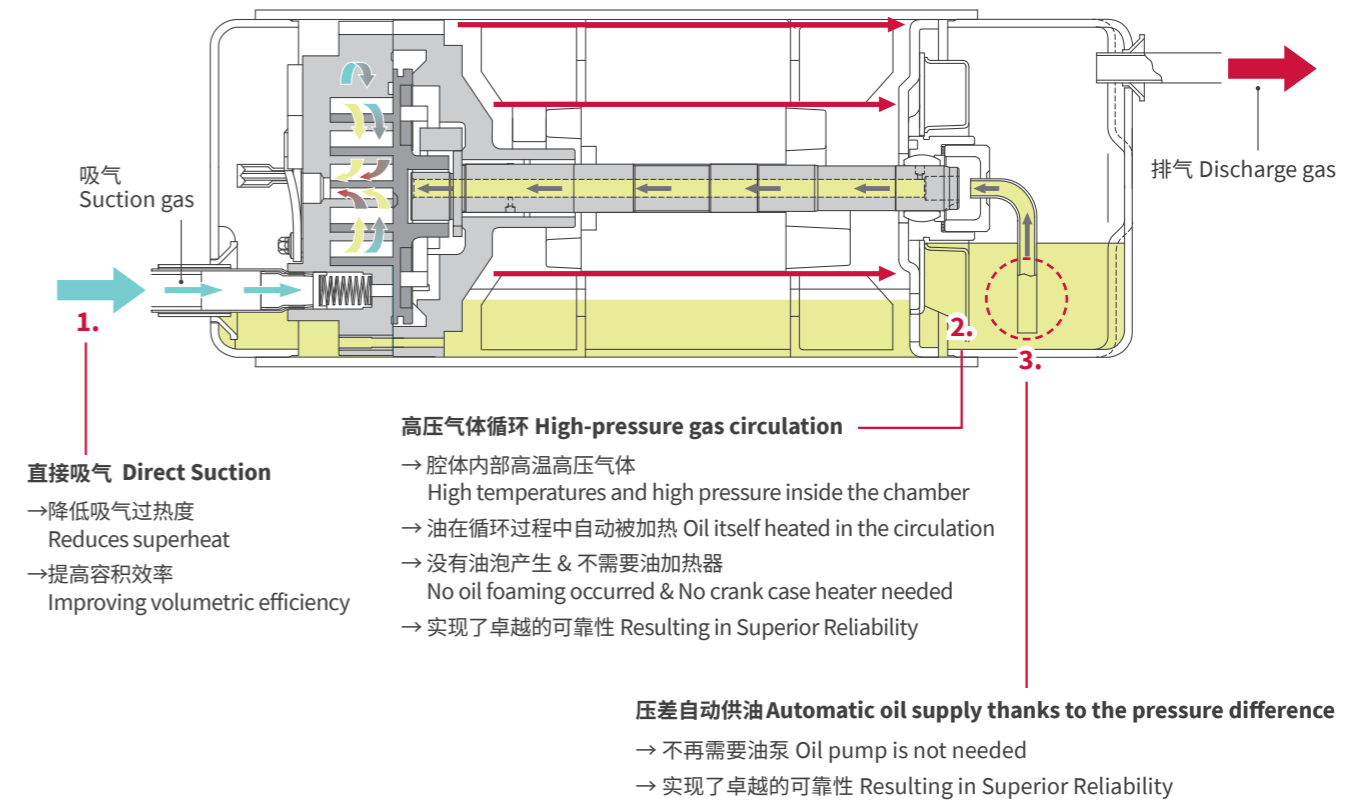


### • 高可靠性 High reliability • 低噪音低振动 Low noise and low vibration • 高性能 High performance

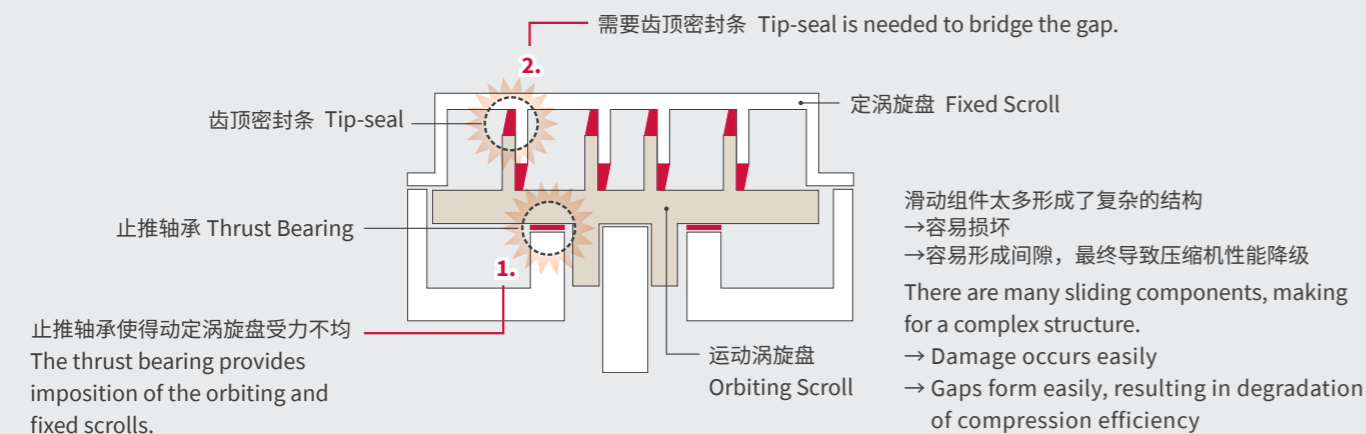
#### (2) 高压腔设计 High-side pressure design



- 直接吸气, 容积效率高 Improved volumetric efficiency thanks to direct suction
- 零部件少, 可靠性高 Less parts leading to superior reliability
- 油在压缩机内部循环, 提高可靠性 Keeping oil in the compressor resulting in superior reliability

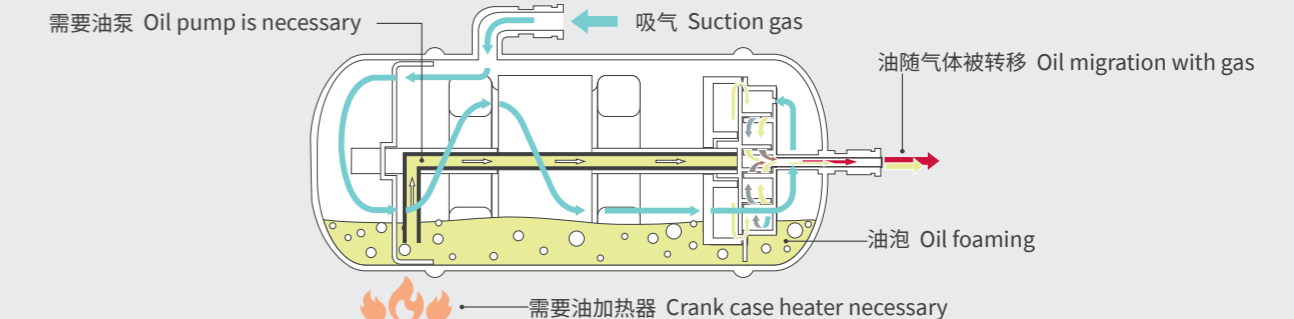


#### 低压腔设计(止推轴承系统) Low-side pressure design (Thrust Bearing System)



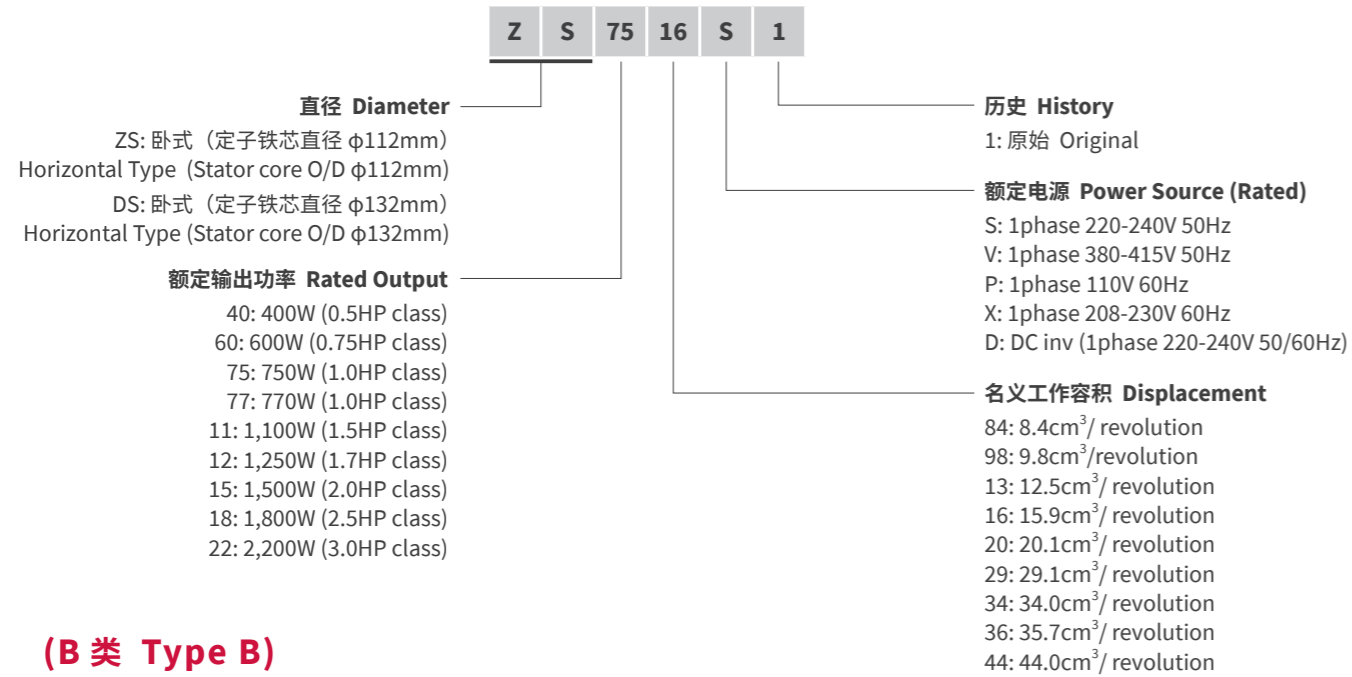
#### 低压腔设计 Low-side pressure design

压缩机开启后, 内部压力和温度降低, 冷媒气泡从油中溢出  
After starting, pressure and temperature decreases and refrigerant bubbles come over from the oil.

