

● 营业本部

地址：大连市甘井子区东海路78号
邮编：116033

● 海外营业部

地址：大连市甘井子区东海路78号
邮编：116033

● 广东事务所 (涡旋产品)

地址：中国广东省珠海市吉大海滨南路光大国际贸易中心3006室
邮编：519015

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Panasonic®

松下压缩机(大连)有限公司

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

地址：大连市甘井子区东海路78号

Add: No.78 Donghai Road, Gan Jingzi District, Dalian, P.R.China

邮编P.C.: 116033

2018.03

空调专用涡旋压缩机

Scroll Compressor for Air-conditioning Application



松下压缩机(大连)有限公司

Panasonic Appliances Compressor (Dalian) Co.,Ltd.

公司简介 Profile



公司厂房 Company workshop



研发中心 R&D Center

公司名称: 松下压缩机(大连)有限公司

Company Name: Panasonic Appliances Compressor (Dalian) Co., Ltd.

投资总额: 95亿日元

Total Investment Amount: USD 88 Million

占地面积: 11.65万平方米

Occupied Area: 116,500 square meters

建筑面积: 7.1万平方米

Building Areas: 71,000 square meters

员工人数: 1700人

Employees: 1700

公司签约日: 1994年8月18日

Date of Signing the Contract: Aug. 18, 1994

公司成立日: 1994年9月15日

Date of Getting Business Certificate: Sep. 15, 1994

公司开业日: 1995年10月18日

Date of Opening Ceremony: Oct. 18, 1995

公司荣誉 Certificates Award



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CCEE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;
 2007年12月通过泰国TIS认证;
 2009年12月通过韩国KC认证;
 2011年3月通过CB认证;
 2013年9月获得巴西INMETRO认证。
 2016年6月获得俄罗斯EAC认证。

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.
 “TIS” product certificate in December 2007.
 Korean “KC” product certificate in December 2009.
 “CB” product certificate in March 2011.
 “INMETRO” Product Certificate In September 2013.
 “EAC” Product Certificate In June 2016.



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→ 公司产品 Products

3.5 ~ 7HP C-SB 系列涡旋压缩机	3.5 ~ 7HP C-SB Series Scroll Compressors
8 ~ 15HP C-SC 系列涡旋压缩机	8 ~ 15HP C-SC Series Scroll Compressors
C-SD 系列涡旋压缩机	C-SD Series Scroll Compressors
C-SE 系列涡旋压缩机	C-SE Series Scroll Compressors
C-SW 系列卧式涡旋压缩机	C-SW Series Horizontal Scroll Compressors
15F系列CO ₂ 双转子式压缩机	15F Series CO ₂ Twin Rotary Compressors
20F系列CO ₂ 双转子式压缩机	20F Series CO ₂ Twin Rotary Compressors
33F系列CO ₂ 双转子式压缩机	33F Series CO ₂ Twin Rotary Compressors



→ 产品特点 Products Features

- | | |
|-------------------|---|
| 1. 低噪声&低振动 | Low sound level & Low vibration |
| 2. 紧凑型&轻量设计 | Compact & Light weight |
| 3. 支持各种不同的电源制式 | Support a wide variety of power source |
| 4. 采用环保制冷剂 | Application of environment-friendly refrigerant |
| 5. 独创双转子双级压缩结构 | Innovative twin-rotary two-stage structure |
| 6. 直流变频驱动 | Inverter-driven motor |
| 7. 高可靠性, 经过市场长期验证 | High reliability proven in decades of market applications |

■ B系列涡旋压缩机 C-SB Series

特点

无柔性调节、高精度配合；
采用高低压隔板，降低定涡旋应变及形成内部排气消音；
采用齿顶密封圈，密封动定涡旋因轴向力产生的脱啮间隙，大大提高能效；
机构简单、稳定可靠。

Features:

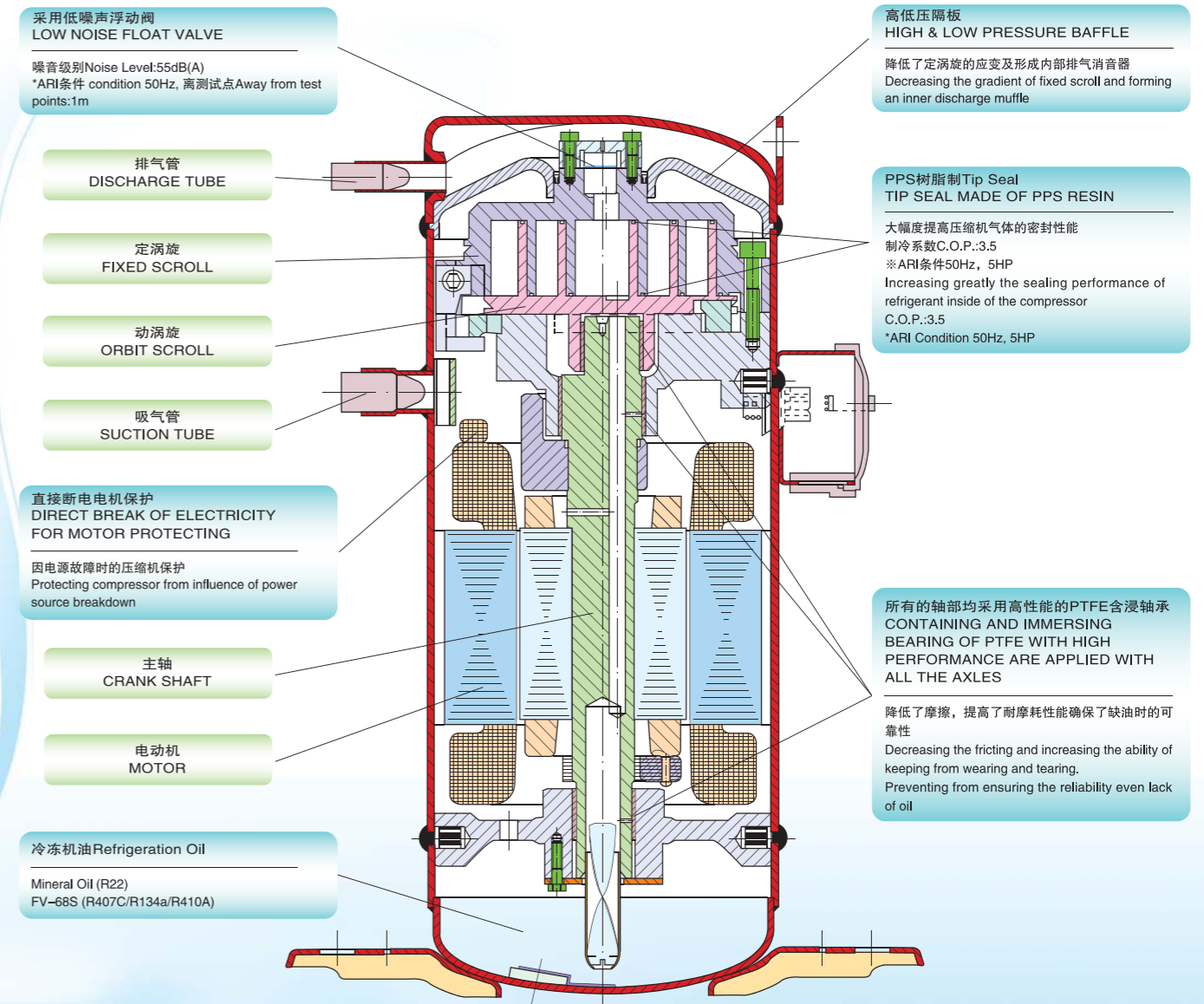
Fixed eccentric design, high precision assembling
Decreasing the gradient of fixed scroll and forming an inner discharge muffle
PPS tip seal, improve the sealing performance and efficiency
Simple structure, high reliability



产品型谱 Product Line-up

制冷剂 Refrigerant	电制 Power Supply	电源 Phase	额定功率Output(HP)																	
			3	3.1	3.5	3.6	3.7	4	4.2	4.3	4.4	4.5	4.6	4.9	5	5.2	5.5	5.8	6	6.8
R410A	50Hz 380-415V /60Hz 440-460V	3 Phase			★		★	★					★	★		★		★	★	★
	50Hz 220-240V	1 Phase			●		●					●								
	60Hz 208-230V	3 Phase			★		★	★					★	★		★		★	★	★
		1 Phase		●	●		●	●		●			●	●				●	●	●
60Hz 380V	3 Phase	★		★		★	★					★	★		★		★	★	★	
R407C	50Hz 380-415V /60Hz 440-460V	3 Phase			★		★	★		★	★	★		★	★		★	★	★	
	50Hz 220-240V	3 Phase			★		★						★				★		★	
		1 Phase			●		●					●	●				●			
	60Hz 208-230V	3 Phase		★	★		★					★	★					★		★
60Hz 380V		3 Phase		★	★		★				★	★					★		★	
R22	50Hz 380-415V /60Hz 440-460V	3 Phase		★	★		★	★		★	★	★	★	★	★	★		★	★	
	50Hz 220-240V	3 Phase					★						★					★		
		1 Phase		●	●	●	●					●	●				●			
	60Hz 208-230V	3 Phase		★	★		★					★	★					★		★
		1 Phase			●		●					●	●					●		
60Hz 380V	3 Phase		★	★		★					★	★					★		★	

■ B系列涡旋压缩机内部结构图 C-SB Series Components



使用工质 Refrigerant R22/R407C/R134a/R410A

*如需采用其他制冷剂，请与我公司联系确认。
For more information about other refrigerants products, please contact with us.



■B系列涡旋压缩机-R410A
C-SB Series Scroll Compressor for R410A

■B8 (50Hz 380-415V / 60Hz 440-460V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	kW	kBTU/h	W/W	BTU/Wh	
3	3.5	39.9	C-SBP120H38A	-	-	10.0	34.1	2.86	9.8	12.2	41.7	2.94	10.0	A
			C-SBP120H38B	-	-	10.0	34.1	2.86	9.8	12.2	41.7	2.94	10.0	At
			C-SBN303H8D	809 943 88	-	9.80	33.5	2.68	9.2	12.2	41.7	2.87	9.8	A
			C-SBN303H8H	809 947 88	-	9.80	33.5	2.68	9.2	12.2	41.7	2.87	9.8	At
	3.7	42.4	C-SBP130H38A	-	-	10.9	37.2	2.91	9.9	13.3	45.4	3.02	10.3	A
			C-SBP130H38B	-	-	10.9	37.2	2.91	9.9	13.3	45.4	3.02	10.3	At
	4	46.4	C-SBP140H38A	-	-	11.7	39.9	2.93	10.0	14.3	48.8	3.01	10.3	A
			C-SBP140H38B	-	-	11.7	39.9	2.93	10.0	14.3	48.8	3.01	10.3	At
	4.6	51.6	C-SBP160H38C	-	-	13.2	45.0	3.07	10.5	16.0	54.6	3.08	10.5	A
			C-SBN353H8D	809 948 88	-	13.0	44.4	2.80	9.6	16.2	55.3	2.97	10.1	A
		C-SBN353H8H	809 949 88	-	13.0	44.4	2.80	9.6	16.2	55.3	2.97	10.1	At	
		51.8	C-SBP160H38A	-	-	13.2	45.1	2.87	9.8	16.2	55.3	2.98	10.2	A
	C-SBP160H38B		-	-	13.2	45.1	2.87	9.8	16.2	55.3	2.98	10.2	At	
	5	55.7	C-SBN373H8D	809 953 88	-	14.1	48.1	2.97	10.1	17.1	58.4	3.05	10.4	A
			C-SBN373H8H	809 957 88	-	14.1	48.1	2.97	10.1	17.1	58.4	3.05	10.4	At
			C-SBP170H38A	-	-	14.2	48.5	2.99	10.2	17.3	59.1	3.04	10.4	A
			C-SBP170H38B	-	-	14.2	48.5	2.99	10.2	17.3	59.1	3.04	10.4	At
	5.5	60.4	C-SBP185H38A	-	-	15.2	51.9	2.92	10.0	18.7	63.8	3.07	10.5	A
	6	66.8	C-SBN453H8D	809 963 88	-	16.4	56.0	2.85	9.7	20.3	69.3	3.01	10.3	A
			C-SBN453H8H	809 967 88	-	16.4	56.0	2.85	9.7	20.3	69.3	3.01	10.3	At
			C-SBP205H38A	-	-	16.8	57.4	3.00	10.2	20.6	70.3	3.10	10.6	A
			C-SBP205H38B	-	-	16.8	57.4	3.00	10.2	20.6	70.3	3.10	10.6	At
	6.8	76.0	C-SBP235H38A	-	-	19.9	67.9	3.04	10.4	24.2	82.6	3.12	10.6	A
			C-SBP235H38B	-	-	19.9	67.9	3.04	10.4	24.2	82.6	3.12	10.6	At
7	77.4	C-SBN523H8D	809 973 88	-	19.2	65.6	2.84	9.7	23.4	80.0	2.98	10.2	A	
		C-SBN523H8H	809 977 88	-	19.2	65.6	2.84	9.7	23.4	80.0	2.98	10.2	At	

■B5 (50Hz 220-240V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
1	3.5	39.9	C-SBP120H15A	-	PSC	9.80	33.5	2.80	9.6	A
	4	46.4	C-SBP140H15A	-	PSC	11.60	39.6	2.85	9.7	A
	4.6	51.8	C-SBP160H15A	-	PSC	13.00	44.4	2.80	9.6	A

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
 Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat11.1K

