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Made in China, Loved by the World



珠海格力电器股份有限公司
Gree Electric Appliances, Inc. of Zhuhai

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高效水冷系列 螺杆式制冷压缩机

HIGH EFFICIENCY WATER-COOLED
SERIES SCREW REFRIGERATION COMPRESSOR



公司简介

Company Profile

珠海格力电器股份有限公司成立于1991年，是一家多元化、科技型的全球工业集团，立足工业和消费品领域，产品远销160多个国家及地区。

2010年初，格力电器对外宣告掌握核心科技的决心与信心，开始了转型升级以及产业部署。通过自主研发、创新科技，为用户提供了品质卓越的新型工业制品。截止目前，已成功开发出包括新能源汽车空调、精密变频水冷机、高效水冷系列螺杆压缩机、工业交互终端、LED工业照明灯具、能源管理系统、户用储能在内的10个系列、51种规格的产品，完全满足不同工业场合的应用需求。

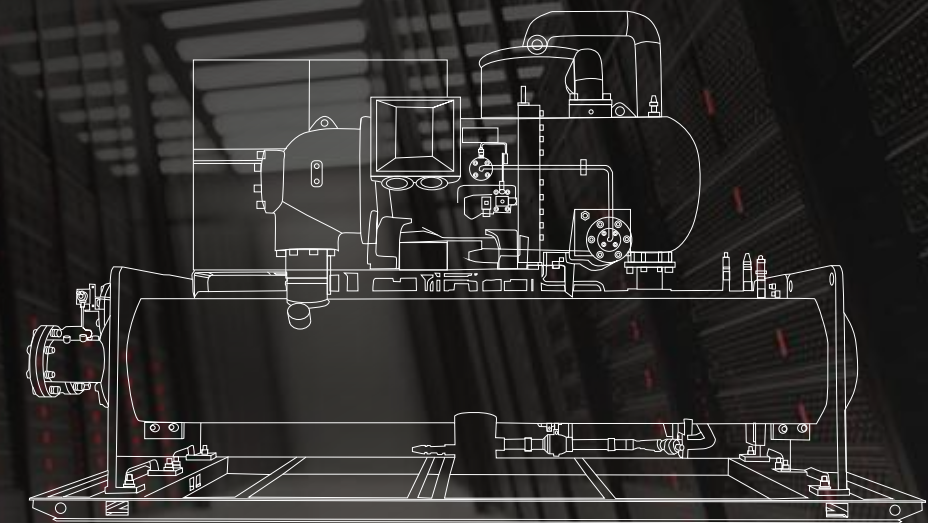
Gree Electric Appliances, Inc. of Zhuhai was founded in 1991. Now it has grown into a diversified technological global industrial group that has expanded its business to industrial and consumer goods. Gree products are sold widely to more than 160 countries and regions. Put forward the slogan of "mastering the core technology" as early as 2010, Gree began to think about the business transformation and upgrading, as well as carry out the new industrial layout. Through independent R&D and technological innovation, the company has provided the users with a series of high-quality new industrial products. So far, Gree has successfully developed 10 series and 51 specifications of products, including the new energy vehicle air conditioning, precision inv. water chiller, high efficiency water-cooled screw compressor, industrial interactive terminal, LED industrial light, G-IEMS and household energy storage, which can be fully applicable to different industrial fields.

产品简介

Product Introduction

我司为响应国家环保政策，研发高效水冷系列螺杆压缩机，采用R134a环保制冷剂。该压缩机遵循啮合原理，采用全新下置滑阀结构，确保压缩机达到最高的效率，具有高效节能的优势，广泛应用于大型商场、酒店、工厂、医院等商用领域。

To respond to the national policy about environmental protection, Gree develops the high efficiency water-cooled series screw compressors using R134a eco-friendly refrigerant. Designed with a new down-setting slide valve structure, the compressors have the advantages of high efficiency and energy saving in accordance with the theory of engagement, and are widely used in the commercial fields of shopping malls, hotels, factories and hospitals, etc.

