



**FRIGOESPACIOS®**

Powered by

**BINGSHAN**

PROFESSIONAL REFRIGERATION



**INDUSTRIAL REFRIGERATION  
COMPRESSOR  
工业制冷压缩机**



## COMPANY BRIEF INTRODUCTION

### 企业简介

大连冰山国际贸易有限公司（简称“冰山国贸”），成立于1988年，是大连冰山集团有限公司与大连冷冻机股份有限公司共同出资成立的专业贸易公司。致力于制冷产品的咨询和设计、销售及安装、调试及维护，冰山国贸以高度贴近客户需求为导向，依托冰山中国最大的工业制冷产品制造基地，将冷热技术、工程和贸易三者有机结合，在亚洲、非洲、美洲等六十多个国家和地区承建了几百座制冷成套交钥匙工程。在果蔬、肉禽、水产、饮品等加工及冷冻冷藏领域为客户提供优质产品，并量身定制整套能源优化和可持续的冷链解决方案。

我们高度胜任的员工专注于为客户提供一站式解决方案，以及兼顾客户利益和环境保护的最优质服务。

Dalian Bingshan Engineering & Trading Co., Ltd. (Hereafter referred to as BSET) is jointly funded professional trading company by Dalian Bingshan Group Co., Ltd and Dalian Refrigeration Co., Ltd. in 1988. Concentrating on consulting, design, sales, installation, commissioning and maintenance of the refrigeration equipment, oriented toward machining the requirement of clients, supported from Dalian Bingshan Group Co., Ltd. the largest industrial refrigeration products manufacturing base of China, combining refrigeration technology, engineering and trading, BSET provides quality products to different application fields including fruit and vegetable, meat and poultry, seafood, beverage etc processing and freezing & refrigerating field etc. BSET has undertaken hundreds of turnkey projects in Asia, Africa, America etc. more than 60 countries and regions, as well as offer customized energy optimization and sustainable cold chain solutions.

Our competent professionals focus on providing clients one-stop solution, as well as the concerns on service of environmental protection and clients' benefits.



Create More Comfortable And Clean  
Living and Working Environment For The Human Beings  
创造更加舒适洁净的生活和工作环境



## 螺杆式压缩机组 Screw Compressor Unit

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JZLG 系列螺杆制冷压缩机组

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JZLG Series Screw Compressor Unit

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## 船用压缩机组 Marine Compressor Unit

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船用活塞压缩机组

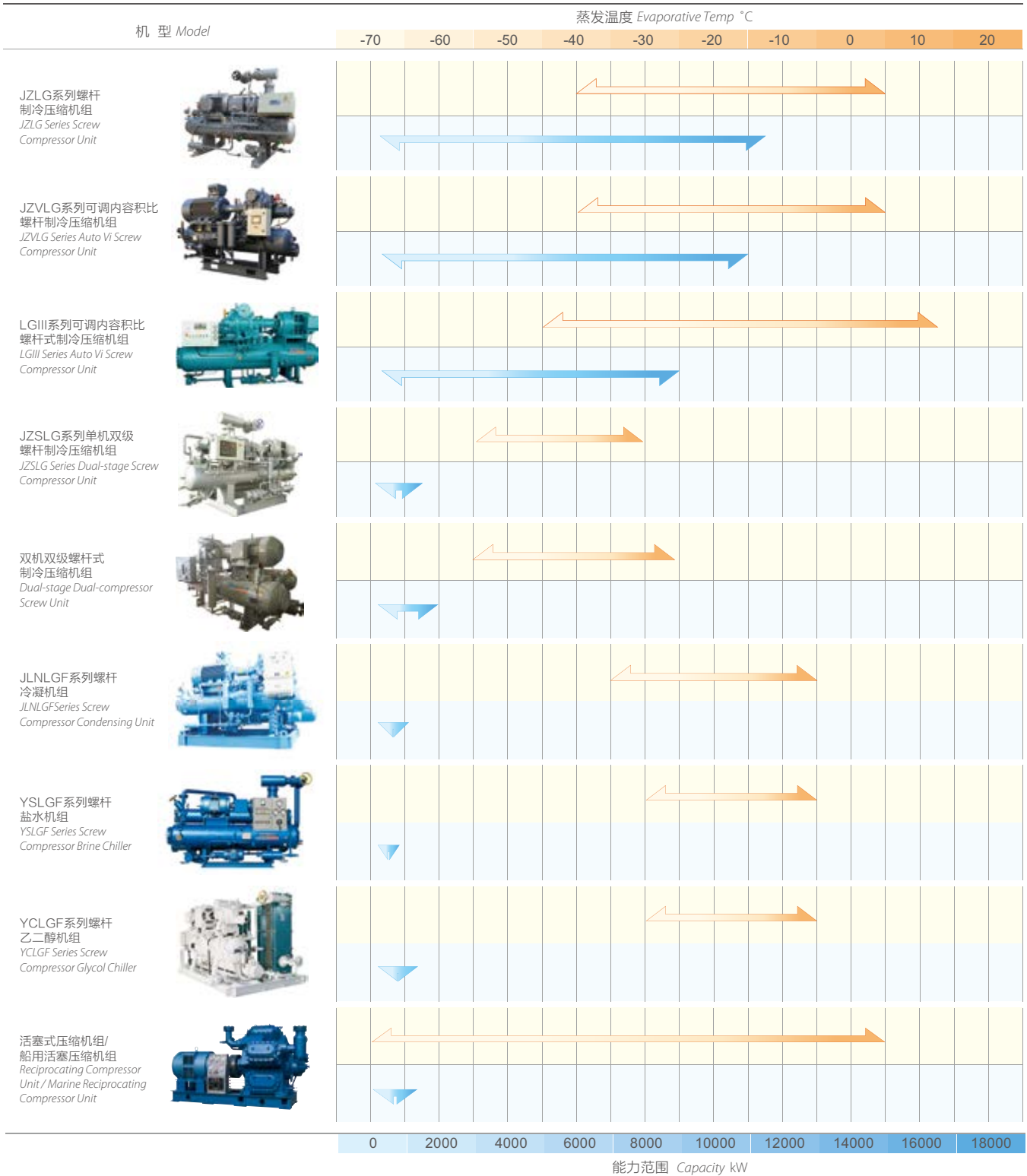
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Marine Reciprocating Compressor Unit