■B系列涡旋压缩机-R410A
C-SB Series Scroll Compressor for R410A

■B6 (60Hz 208-230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh		
1	3.1	35.0	C-SBP105H16A	-	PSC	10.5	35.8	2.76	9.4	A	
	3.5	39.9	C-SBP120H16A	-	PSC	12.1	41.3	2.81	9.6	A	
	3.7	42.4	C-SBP130H16A	-	PSC	13.2	45.1	2.87	9.8	A	
	4	46.4	C-SBP140H16A	-	PSC	14.3	48.8	2.90	9.9	A	
	4.3	48.9	C-SBP150H16A	-	PSC	14.8	50.5	2.90	9.9	A	
	4.6	51.8	C-SBP160H16A	-	PSC	15.8	53.9	2.80	9.6	A	
	5	55.7	C-SBP170H16Y	-	CSR	16.9	57.7	2.83	9.7	J*	
	6	66.8	C-SBP205H16Y	-	CSR	20.3	69.3	2.85	9.7	J*	
	7	77.4	C-SBP230H16Y	-	CSR	23.3	79.6	2.85	9.7	J*	
	3	3.5	39.9	C-SBP120H36A	-	-	12.2	41.7	2.80	9.6	A
				C-SBP120H36B	-	-	12.2	41.7	2.80	9.6	At
		3.7	42.4	C-SBP130H36A	-	-	13.4	45.7	2.98	10.2	A
C-SBP140H36A				-	-	14.2	48.5	2.90	9.9	A	
4		46.4	C-SBP140H36B	-	-	14.2	48.5	2.90	9.9	At	
			C-SBP160H36A	-	-	16.1	55.0	2.93	10.0	A	
4.6		51.8	C-SBP160H36B	-	-	16.1	55.0	2.93	10.0	At	
			C-SBP170H36A	-	-	17.4	59.4	3.05	10.4	A	
5		55.7	C-SBP170H36B	-	-	17.4	59.4	3.05	10.4	At	
			C-SBP185H36A	-	-	18.6	63.5	3.02	10.3	A	
6		66.8	C-SBP205H36A	-	-	20.5	70.0	3.05	10.4	A	
			C-SBP205H36B	-	-	20.5	70.0	3.05	10.4	At	
7	77.4	C-SBP235H36A	-	-	24.0	81.9	3.00	10.2	A		
		C-SBP235H36B	-	-	24.0	81.9	3.00	10.2	At		

注：“*”代表SPA Models (Condensing Temp.Max60℃)

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	3	33.7	C-SBP105H39A	-	-	10.2	34.8	2.87	9.8	A
	3.5	39.9	C-SBP120H39A	-	-	12.3	42.0	2.96	10.1	A
			C-SBP120H39B	-	-	11.8	40.3	2.80	9.6	Jt
	3.7	42.4	C-SBP130H39A	-	-	13.2	45.0	2.90	9.9	A
	4	46.4	C-SBP140H39A	-	-	14.1	48.1	2.97	10.1	A
			C-SBP140H39B	-	-	13.9	47.4	2.84	9.7	Jt
	4.6	51.8	C-SBP160H39A	-	-	15.8	53.9	2.90	9.9	A
			C-SBP160H39B	-	-	15.8	53.9	2.90	9.9	Jt
	5	55.7	C-SBP170H39A	-	-	16.9	57.7	2.96	10.1	A
	5.5	60.4	C-SBP185H39A	-	-	18.6	63.5	3.10	10.6	A
	6	66.8	C-SBP205H39A	-	-	19.9	67.9	2.99	10.2	A
			C-SBP205H39B	-	-	19.9	67.9	3.00	10.2	Jt
7	77.4	C-SBP235H39B	-	-	23.9	81.6	3.03	10.3	Jt	

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
 Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat11.1K



■ B系列涡旋压缩机-R22 C-SB Series Scroll Compressor for R22

■ B5 (50Hz 220-240V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
1	3.1	51.8	C-SBR110H15A	-	PSC	9.10	31.1	2.94	10.0	A
	3.5	55.7	C-SBR120H15A	-	PSC	9.70	33.1	2.98	10.2	A
			C-SBR120H15P	-	PSC	9.70	33.1	2.98	10.2	A
	3.6	60.4	C-SBX135H15A	-	CSR	11.0	37.6	3.33	11.4	A
	4	66.8	C-SBX145H15A	-	CSR	12.0	41.0	3.33	11.3	A
			C-SBR145H15A	-	PSC	11.7	39.9	3.12	10.7	A
			C-SBR145H15P	-	PSC	11.8	40.3	3.19	10.9	A
			C-SBR165H15A	-	PSC	13.7	46.8	3.08	10.5	A
	4.6	77.4	C-SBR165H15P	-	CSR	13.7	46.8	3.08	10.5	A
C-SBR180H15A			-	PSC	14.7	50.2	3.16	10.8	A	
5.8	93.1	C-SBR200H15H	-	PSC	16.4	56.0	3.12	10.7	J	
3	4	66.8	C-SB303H5A	809 840 85	-	11.7	39.9	3.16	10.8	A
	5	83.2	C-SB373H5A	809 850 85	-	14.7	50.2	3.16	10.8	A
	6	100.0	C-SB453H5A	809 860 85	-	17.8	60.8	3.24	11.1	A

注：“T3”代表应用于T3工况

■ B6 (60Hz 208-230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
1	3.5	55.7	C-SBR120H16A	-	PSC	12.1	41.3	3.23	11.0	A
			C-SBR120H16P	-	CSR	11.9	40.6	3.09	10.5	A
	4	66.8	C-SBR145H16A	-	PSC	14.5	49.5	3.26	11.1	A
			C-SBR145H16P	-	CSR	14.4	49.2	3.20	10.9	A
	4.6	77.4	C-SBR165H16A	-	PSC	16.8	57.4	3.20	10.9	A
			C-SBR165H16P	-	CSR	16.8	57.4	3.20	10.9	A
5	83.2	C-SBR180H16A	-	PSC	18.0	61.5	3.13	10.7	A	
3	3.1	51.8	C-SB263H6C	809 832 86	-	11.1	37.9	3.13	10.7	A
			C-SB263H6B	809 831 86	-	11.9	40.6	3.22	11.0	A
	4	66.8	C-SB303H6A	809 840 86	-	14.4	49.2	3.27	11.2	A
			C-SB303H6B	809 841 86	-	14.4	49.2	3.27	11.2	A
			C-SB303H6G	809 846 86	-	14.4	49.2	3.27	11.2	At
	4.6	77.4	C-SB353H6B	809 843 86	-	16.8	57.4	3.29	11.2	A
			C-SB353H6C	809 844 86	-	16.8	57.4	3.29	11.2	A
	5	83.2	C-SB373H6A	809 850 86	-	18.1	61.8	3.32	11.3	A
			C-SB373H6B	809 851 86	-	18.1	61.8	3.32	11.3	A
			C-SB373H6G	809 856 86	-	18.1	61.8	3.32	11.3	At
	6	100.0	C-SB453H6A	809 860 86	-	21.3	72.7	3.25	11.1	A
			C-SB453H6B	809 861 86	-	21.3	72.7	3.25	11.1	A
C-SB453H6G			809 866 86	-	21.3	72.7	3.25	11.1	At	
7	110.2	C-SBR235H36A	-	-	23.3	79.6	3.28	11.2	A	

注：“T3”代表应用于T3工况

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
Rating Condition: Condensing Temperature 54.4℃, Evaporating Temperature 7.2℃, Sub Cooling 8.3K, Superheat 11.1K

■ B系列涡旋压缩机-R22 C-SB Series Scroll Compressor for R22

■ B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	3.1	51.8	C-SB263H9B	809 831 89	-	10.9	37.2	3.03	10.3	B
			C-SB263H9C	809 832 89	-	10.9	37.2	3.03	10.3	A
	3.5	55.7	C-SB263H9A	809 830 89	-	11.8	40.3	2.98	10.2	A
	4	66.8	C-SB303H9A	809 840 89	-	14.2	48.5	3.23	11.0	A
			C-SB303H9G	809 846 89	-	14.2	48.5	3.23	11.0	At
	4.6	77.4	C-SB353H9A	809 842 89	-	16.6	56.7	3.25	11.1	A
	5	83.2	C-SB373H9A	809 850 89	-	17.8	60.8	3.24	11.1	A
			C-SB373H9G	809 856 89	-	17.8	60.8	3.24	11.1	At
	6	100.0	C-SB453H9A	809 860 89	-	21.2	72.4	3.24	11.1	A
			C-SB453H9G	809 866 89	-	21.2	72.4	3.24	11.1	At
	7	110.2	C-SBR235H39A	-	-	23.4	79.9	3.30	11.3	A
			C-SBR235H39B	-	-	23.4	79.9	3.30	11.3	At

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
Rating Condition: Condensing Temperature 54.4℃, Evaporating Temperature 7.2℃, Sub Cooling 8.3K, Superheat 11.1K

■外观图 Outline Graph

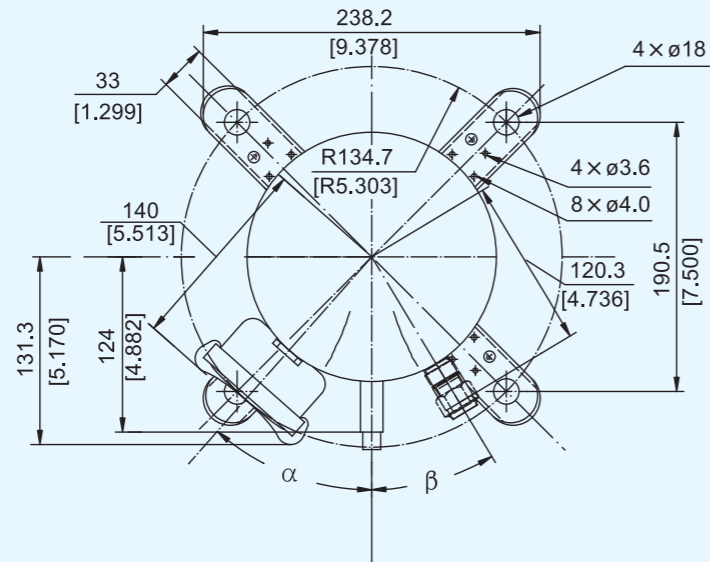
C-SB 系列 Series

B 系列单机外观图
B Series-Single

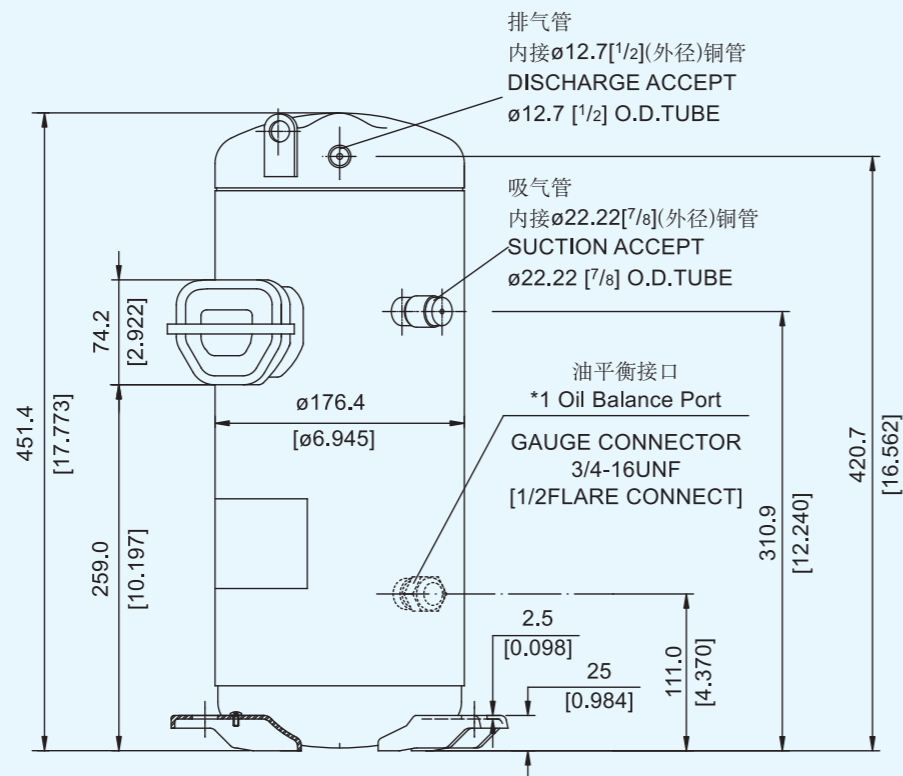
代号 CODE	α	β
A	41.5°	31.0°
B	27.5°	45.0°

B 系列并联外观图
B Series-Tandem

代号 CODE	α	β
At	41.5°	31.0°



*1 本并联机型附带并联接口。
The connection port of oil balance tube is attached to tandem model.



■外观图 Outline Graph

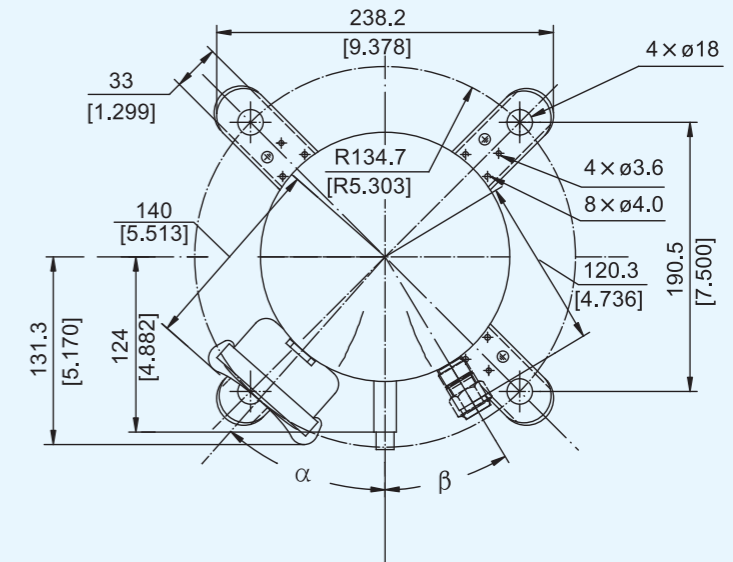
C-SB 系列 Series

B 系列单机外观图
B Series-Single

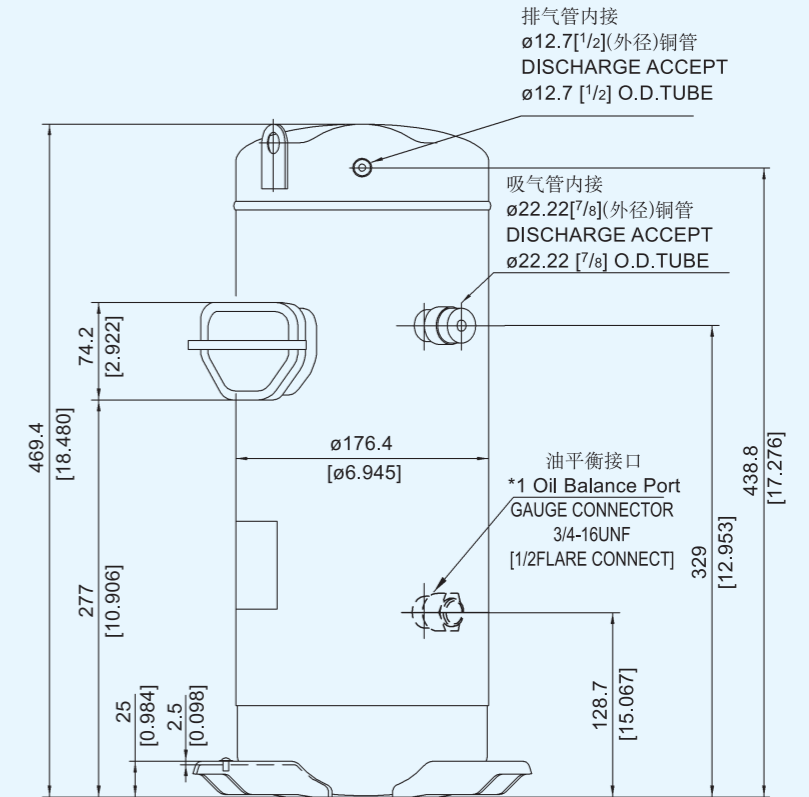
代号 CODE	α	β
J	41.5°	31.0°

B 系列并联外观图
B Series-Tandem

代号 CODE	α	β
Jt	41.5°	31.0°



*1 本并联机型附带并联接口。
The connection port of oil balance tube is attached to tandem model.