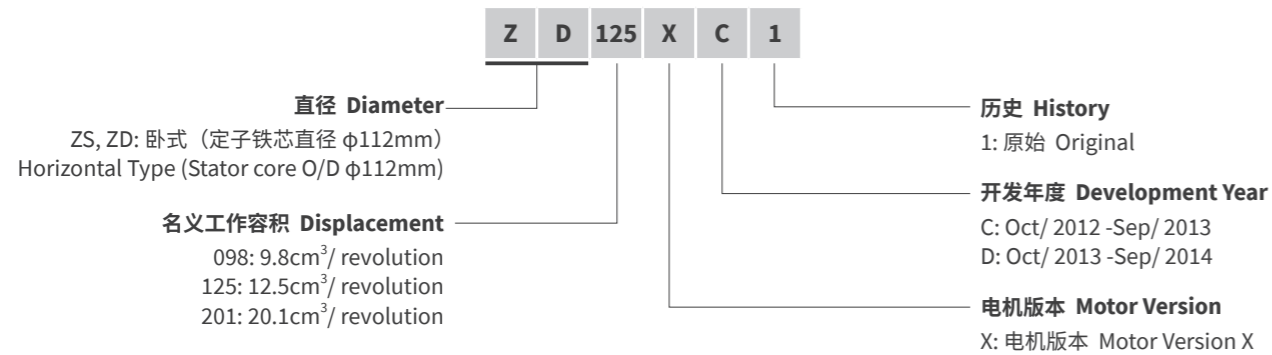


# 命名规则 Nomenclature

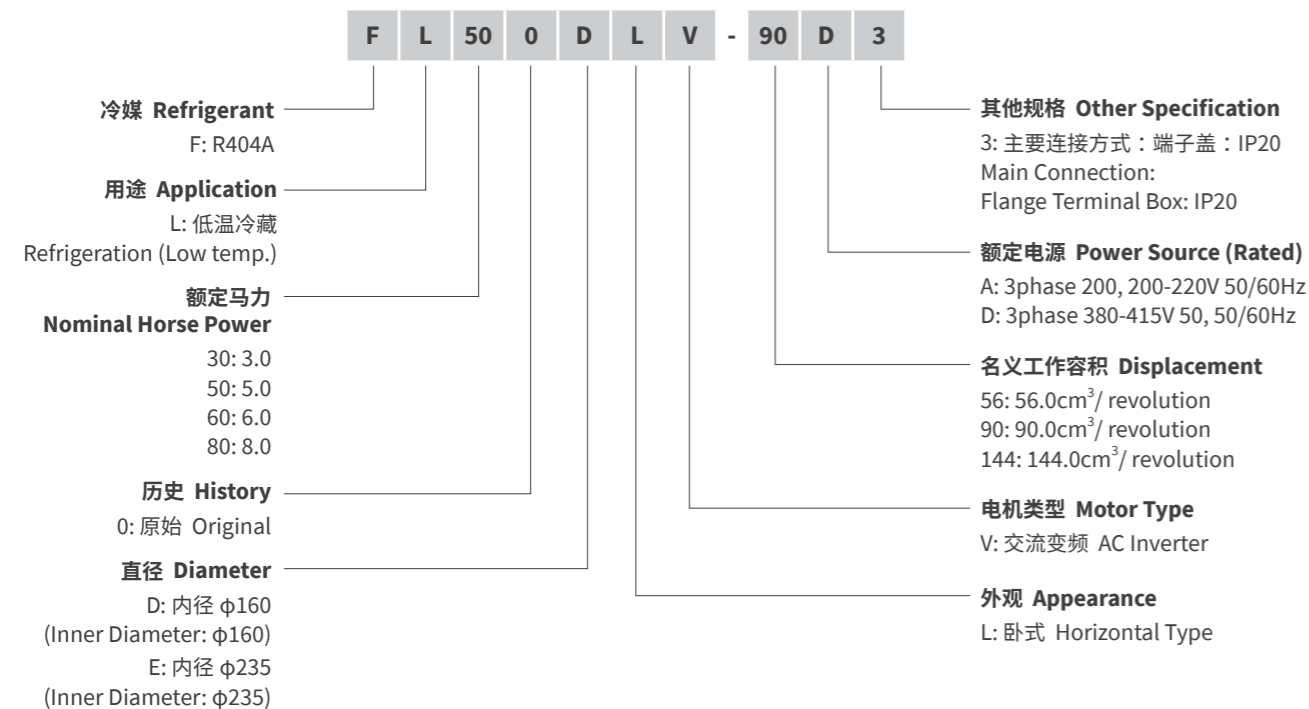
## Z&DS 系列 Z Series & DS Series (A类 Type A)



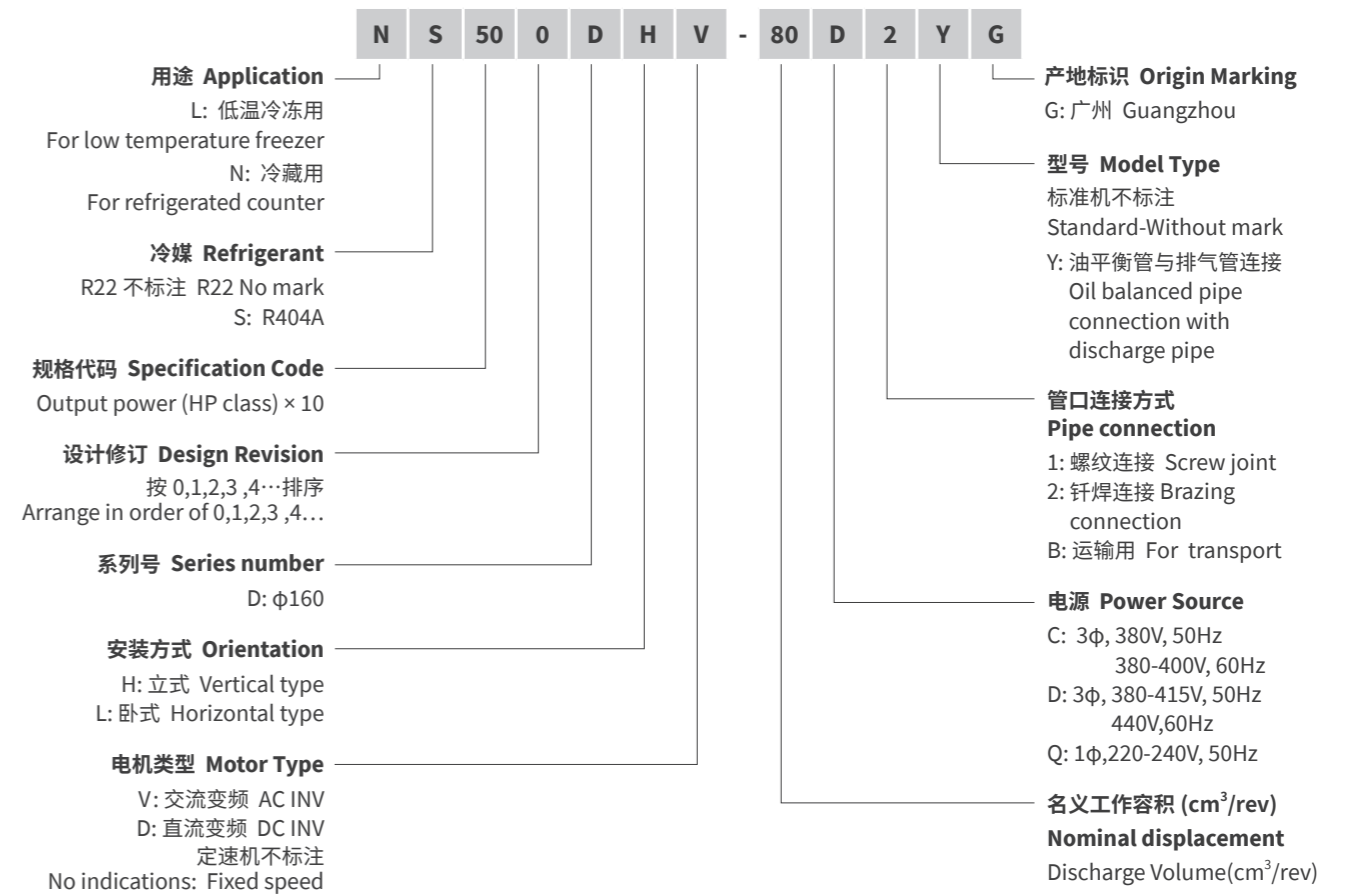
## (B类 Type B)