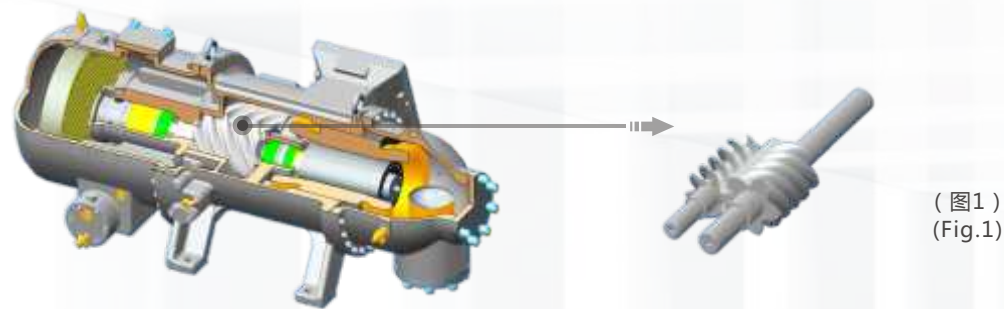


产品特点

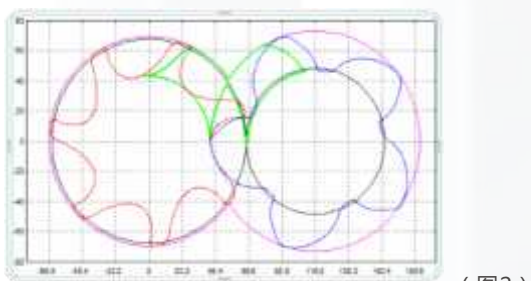
Product Features

高效节能 Energy Efficient

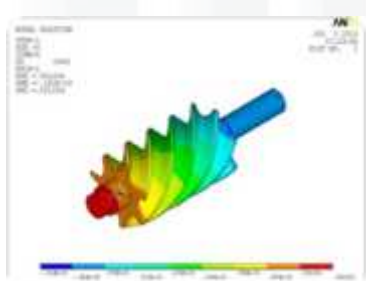
- 最新一代转子齿形，容积效率更高（见图1、图2、图3）
The latest generation of rotor profile for higher volume efficiency (See Figure1, Figure 2 and Figure 3) ;



(图1)
(Fig.1)

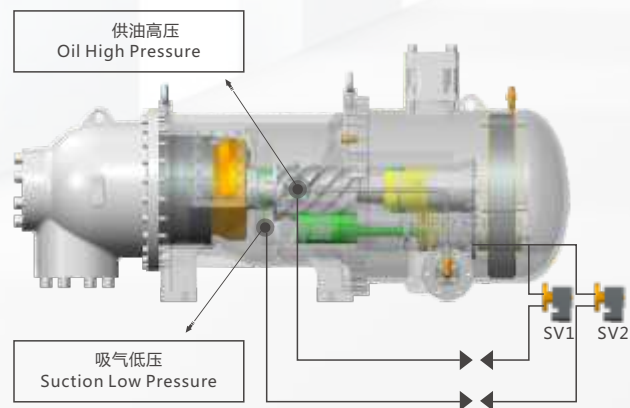


转子线性图 Rotor Linear Diagram
(图2)
(Fig.2)



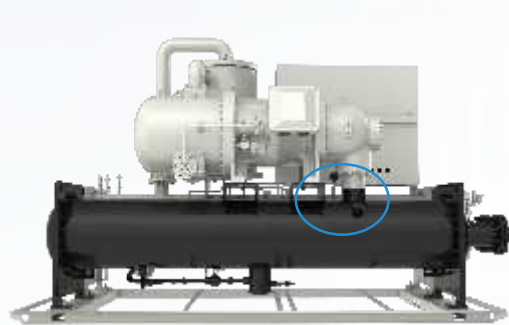
转子模型图 Rotor Model Diagram
(图3)
(Fig.3)

- 应用可靠性高、性能优越的容量调节系统，容量调节可实现25%~100%（见图4）
The highly reliable and superior capacity control system can adjust the displacement to 25% ~ 100%(Figure 4);

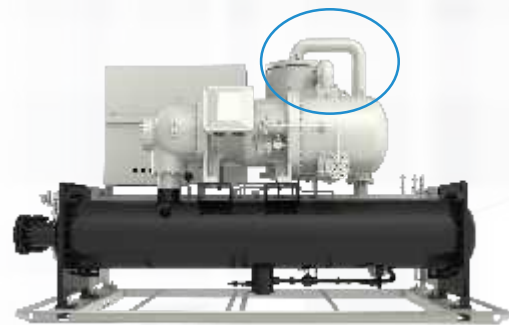


(图4)
(Fig.4)

- 采用“蒸发直连”进气结构和排气低压损管路设计，减少阻力带来的损失（见图5）
The suction port is connected directly between compressor and evaporator with the shortest distance, and the discharge port uses a special pressure piping design to reduce the loss caused by resistance(Figure 5);



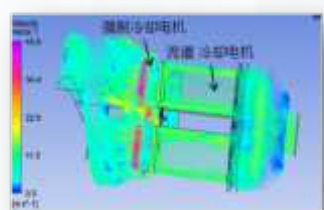
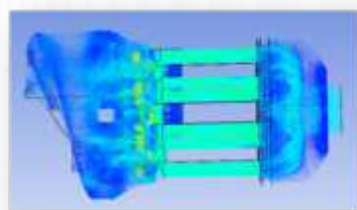
低压损进气示意图
Suction Diagram



低压损排气示意图
Discharge Diagram

(图5)
(Fig.5)

- 内置强制冷却结构，降低压缩机运行过程中绕组的温度见（图6）
The internal cooling configuration is mandatory, to reduce the winding temp. during the operation(Figure 6);



强制冷却结构示意图
Forced Cooling Structure Diagram
(图6)
(Fig.6)

- 独创高效补气增焓技术，降低补气过程中的振动和噪声
The unique technology of increasing enthalpy by vapor injection is adopted to reduce the noise and vibration;
- 搭载高效电机，保证压缩机在运行范围的极限点能够长期可靠的运行
Equipped with the high-efficiency motor, the compressor can run reliably for a long period in a limit operating condition.