■ C系列涡旋压缩机 C-SC Series

特点

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

Features:

High reliability

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

Direct power breakdown for motor protection.

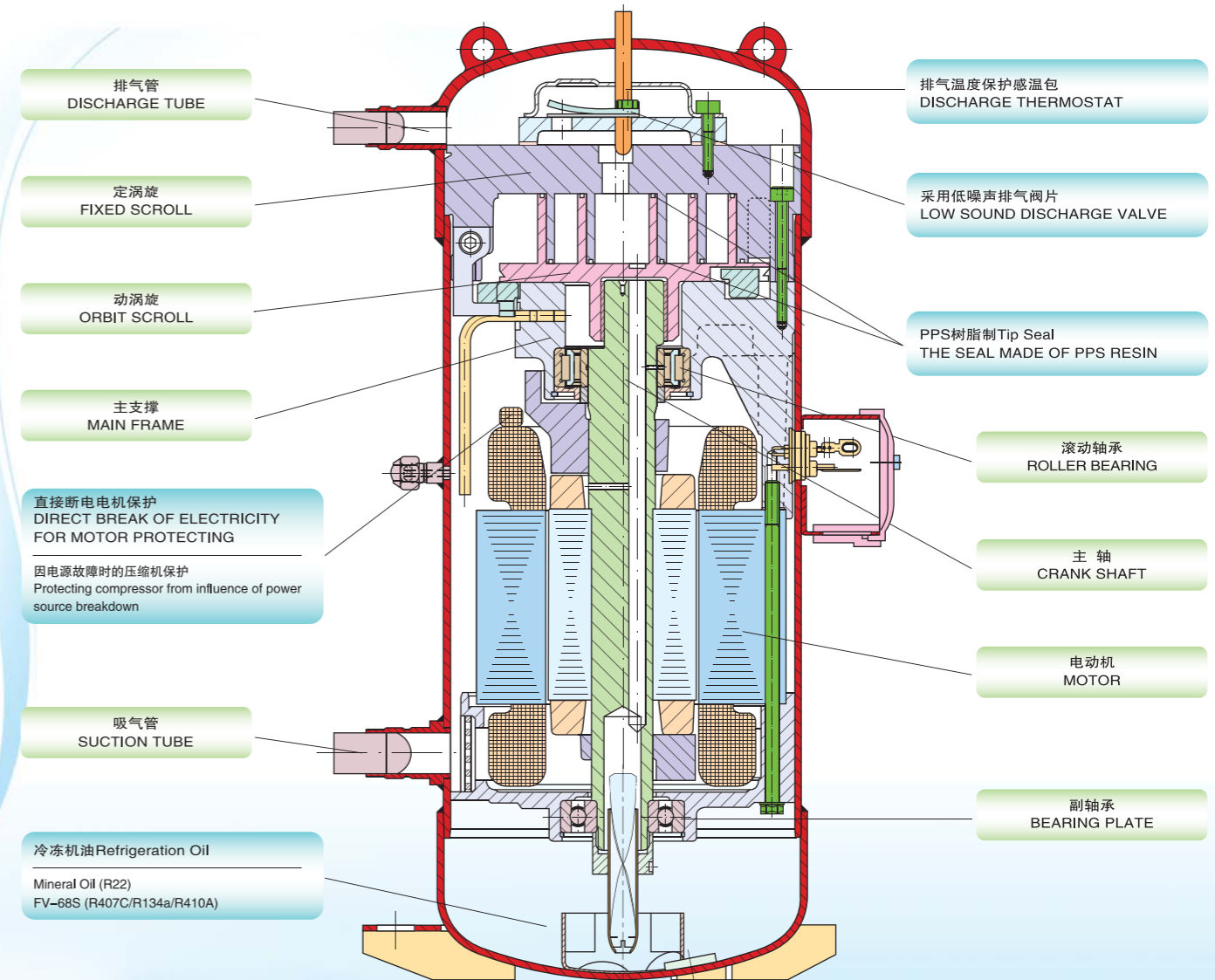
The using of strainer in the suction inlet ensures the safety of compressor.



产品型谱 Product Line-up

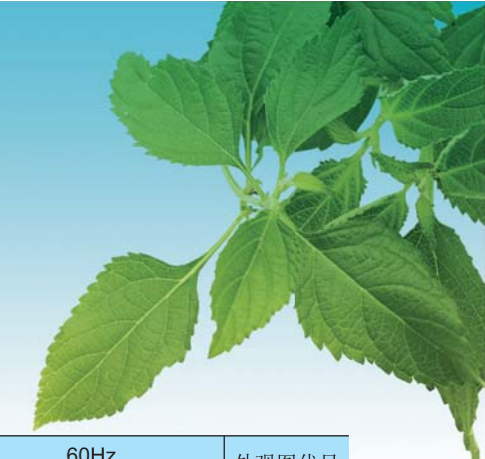
制冷剂 Refrigerant	电制 Power Supply	电源 Phase	额定功率Output(HP)										
			7.7	8	9	10	11	11.4	11.6	12	13	15	
R410A	50Hz 380-415V /60Hz 440-460V	3 Phase		★		★	★				★	★	★
	60Hz 208-230V	3 Phase		★		★	★				★	★	★
	60Hz 380V	3 Phase		★		★	★				★	★	★
R407C	50Hz 380-415V /60Hz 440-460V	3 Phase	★	★	★	★					★		
	50Hz 220-240V	3 Phase	★	★		★					★		
	60Hz 230V	3 Phase		★		★							
	60Hz 380V	3 Phase		★		★					★		
R22	50Hz 380-415V /60Hz 440-460V	3 Phase	★	★	★	★			★	★	★		
	50Hz 220-240V	3 Phase		★		★					★		
	60Hz 208-230V	3 Phase	★	★	★	★					★		
	60Hz 380V	3 Phase		★		★					★		

■ C系列涡旋压缩机内部结构图 C-SC Series Components



使用工质 Refrigerant R22/R407C/R134a/R410A

*如需采用其他制冷剂，请与我公司联系确认。
For more information about other refrigerants products, please contact with us.



■C系列涡旋压缩机-R410A C-SC Series Scroll Compressor for R410A

■B8 (50Hz 380-415V / 60Hz 440-460V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	kW	kBTU/h	W/W	BTU/Wh	
3	8	89.2	C-SCP270H38A	-	-	22.4	76.4	3.03	10.3	27.2	92.8	3.06	10.4	E
			C-SCP270H38B	-	-	22.4	76.4	3.03	10.3	27.2	92.8	3.06	10.4	Et
	10	104.1	C-SCP315H38A	-	-	26.0	88.7	3.03	10.3	31.4	107.1	3.02	10.3	E
			C-SCP315H38B	-	-	26.0	88.7	3.03	10.3	31.4	107.1	3.02	10.3	Et
	11	120.2	C-SCP360H38A	-	-	30.3	103.4	3.14	10.7	36.6	124.9	3.16	10.8	E
			C-SCP360H38B	-	-	30.3	103.4	3.14	10.7	36.6	124.9	3.16	10.8	Et
	12	127.8	C-SCP400H38M	-	-	32.6	111.2	3.20	10.9	39.4	134.4	3.20	10.9	M
			C-SCP400H38A	-	-	32.8	111.9	3.01	10.3	-	-	-	-	E
		131.9	C-SCP400H38B	-	-	33.0	111.9	3.01	10.3	-	-	-	-	Et
	13	148.8	C-SCP435H38B	-	-	37.2	127.0	3.15	10.8	44.6	152.3	3.16	10.8	Ft
	15	171.2	C-SCP510H38B	-	-	43.9	149.9	3.18	10.9	53.5	182.7	3.20	10.9	Lt

■B6 (60Hz 208-230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	89.2	C-SCP270H36A	-	-	27.5	93.8	3.10	10.6	P
			C-SCP270H36B	-	-	27.5	93.8	3.10	10.6	Pt
	10	104.1	C-SCP315H36A	-	-	32.2	109.9	3.13	10.7	N
			C-SCP315H36B	-	-	32.2	109.9	3.13	10.7	Nt
	11	120.2	C-SCP360H36A	-	-	36.6	124.9	3.13	10.7	N
			C-SCP360H36B	-	-	36.6	124.9	3.13	10.7	Nt
	12	131.9	C-SCP400H36A	-	-	40.3	137.5	3.12	10.6	N
			C-SCP400H36B	-	-	40.3	137.5	3.12	10.6	Nt
	13	148.8	C-SCP435H36B	-	-	43.5	148.4	3.10	10.6	Ft
	15	171.2	C-SCP510H36B	-	-	54.0	184.2	3.10	10.6	Lt

Designing
Designing

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	89.2	C-SCP270H39A	-	-	27.6	94.2	3.14	10.7	P
			C-SCP270H39B	-	-	27.6	94.2	3.14	10.7	Pt
	10	104.1	C-SCP315H39A	-	-	32.3	110.2	3.17	10.8	N
			C-SCP315H39B	-	-	32.3	110.2	3.17	10.8	Nt
	11	120.2	C-SCP360H39A	-	-	36.8	125.6	3.15	10.7	N
			C-SCP360H39B	-	-	36.8	125.6	3.15	10.7	Nt
	12	131.9	C-SCP400H39A	-	-	40.4	137.8	3.16	10.8	N
			C-SCP400H39B	-	-	40.4	137.8	3.16	10.8	Nt
	13	148.8	C-SCP435H39B	-	-	43.5	148.4	3.13	10.7	Ft
	15	171.2	C-SCP510H39B	-	-	54.0	184.2	3.15	10.7	Lt

Designing
Designing

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat11.1K

■C系列涡旋压缩机-R407C C-SC Series Scroll Compressor for R407C

■B8 (50Hz 380-415V / 60Hz 440-460V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	kW	kBTU/h	W/W	BTU/Wh	
3	7.7	131.9	C-SCN583H8H	809 184 88	-	23.6	80.6	3.13	10.7	28.0	95.6	3.03	10.3	D
			C-SCN583H8K	809 186 88	-	23.6	80.6	3.13	10.7	28.0	95.6	3.03	10.3	Dt
			C-SCN583H8T	809 187 88	-	23.6	80.6	3.13	10.7	28.0	95.6	3.03	10.3	Gt
	8	137.0	C-SCN603H8H	809 181 88	-	24.5	83.6	3.16	10.8	29.1	99.4	3.08	10.5	D
			C-SCN603H8K	809 183 88	-	24.5	83.6	3.16	10.8	29.1	99.4	3.08	10.5	Dt
			C-SCN603H8T	809 185 88	-	24.5	83.6	3.16	10.8	29.1	99.4	3.08	10.5	Gt
	9	148.8	C-SCN673H8H	809 191 88	-	26.5	90.5	3.12	10.7	32.0	109.3	3.06	10.4	D
			C-SCN673H8K	809 193 88	-	26.5	90.5	3.12	10.7	32.0	109.3	3.06	10.4	Dt
	10	171.2	C-SCN753H8H	809 101 88	-	29.9	102.1	3.20	10.9	35.9	122.6	3.12	10.7	E
			C-SCN753H8K	809 103 88	-	29.9	102.1	3.20	10.9	35.9	122.6	3.12	10.7	Et
			C-SCN753H8T	809 105 88	-	29.9	102.1	3.20	10.9	35.9	122.6	3.12	10.7	Ht
	12	205.4	C-SCN903H8H	809 121 88	-	34.9	119.2	3.09	10.5	-	-	-	-	E
C-SCN903H8K			809 123 88	-	34.9	119.2	3.09	10.5	-	-	-	-	Et	
C-SCN903H8T			809 125 88	-	34.9	119.2	3.09	10.5	-	-	-	-	Ht	

■B5 (50Hz 220-240V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	7.7	131.9	C-SCN583H5H	809 184 85	-	23.7	80.9	3.14	10.7	D
	8	137.0	C-SCN603H5H	809 181 85	-	24.2	82.6	3.14	10.7	D
	10	171.2	C-SCN753H5H	809 101 85	-	29.9	102.1	3.18	10.9	E
	12	205.4	C-SCN903H5H	809 121 85	-	34.8	118.8	3.08	10.5	E

■B6 (60Hz 230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	137.0	C-SCN603H6K	808 181 89	-	29.9	101.0	3.10	10.6	Dt
	10	171.2	C-SCN753H6K	809 101 89	-	38.1	130.1	3.23	11.0	Et

