

SANYO

热爱人类与地球

涡旋压缩机

Scroll Compressor

六大类专业系统产品

涡旋压缩机 Scroll Compressor	全封闭机组 Hermetic Compressor Units	半封闭压缩机&机组 Semi-Hermetic Compressor and Units
大并联中央机组 Tandem Central Units	双级变频低温螺杆机组 Double-stage Inverter Screw Condensing Unit with Single Compressor	冷水机组 Chiller



大连三洋压缩机有限公司

DALIAN SANYO COMPRESSOR CO., LTD.



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公司简介

公司名称：大连三洋压缩机有限公司

投资总额：95亿日元

占地面积：11.65万平方米

建筑面积：7.1万平方米

员工人数：1700人

公司签约日：1994年8月18日

公司成立日：1994年9月15日

公司开业日：1995年10月18日（第一工厂）

1998年10月18日（第二工厂）

Profile

Company Name: Dalian SANYO Compressor Co.,Ltd.

Total Investment Amount: USD 93.75 Million

Occupied Area: 116,500 square meters

Building Areas: 71,000 square meters

Employees: 1700

Date of Signing the Contract: Aug. 18, 1994

Date of Getting Business Certificate: Sep. 15, 1994

Date of Opening Ceremony: Oct. 18, 1995 (The First Plant)

Oct. 18, 1998 (The Second Plant)

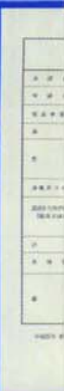
公司荣誉 Certif



理念 Management Theme

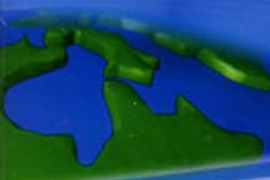
我们希望成为对世界不可缺少的存在。
We are committed to becoming an indispensable element in the lives of people all over the world.

- 1997年10月荣获先进技术确认证书；
- 1997年11月通过ISO9002质量管理体系认证；
- 1998年3月通过ISO14001国际环境管理体系认证；
- 1998年9月荣获高新技术企业认定证书；
- 1998年10月荣获“AAA”级资信等级证书；
- 1999年3月通过CEE中国电工产品安全认证；
- 2000年5月通过欧洲“TUV”产品认证；
- 2000年12月参与制定《活塞式单级制冷压缩机》及《全封闭涡旋式制冷压缩机》国家标准；
- 2002年9月通过“CCC”产品认证；
- 2002年10月通过ISO9001 2000版质量管理体系认证；
- 2003年8月通过日本“强度试验适用承认书”（No. 15 强 23）；
- 2003年10月通过美国“UL”产品认证。
- 2004年6月通过“VDE”产品认证。
- 2004年10月通过“CE”产品认证。
- 2005年9月通过OHSAS18001职业健康安全管理体系认证。
- 2006年8月通过CRAA产品认证。





icates Award



方针 Management Policy

致力完美；不懈追求；开创未来；走向世界！
Dedicating to perfection, Pursuing persistently,
Initiating the future, Heading for the world.



Certificate of "Advanced Technology" in October 1997.
ISO 9002 Quality Management System in November 1997.
ISO 14001 international environment management system certificate in March 1998.
Certificate of "High-Tech Enterprise" in September 1998.
"AAA" level reputation certificate in October 1998.
Certificate of Conformity for Electrical Equipment in March 1999(CCEE).
"TUV" product certificate in May 2000.
And was conferred with the honor of Dalian Advanced Technology Corporation.
Besides, several national compressor standards were drawn out by us, thus we win high prize in compressor industry both domestically and abroad.
Certificate for China Compulsory Product Certification in September 2002(CCC).
ISO 9001 Quality Management System (2000) in October 2002.
Approval of Japanese "Intensity Test Certificate" in August 2003 (No. 15 Intensity 23).
"UL" product certificate in October 2003.
"VDE" product certificate in June 2004.
"CE" product certificate in October 2004.
OHSAS18001:1999 Certificate in September 2005.
"CRAA" product certificate in August 2006.