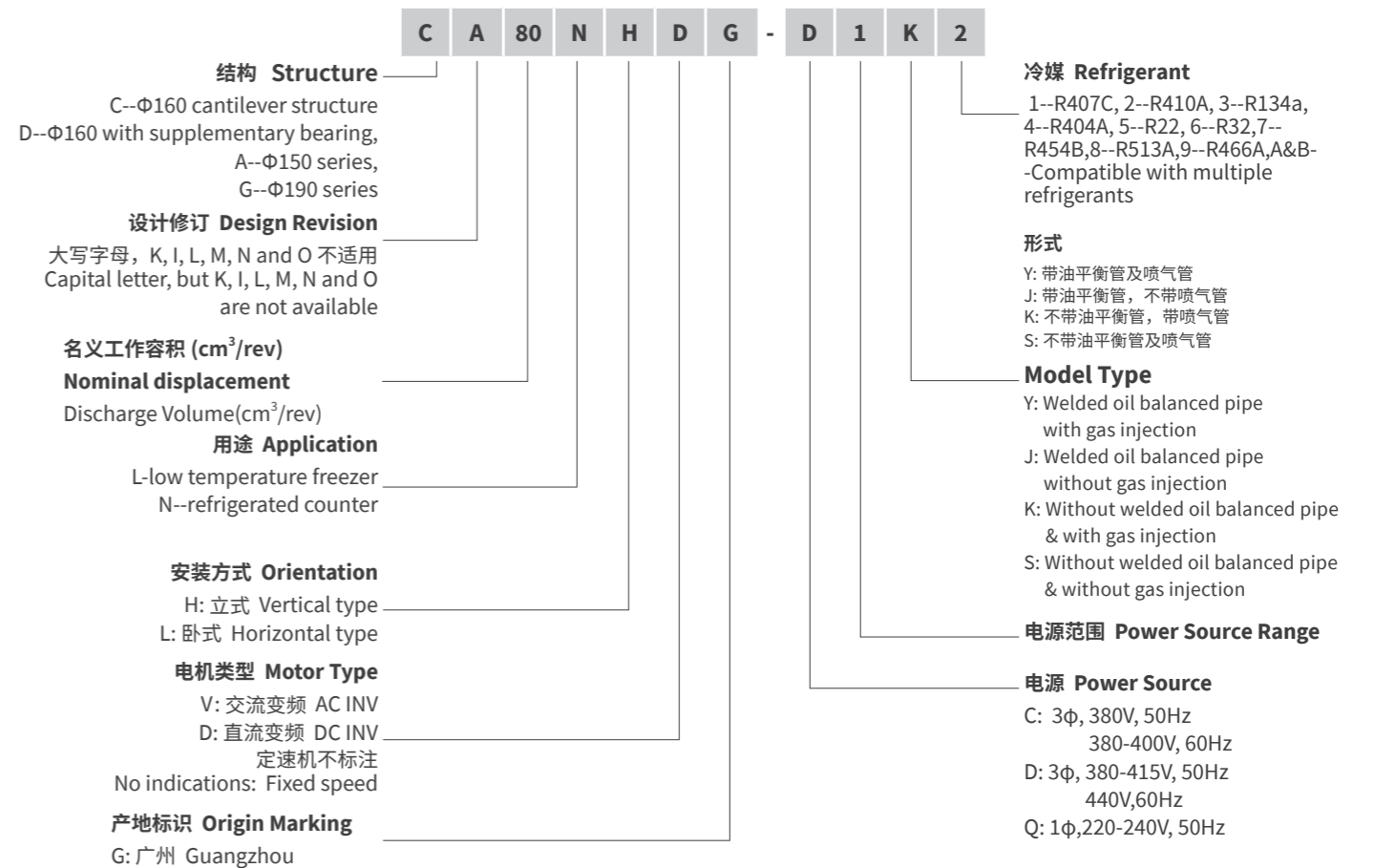
## FL 系列 FL Series



## LS, NS, N 系列 LS, NS, N Series



## R410A 系列 R410A Series



# 常规参数 General Data

## Z 系列 直流变频 Z Series DC inverter

型号 Model		ZS098XL1								ZS159XL1								
额定输出功率 Rated Output	W	770								1,250								
排量 Displacement	cm <sup>3</sup> /rev.	9.8								15.9								
转速范围 Speed Range	Hz	25-100								25-100								
电源 Power supply		直流变频 DC inverter								直流变频 DC inverter								
电机形式 Motor Type		DCBL								DCBL								
过负载保护 Overload Protection		OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								
涡旋型线 Scroll Profile		代数型 Algebraic								代数型 Algebraic								
重量 (含油) Weight (include oil)	kg	10.8								11.1								
	lbs	23.8								24.5								
油 Oil		POE								POE								
注油量 Oil Charge	cm <sup>3</sup>	550								650								
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	
	N(Hz)	25	100	25	100	25	100	25	100	25	100	25	100	25	100	25	100	
性能 Performance	R290 制冷量 Cooling Capacity	W	343	1,580	352	1,656	152	618	175	699	645	2,584	653	2,726	264	1,040	308	1,183
	BTU/h	1,171	5,395	1,202	5,657	520	2,110	596	2,387	2,204	8,826	2,228	9,311	901	3,552	1,051	4,040	
证书 Certificate		CE								CE								

型号 Model		ZS201XL1								ZS098XJ1							
额定输出功率 Rated Output	W	1,500								770							
排量 Displacement	cm <sup>3</sup> /rev.	20.1								9.8							
转速范围 Speed Range	Hz	25-91.7								25-100							
电源 Power supply		直流变频 DC inverter								直流变频 DC inverter							
电机形式 Motor Type		DCBL								DCBL							
过负载保护 Overload Protection		OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control							
涡旋型线 Scroll Profile		代数型 Algebraic								代数型 Algebraic							
重量 (含油) Weight (include oil)	kg	10.9								10.8							
	lbs	24.0								23.8							
油 Oil		POE								POE							
注油量 Oil Charge	cm <sup>3</sup>	650								550							
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT
	N(Hz)	25	91.7	25	91.7	25	91.7	25	91.7	25	100	25	100	25	100	25	100
性能 Performance	R290 制冷量 Cooling Capacity	W	860	3,058	884	3,173	349	1,304	395	1,474	-	-	-	-	-	-	-
	BTU/h	2,937	10,444	3,020	10,836	1,194	4,454	1,348	5,035	-	-	-	-	-	-	-	-
性能 Performance	R1270 制冷量 Cooling Capacity	W	-	-	-	-	-	-	-	433	2,023	447	2,138	194	782	223	894
	BTU/h	-	-	-	-	-	-	-	-	1,479	6,909	1,525	7,302	663	2,670	761	3,052
证书 Certificate		CE								CE							

型号 Model		ZS159XJ1								ZS201XJ1								
额定输出功率 Rated Output	W	1,250								1,500								
排量 Displacement	cm <sup>3</sup> /rev.	15.9								20.1								
转速范围 Speed Range	Hz	25-100								25-91.7								
电源 Power supply		直流变频 DC inverter								直流变频 DC inverter								
电机形式 Motor Type		DCBL								DCBL								
过负载保护 Overload Protection		OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								
涡旋型线 Scroll Profile		代数型 Algebraic								代数型 Algebraic								
重量 (含油) Weight (include oil)	kg	11.1								10.9								
	lbs	24.5								24.0								
油 Oil		POE								POE								
注油量 Oil Charge	cm <sup>3</sup>	650								650								
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	
	N(Hz)	25	100	25	100	25	100	25	100	25	91.7	25	91.7	25	91.7	25	91.7	
性能 Performance	R1270 制冷量 Cooling Capacity	W	816	3,313	843	3,525	323	1,299	381	1,488	1,088	3,868	1,130	4,078	416	1,622	495	1,842
	BTU/h	2,786	11,314	2,878	12,037	1,105	4,436	1,301	5,082	3,717	13,210	3,861	13,927	1,420	5,538	1,689	6,291	
证书 Certificate		CE								CE								

## 测试条件 Test Condition

	Te(°C)	Tc(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0
EN12900 LT	-35.0	40.0	0	20.0
ARI540 MT	-6.7	48.9	0	18.3
ARI540 LT	-31.7	40.6	0	18.3

备注 Note:  
代数型:一种在低温条件下依旧具备良好性能  
的涡旋线  
Algebraic: Type of scroll wrap improved  
performance at low  
temperature condition.

型号 Model		ZS798D1								ZS1216D1								
额定输出功率 Rated Output	W	770								1,250								
排量 Displacement	cm <sup>3</sup> /rev.	9.8								15.9								
转速范围 Speed Range	Hz	25-100								25-100								
电源 Power supply		直流变频 DC inverter								直流变频 DC inverter								
电机形式 Motor Type		DCBL								DCBL								
过负载保护 Overload Protection		OHR( 过热继电器 Overheat relay)								OHR( 过热继电器 Overheat relay)								
涡旋型线 Scroll Profile		代数型 Algebraic								代数型 Algebraic								
重量 (含油) Weight (include oil)	kg	10.8								11.1								
	lbs	23.8								24.5								
油 Oil		POE								POE								
注油量 Oil Charge	cm <sup>3</sup>	550								650								
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	
	N(Hz)	25	100	25	100	25	100	25	100	25	100	25	100	25	100	25	100	
性能 Performance	R448A 制冷量 Cooling Capacity	W	400	1,871	416	1,995	160	642	187	746	755	3,067	787	3,295	262	1,047	314	1,226
	BTU/h	1,366	6,391	1,422	6,812	548	2,193	638	2,548	2,578	10,473	2,688	11,253	893	3,575	1,073	4,185	
性能 Performance	R449A 制冷量 Cooling Capacity	W	400	1,871	416	1,995	160	642	187	746	755	3,067	787	3,295	262	1,047	314	1,226
	BTU/h	1,366	6,391	1,422	6,812	548	2,193	638	2,548	2,578	10,473	2,688	11,253	893	3,575	1,073	4,185	
性能 Performance	R404A 制冷量 Cooling Capacity	W	419	1,958	425	2,034	181	729	208	835	790	3,211	802	3,359	301	1,207	355	1,390
	BTU/h	1,431	6,686	1,451	6,946	617	2,489	710	2,853	2,698	10,967	2,740	11,470	1,027	4,124	1,214	4,747	
证书 Certificate		CE/UL (R404A/R448A only)								CE/UL (R404A/R448A only)								

型号 Model		ZS1520D1								
额定输出功率 Rated Output	W	1,500								
排量 Displacement	cm <sup>3</sup> /rev.	20.1								
转速范围 Speed Range	Hz	25-91.7								
电源 Power supply		直流变频 DC inverter								
电机形式 Motor Type		DCBL								
过负载保护 Overload Protection		OHR( 过热继电器 Overheat relay)								
涡旋型线 Scroll Profile		代数型 Algebraic								
重量 (含油) Weight (include oil)	kg	10.9								
	lbs	24.0								
油 Oil		POE								
注油量 Oil Charge	cm <sup>3</sup>	650								
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	
	N(Hz)	25	91.7	25	91.7	25	91.7	25	91.7	
性能 Performance	R448A 制冷量 Cooling Capacity	W	1,006	3,580	1,067	3,811	345	1,315	400	1,524
	BTU/h	3,436	12,225	3,645	13,015	1,178	4,492	1,367	5,204	
性能 Performance	R449A 制冷量 Cooling Capacity	W	1,006	3,580	1,067	3,811	345	1,315	400	1,524
	BTU/h	3,436	12,225	3,645	13,015	1,178	4,492	1,367	5,204	
性能 Performance	R404A 制冷量 Cooling Capacity	W	1,053	3,748	1,087	3,885	396	1,508	455	1,721
	BTU/h	3,596	12,801	3,713	13,268	1,354	5,149	1,553	5,876	
证书 Certificate		CE/UL (R404A/R448A only)								

型号 Model		ZD125XC1								ZD201XC1								
额定输出功率 Rated Output	W	750								1,500								
排量 Displacement	cm <sup>3</sup> /rev.	12.5								20.1								
转速范围 Speed Range	Hz	16.7-80								16.7-80								
电源 Power supply		直流变频 DC inverter								直流变频 DC inverter								
电机形式 Motor Type		DCBL								DCBL								
过负载保护 Overload Protection		OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								OH 热敏电阻(温度探测器)+变频控制 OH thermistor(Temperature detection) + Inverter control								
涡旋型线 Scroll Profile		代数型 Algebraic								代数型 Algebraic								
重量 (含油) Weight (include oil)	kg	11.0								11.0								
	lbs	24.3								24.3								
油 Oil		POE								POE								
注油量 Oil Charge	cm <sup>3</sup>	510								600								
测试条件 Test Condition		EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	EN12900 MT	ARI540 MT	EN12900 LT	ARI540 LT	
	N(Hz)	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	16.7	80	
性能 Performance	R410A 制冷量 Cooling Capacity	W	205	2,875	85	3,076	363	1,057	369	1,207	1,030	4,811	972	5,156	417	1,838	529	2,069
	BTU/h	699	9,820	289	10,505	1,240	3,611	1,261	4,123	3,518	16,429	3,321	17,609	1,423	6,277	1,807	7,067	
证书 Certificate		CE								CE								