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	137.0	C-SCN603H9H	808 181 89	-	29.6	101.0	3.13	10.7	D
			C-SCN603H9T	809 185 89	-	29.7	101.4	3.03	10.3	Gt
	10	171.2	C-SCN753H9H	809 101 89	-	36.6	124.9	3.24	11.1	E
			C-SCN753H9T	809 105 89	-	37.7	128.7	3.17	10.8	Ht
	12	205.4	C-SCN903H9H	809 121 89	-	42.9	146.4	3.15	10.7	E
			C-SCN903H9T	809 125 89	-	43.8	149.5	3.15	10.8	Ht

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度9K
Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat9K

■C系列涡旋压缩机-R22

C-SC Series Scroll Compressor for R22

■B8 (50Hz 380-415V / 60Hz 440-460V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				60Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP		制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh	kW	kBTU/h	W/W	BTU/Wh		
3	7.7	131.9	C-SC583H8H	809 284 88	-	23.6	80.6	3.30	11.3	28.5	97.3	3.26	11.1	D	
			C-SC583H8K	809 286 88	-	23.6	80.6	3.30	11.3	28.5	97.3	3.26	11.1	Dt	
	8	137.0	C-SC603H8H	809 281 88	-	24.5	83.6	3.31	11.3	29.6	101.1	3.29	11.2	D	
			C-SC603H8K	809 283 88	-	24.5	83.6	3.31	11.3	29.6	101.1	3.29	11.2	Dt	
	9	148.8	C-SC673H8H	809 291 88	-	26.5	90.5	3.29	11.2	32.0	109.3	3.27	11.2	D	
			C-SC673H8K	809 293 88	-	26.5	90.5	3.29	11.2	32.0	109.3	3.27	11.2	Dt	
	10	171.2	C-SC753H8H	809 201 88	-	30.6	104.5	3.38	11.5	36.9	126.0	3.32	11.3	E	
			C-SC753H8K	809 203 88	-	30.6	104.5	3.38	11.5	36.9	126.0	3.32	11.3	Et	
			C-SC753H8T	809 205 88	-	30.6	104.5	3.38	11.5	36.9	126.0	3.32	11.3	Ht	
	11.4	194.9	C-SCX435H38B	-	-	36.1	123.2	3.47	11.8	42.1	143.8	3.45	11.8	M	
	11.6	199.1	205.4	C-SC863H8H	809 224 88	-	35.2	120.2	3.32	11.3	-	-	-	-	E
				C-SC903H8H	809 221 88	-	36.1	123.3	3.31	11.3	-	-	-	-	E
C-SC903H8K				809 223 88	-	36.1	123.3	3.31	11.3	-	-	-	-	Et	
C-SC903H8T				809 225 88	-	36.1	123.3	3.31	11.3	-	-	-	-	Ht	

■B5 (50Hz 220-240V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	137.0	C-SC603H5H	809 281 85	-	24.2	82.6	3.29	11.2	D
	10	171.2	C-SC753H5H	809 201 85	-	30.6	104.5	3.36	11.5	E
	12	205.4	C-SC903H5H	809 221 85	-	36.0	122.9	3.30	11.3	E

■B6 (60Hz 208-230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	7.7	131.9	C-SC583H6H	809 284 86	-	27.9	95.3	3.19	10.9	D
			C-SC603H6H	809 281 86	-	29.6	101.1	3.31	11.3	D
	8	137.0	C-SC603H6K	809 283 86	-	29.6	101.1	3.31	11.3	Dt
			C-SC673H6H	809 291 86	-	32.3	110.3	3.38	11.5	E
	10	171.2	C-SC753H6H	809 201 86	-	37.0	126.3	3.36	11.5	E
			C-SC753H6K	809 203 86	-	37.0	126.3	3.36	11.5	Et
	12	205.4	C-SC903H6H	809 221 86	-	43.2	147.5	3.15	10.8	E
			C-SC903H6K	809 222 86	-	44.1	150.5	3.22	11.0	E

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	8	137.0	C-SC603H9H	809 281 89	-	29.6	101.1	3.29	11.2	D
			C-SC603H9K	809 283 89	-	29.6	101.1	3.29	11.2	Dt
	10	171.2	C-SC753H9H	809 201 89	-	37.3	127.3	3.36	11.5	E
			C-SC753H9K	809 203 89	-	37.3	127.3	3.36	11.5	Et
	12	205.4	C-SC903H9H	809 221 89	-	44.4	151.6	3.31	11.3	E
			C-SC903H9T	809 225 89	-	44.3	151.2	3.31	11.3	Ht

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K

Rating Condition: Condensing Temperature 54.4℃, Evaporating Temperature 7.2℃, Sub Cooling 8.3K, Superheat 11.1K

■外观图 Outline Graph

C-SC 系列 Series

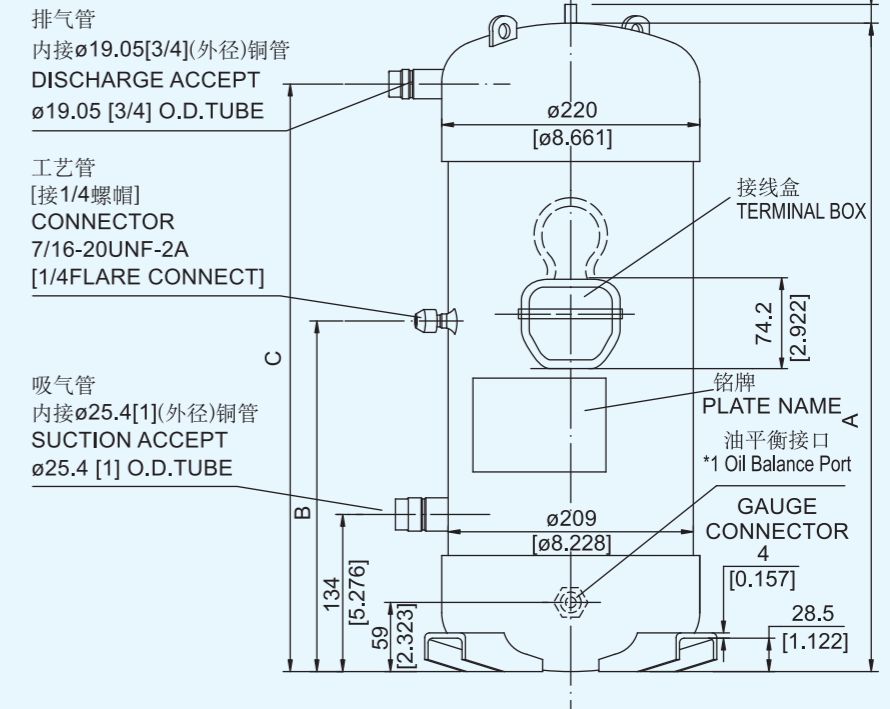
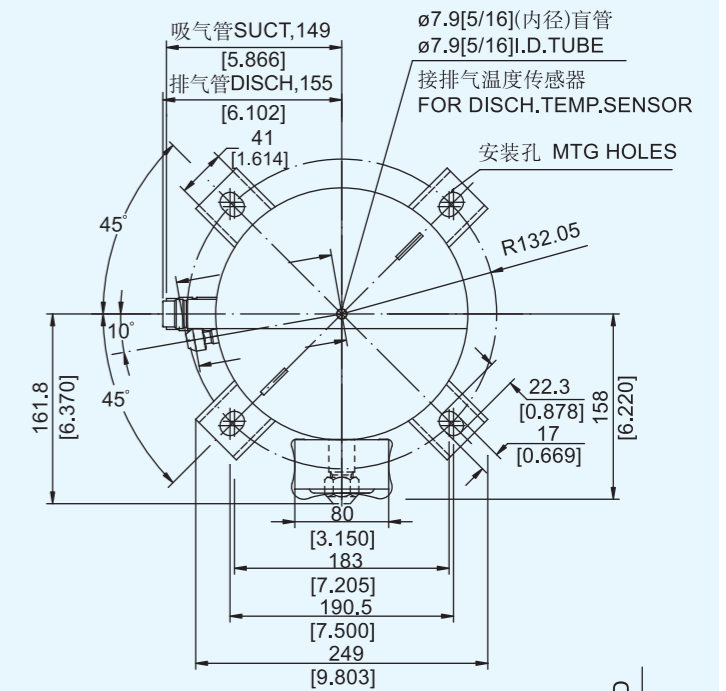
C 系列单机外观图
C Series-Single

代号 CODE	A	B	C	D
D	538 [21.18]	284 [11.18]	486 [19.13]	8 [0.31]
E	553 [21.77]	299 [11.77]	501 [19.72]	9 [0.35]

C 系列并联外观图
C Series-Tandem

代号 CODE	A	B	C	D
Dt	538 [21.18]	284 [11.18]	486 [19.13]	8 [0.31]
Et	553 [21.77]	299 [11.77]	501 [19.72]	9 [0.35]
Ft	568 [22.36]	314 [12.36]	516 [20.31]	11.8 [0.46]

*1 本并联机型附带并联接口。
The connection port of oil balance tube is attached to tandem model.

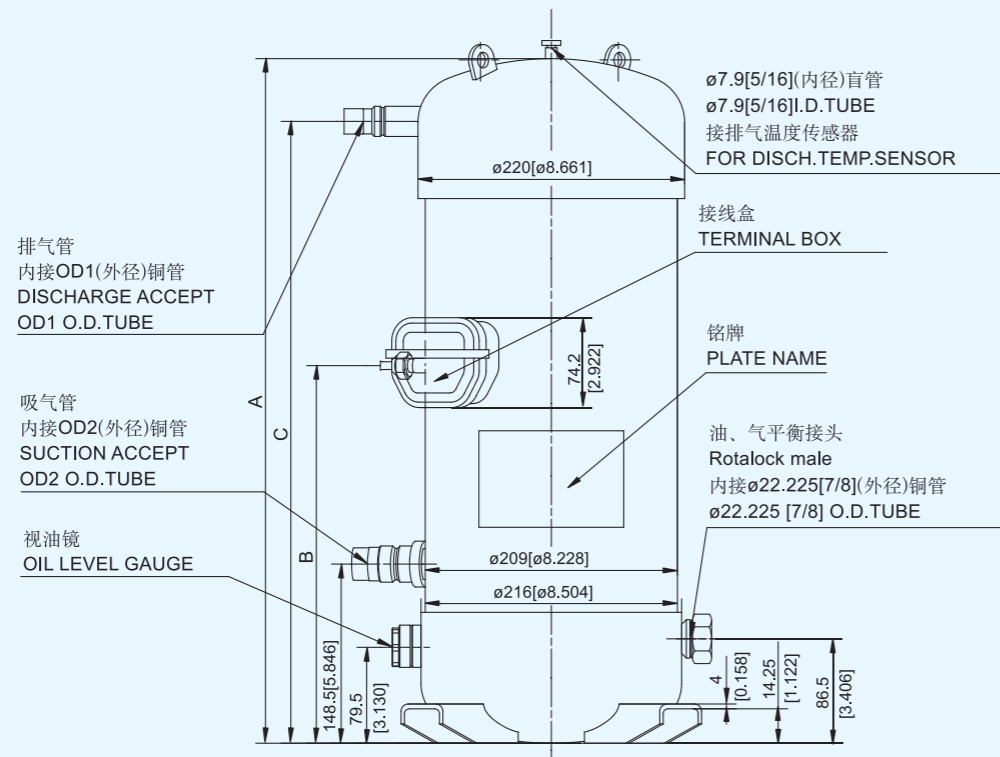
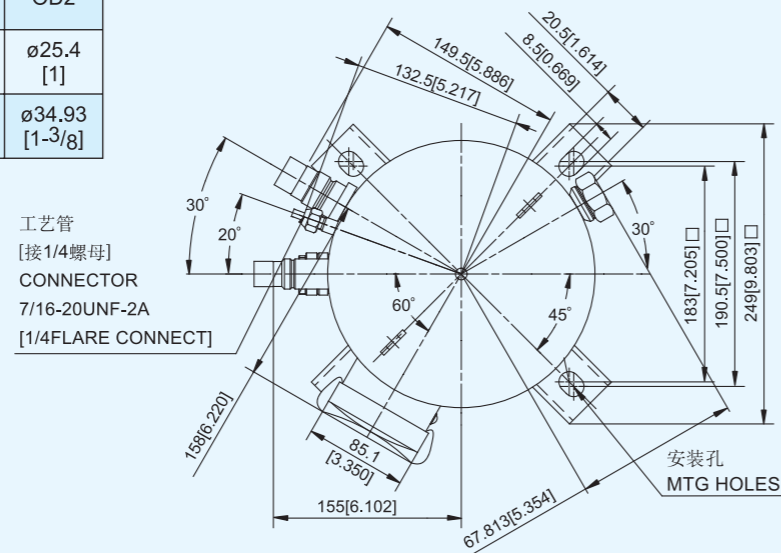


■外观图 Outline Graph

C-SC 系列 Series

C 系列并联外观图
C Series-Tandem

代号 CODE	A	B	C	OD1	OD2
Gt	552.5 [21.75]	298.5 [11.75]	500.5 [19.70]	ø19.05 [3/4]	ø25.4 [1]
Ht	567.5 [22.34]	313.5 [12.34]	515.5 [20.30]	ø22.23 [7/8]	ø34.93 [1-3/8]