公司产品 Products

主要产品 Main Products

2~20HP 活塞式半封闭压缩机	2~20HP Semi-Hermetic Compressor
3.5~12HP 涡旋式压缩机	3.5~12HP Scroll Compressor
1~6HP 全封闭机组	1~6HP Hermetic Compressor Units
2~60HP 半封闭压缩机&机组	2~60HP Semi-Hermetic Compressor and Units
60~120HP 大并联中央机组	60~120HP Tandem Central Units
50~240HP 双级变频低温螺杆机组	50~240HP Double-stage Inverter Screw Condensing Unit with Single Compressor
5HP 冷水机组	5HP Chiller



产品特点 Products Features

1. 噪声低, 对环境温度的适应性强; Low sound and high adaptability to the ambient temperature.
2. 机组占地面积小, 节省空间, 节约能量; Less space occupation in saving place and energy.
3. 机组出厂时配齐各种配套部件, 安装简捷; Simple installation with full-provided accessories before factory shipment.
4. 制冷剂为R22、R404A、R407C、R410A、R134a。Refrigerant R22、R404A、R407C、R410A、R134a.



■ 户式中央空调的核心

THE HEART OF RESIDENTIAL AIR CONDITIONERS & LIGHT COMMERCIAL AIR CONDITIONERS

并联系列 Tandem Series

能力范围由7HP ~ 24HP

可靠&简单的均油设计

低噪声&低振动

紧凑型&轻量设计

使用制冷剂: R22/R407C/R410A/R134a

支持各种不同的电源制式

Range from 7HP to 24HP

Reliable & Simple Design of Oil Balance

Low Sound Level & Low Vibration

Compact & Light Weight

Refrigerant R22/R407C/R410A/R134a

Support a wide variety of Power Source



C-SC 系列 Series



C-SB 系列 Series

■ C-SB系列 (3.5 ~ 7HP) 分体商用柜式空调的核心

THE HEART OF RESIDENTIAL AIR CONDITIONERS & LIGHT COMMERCIAL AIR CONDITIONERS
(C-SB Series 3.5~7HP)

C-SB



- 高低压隔板
- 采用低噪声浮动阀
- PPS树脂制密封圈
- 直接断电电机保护
- 采用高性能的PTFE含浸轴承
- High & low pressure baffle
- Low sound float valve
- Tip seal made of PPS resin
- Direct power breakdown for motor protection
- PTFE bearing: bronze with Teflon.

C-SB SCROLL(3.5-7HP)



制冷剂 Refrigerant

HCFC22/HFC407C/HFC134a/HFC410A

电源 Power Source

208, 230V	60Hz	1Phase/3Phase
380, 415V/440, 460V	50/60Hz	3Phase
220, 230, 240V	50Hz	1Phase/3Phase
200/200, 220V	50/60Hz	3Phase
380V	60Hz	3Phase



■ C-SB系列 (空调用3.5 ~ 7HP)

MODEL C-SB (3.5HP TO 7HP FOR AIR CONDITIONERS)

采用低噪声浮动阀
LOW NOISE FLOAT VALVE
噪音级别Noise Level: 55dB(A)
*ARI条件 condition 50Hz, 离测试点Away from test points:1m

高低压隔板
HIGH & LOW PRESSURE BAFFLE
降低了定涡旋的应变及形成内部排气消音器
Decreasing the gradient of fixed scroll and forming an inner discharge muffle

排气管
DISCHARGE TUBE

定涡旋
FIXED SCROLL

动涡旋
ORBIT SCROLL

吸气管
SUCTION TUBE

PPS树脂制Tip Seal
TIP SEAL MADE OF PPS RESIN
大幅度提高压缩机气体的密封性能
制冷系数C.O.P.: 3.2
*ARI条件50Hz, 5HP
Increasing greatly the airproof performance of air inside the compressor
Refrigeration Coefficient C.O.P.: 3.2
*ARI Condition 50Hz, 5HP