# 常规参数 General Data

## Z 系列 定速 Z Series Fixed speed

型号 Model	ZS7516S3	ZS1120S3	ZS4084S1	ZS6013S1	ZS7516S1	ZS1120S1	ZS1120S2	
额定输出功率 Rated Output	W	750	1,100	400	600	750	1,100	
排量 Displacement	cm <sup>3</sup> /rev.	15.9	20.1	8.4	12.5	15.9	20.1	
相数 Phase	φ	1	1	1	1	1	1	
电源 Power supply	电压 Voltage	V	220-230	220-230	220-240	220-240	220-240	
频率 Frequency	Hz	50	50	50	50	50	50	
电机形式 Motor Type		CSR	CSR	CSR	CSR	CSR	CSR	
过负载保护 Overload Protection		内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	
涡旋型线 Scroll Profile		渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	代数型 Algebraic	
重量 (含油) Weight (include oil)	kg lbs	12.9 28.4	13.6 30.0	12.4 27.3	12.6 27.8	12.9 28.4	13.6 30.0	
油 Oil		POE	POE	POE	POE	POE	POE	
注油量 Oil Charge	cm <sup>3</sup>	550	650	550	550	650	650	
测试条件 Test condition		EN12900 MT	EN12900 MT	EN12900 MT	EN12900 MT	EN12900 MT	EN12900 MT	
	N(Hz)	50	50	50	50	50	50	
性能 Performance	R290	制冷量 Cooling Capacity	W	1,174	1,521	-	-	-
		BTU/h	4,011	5,194	-	-	-	-
	R1270	制冷量 Cooling Capacity	W	-	-	-	1,644	2,118
		BTU/h	-	-	-	-	5,616	7,234
	R449A	制冷量 Cooling Capacity	W	-	-	748	1,136	1,452
		BTU/h	-	-	2,554	3,879	4,961	6,390
	R404A	制冷量 Cooling Capacity	W	-	-	838	1,273	1,628
		BTU/h	-	-	2,862	4,347	5,559	7,161
	证书 Certificate		CE	CE	CE	CE	CE/CCC	CE/CCC

型号 Model	ZS6013X3	ZS7516X3	ZS1120X3	ZS4084P1	ZS6013P1	ZS6013X1	ZS7516X1	ZS1120X1	
额定输出功率 Rated Output	W	600	750	1,100	400	600	600	750	
排量 Displacement	cm <sup>3</sup> /rev.	12.5	15.9	20.1	8.4	12.5	12.5	15.9	
相数 Phase	φ	1	1	1	1	1	1	1	
电源 Power supply	电压 Voltage	V	208-230	208-230	208-230	115	115	208-230	
频率 Frequency	Hz	60	60	60	60	60	60	60	
电机形式 Motor Type		CSR	CSR	CSR	CSR	CSR	CSR	CSR	
过负载保护 Overload Protection		内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	
涡旋型线 Scroll Profile		渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	渐开线型 Involute	
重量 (含油) Weight (include oil)	kg lbs	12.6 27.8	12.7 28.0	13.6 30.0	12.4 27.3	12.4 27.3	12.7 28.0	13.6 30.0	
油 Oil		POE	POE	POE	POE	POE	POE	POE	
注油量 Oil Charge	cm <sup>3</sup>	550	550	650	550	550	550	650	
测试条件 Test condition		EN12900 MT	ARI540 MT	EN12900 MT	ARI540 MT	EN12900 MT	ARI540 MT	EN12900 MT	
	N(Hz)	60	60	60	60	60	60	60	
性能 Performance	R290	制冷量 Cooling Capacity	W	1,155	1,224	1,551	1,643	1,986	2,105
		BTU/h	3,946	4,181	5,296	5,611	6,783	7,187	-
	R448A	制冷量 Cooling Capacity	W	-	-	-	-	-	-
		BTU/h	-	-	-	-	-	-	-
	R449A	制冷量 Cooling Capacity	W	-	-	-	-	-	-
		BTU/h	-	-	-	-	-	-	-
	R404A	制冷量 Cooling Capacity	W	-	-	-	-	-	-
		BTU/h	-	-	-	-	-	-	-
	证书 Certificate		UL	UL	UL	UL	UL	UL	UL

### 测试条件 Test Condition

	Te(°C)	Tc(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0
EN12900 LT	-35.0	40.0	0	20.0
ARI540 MT	-6.7	48.9	0	18.3
ARI540 LT	-31.7	40.6	0	18.3

备注 Note:  
 代数型: 一种在低温条件下依旧具备良好性能的涡旋线  
 Algebraic: Type of scroll wrap improved performance at low temperature condition.

※电机形式 Motor Type  
 CSR: 电容器开始运行 Capacitor Starting Run  
 IM: 感应电机 Induction Motor

## DS 系列 定速 DS Series Fixed speed

型号 Model	DS1529S1	DS1836S1	DS1529V1	DS1834V1	DS2244V1	
额定输出功率 Rated Output	W	1,500	1,800	1,500	1,800	
排量 Displacement	cm <sup>3</sup> /rev.	29.1	35.7	29.1	34.0	
相数 Phase	φ	1	1	3	3	
电源 Power supply	电压 Voltage	V	220-240	220-240	380-415	
频率 Frequency	Hz	50	50	50	50	
电机形式 Motor Type		CSR	CSR	IM	IM	
过负载保护 Overload Protection		内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	内置保护器 Internal protector	
涡旋型线 Scroll Profile		代数型 Algebraic	渐开线型 Involute	代数型 Algebraic	代数型 Algebraic	
重量 (含油) Weight (include oil)	kg lbs	22.6 49.8	22.9 50.5	21.8 48.1	21.7 47.8	
油 Oil		POE	POE	POE	POE	
注油量 Oil Charge	cm <sup>3</sup>	850	850	850	850	
测试条件 Test condition		EN12900 MT	EN12900 LT	EN12900 MT	EN12900 MT	
	N(Hz)	50	50	50	50	
性能 Performance	R1270	制冷量 Cooling Capacity	W	2,991	1,210	3,561
		BTU/h	10,215	4,132	12,162	
	R449A	制冷量 Cooling Capacity	W	2,868	1,019	3,475
		BTU/h	9,794	3,479	11,867	
	R404A	制冷量 Cooling Capacity	W	2,950	1,139	3,568
		BTU/h	10,075	3,889	12,187	
	证书 Certificate		CE/CCC	CE/CCC	CE	CE

型号 Model	DS1529X1	DS1834X1									
额定输出功率 Rated Output	W	1,500									
排量 Displacement	cm <sup>3</sup> /rev.	29.1									
相数 Phase	φ	1									
电源 Power supply	电压 Voltage	V									
频率 Frequency	Hz	60									
电机形式 Motor Type		CSR									
过负载保护 Overload Protection		内置保护器 Internal protector									
涡旋型线 Scroll Profile		代数型 Algebraic									
重量 (含油) Weight (include oil)	kg lbs	22.7 50.0									
油 Oil		POE									
注油量 Oil Charge	cm <sup>3</sup>	850									
测试条件 Test condition		EN12900 MT									
	N(Hz)	60									
性能 Performance	R448A	制冷量 Cooling Capacity	W	3,319	3,522	1,208	1,403	3,881	4,123	1,413	1,634
		BTU/h	11,336	12,028	4,126	4,790	13,253	14,080	4,825	5,580	
	R449A	制冷量 Cooling Capacity	W	3,319	3,522	1,208	1,403	3,881	4,123	1,413	1,634
		BTU/h	11,336	12,028	4,126	4,790	13,253	14,080	4,825	5,580	
	R404A	制冷量 Cooling Capacity	W	3,412	3,527	1,347	1,543	3,992	4,130	1,572	1,794
		BTU/h	11,654	12,045	4,601	5,268	13,633	14,105	5,369	6,128	
	证书 Certificate		UL	UL							

### 测试条件 Test Condition

	Te(°C)	Tc(°C)	SC(deg)	Ts(°C)
EN12900 MT	-10.0	45.0	0	20.0
EN12900 LT	-35.0	40.0	0	20.0
ARI540 MT	-6.7	48.9	0	18.3
ARI540 LT	-31.7	40.6	0	18.3

备注 Note:  
 代数型: 一种在低温条件下依旧具备良好性能的涡旋线  
 Algebraic: Type of scroll wrap improved performance at low temperature condition.

※电机形式 Motor Type  
 CSR: 电容器开始运行 Capacitor Starting Run  
 IM: 感应电机 Induction Motor

# 常规参数 General Data

## FL 系列 交流变频 / 定速 FL Series AC inverter / Fixed speed

型号 Model	交流变频型 AC Inverter				定速型 Fixed speed		
	FL300DLV-56A3	FL600DLV-90A3	FL800ELV-144A3	FL800ELV-144D3	FL300DL-56C3	FL500DL-90C3	
额定输出功率 Rated Output	W	2,200	4,500	6,000	6,000	2,200	3,750
排量 Displacement	cm <sup>3</sup> /rev.	56.0	90.0	144.0	144.0	56.0	90.0
电源 Power supply	相数 Phase	φ	3	3	3	3	3
	电压 Voltage	V	200	200	200-220	380-415	346-380/380-400
	频率 Frequency	Hz	25-60	30-70	25-75	25-75	50/60
电机形式 Motor Type		IM	IM	IM	IM	IM	IM
过负载保护 Overload Protection	排气温控器 + 变频控制 Thermostat + Inverter control				排气温控器 Thermostat		
涡旋型线 Scroll Profile	渐开线型 Involute				渐开线型 Involute		
重量 (含油) Weight (include oil)	kg	37	51	94	94	37	51
油 Oil		PVE	PVE	PVE	PVE	PVE	PVE
注油量 Oil Charge	cm <sup>3</sup>	1,200	1,700	3,000	3,000	1,200	1,700
测试条件 Test condition		A	A	A	A	A	A
性能 Performance	制冷量 Cooling Capacity	W	5,910	9,596	20,400	20,400	4,910/5,910
	输入功率 Input	W	20,184	32,771	69,610	69,610	16,750/20,160
	输入功率 Input	W	3,904	5,984	10,000	10,000	2,910/3,440
	输入功率 Input	W	3,904	5,984	10,000	10,000	2,910/3,440
证书 Certificate		-	-	-	-	-	-
备注 Remarks		-	-	-	-	-	-