■外观图 Outline Graph

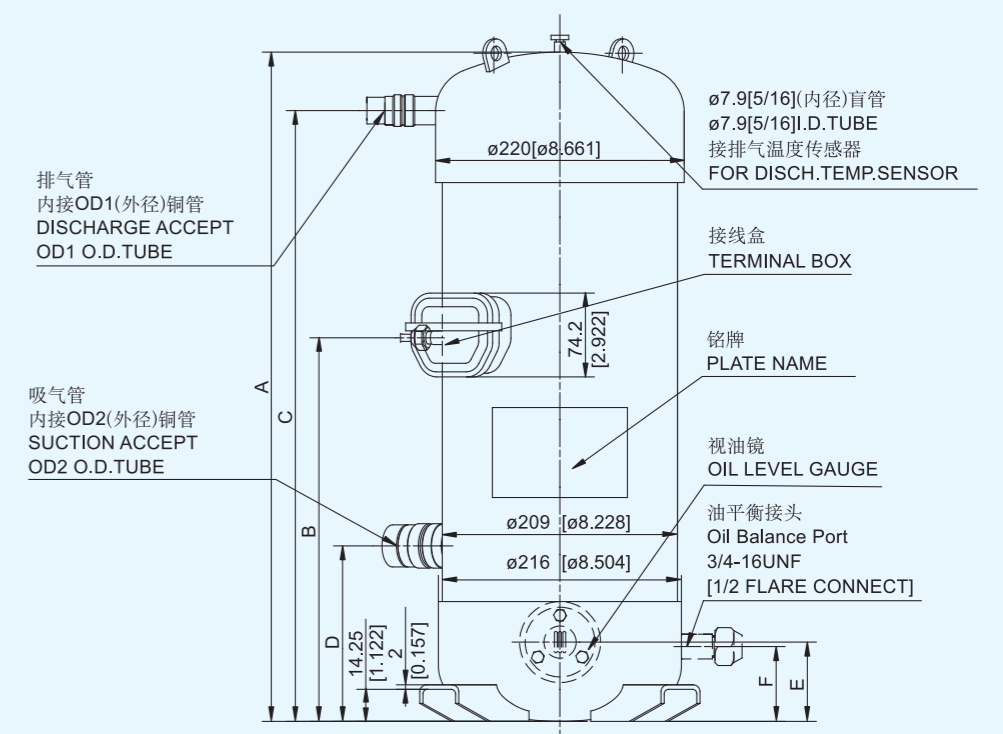
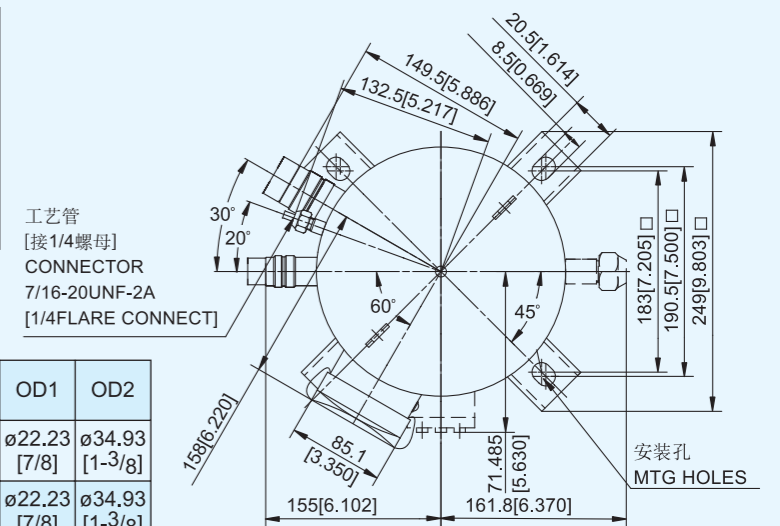
C-SC 系列 Series

C 系列单机外观图
C Series-Single

代号 CODE	A	B	C	D	OD1	OD2
M	568 [22.36]	314 [12.36]	516 [20.31]	134 [5.28]	ø22.23 [7/8]	ø34.93 [1-3/8]
N	553 [21.77]	299 [11.77]	501 [19.72]	134 [5.28]	ø22.23 [7/8]	ø34.93 [1-3/8]
P	553 [21.77]	299 [11.77]	501 [19.72]	134 [5.28]	ø19.05 [3/4]	ø25.4 [1]

C 系列并联外观图
C Series-Tandem

代号 CODE	A	B	C	D	E	F	OD1	OD2
Lt	595 [23.43]	341 [13.43]	543 [21.38]	156 [6.14]	70.5 [2.78]	66.5 [2.62]	ø22.23 [7/8]	ø34.93 [1-3/8]
Mt	568 [22.36]	314 [12.36]	516 [20.31]	134 [5.28]	—	59 [2.32]	ø22.23 [7/8]	ø34.93 [1-3/8]
Nt	553 [21.77]	299 [11.77]	501 [19.72]	134 [5.28]	—	59 [2.32]	ø22.23 [7/8]	ø34.93 [1-3/8]
Pt	553 [21.77]	299 [11.77]	501 [19.72]	134 [5.28]	—	59 [2.32]	ø19.05 [3/4]	ø25.4 [1]



■D系列涡旋压缩机 (内部高压型)

C-SD Series (Internal High Pressure Design)

特点

节能高效，全年能效效率(SEER,APF)出色；

负荷输出可平滑调节，并且不同转速下能效均较高；

空调并联（多联）和均油设计容易，机组结构简单；

空调快速冷热运转、高输出功率、机组小型化设计。

Saving energy with high efficiency, Annual Performance factor (APF) on a outstanding status;

Smooth capacity output, Energy efficiency keeps at high level under different rotation speed;

Easily connection and oil balance design on tandem and multi A/C system applications;

Quickly to achieve desired cooling and heating effect with high output capacity and compact units design.



电机样式

*DC无刷电机 集中卷线

*磁铁：稀土类磁铁

*极数：4或6极

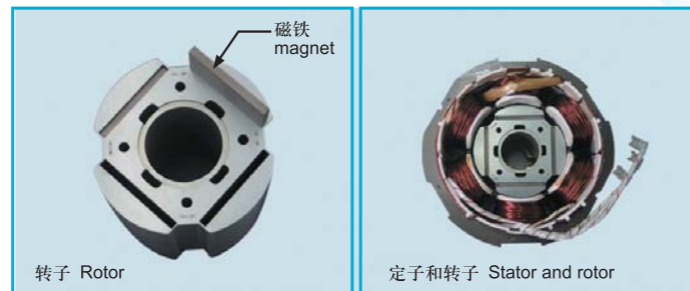
Motor Type:

*DC brushless motor,

*Magnet:Lanthanum magnet

Concentrated winding

*Pole: 4 or 6

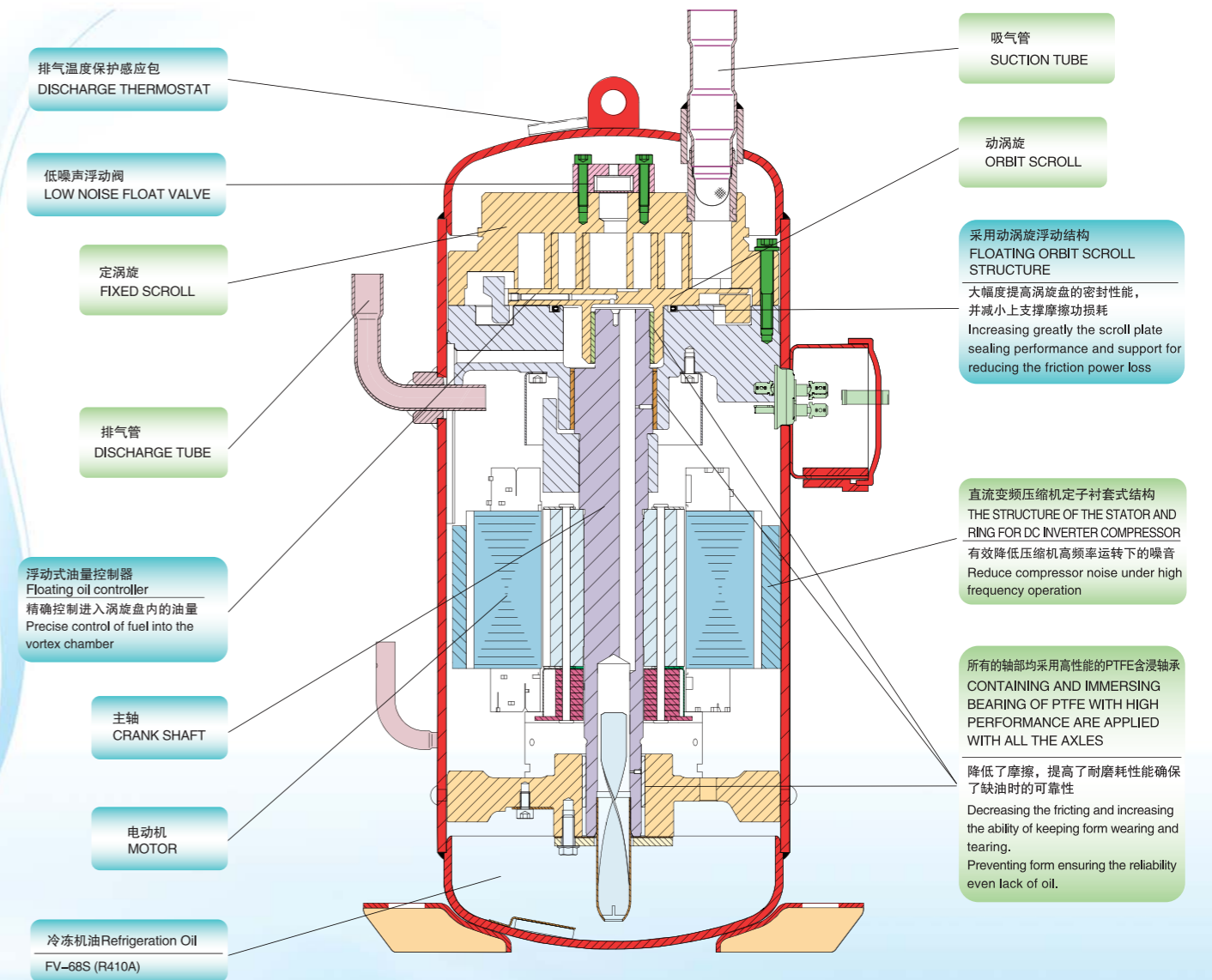


产品型谱 Product Line-up

制冷剂 Refrigerant	电制 Power Supply	电源 Phase	额定功率Output(HP)				
			5	6	7	10	12
R410A	DC Inverter	200-240V		★			
		380-415V		★		★	★
	50Hz 380-415V / 60Hz 440-460V	3 Phase	★	★	★		
		60Hz 230V	3 Phase	★	★	★	
	60Hz 380V	3 Phase	★	★	★		

■D系列涡旋压缩机内部结构图

C-SD Series Components



排气温度保护感应包
DISCHARGE THERMOSTAT

低噪声浮动阀
LOW NOISE FLOAT VALVE

定涡旋
FIXED SCROLL

排气管
DISCHARGE TUBE

浮动式油量控制器
Floating oil controller
精确控制进入涡旋盘内的油量
Precise control of fuel into the vortex chamber

主轴
CRANK SHAFT

电动机
MOTOR

冷冻机油Refrigeration Oil
FV-68S (R410A)

吸气管
SUCTION TUBE

动涡旋
ORBIT SCROLL

采用动涡旋浮动结构
FLOATING ORBIT SCROLL STRUCTURE
大幅度提高涡旋盘的密封性能，并减小上支撑摩擦功损耗
Increasing greatly the scroll plate sealing performance and support for reducing the friction power loss

直流变频压缩机定子衬套式结构
THE STRUCTURE OF THE STATOR AND RING FOR DC INVERTER COMPRESSOR
有效降低压缩机高频率运转下的噪音
Reduce compressor noise under high frequency operation

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 friction and increasing the ability of keeping form wearing and tearing.
Preventing form ensuring the reliability even lack of oil.

使用工质 Refrigerant R410A

*如需采用其他制冷剂，请与我公司联系确认。
For more information about other refrigerants products, please contact with us.

■D系列涡旋压缩机-R410A C-SD Series Scroll Compressor for R410A

■DC Inverter

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	电源电压 Input Power Source	启动 方式 Starting Method	90 rps				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
-	6	42.3	C-SDP205H02B	380-415V	DC Inv	21.2	72.2	3.20	10.9	St
			C-SDP205H03B	200-240V		21.2	72.2	3.20	10.9	St
	10	66.8	C-SDP067H02B	380-415V		33.2	113.4	3.20	10.9	-
	12	80.5	C-SDP081H02B	380-415V		40.0	136.6	3.2	10.9	-

■B8 (50Hz 380-415V / 60Hz 440-460V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	kW	kBTU/h	W/W	BTU/Wh	
3	5	55.7	C-SDP180H38B	-	-	14.5	49.5	3.00	10.2	18.0	61.5	3.10	10.6	Rt
	6	66.8	C-SDP205H38B	-	-	16.9	57.7	3.00	10.2	21.2	72.4	3.10	10.6	Qt
	7	74.4	C-SDP225H38B	-	-	18.8	64.2	2.95	10.1	23.0	78.5	3.00	10.2	Qt

■B6 (60Hz 230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	5	55.7	C-SDP180H36B	-	-	18.0	61.50	3.1	10.6	Rt
	6	66.8	C-SDP205H36B	-	-	21.2	72.4	3.1	10.6	Qt
	7	74.4	C-SDP225H36B	-	-	23.00	78.50	3.00	10.24	Qt

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	60Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	5	55.7	C-SDP180H39B	-	-	18.00	61.50	3.10	10.58	Rt
	6	66.8	C-SDP205H39B	-	-	21.2	72.4	3.10	10.6	Qt
	7	74.4	C-SDP225H39B	-	-	23.00	78.50	3.00	10.24	Qt

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K

Rating Condition: Condensing Temperature 54.4℃, Evaporating Temperature 7.2℃, Sub Cooling 8.3K, Superheat 11.1K