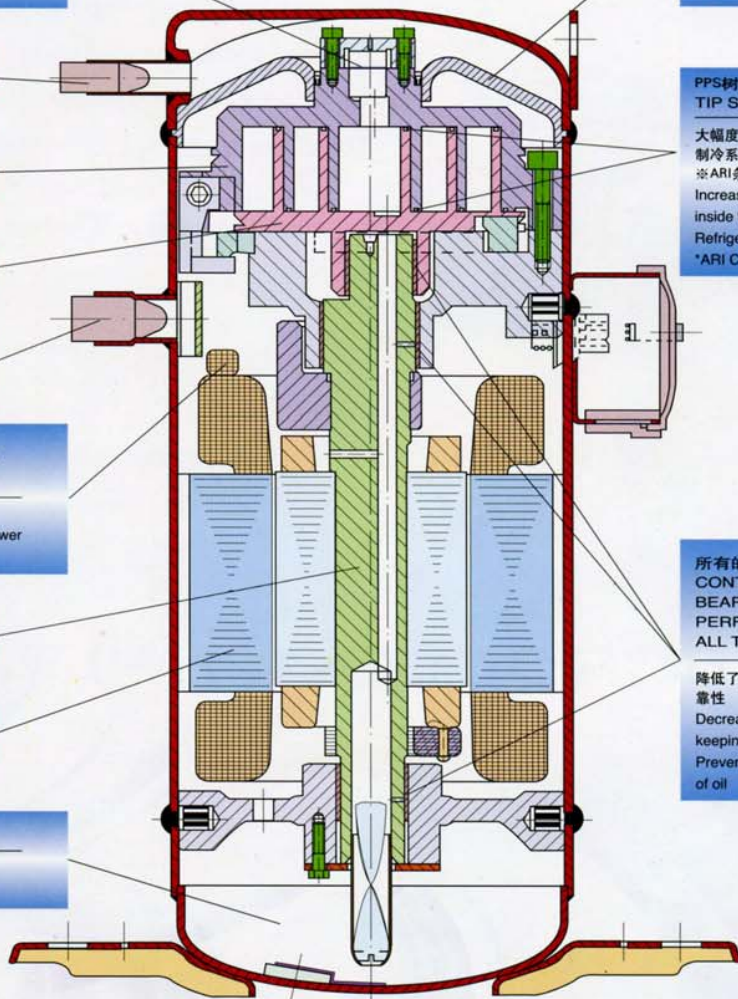
直接断电电机保护
DIRECT BREAK OF ELECTRICITY FOR MOTOR PROTECTING
因电源故障时的压缩机保护
Protecting compressor from influence of power source breakdown

主轴
CRANK SHAFT

电动机
MOTOR

所有的轴部均采用高性能的PTFE含浸轴承
CONTAINING AND IMMERSING BEARING OF PTFE WITH HIGH PERFORMANCE ARE APPLIED WITH ALL THE AXLES
降低了摩擦, 提高了耐磨性能确保了缺油时的可靠性
Decreasing the fricting and increasing the ability of keeping from wearing and tearing.
Preventing from ensuring the reliability even lack of oil

冷冻机油Refrigeration Oil
SAY-56T (R22)
FV-68S (R407C/R134a/R410A)



使用工质Refrigerant R22/R407C/R134a/R410A

■ C-SC系列 (8 ~ 12HP) 户式中央空调的核心

THE HEART OF RESIDENTIAL AIR CONDITIONERS & LIGHT COMMERCIAL AIR CONDITIONERS
(C-SC Series 8 ~ 12HP)

C-SC



C-SC SCROLL(8-12HP)



高可靠性

主副轴承采用高性能滚动轴承

直接断电内部保护器，可靠保护电机

吸气口内装有滤网，更可靠保护压缩机

High reliability

High-performance rolling bearing is applied in the main frame and the bearing plate.

Direct power breakdown for motor protection.

The using of strainer in the suction inlet ensures the safety of compressor.