## LS 系列 直流变频 / 交流变频 / 定速 LS Series DC inverter / AC inverter / Fixed speed

型号 Model*	直流变频型 DC Inverter				交流变频型 AC Inverter			
	LS400DHD-64DB(Y)G	LS600DHD-90DB(Y)G	LS300DHD-47D2(Y)G	LS400DHD-64D2(Y)G	LS500DHD-80D2(Y)G	LS600DHD-95D2(Y)G		
额定输出功率 Rated Output	W	3000	4500	2200	3000	3700	4500	
排量 Displacement	cm <sup>3</sup> /rev.	64	90	47	64	80	95	
转速范围 Speed Range	Hz	30-90	30-90	30-90	30-90	30-90	30-90	
3 相输入电压 Primary power supply 3 phase Voltage	V	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440	380-415/440	
电机形式 Motor Type		BLDC	BLDC	IM	IM	IM	IM	
过负载保护 Overload Protection	排气温控器 + 变频控制 Thermostat + Inverter control				排气温控器 + 变频控制 Thermostat + Inverter control			
涡旋型线 Scroll Profile	渐开线型 Involute				渐开线型 Involute			
重量 (含油) Weight (include oil)	kg	34.0	37.0	36.0	36.0	37.0	38.0	
油 Oil		PVE	PVE	PVE	PVE	PVE	PVE	
注油量 Oil Charge	cm <sup>3</sup>	1800	1800	1800	1800	1800	1800	
测试条件 Test condition		A	A	A	A	A	A	
性能 Performance	制冷量 Cooling Capacity	W	7400	10460	5200	7110	8900	10700
	输入功率 Input	W	25250	35690	17740	24260	30370	36510
	输入功率 Input	W	4000	5400	3150	4060	4800	5800
	输入功率 Input	W	4000	5400	3150	4060	4800	5800
证书 Certificate		-	-	-	-	-	-	
备注 Remarks		-	-	-	-	-	-	

型号 Model*	定速型 Fixed speed			
	LS300DH-47D2(Y)G	LS350DH-64D2(Y)G	LS500DH-83D2(Y)G	LS600DH-95D2(Y)G
额定输出功率 Rated Output	W	3000	3000	3700
排量 Displacement	cm <sup>3</sup> /rev.	47	64	83
相数 Phase	φ	3	3	3
电压 Voltage	V	380-415/440	380-415/440	380-415/440
频率 Frequency	Hz	50/60	50/60	50/60
电机形式 Motor Type		IM	IM	IM
过负载保护 Overload Protection	内置保护器 + 排气温控器 Internal protector + Thermostat			
涡旋型线 Scroll Profile	渐开线型 Involute			
重量 (含油) Weight (include oil)	kg	36.0	36.0	37.0
油 Oil		PVE	PVE	PVE
注油量 Oil Charge	cm <sup>3</sup>	1800	1800	1800
测试条件 Test condition		A	A	A
性能 Performance	制冷量 Cooling Capacity	W	4120	5800
	输入功率 Input	W	14060	19790
	输入功率 Input	W	2420	3410
	输入功率 Input	W	2420	3410
证书 Certificate		-	-	-
备注 Remarks		-	-	-

\*型号带Y表示有油平衡管可并联使用  
Models with (Y) is with oil pipe for multiple use

## 多冷媒系列 Various refrigerants DC inverter

型号 Model*	直流变频型 DC Inverter		
	CA47LHDG-D1KA	CA64LHDG-D1YA	CA90LHDG-D1YA
额定输出功率 Rated Output	W	3000	3800
排量 Displacement	cm <sup>3</sup> /rev.	47	64
转速范围 Speed Range	Hz	30-90	30-90
3 相输入电压 Primary power supply 3 phase Voltage	V	380-415/440	380-415/440
电机形式 Motor Type		BLDC	BLDC
过负载保护 Overload Protection	排气温控器 + 变频控制 Thermostat + Inverter control		
涡旋型线 Scroll Profile	渐开线型 Involute		
重量 (含油) Weight (include oil)	kg	34.0	34.0
油 Oil		PVE	PVE
注油量 Oil Charge	Liter	1800	1800
测试条件 Test condition		A	A
性能 Performance	制冷量 Cooling Capacity	W	5250
	输入功率 Input	W	17910
	输入功率 Input	W	3000
	输入功率 Input	W	3000
额定性能 Rated Performance	制冷量 Cooling Capacity	W	5050
	输入功率 Input	W	17230
	输入功率 Input	W	2800
	输入功率 Input	W	2800
证书 Certificate		-	-
备注 Remarks		developing	developing

## NS 系列 定速 NS Series Fixed speed

型号 Model*	定速型 Fixed speed					
	NS300DH-56D2(Y)G	NS350DH-64D2(Y)G	NS500DH-83D2(Y)G	NS600DH-95D2(Y)G	NS300DH-56Q2(Y)G	NS350DH-64Q2(Y)G
额定输出功率 Rated Output	W	2600	3000	3700	4500	2600
排量 Displacement	cm <sup>3</sup> /rev.	56	64	83	95	56
相数 Phase	φ	3	3	3	3	1
电压 Voltage	V	380-415/440	380-415/440	380-415/440	380-415/440	220-240
频率 Frequency	Hz	50/60	50/60	50/60	50/60	50
电机形式 Motor Type		IM	IM	IM	IM	IM
过负载保护 Overload Protection	内置保护器 + 排气温控器 Internal protector + Thermostat					
涡旋型线 Scroll Profile	渐开线型 Involute					
重量 (含油) Weight (include oil)	kg	36.0	36.0	36.0	37.0	36.0
油 Oil		PVE	PVE	PVE	PVE	PVE
注油量 Oil Charge	cm <sup>3</sup>	1800	1800	1800	1800	1800
测试条件 Test condition		B	B	B	B	B
性能 Performance	制冷量 Cooling Capacity	W	6370	7180	9630	11050
	输入功率 Input	W	21730	24500	32860	37700
	输入功率 Input	W	3300	3680	4700	5390
	输入功率 Input	W	3300	3680	4700	5390
证书 Certificate		-	-	-	-	-
备注 Remarks		-	-	-	-	-

### 测试条件 Test Condition

	Te(°C)	Tc(°C)	SC(deg)	Ts(°C)	※电机形式 Motor Type
A	-15	45	5	18	IM: 感应电机 Induction Motor
B	-6.7	48.9	5	4.4	

## NS 系列 直流变频 NS Series DC inverter

		直流变频型 DC Inverter	
型号 Model*		NS400DHD-64DB(Y)G	NS600DHD-90DB(Y)G
额定输出功率 Rated Output	W	3000	4500
排量 Displacement	cm <sup>3</sup> /rev.	64	90
转速范围 Speed Range	Hz	30-90	30-90
3 相输入电压 Primary power supply 3 phase Voltage	V	380-415/440	380-415/440
电机形式 Motor Type		BLDC	BLDC
过负载保护 Overload Protection		排气温控器 + 变频控制 Thermostat + Inverter control	
涡旋型线 Scroll Profile		渐开线型 Involute	
重量 (含油) Weight (include oil)	kg lbs	34.0 75.00	37.0 81.60
油 Oil		PVE	PVE
注油量 Oil Charge	cm <sup>3</sup>	1800	1800
测试条件 Test condition		B	B
	N(Hz)	120	120
性能 Performance	制冷量 Cooling Capacity	W	8900
		BTU/h	30370
	输入功率 Input	W	4350
证书 Certificate		-	-
备注 Remarks		-	-

## R410A 直流变频 R410A DC inverter

		直流变频型 DC Inverter			
型号 Model*		CA65NHDG-D1K2	CA80NHDG-D1K2	DD98NHDG-D1K2	DD110NHDG-D1K2
额定输出功率 Rated Output	W	6000	7000	9000	10000
排量 Displacement	cm <sup>3</sup> /rev.	65	80	98	110
转速范围 Speed Range	Hz	20-120	30-120	20-130	10-140
3 相输入电压 Primary power supply 3 phase Voltage	V	380-415/440	380-415/440	380-415/440	380-415/440
电机形式 Motor Type		BLDC	BLDC	BLDC	BLDC
过负载保护 Overload Protection		排气温控器 + 变频控制 Thermostat + Inverter control			
涡旋型线 Scroll Profile		渐开线型 Involute			
重量 (含油) Weight (include oil)	kg lbs	36.0 79.40	38.0 83.79	45.0 99.23	46.0 101.43
油 Oil		PVE	PVE	PVE	PVE
注油量 Oil Charge	Liter	2300	2300	2300	2300
测试条件 Test condition		B	B	B	B
	N(Hz)	120	120	120	120
性能 Performance	制冷量 Cooling Capacity	W	13280	16680	20450
		BTU/h	45310	56910	69780
	输入功率 Input	W	5900	7100	8700
证书 Certificate		-	-	-	-
备注 Remarks		Developing	-	-	Developing

## N 系列 定速 N Series Fixed speed

		定速型 Fixed speed					
型号 Model*		N300DH-56D2(Y)G	N350DH-64D2(Y)G	N500DH-83D2(Y)G	N600DH-95D2(Y)G	N300DH-56Q2(Y)G	N350DH-64Q2(Y)G
额定输出功率 Rated Output	W	2600	3000	3700	4500	2600	3000
排量 Displacement	cm <sup>3</sup> /rev.	56	64	83	95	56	64
电源 Power supply	相数 Phase 电压 Voltage 频率 Frequency	φ V Hz	50/60	50/60	50/60	50/60	50/60
电机形式 Motor Type		IM	IM	IM	IM	IM	IM
过负载保护 Overload Protection		内置保护器 + 排气温控器 Internal protector + Thermostat					
涡旋型线 Scroll Profile		渐开线型 Involute					
重量 (含油) Weight (include oil)	kg lbs	36.0 79.40	36.0 79.40	36.0 79.40	37.0 81.60	36.0 79.40	37.0 81.60
油 Oil		mineral	mineral	mineral	mineral	mineral	mineral
注油量 Oil Charge	cm <sup>3</sup>	1800	1800	1800	1800	1800	1800
测试条件 Test condition		B	B	B	B	B	B
	N(Hz)	50	50	50	50	50	50
性能 Performance	制冷量 Cooling Capacity	W	6270	7000	9070	10540	6100
		BTU/h	21390	23880	30950	35960	20810
	输入功率 Input	W	2850	3160	4080	4640	3050
证书 Certificate		-	-	-	-	-	-
备注 Remarks		-	-	-	-	-	-