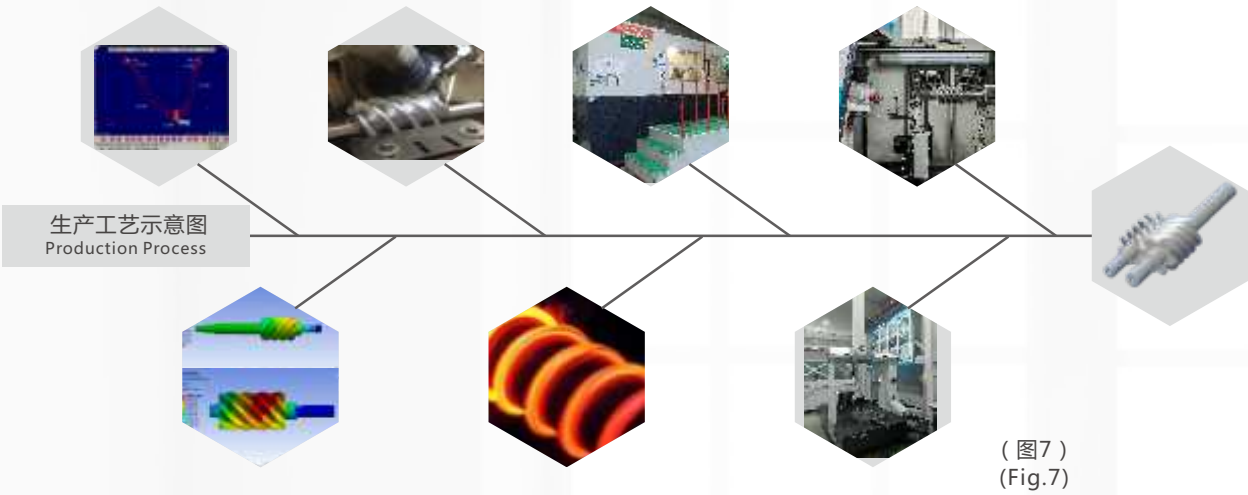


产品特点

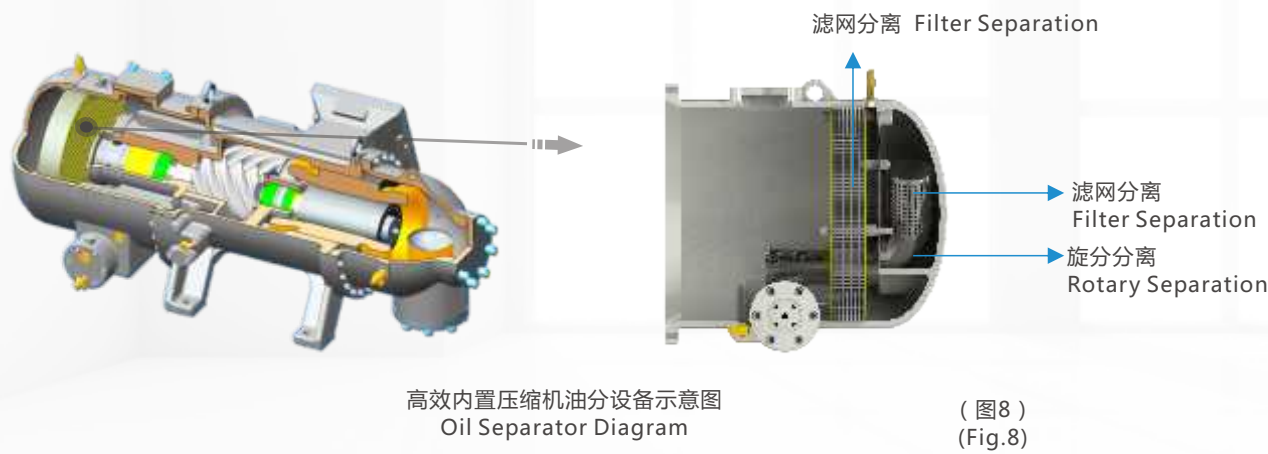
Product Features

高可靠性 High Reliability

- 采用进口SKF轴承，可靠性高，寿命长，压缩机运行更加平稳
Imported SKF bearing has high reliability and long life, the compressor can keep running more stably;
- 拥有先进的生产工艺和精密测量仪，保证装配零件高精度要求（见图7）
With advanced manufacturing process and precision guage to ensure that the parts can be assembled accurately(Figure 7);



- 特殊设计油活塞及滑阀结构，容量调节更加灵活可靠
Unique design of oil piston and slide valve structure, the capacity control is more flexible and dependable;
- 内置高效压缩机油分设备，优化排气流道设计，气体分布更加均匀（见图8）
The internal high-efficiency oil separator can optimize the design of discharge pipe and make the gas distribution more uniform(Figure 8);