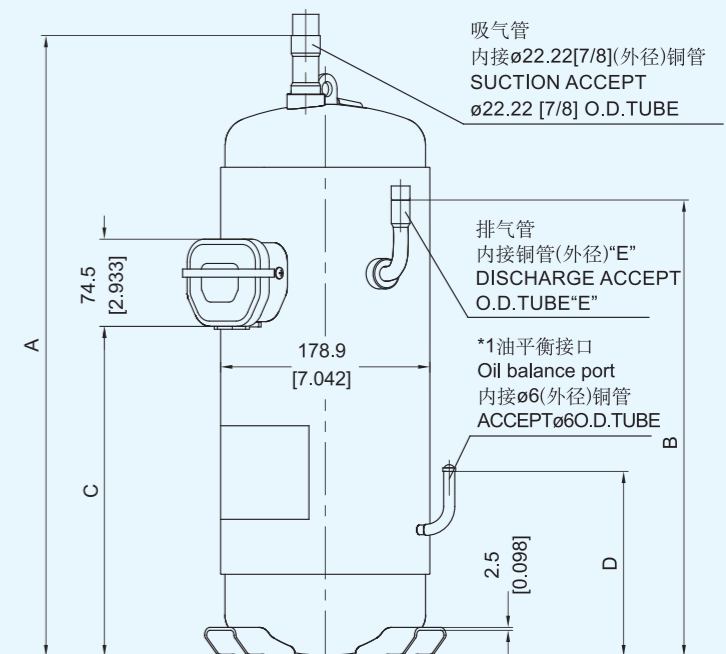
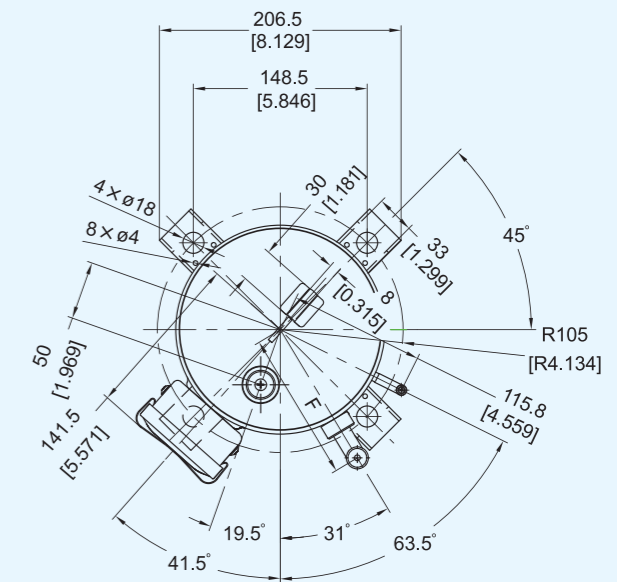
■外观图 Outline Graph

C-SD 系列 Series

D 系列单机外观图
D Series

代号 CODE	A	B	C	D	E	F
Qt	531.0 [20.91]	390.4 [15.37]	282.4 [11.12]	158.4 [6.24]	ø12.7 [1/2]	125 [4.92]
Rt	526.4 [20.72]	390.4 [15.37]	282.4 [11.12]	158.4 [6.24]	ø12.7 [1/2]	125 [4.92]
St	478.7 [18.85]	344.7 [13.57]	237.2 [9.34]	157.7 [6.21]	ø12.7 [1/2]	125 [4.92]

*1 本机型附带并联接口。
The connection port of oil balance tube is attached to this model.



■ E系列涡旋压缩机 C-SE Series

特点

轴向柔性，利用定涡旋浮动密封结构，提高能效；同时防止液击及杂质损坏，提高可靠性
径向柔性，利用可动偏心，提高能效
机构复杂，液体及杂质容忍度提高

Features:

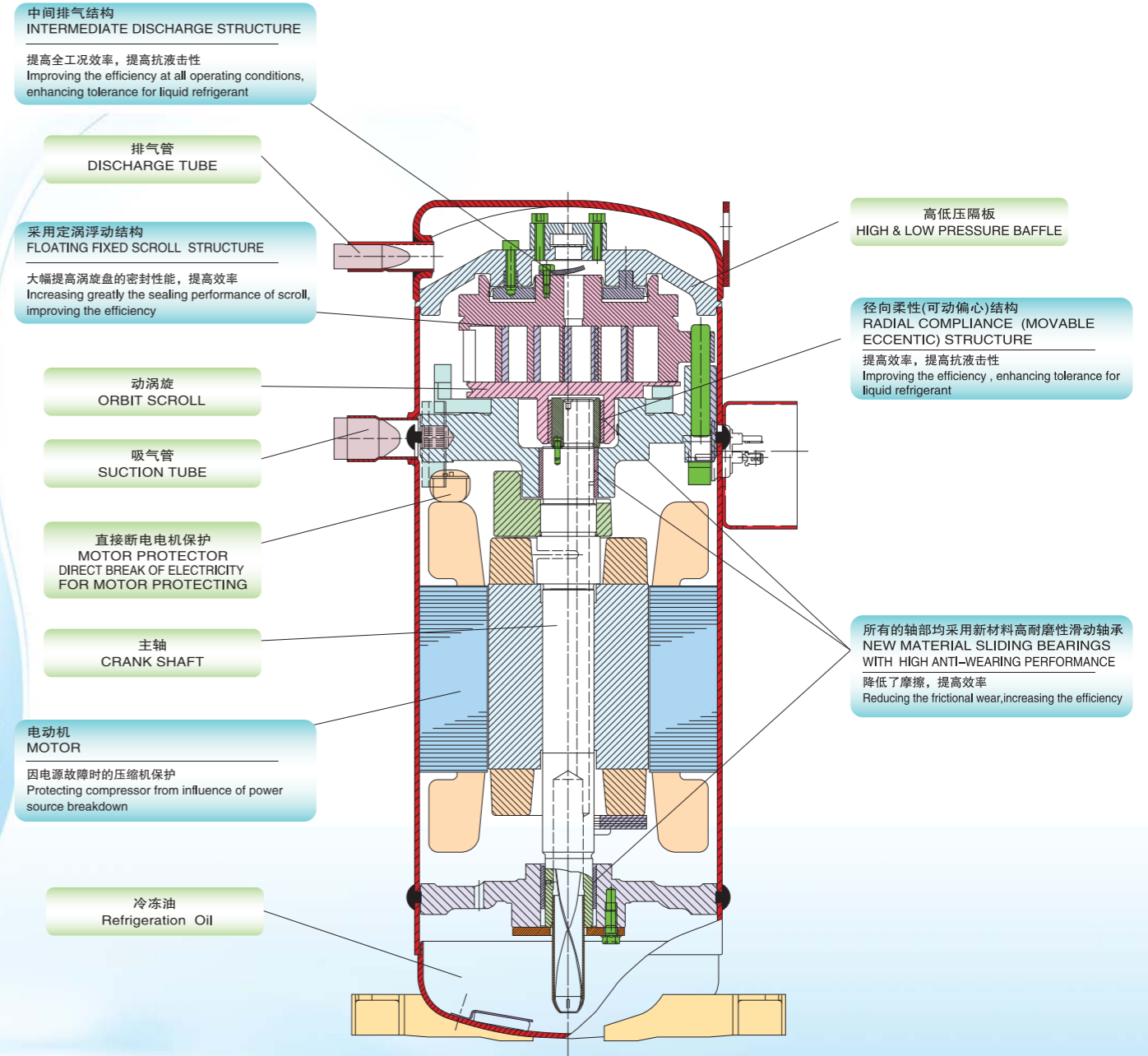
Axial compliance design, fixed scroll floating sealing structure, improve the efficiency;
Radial compliance design, improve the efficiency
High tolerance for liquid refrigerant and contaminants, improve the reliability



产品型谱 Product Line-up

制冷剂 Refrigerant	电制 Power Supply	电源 Phase	额定功率Output(HP)								
			3.5	3.7	4	4.3	4.5	4.8	5.3	6	
R410A	50Hz 380-415V	三相3 Phase	★	★	★	★	★	★	★	★	★
	60Hz 208-230V	三相3 Phase		★	★	★	★	★	★	★	★
	60Hz 380V	三相3 Phase		★	★	★	★	★	★	★	★
R407C	50Hz 380-415V	三相3 Phase	★		★	★					
R22	50Hz 380V	三相3 Phase				★					

■ E系列涡旋压缩机内部结构图 C-SE Series Components



使用工质 Refrigerant R22/R407C/R134a/R410A

*如需采用其他制冷剂，请与我公司联系确认。
For more information about other refrigerants products, please contact with us.

■E系列涡旋压缩机-R410A C-SE Series Scroll Compressor for R410A

■B8 (50Hz 380-415V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh		
3	3.5	39.1	C-SEP120H38C	-	-	10.00	34.1	3.00	10.2	V	designing
	3.7	42.5	C-SEP130H38A	-	-	11.00	37.6	3.05	10.4	V	designing
			C-SEP130H38C	-	-	10.80	36.9	3.00	10.2	V	designing
	4	46.6	C-SEP140H38A	-	-	12.10	41.3	3.05	10.4	V	designing
			C-SEP140H38C	-	-	12.10	41.3	3.00	10.2	V	designing
	4.3	48.5	C-SEP150H38A	-	-	12.50	42.7	3.05	10.4	V	designing
			C-SEP150H38C	-	-	12.30	42.0	3.00	10.2	V	designing
	4.5	51.1	C-SEP160H38A	-	-	13.30	45.4	3.05	10.4	V	designing
			C-SEP160H38C	-	-	13.20	45.1	3.00	10.2	V	designing
	4.8	55.5	C-SEP170H38A	-	-	14.40	49.2	3.05	10.4	V	designing
			C-SEP170H38C	-	-	14.50	49.5	3.00	10.2	V	designing
	5.3	58.5	C-SEP180H38C	-	-	15.10	51.6	3.10	10.6	V	designing
6	67.0	C-SEP205H38A	-	-	17.30	59.1	3.10	10.6	V	designing	

注：压缩机型号A结尾代表铜线电机，C结尾代表铜包铝线电机

■B6 (60Hz 208-230V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh		
3	3.7	42.5	C-SEP130H36A	-	-	13.10	44.7	3.05	10.4	V	designing
	4	46.6	C-SEP140H36A	-	-	14.30	48.8	3.05	10.4	V	designing
	4.3	48.5	C-SEP150H36A	-	-	14.90	50.9	3.05	10.4	V	designing
	4.5	51.1	C-SEP160H36A	-	-	15.70	53.6	3.10	10.6	V	designing
	4.8	55.5	C-SEP170H36A	-	-	16.80	57.4	3.10	10.6	V	designing
	5.3	58.5	C-SEP180H36A	809 451 86	-	18.30	62.5	3.17	10.8	V	designing
6	67.0	C-SEP205H36A	-	-	20.60	70.3	3.10	10.6	V	designing	

■B9 (60Hz 380V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh		
3	3.7	42.5	C-SEP130H39A	-	-	13.20	45.1	3.05	10.4	V	designing
	4	46.6	C-SEP140H39A	-	-	14.50	49.5	3.05	10.4	V	designing
	4.3	48.5	C-SEP150H39A	-	-	14.90	50.9	3.05	10.4	V	designing
	4.5	51.1	C-SEP160H39A	-	-	15.90	54.3	3.10	10.6	V	designing
	4.8	55.5	C-SEP170H39A	-	-	17.30	59.1	3.15	10.8	V	designing
	5.3	58.5	C-SEP180H39A	-	-	18.40	62.8	3.20	10.9	V	designing
6	67.0	C-SEP205H39A	-	-	21.20	72.4	3.20	10.9	V	designing	

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K
Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat11.1K

■E系列涡旋压缩机-R407C C-SE Series Scroll Compressor for R407C

■B8 (50Hz 380-415V)

相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code	
						制冷量 Capacity		COP			
						kW	kBTU/h	W/W	BTU/Wh		
3	3.5	55.5	C-SES120H38A	-	-	10.30	35.2	3.10	10.6	V	designing
	4	67.0	C-SES140H38A	-	-	12.40	42.3	3.10	10.6	V	designing
	4.3	70.6	C-SES150H38A	-	-	13.00	44.4	3.20	10.9	V	designing

■E系列涡旋压缩机-R22 C-SE Series Scroll Compressor for R22

■B8 (50Hz 380V)

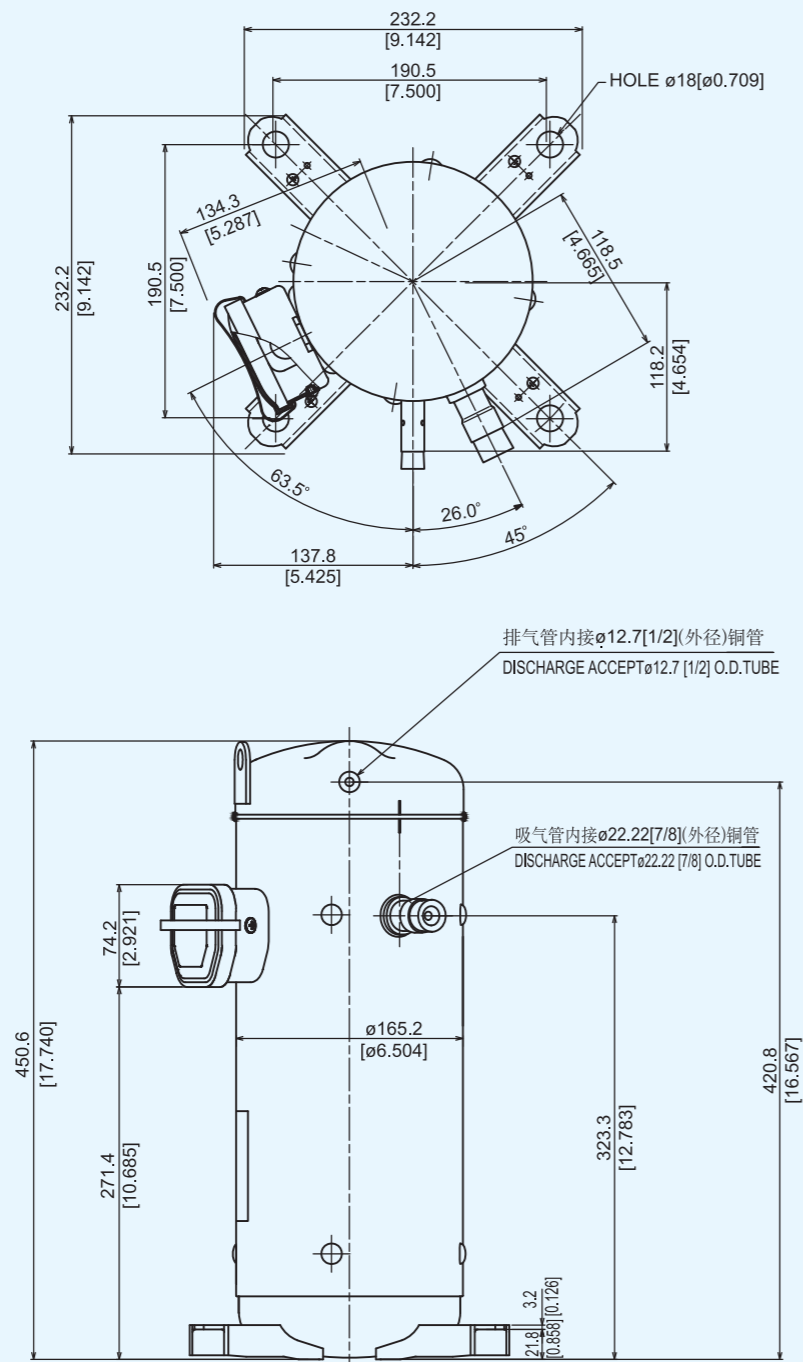
相 Phase	额定功率 Out Put HP	排气量 Displacement cm ³ /rev	压缩机型号 Compressor Model	压缩机代号 Compressor Code	启动 方式 Starting Method	50Hz				外观图代号 Outline Graph Code
						制冷量 Capacity		COP		
						kW	kBTU/h	W/W	BTU/Wh	
3	4.3	70.6	C-SE320H8A	809 441 88	-	13.00	44.4	3.47	11.8	V