\*型号带Y表示有油平衡管可并联使用 Models with (Y) is with oil pipe for multiple use

## 规格 Specification

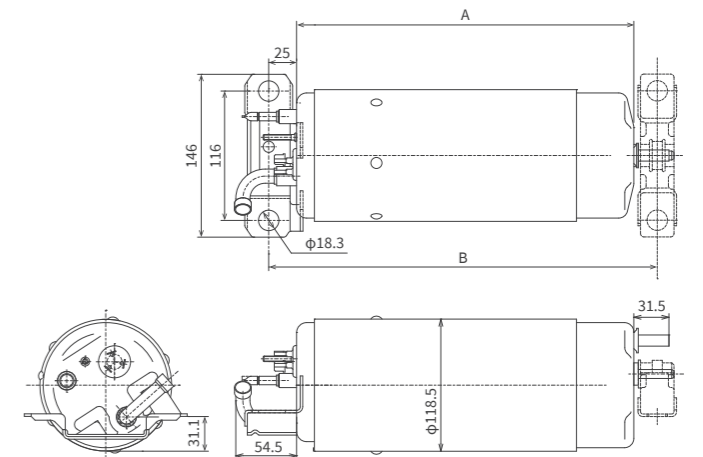
### Z 系列 Z Series



### 外形尺寸 Dimensions

Unit:mm

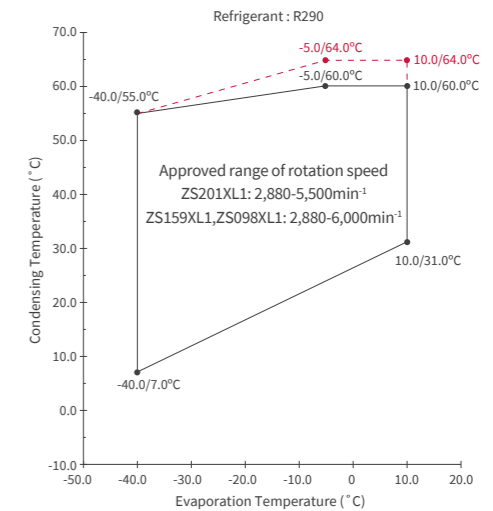
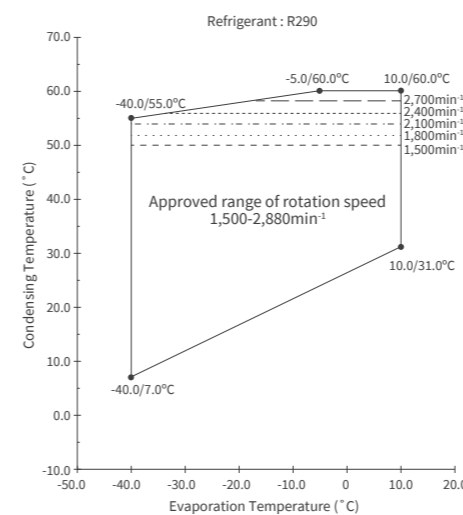
	A	B		A	B
ZS4084S1			ZS7798D1		
ZS4084P1			ZS098XJ1		
ZS6013S1	311	358	ZS098XL1	302	348
ZS6013P1			ZS159XJ1		
ZS6013X1			ZS159XL1		
ZS6013X3			ZD125XC1		
ZS7516S1			ZS1216D1		
ZS7516X1			ZS1520D1		
ZS7516S3	316	363	ZS201XJ1	307	353
ZS7516X3			ZS201XL1		
ZS1120S3			ZD201XC1		
ZS1120X3					
ZS1120S1	321	368			
ZS1120X1					