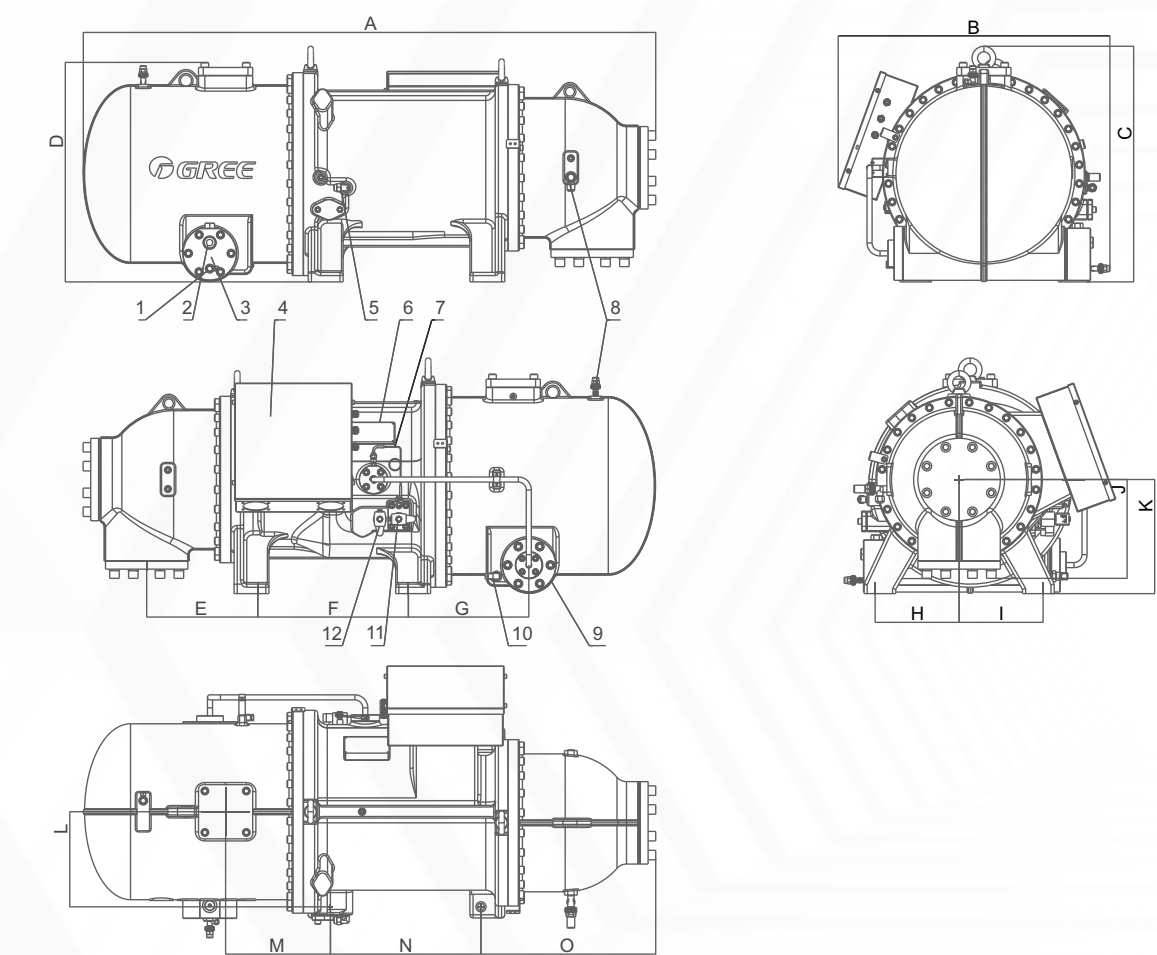
- 应用高精密油过滤器，提供良好的润滑环境，延长压缩机的使用寿命
Apply high precision oil filter to provide good lubricating performances and prolong the life of the compressor;
- 低损耗的硅钢片铁芯，保证电机在恶劣工况下也能长期运行
The use of low-loss silicon steel sheet iron core, ensuring that the motor can operate under severe conditions for a long time;
- 具备完善的压缩机保护装置，提高整机可靠性
Equipped with perfect compressor protections to improve the reliability of the whole machine.

选型规格 (Model Specification)

机 型(Model)	LG422/Nb	LG432/Nb	LG512/Nb	LG532/Nb	LG712/Nb	LG732/Nb	LG822/Nb	LG832/Nb
电源种类 Power Source	380V±10% 3-50Hz							
电机功率(kW) Motor Power	68	68	96	96	112	112	145	145
排气量(m3/h) Displ.	355	384	460	505	585	663	750	795
能量调节 Cooling Capacity Regulator	无级（25-100%）冷量调节 The stepless adjustment can be made in the range of 25-100%.							
运行范围 Operation Range	蒸发温度：-15℃~20℃，冷凝温度：20℃~50℃ Evaporating temp. :-15℃~20℃，Condensing temp.：20℃~50℃							
保护装置(W) Protector	电机高温保护，排气高温保护，过载保护，缺相保护，逆相保护 Motor high temp. protection/ Overheat, overload, lack-phase, inverse phase protections for displacement							
油加热器 Oil Heater	220V-300W-50Hz							
制冷剂 Refrigerant	R134a							
润滑油(L) Lubricating Oil	CPI-SOLEST-170							
	20	20	23	23	23	23	28	28
重量(kg) Weight	700	700	855	860	1000	1005	1110	1120
最大启动电流(A) Maximum Starting Current	830	1010	1160	1160	1400	1400	1510	1510
最大运行电流(A) Maximum Running Current	108	120	143	152	175	204	235	246
外观尺寸(mm) Dimension	1606*762*590		1671*795*593		1794*785*713		1806*857*743	