制冷剂 Refrigerant

HCFC22/HFC407C/HFC134a/HFC410A

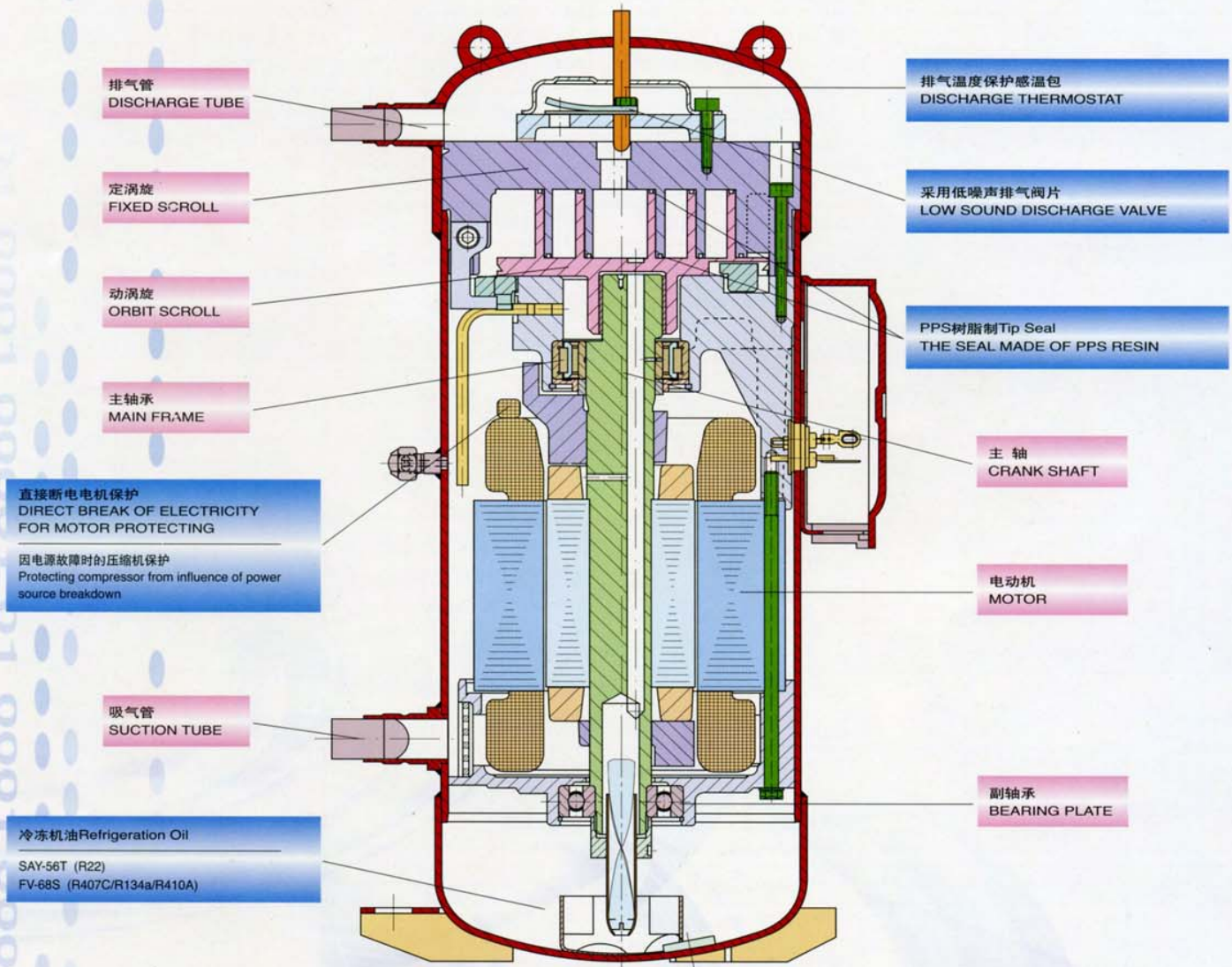
电源 Power Source

208, 230V	60Hz	3Phase
380, 415/440, 460V	50/60Hz	3Phase
220, 230, 240V	50Hz	3Phase
200/200, 220V	50/60Hz	3Phase
380V	60Hz	3Phase



■ C-SC系列 (户式中央空调用8 ~ 12HP)

MODEL C-SC (8HP TO 12HP FOR AIR CONDITIONERS)



使用工质Refrigerant R22/R407C/R134a/R410A

■ R22机型使用标准·使用极限 APPLICATION STANDARD & LIMIT (R22)

为正确使用立式涡旋压缩机, 对其使用标准、使用极限作如下规定 The following requirements apply to Vertical type Hermetic Scroll Compressors:
 使用标准值 Standard: 适用于常用条件下(日本JIS B8616, 与JIS B8616相关标准、过载、低温条件下的商品运转条件)的运转。Applicable to ordinary conditions in Japan JIS B8616 or equivalent conditions, such as standard rating conditions, maximum operating conditions, low temperature conditions, etc.
 使用极限值 Limit: 适用于过渡条件下(启动时、除霜时等)的短时间运转。Applicable to transitional brief periods, such as start-up and beginning of defrost mode.