测试工况：冷凝温度54.4℃，蒸发温度7.2℃，过冷度8.3K，过热度11.1K(R407C过热度9K)
Rating Condition: Condensing Temperature54.4℃, Evaporating Temperature7.2℃, Sub Cooling8.3K, Superheat11.1K(9K for R407C)

■外观图 Outline Graph

C-SE 系列 Series

代号 CODE
V



■户式中央空调的核心

THE HEART OF RESIDENTIAL & LIGHT COMMERCIAL AIR CONDITIONING

并联系列 Tandem Series

能力范围由 7HP ~ 30HP

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 30HP

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

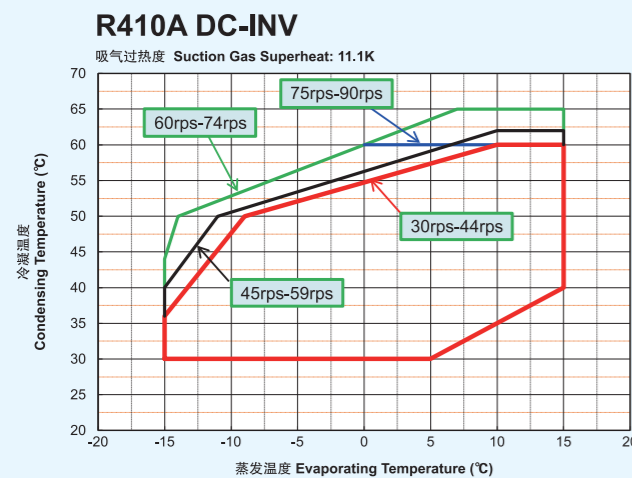
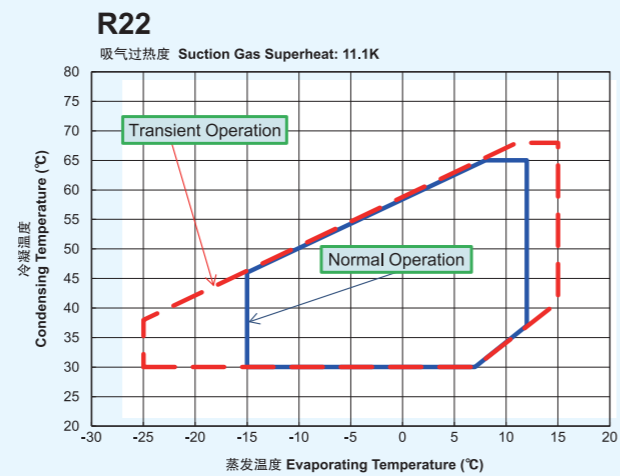
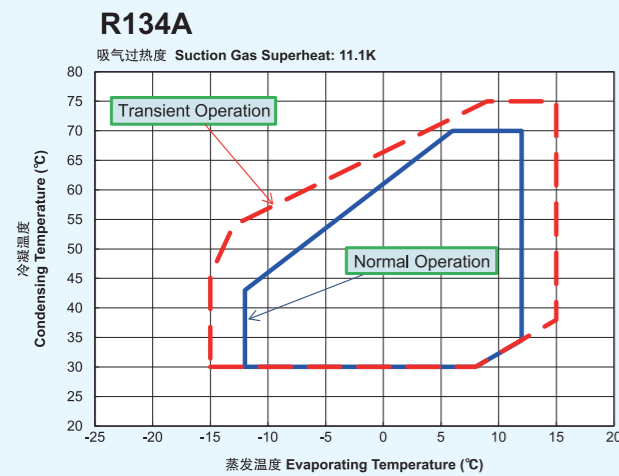
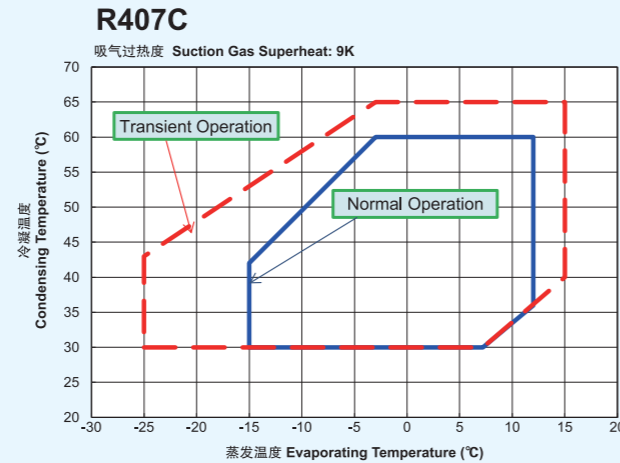
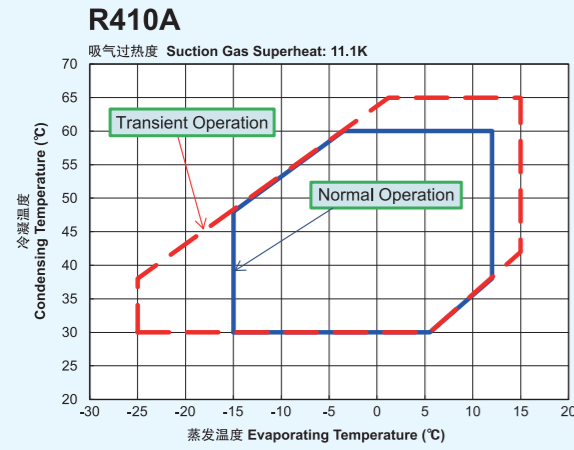
C-SC 系列 Series



C-SB 系列 Series



■ 运转范围 Operating Envelope



注：实际运转范围图，请见产品使用规格书。
tips: Please view compressor specifications for the detailed operating envelope.

■ R410A 机型使用标准·使用极限 APPLICATION STANDARD & LIMIT(R410A)

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	R410A		
2	蒸发温度范围 Evaporating Temp.	-15 ~ +12℃/[5 ~ 54°F] 0.38 ~ 1.05MPa(G)/[55 ~ 152psig]	-25 ~ +15℃/[-13 ~ 59°F] 0.23 ~ 1.15MPa(G)/[33 ~ 167psig]	压力指吸气压力 Compressor Suction Pressure
3	冷凝温度范围 Condensing Temp.	+30 ~ +60℃/[86 ~ 140°F] 1.78 ~ 3.75MPa(G)/[258 ~ 544psig]	+65℃/[149°F] 4.18MPa(G)/[606psig]	压力指排气压力 Compressor Discharge Pressure
4	压缩比 Compression Ratio	2 ~ 6	8	
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.		运转时 When compressor is running
		下限: 环境温度+11K/[20°F] 以上 Lower Limit:Ambient Temp.+11K/[20°F] Min.		停机时 When compressor 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	压缩机上盖中部的铜管内排气温度保护器的检测温度 Inside of the well pipe on the top of compressor
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 compressor 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 compressor 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: 0.94 Specific gravity of the Oil:0.94
13	启停频度 Life Time	20 万个周期 200,000 cycles		
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-SC: 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: 4.15MPa(G)/[602psig] 以下 Pressure Rise:4.15MPa(G)/[602psig] Max.		高压开关设定值 By high pressure switch
		压力下降: 0.15MPa(G)/[22psig] 以上 Pressure Drop:0.15MPa(G)/[22psig] 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 0.1 Vol.% Max.		抽真空 24 小时以后绝对压力应在 1.01kPa 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我公司的认可。Operation beyond the above limits must be approved by our company.

(G): 表压 Gauge Pressure

■ DC-INV R410A 机型使用标准 Application Standard & Limit (R410A DC Inverter)

为正确使用直流变频涡旋压缩机, 对其使用标准、使用极限作如下规定 The following requirements apply to DC Inverter driven vertical type hermetic scroll compressors:使用标准值: 适用于常用条件下(日本 JIS B8616, 与 JIS B8616 相关的标准、过载、低温条件下的商品运转条件)的运转。Standard: Applicable to ordinary conditions in Japan JIS B8616 or standards relative to JIS B8616, such as standard rating conditions, maximum operating conditions, low temperature conditions, etc.

序号 No.	项目 Item	使用标准值 Standard	备注 Note
1	制冷剂 Refrigerant	R410A	
2	蒸发温度 Evaporating Temp.	-15 ~ +15℃ 0.38 ~ 1.15MPa(G)	压力指吸气压力 Comp. suction pressure
3	冷凝温度 Condensing Temp.	65℃以下 Max. ~ 4.18MPa(G)	压力指排气压力 Comp. discharge pressure
4	压缩比 Compression Ratio	2 ~ 8(启动、除霜等除外) 2 ~ 8(not apply to start, defrost conditions)	
5	电动机绕组温度 Winding Temp.	120℃ 以下 Max.	
6	压缩机外壳底部温度 Shell Bottom Temp.	100℃以下 Max. 冷凝温度+0.5K以上 Condensing Temp.+0.5K Min.(comp.running)	
7	排气温度 Discharge Gas Temp.	115℃ 以下 Max.	压缩机排气管后 10cm 位置温度或者上盖盲孔管内温度 10cm within discharge port or inside of the well pipe on top case
8	吸气温度 Suction Gas Temp.	吸气过热度在5K 以上 Superheat:5K Min.	压缩机入口 30cm 以内位置的吸气管温度。 Within 30cm of the suction fitting.
9	变频器输入电压(运转时) Input Voltage to Inverter(running)	额定电压 ±20% Rated Voltage ±20%	运转时变频器输出电压 Output Voltage of DC Inverter (running)
10	变频器输入电压(启动时) Input Voltage to Inverter (starting)	三相: 额定电压 85% 以上 Three Phase Models: 85% of the rated voltage min.	指在启动电流升高, 电压下降时的变频器电压 Dropped voltage to inverter
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 specified level	1周期: 10 分钟以上 停止: 3分钟以上; 运转: 5分钟以上; 'One cycle: 10 mins.For at least 5 minutes-on/3 minutes-off is recommendable.
		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.	
12	制冷剂注入量 Refrigerant Charge	制冷剂充入量应尽量少(油/制冷剂重量比推荐为0.35以上) oil/refrigerant(wt.) ≥ 0.35	油比重: 0.94 Specific gravity of the Oil: 0.94
13	启停频度 Life Time	20 万个周期 200,000 cycle	
14	压缩机内油面 Minimum Oil Level	不低于压缩机下轴承的下端面 No less than the bottom of the lower bearing	
15	异常升压/降压 Abnormal Pressure Rise/Drop	压力上升: 4.15MPa(G) 以下 Pressure Rise: 4.15MPa(G) Max.	高压开关设定值 By high pressure switch
		压力下降: 0.15MPa(G) 以上 Pressure Drop: 0.15MPa(G) Min.	低压开关设定值 By low pressure switch
16	水份 System Moisture Level	制冷回路中水份要求在 200ppm 以下 200ppm Max. 使用干燥时推荐右侧部件	推荐品: 干燥器 SANYO 产 D-S 型式
17	不凝性气体 System Uncondensable Gas Level	制冷回路中不凝性气体要求在 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 0.1 Vol.% Max.	抽真空 24 小时以后绝对压力应在 1.01kPa 以下 24 hrs. after vacuuming: 1.01kPa Max.
18	倾斜角度 Tilt	压缩机倾斜最大 5° 以内 5° Deg. Max.	

■ 超出以上极限范围的运转必须得到我公司的认可。Operation beyond the above limits must be approved by our company.

(G): 表压 Gauge Pressure

■ R407C 机型使用标准 · 使用极限 APPLICATION STANDARD & LIMIT (R407C)

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	R407C		
2	蒸发温度范围 Evaporating Temp.	-15 ~ +12℃/[5 ~ 54°F] 0.20 ~ 0.65MPa(G)/[29 ~ 94psig]	-25 ~ +15℃/[-13 ~ 59°F] 0.07 ~ 0.73MPa(G)/[10 ~ 106psig]	蒸发器入口、出口平均温度 Average temp. of evaporator inlet and outlet.
3	冷凝温度范围 Condensing Temp.	+30 ~ +60℃/[86 ~ 140°F] 1.17 ~ 2.56MPa(G)/[170 ~ 371psig]	+65℃/[149°F] 2.88MPa(G)/[418psig]	冷凝器入口、出口平均温度 Average temp. of condensor inlet and outlet.
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.		运转时 When compressor is running
		下限: 环境温度+11K/[20°F] 以上 Lower Limit: Ambient Temp.+11K/[20°F] Min.		停机时 When compressor 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	压缩机上盖中部的铜管内排气温度保护器的检测温度 Inside of the well pipe on the top of compressor
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 compressor 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 compressor 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: 0.94 Specific gravity of the Oil: 0.94
13	启停频度 Life Time	20 万个周期 200,000 cycles		
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-SC: 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: 3.20MPa(G)/[464psig] 以下 Pressure Rise: 3.20MPa(G)/[464psig] Max.	高压开关设定值 By high pressure switch	
		压力下降: 0.05MPa(G)/[7.3psig] 以上 Pressure Drop: 0.05MPa(G)/[7.3psig] 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 0.1 Vol.% Max.		抽真空 24 小时以后绝对压力应在 1.01kPa 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我公司的认可。Operation beyond the above limits must be approved by our company.