### 运行范围 Operating Envelop

#### R290

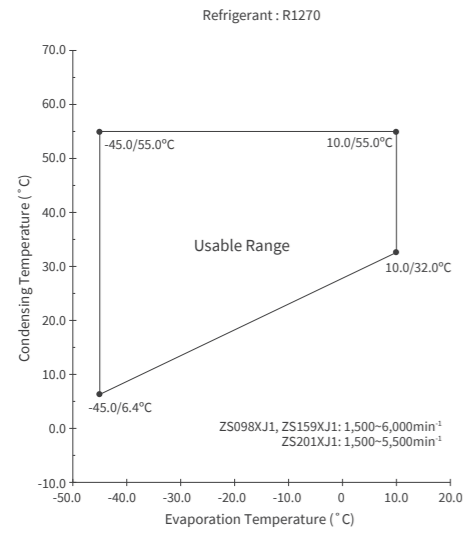
ZS098XL1/ZS159XL1/ZS201XL1



## 运行范围 Operating Envelop

### R1270

ZS098XJ1/ZS159XJ1/ZS201XJ1

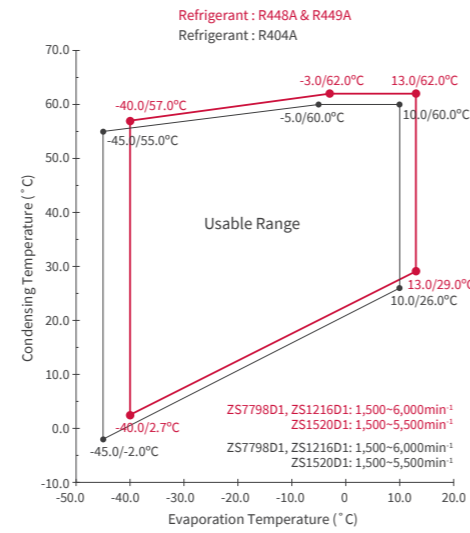


### R448A, R449A

ZS7798D1/ZS1216D1/ZS1520D1

### R404A

ZS7798D1/ZS1216D1/ZS1520D1

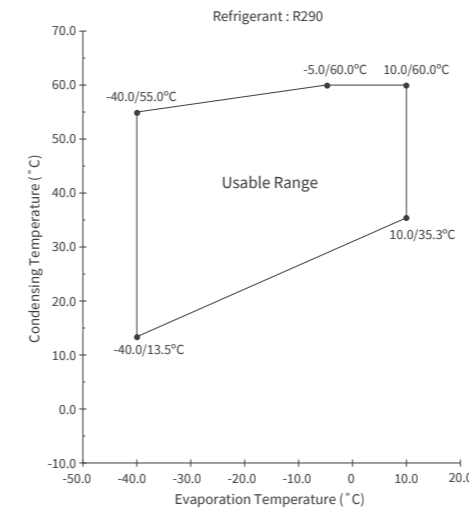


## 规格 Specification

## 运行范围 Operating Envelop

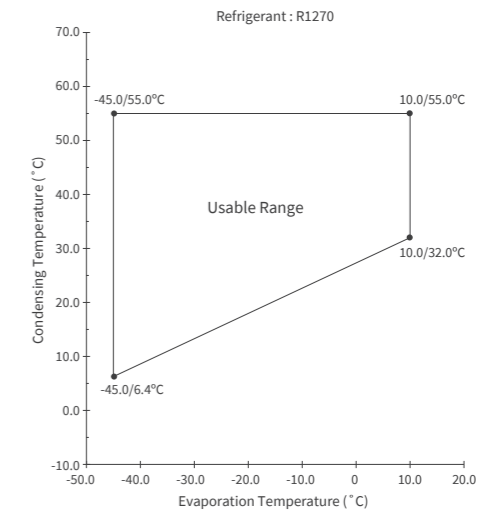
### R290

ZS1120S3/ZS1120X3



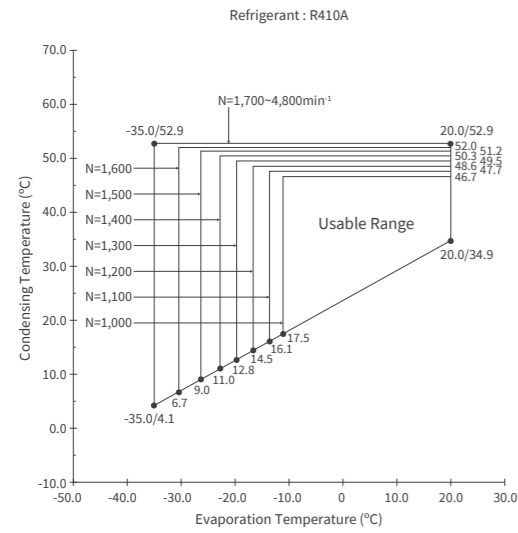
### R1270

ZS1120S1



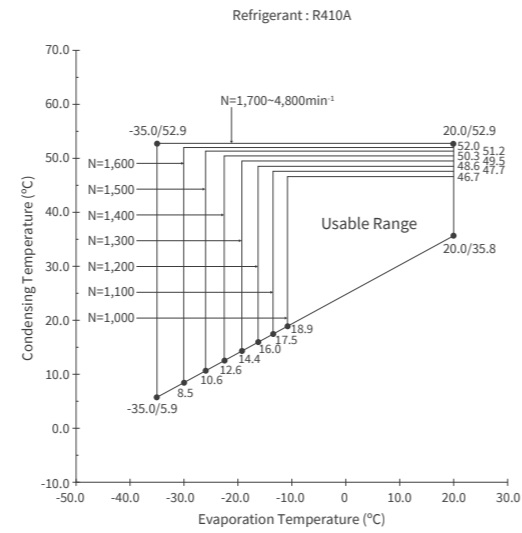
### R410A

ZD125XC1



### R410A

ZD201XC



### R448A

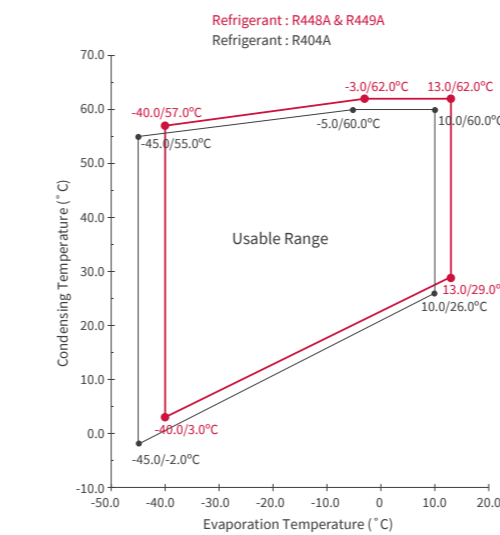
ZS6013X1/ZS7516X1

### R449A

ZS4084S1/ZS6013S1/ZS6013X1/ZS7516S1/ZS7516X1

### R404A

ZS4084S1/ZS4084P1/ZS6013S1/ZS6013P1/ZS6013X1/  
ZS7516S1/ZS7516X1



### R448A

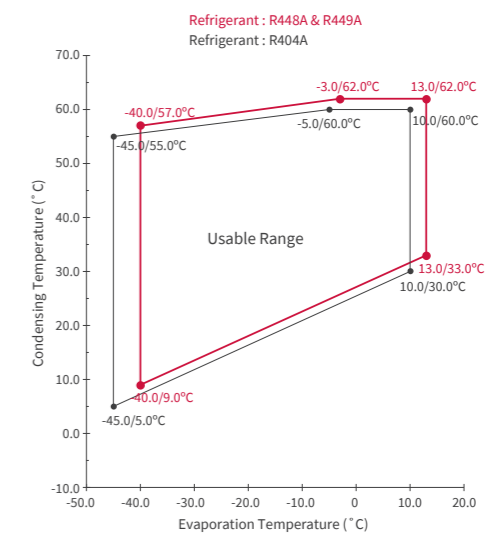
ZS1120X1

### R449A

ZS1120S1/ZS1120X1

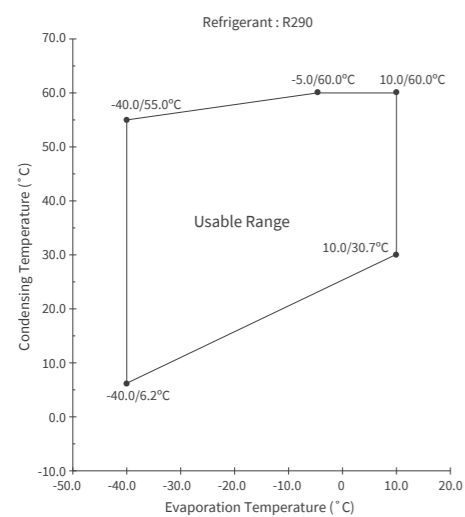
### R404A

ZS1120S1/ZS1120S2/ZS1120X1



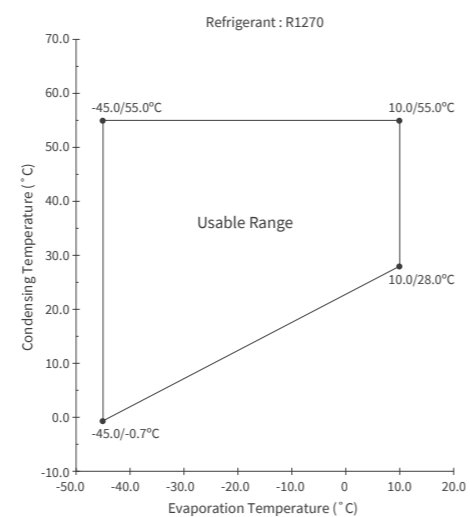
### R290

ZS6013X3/ZS7516S3/ZS7516X3



### R1270

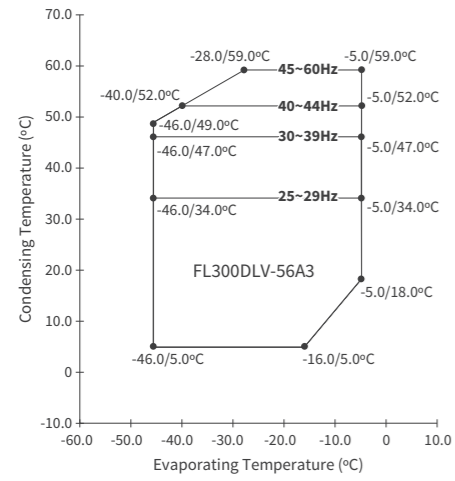
ZS7516S1



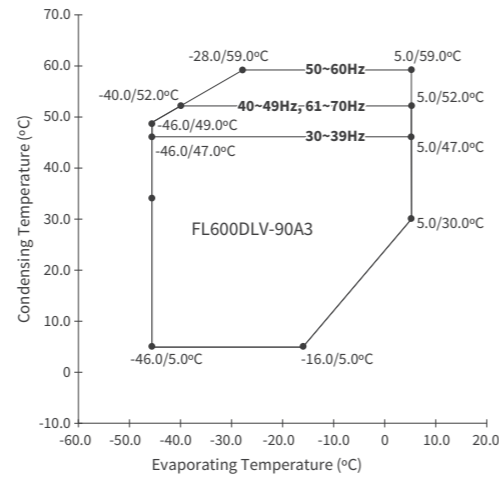


## 运行范围 Operating Envelop

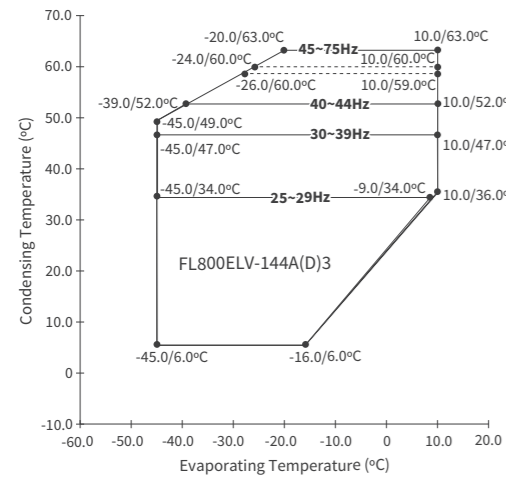
### 交流变频 AC inverter



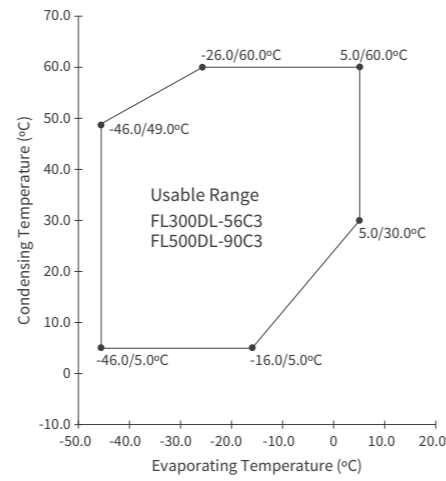