外形尺寸

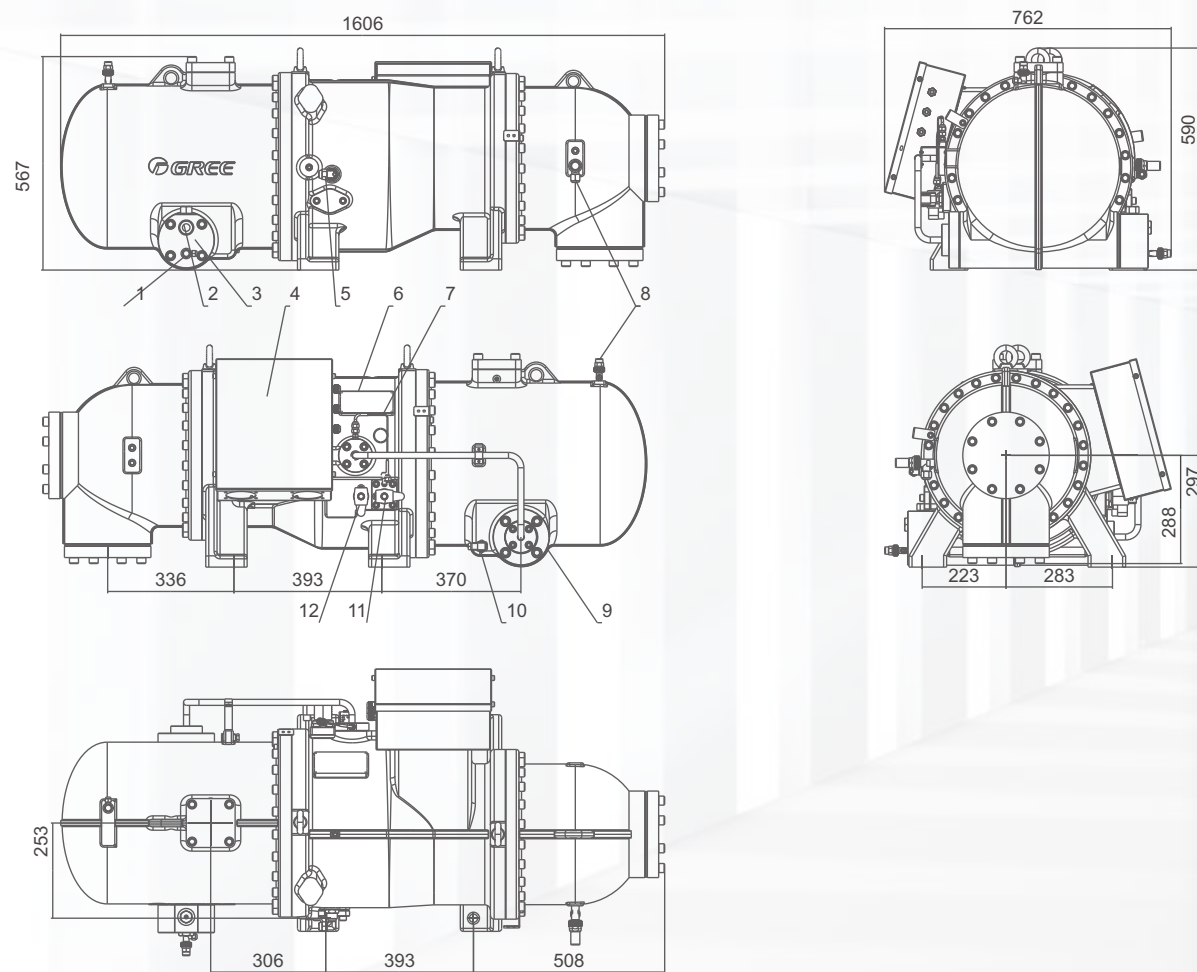
Outline Dimension



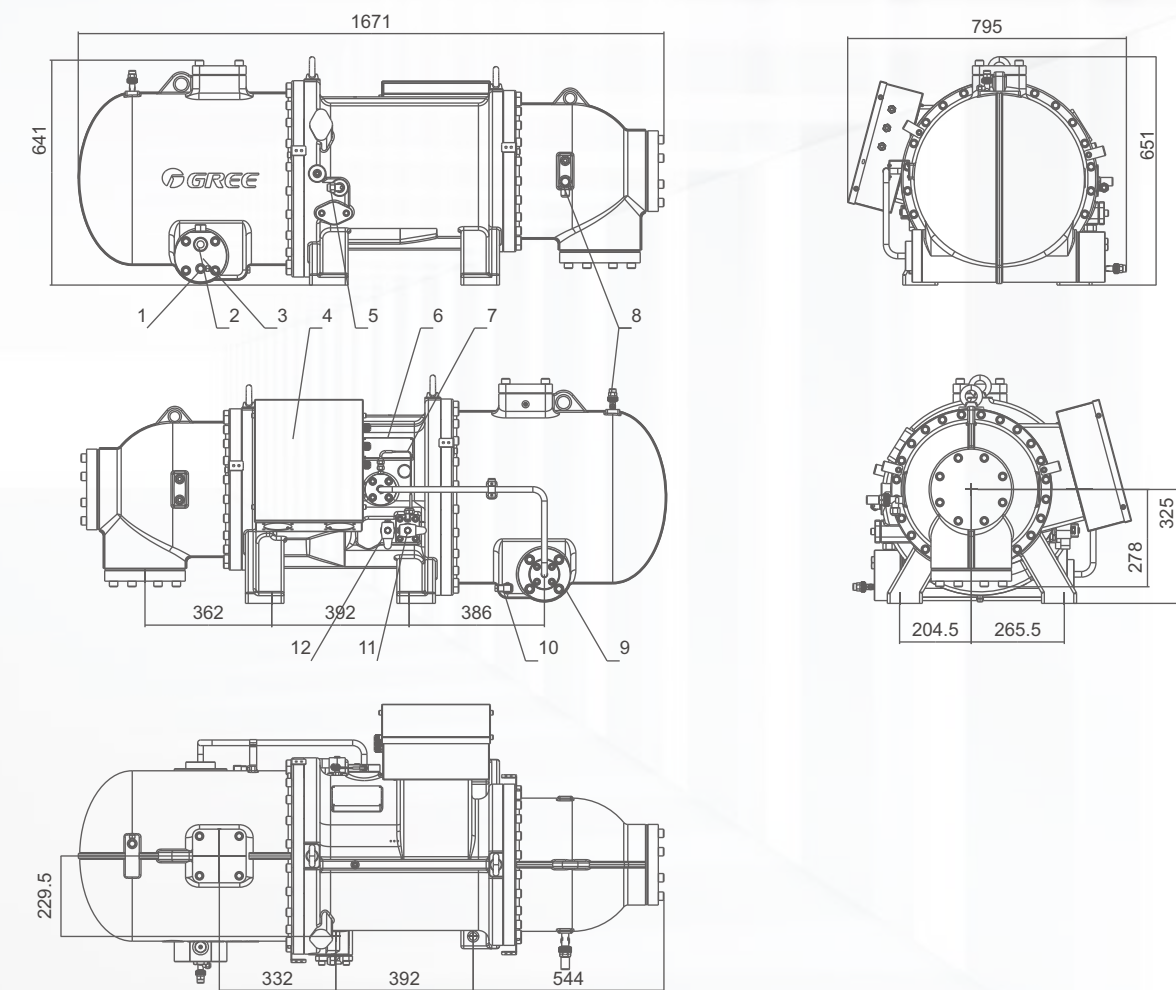
机 型(Model)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
LG422/Nb、LG432/Nb	1606	762	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606
LG512/Nb、LG532/Nb	1671	795	1671	1671	1671	1671	1671	1671	1671	1671	1671	1671	1671	1671	1671
LG712/Nb、LG732/Nb	1794	785	1794	1794	1794	1794	1794	1794	1794	1794	1794	1794	1794	1794	1794
LG822/Nb、LG832/Nb	1806	857	1806	1806	1806	1806	1806	1806	1806	1806	1806	1806	1806	1806	1806

序号S/N	名称Name	备注Remark	序号S/N	名称Name	备注Remark
1	泄油阀 Oil drain valve	R3/8"	8	锥螺纹截止阀 Taper thread shut-off valve	R3/8"、R1/2"
2	视液镜 Sight glass	R1"	9	油过滤器部件 Oil filter part	1"
3	液位开关 Liquid level switch	标配 Standard	10	电热元件 Electric heating element	标配 Standard
4	接线盒 Junction box	\	11	电磁阀 Solenoid valve	100%
5	直角接头 Right-angle connector	NPT 1/2 "	12	电磁阀 Solenoid valve	25%
6	铭牌 Nameplate	\	13	温度传感器 Thermal sensor	NPT1/8"
7	节流组件 Throttle components	φ2.4*φ1.24*800			