序号No.	项目 Item	使用标准值 Standard	使用极限值 Limit	备注 Note
1	制冷剂 Refrigerant	R22(符合日本JIS K1517标准) R22(Meet the standard of Japan JIS K1517)		
2	蒸发温度范围 Evaporating Temp.	-15~+12℃/[5~54°F] 0.20~0.62MPa(G)/[29~90psig]	-25~+15℃/[-13~59°F] 0.10~0.69MPa(G)/[14.5~100psig]	压力指吸气压力 Comp. Suction Pressure
3	冷凝温度范围 Condensing Temp.	+30~+65℃/[86~149°F] 1.09~2.60MPa(G)/[158~377psig]	+68℃/[155°F] 2.78MPa(G)/[403psig]	压力指排气压力 Comp. Discharge Pressure
4	压缩比 Compression Ratio	2~6	10	
5	电动机绕组温度 Winding Temp.	115℃/[240°F] 以下 Max.	125℃/[257°F]	
6	压缩机外壳底部温度 Shell Bottom Temp.	上限: 90℃/[194°F] 以下 Upper Limit:90℃/[194°F] Max. 下限: 蒸发压力相对应饱和温度+12K/[21°F] 以上 Lower Limit:Evaporating Temp.+12K/[21°F] Min. 环境温度+11K/[20°F] 以上 Ambient Temp.+11K/[20°F] Min.		运转时 When comp. is running
				停机时 When comp. shuts off
7	排气温度 Discharge Gas Temp.	115℃/[240°F] 以下 Max	C-SB:130℃/[266°F] 以下 Max	距压缩机出口10cm以内位置的排气管温度 Within 100mm(4in) of the discharge fitting.
			C-SC:135℃/[275°F] 以下 Max	压缩机上盖中部的钢管内排气温度保护器的检测温度 Inside of the well pipe on the top of comp.
8	吸气温度 Suction Gas Temp.	吸气过热度在5K/[10°F]以上 Superheat:5K/[10°F] Min.	应无由于液体吸入而引起的冲刷音(不增加电流及振动) No excessive noise.	距压缩机吸气口300mm以内, 应同时满足5, 6, 7和14项的要求。 It should meet the requirement of item 5, 6, 7 and 14 within 300mm of the suction fitting.
9	运转时供电电压 Running Voltage	额定电压±10% Within ±10% of the rated voltage.		运转时压缩机接线柱电压 Voltage at comp. terminals.
10	启动时供电电压 Starting Voltage	三相机: 额定电压85%以上 Three Phase Models: 85% of the rated voltage min.		指在启动电流升高, 电压下降时的压缩机接线柱电压 Dropped voltage at comp. terminals.
		单相机: 额定电压90%以上 Single Phase Models: 90% of the rated voltage min.		
11	启停周期 On/Off Period	运转时间: 至少应使油回到指定油位所需的时间 ON Period:Until the oil level returns to the center of the lower bearing. 停止时间: 至少应使高低压达到平衡所需的时间 OFF Period:Until balance of high and low pressure is obtained.		1周期: 10分钟 停止时间: 以3分钟左右为标准 For at least 7 minutes-ON/3 minutes-OFF is recommendable
12	制冷剂注入量 Refrigerant Charge	油/制冷剂重量比推荐为0.35以上 Oil/Refrigerant(wt.) > 0.35		油比重: 0.92 Specific gravity of the Oil:0.92.
13	启停频度 Life Time	20万个周期 200,000 cycle		
14	压缩机内最低油面 Minimum Oil Level	C-SB:保持在压缩机内下轴承的中部以上 Center of the lower bearing.	C-SB:不低于压缩机下轴承的下端面 Bottom of the lower bearing.	
		C-SC:规定封入量的70%以上 No less than 70% of the initial oil charge.		
15	异常升压/降压 Abnormal Pressure Rise/Drop	压力上升:3.0MPa(G)/[435psig]以下 Pressure Rise:3.0MPa(G)/[435psig] Max.		高压开关设定值 By high pressure switch
		压力下降:0.03MPa(G)/[4.4psig]以上 Pressure Drop:0.03MPa(G)/[4.4psig] Min.		低压开关设定值 By low pressure switch
16	水份 System Moisture Level	200ppm以下 Max		
17	不凝性气体 System Uncondensable Gas Level	1% (容积比) 以下 1 Vol.% Max. 残留氧气要求在0.1% (容积比) 以下 Residual Oxygen 0.1Vol.% Max.		抽真空24小时以后绝对压力应在1.01 kPa以下 24 hrs. after vacuuming:1.01kPa Max.
18	倾斜角度 Tilt	5°以内 5° Deg.Max.		

■ 超出以上极限范围的运转必须得到大连三洋压缩机(有)的认可。Operation beyond the above limits must be approved by Dalian SANYO Compressor Co., Ltd.

(G): 表压 Gauge Pressure