### 交流变频 AC inverter



### 交流变频 AC inverter



### 定速 Fixed Speed



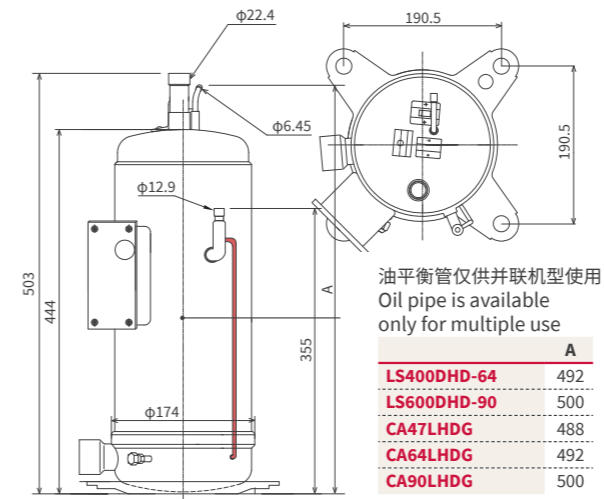
## 规格 Specification

### LS, NS, N, R410A 系列 LS, NS, N, R410A Series

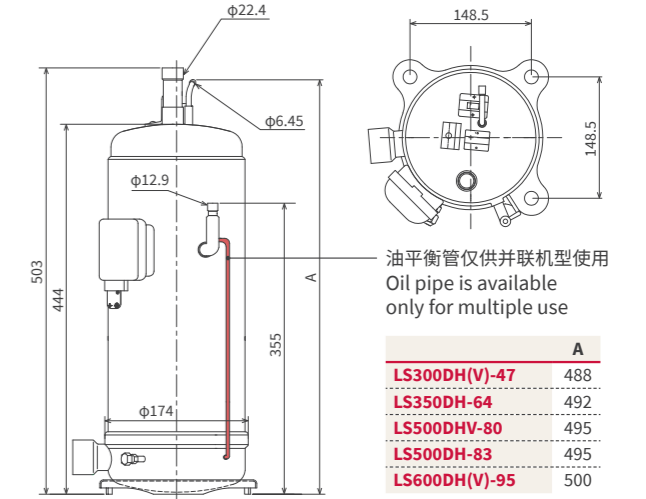
### 外形尺寸 Dimensions

Unit:mm

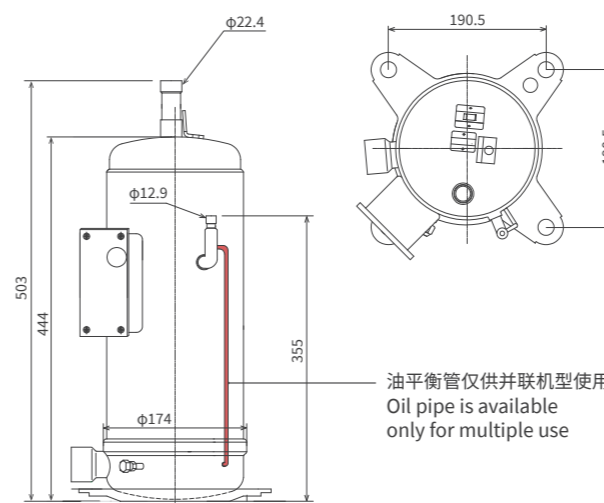
#### LS DC Inverter



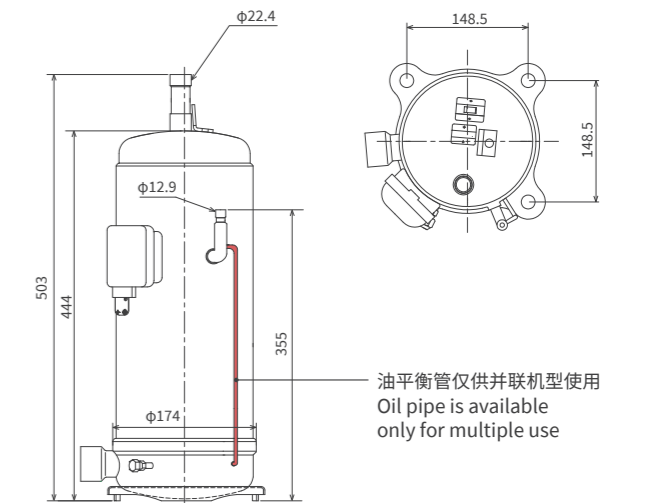
#### LS AC Inverter & Fixed speed



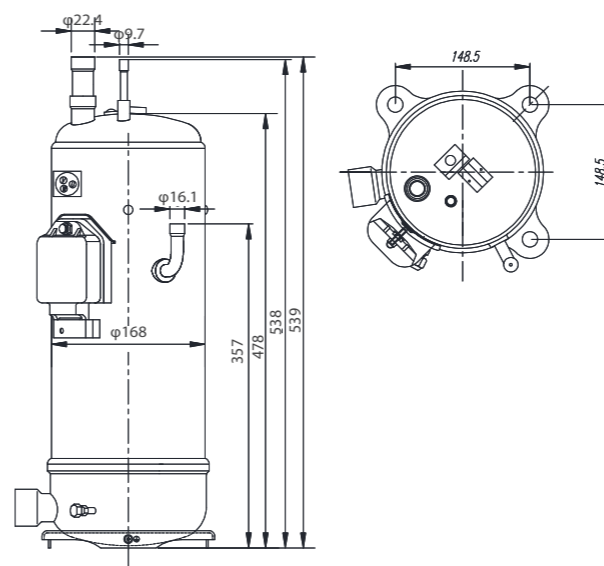
#### NS DC Inverter



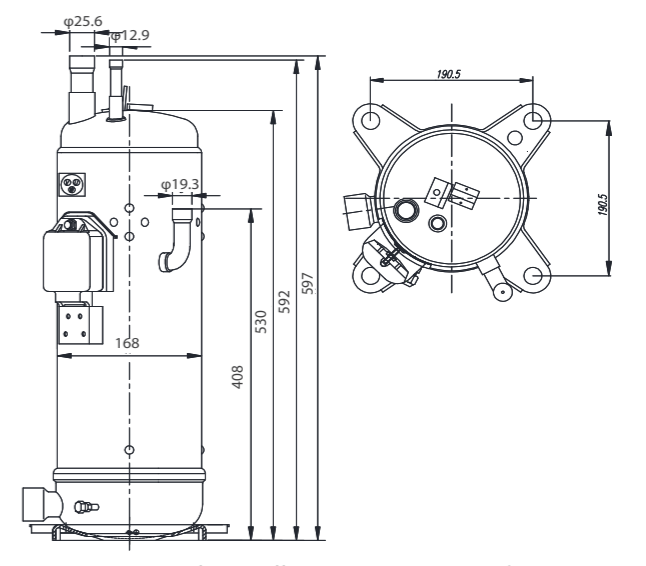
#### NS, N Fixed speed



#### R410A(CA80NHDG, CA65NHDG)

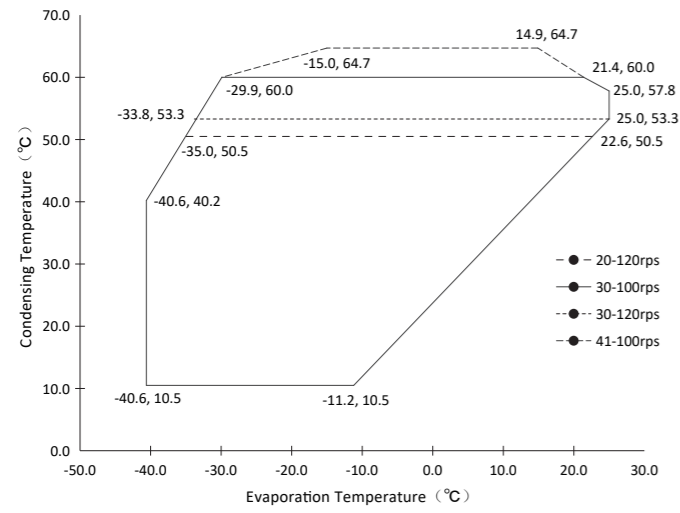


#### R410A(DD98NHDG, D110NHDG)

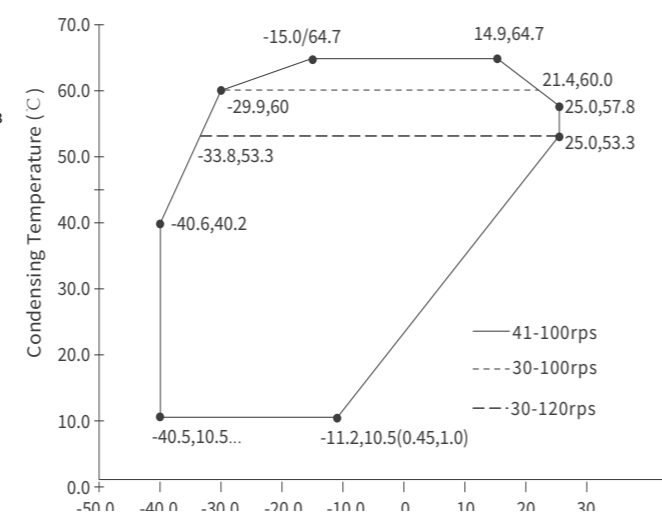


## 运行范围 Operating Envelop

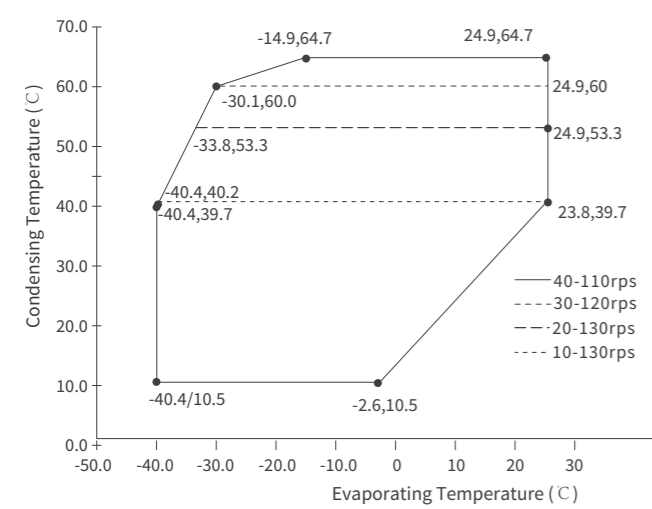
### R410A Inverter Series (CA65NHDG)



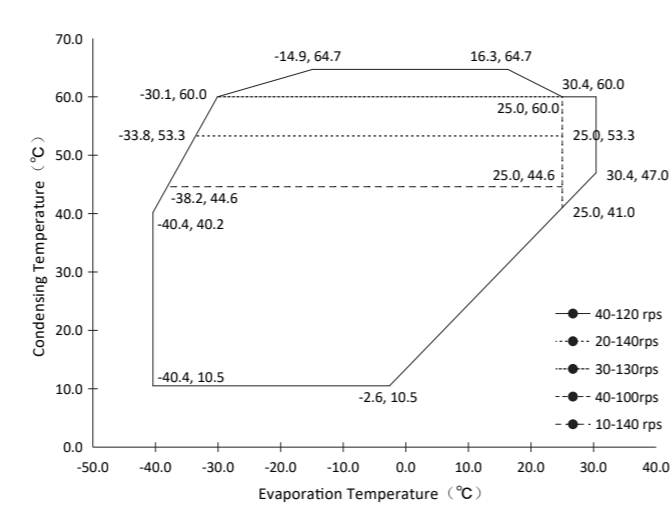
### R410A Inverter Series (CA80NHDG)



### R410A Inverter Series (DD98NHDG)

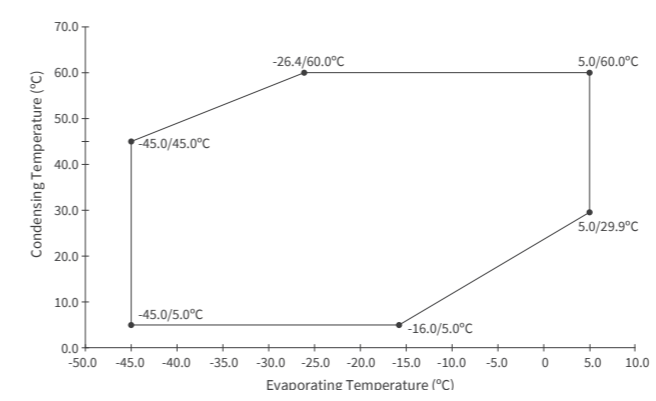


### R410A Inverter Series (DD110NHDG)

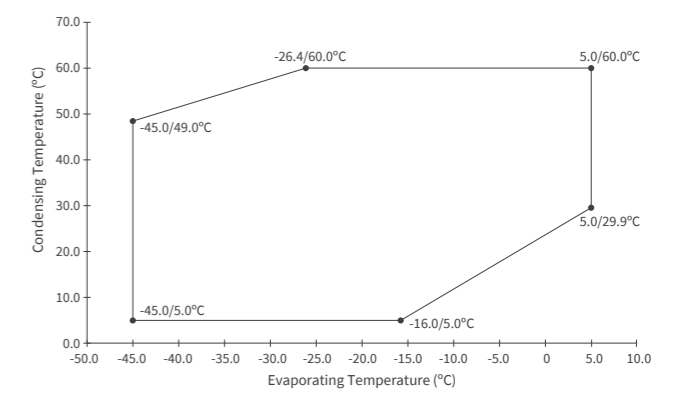


## 运行范围 Operating Envelop

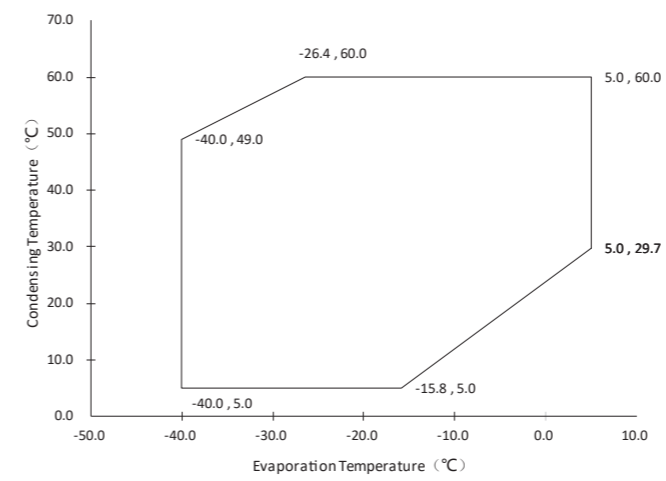
### LS DC & AC Inverter Series (R404A) CA47\64\90LHDG



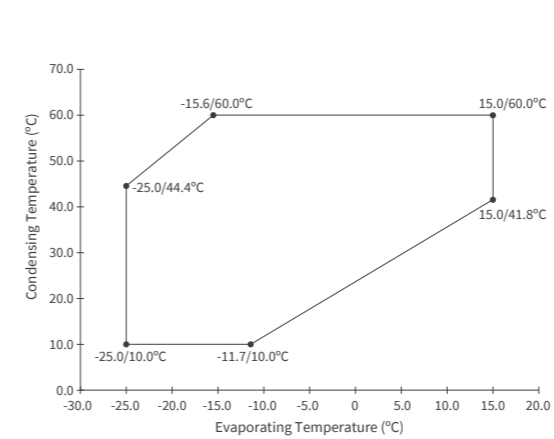
### LS Fixed Series (R404A)



### DC Inverter Series (R448A & R449A)



### NS DC Inverter & Fixed speed (R404A)



### N Series (R22)