(G): 表压 Gauge Pressure

■ R134a 机型使用标准·使用极限 APPLICATION STANDARD & LIMIT(R134a)

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	R134a		
2	蒸发温度范围 Evaporating Temp.	-12 ~ +12℃/[10 ~ 54°F] 0.09 ~ 0.34MPa(G)/[13 ~ 49psig]	-15 ~ +15℃/[5 ~ 59°F] 0.06 ~ 0.39MPa(G)/[9 ~ 57psig]	压力指吸气压力 Compressor Suction Pressure
3	冷凝温度范围 Condensing Temp.	+30 ~ +70℃/[86 ~ 158°F] 0.67 ~ 2.02MPa(G)/[97 ~ 293psig]	+75℃/[167°F] 2.26MPa(G)/[328psig]	压力指排气压力 Compressor 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.		运转时 When compressor is running
		下限: 环境温度+11K/[20°F] 以上 Lower Limit:Ambient Temp.+11K/[20°F] Min.		停机时 When compressor shuts off
7	排气温度 Discharge Gas Temp.	115℃/[240°F] 以下 Max	C-SB:115℃/[240°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:115℃/[240°F]以下 Max	压缩机上盖中部的铜管内排气温度保护器的检测温度 Inside of the well pipe on the top of compressor
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 compressor 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 compressor 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: 0.94 Specific gravity of the Oil:0.94
13	启停频度 Life Time	20 万个周期 200,000 cycles		
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-SC: 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: 2.40MPa(G)/[348psig] 以下 Pressure Rise:2.40MPa(G)/[348psig] Max.		高压开关设定值 By high pressure switch
		压力下降: 0.03MPa(G)/[4.35psig] 以上 Pressure Drop:0.03MPa(G)/[4.35psig] 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 0.1 Vol.% Max.		抽真空 24 小时以后绝对压力应在 1.01kPa 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我公司的认可。Operation beyond the above limits must be approved by our company.

(G): 表压 Gauge Pressure

■ 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 Compressor 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 Compressor 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.		运转时 When compressor is running
		下限: 环境温度+11K/[20°F] 以上 Lower Limit:Ambient Temp.+11K/[20°F] Min.		停机时 When compressor 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	压缩机上盖中部的铜管内排气温度保护器的检测温度 Inside of the well pipe on the top of compressor
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 compressor 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 compressor 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 cycles		
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-SC: 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 0.1 Vol.% Max.		抽真空 24 小时以后绝对压力应在 1.01kPa 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我公司的认可。Operation beyond the above limits must be approved by our company.

(G): 表压 Gauge Pressure

■压缩机命名法 Model Nomenclatures

① C-SB、C-SBN、C-SC、C-SCV、C-SCN、C-SCVN 型 Type

C-XXXX	AA	B	C	D	E
开发代号 Design Code					
A ~					
电源 Power Source					
0: 变频 Inverter 200V ± 20% 输入电压 Input Voltage					
1: 变频 Inverter 400V ± 20% 输入电压 Input Voltage					
3: 50Hz 200V/60Hz 200,220V					
5: 50Hz 220,230,240V					
6: 60Hz 208,230V					
8: 50Hz 380,415V/60Hz,440V					
9: 60Hz 380V					
用途 Application					
H: 高温用 High Back Pressure					
L: 低温用 Low Back Pressure					
电源(相数) Power Source(Phase)					
1: 1相 Single Phase					
3: 3相 Single Phase					
表示输出功率 Output					
AA × 100 W					
压缩机制品区分 Compressor Type					
C-SB: B系列涡旋压缩机 (HCFC 22)					
C-SBN: B系列涡旋压缩机 (HFC)					
C-SC: C系列涡旋压缩机 (HCFC 22)					
C-SCV: C系列变频涡旋压缩机 (HCFC 22)					
C-SCN: C系列涡旋压缩机 (HFC)					
C-SCVN: C系列变频涡旋压缩机 (HFC)					

② C-SBR、C-SBV、C-SBX、C-SBS、C-SBP、C-SCR、C-SCX、C-SCS、C-SCP、C-SDP 型 Type

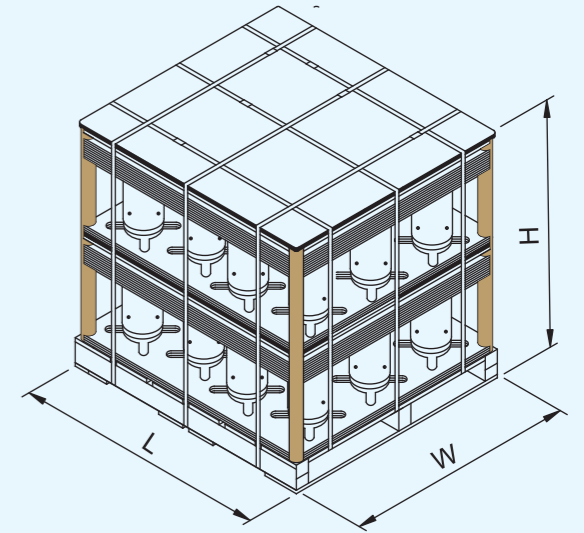
C-XXX	AAA	B	CC	D
开发代号 Design Code				
A ~				
电源 Power Source				
00: 交流变频 AC Inverter 400V ± 20% 输入电压 Input Voltage				
01: 交流变频 AC Inverter 200V ± 20% 输入电压 Input Voltage				
02: 直流变频 DC Inverter 400V ± 20% 输入电压 Input Voltage				
03: 直流变频 DC Inverter 200V ± 20% 输入电压 Input Voltage				
15: 单相 Single Phase 50Hz 220V,230V,240V				
16: 单相 Single Phase 60Hz 208V,230V				
33: 三相 Three Phase 50Hz 200V/60Hz 200V,220V				
35: 三相 Three Phase 50Hz 220V,230V,240V				
36: 三相 Three Phase 60Hz 208V,230V				
38: 三相 Three Phase 50Hz 380V,415V/60Hz 440V				
39: 三相 Three Phase 60Hz 380V				
用途 Application				
H: 高温用 High Back Pressure				
L: 低温用 Low Back Pressure				
名义制冷量 Nominal Capacity				
AAA × 100 W (60Hz)/(变频机型 For Inverter Type: 90Hz)				
压缩机制品区分 Compressor Type				
C-SBR: B系列涡旋压缩机 (HCFC 22)				
C-SBX: B系列高效涡旋压缩机 (HCFC 22)				
C-SBS: B系列高效涡旋压缩机 (HFC 407C)				
C-SBP: B系列高效涡旋压缩机 (HFC 410A)				
C-SCR: C系列涡旋压缩机 (HCFC 22)				
C-SCX: C系列高效涡旋压缩机 (HCFC 22)				
C-SCS: C系列高效涡旋压缩机 (HFC 407C)				
C-SCP: C系列高效涡旋压缩机 (HFC 410A)				
C-SDP: D系列高效涡旋压缩机 (HFC 410A)				

注意 Notes

- 压缩机在开封状态下, 请勿放置15分钟以上。
Installation should be completed within 15 minutes after removing the rubber plugs.
- 请勿压缩空气。Do not use the compressor to compress air.
- 在真空状态下请勿通电。Do not energize the compressor under vacuum condition.
- 抽真空和制冷剂充注: 由制冷系统的高低压两侧同时抽真空, 由冷凝器的出口侧充入液态制冷剂。追加制冷剂需以气态形式由低压侧充入。
Evacuation and Refrigerant charge: Evacuate internal section in the refrigeration system from high and low pressure sides and charge liquid refrigerant from condenser outlet side. Additional charge shall be done with gas condition from low side.
- 搬运时请勿倾斜和滑落。Do not tilt over the compressor while carrying it.
- 请勿划伤保护漆。Do not remove the paint.
- 当使用标准中第6项不能保证时, 需要加装曲轴箱加热器。
Crankcase heater is required when the oil sump temperature is too low to meet the requirement of item 6.
- 运转时, 各相间的电压偏差应在额定电压的2%以内。
Voltage fluctuation between compressor terminals, during operation, shall be within 2% of the rated voltage.
- 请勿反向运转。Do not operate compressor in reverse rotational direction.
- 建议加装吸气过滤器。Suction strainers are recommended for all applications.
- 铜管应力 Copper Piping Stress
开机 Start/停止 Shutdown 34.32 N/mm² 最大 Max.
运转 Run 12.26 N/mm² 最大 Max.

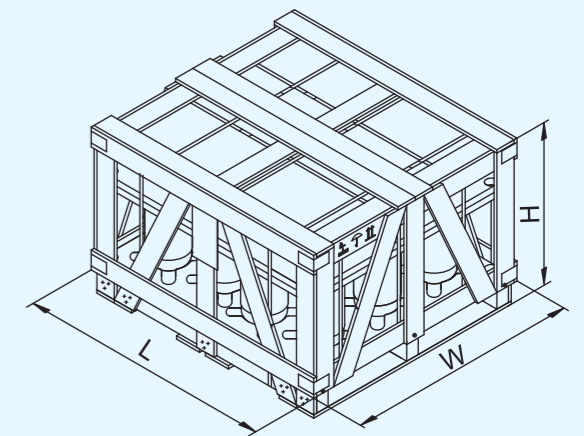
■包装 Packing

B系列 series	标准包装 Standard Package (24台) (24units)	尺寸 Dimension (mm)	L	1100	1100
			W	1000	1000
			H	1086	1120
	代表型号 Typical model	80985088	C-SBV180H00A		
集装箱 FCL (20")	包装箱数 Packages in total	24台包装箱 24units Package	20	20	
备注 Remark	最大2层运输及存贮 Two layers both for transportation and storage(at most)				



B系列外包装图(24台包装)
B series Packaging Drawing (24units Package)

B系列 series	单层包装 Small Package (12台) (12units)	尺寸 Dimension (mm)	L	1148	1148
			W	1030	1030
			H	740	740
	代表型号 Typical model	80985068	C-SBR180H38Q		
集装箱 FCL (20")	包装箱数 Packages in total	12台包装箱 12units Package	30	30	
备注 Remark	最大3层运输及存贮 Three layers both for transportation and storage(at most)				

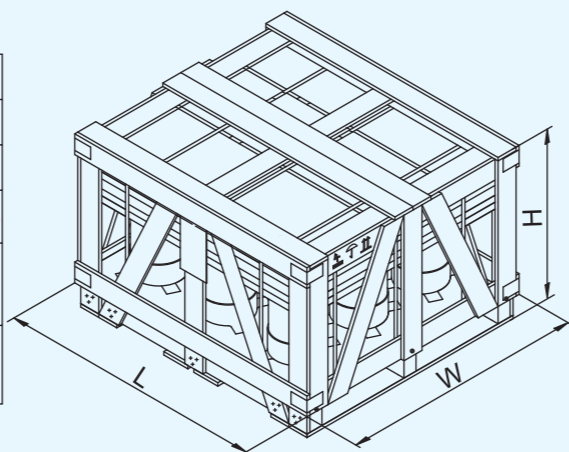


B系列外包装图(12台包装)
B series Packaging Drawing (12units Package)

注: 此包装只针对指定机型使用。
Note: This packing is only applied to specified models.

■ 包装 Packing

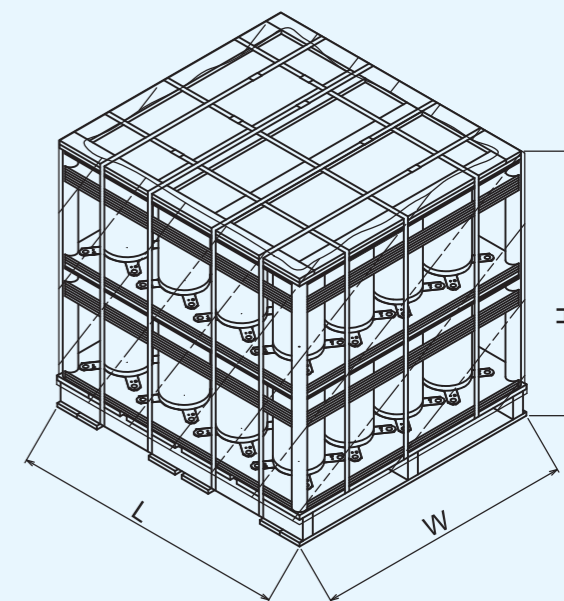
C 系列 series	标准包装 Standard Package (9台 9units)	尺寸 Dimension (mm)	L	1160	1160	1160
			W	1060	1060	1060
			H	760	775	795
	代表型号 Typical model	C-SC903H8H	C-SCX435H38B	C-SCP510H38B		
集装箱 PCL (20")	包装箱数 Packages in total	9台包装箱 9units Package	30	30	30	
备注 Remark	最大3层运输及存贮 Three layers both for transportation and storage(at most)					



C系列外包装图
C series Packaging Drawing

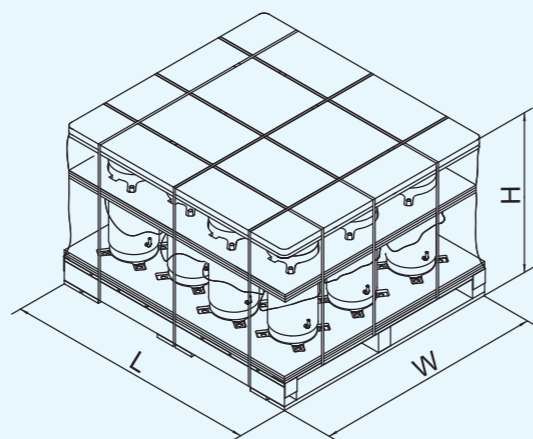
■ 包装 Packing

E 系列 series	标准包装 Standard Package (32台 32units)	尺寸 Dimension (mm)	L	W	H
			1100	1030	1090
	集装箱 FCL (20")	包装箱数 Packages in total	20		
备注 Remark	最大2层运输及存贮 Two layers both for transportation and storage(at most)				



E系列外包装图
E Series Packaging Drawing

D 系列 series	标准包装 Standard Package (12台 12units)	尺寸 Dimension (mm)	L	1100	1100
			W	1000	1000
			H	660	700
	代表型号 Typical model	C-SDP205H02B	C-SDP205H38B		
集装箱 FCL (20")	包装箱数 Packages in total	12台包装箱 12units Package	30	30	
备注 Remark	最大3层运输及存贮 Three layers both for transportation and storage(at most)				



D系列外包装图
D series Packaging Drawing