外观示意图 Outline Drawing

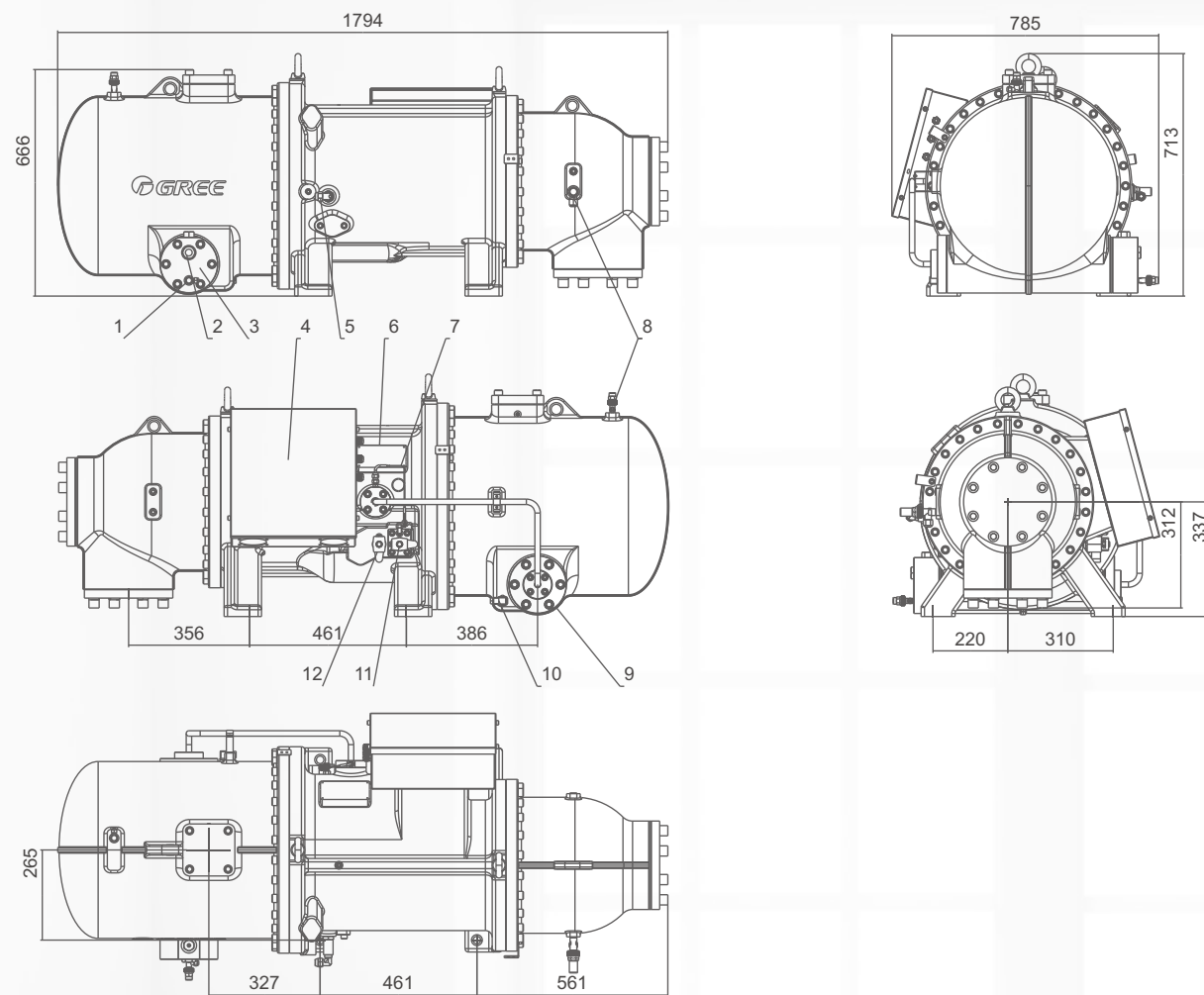


机型(Model) : LG422/Nb, LG432/Nb

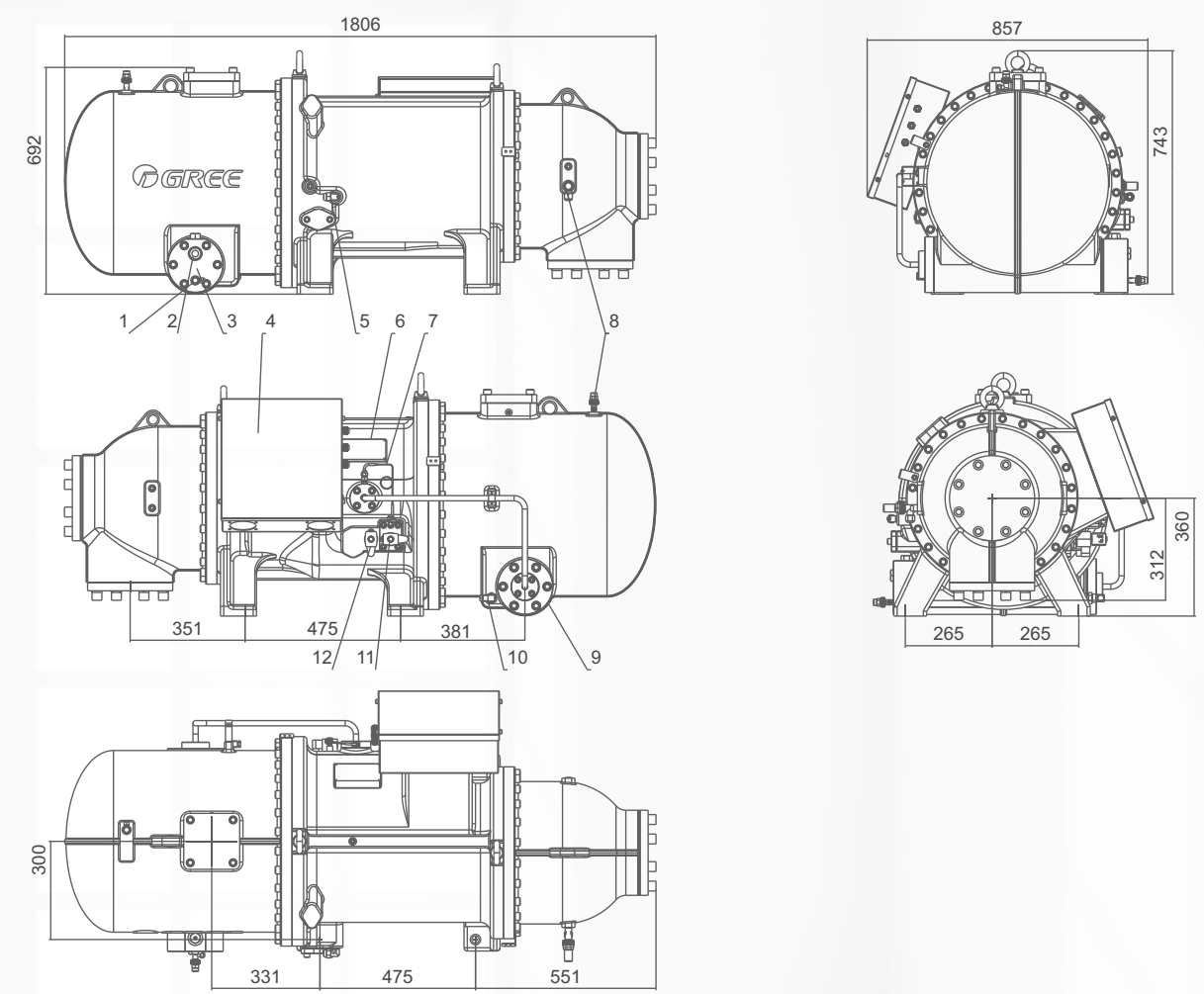


机型(Model) : LG512/Nb, LG532/Nb

外观示意图
Outline Drawing



机型(Model) : LG712/Nb, LG732/Nb



机型(Model) : LG822/Nb, LG832/Nb

安装方式

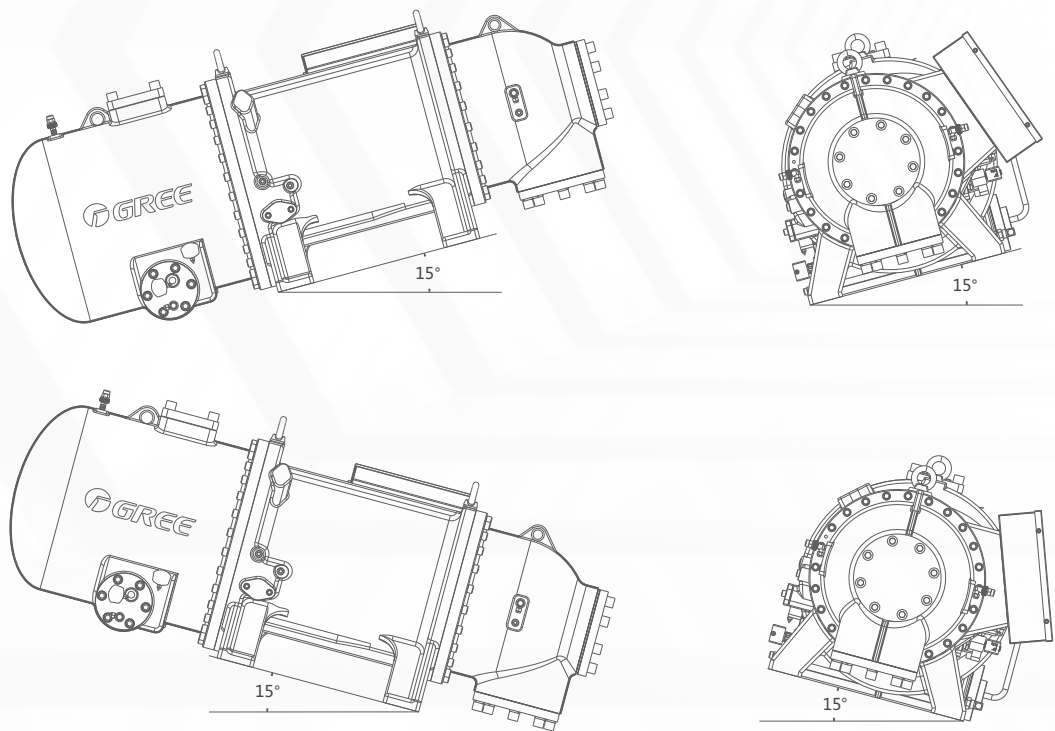
Installation

安装方式 Installation Method

- 采取水平安装方式；
Can be installed in horizontal;
- 可安装橡胶防震垫，避免压缩机与机组管道在运行时传递振动。
Rubber cushion is mounted to avoid vibration transfer between the compressor and the unit pipeline during operation.

压缩机安装倾角极限 Installation Title Angle

- 压缩机安装倾角极限为15°；
The compressor can be mounted at a limit title angle of 15°;
- 如存在特殊应用（如船用），请进一步联系GREE官方获取安装指导。
For special applications (such as marine), please contact GREE for instructions.



压缩机安装倾角极限示意图(Installation Title Angle Diagram)