船用螺杆压缩机组

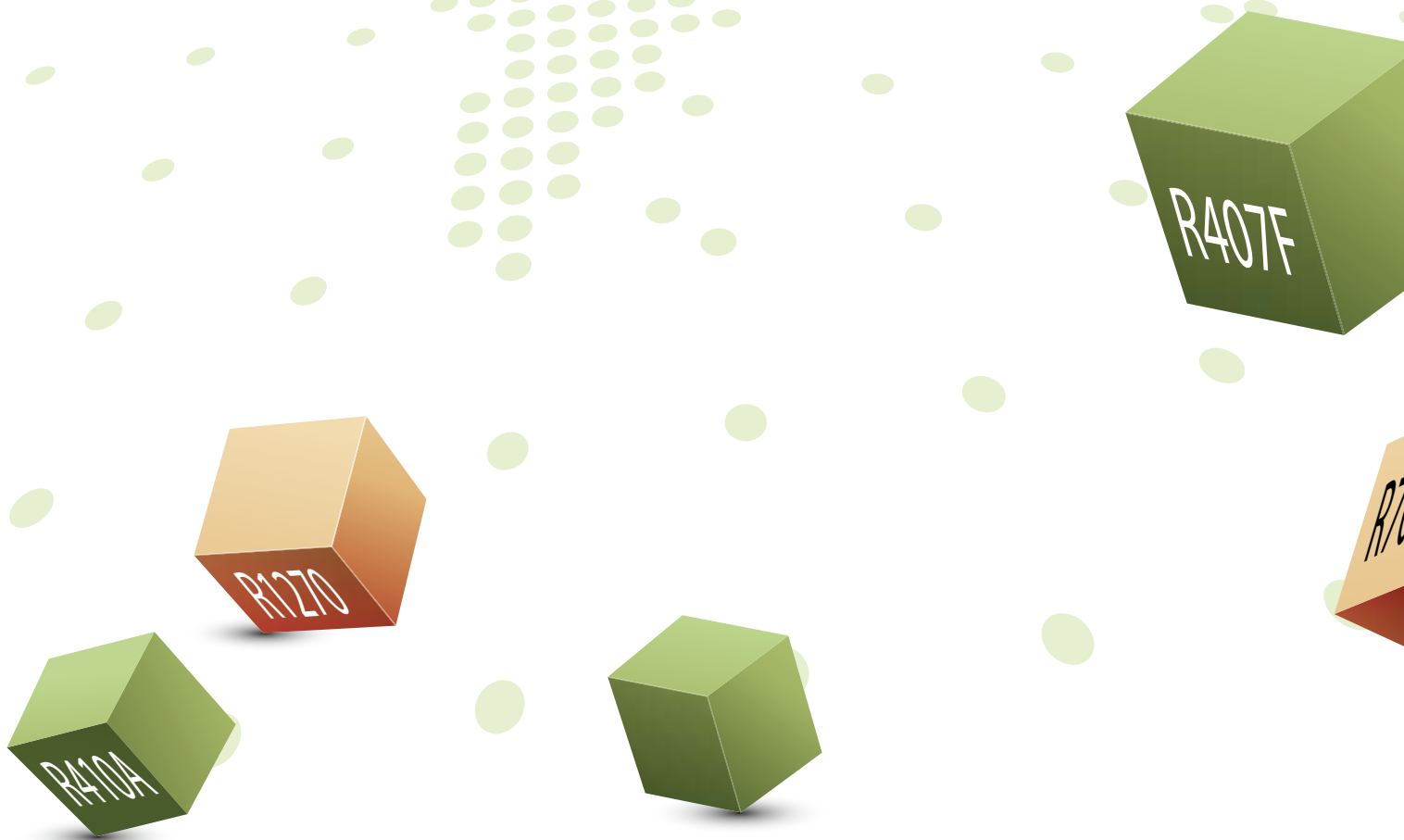
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Marine Screw Compressor Unit



# 创新应用 日臻完美

*Innovative Application Continuous Improvement*



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**贡献优质、多种冷媒的冷冻冷藏设备产品**

*CONTRIBUTE EXCELLENT AND*

*MULTI-REFRIGERANT FREEZING EQUIPMENT*



Screw Compressor Unit

06

Screw Compressor Chiller Unit

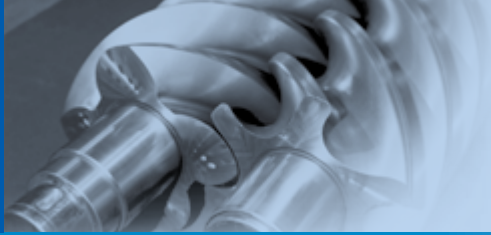
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Reciprocating Compressor Unit

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Marine Compressor Unit

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## JZLG 系列螺杆制冷压缩机组

### JZLG SERIES SCREW COMPRESSOR UNIT

#### 能力范围 Scope

理论排气量 | Theoretical Exhaust Volume **276~4700m<sup>3</sup>/h**

制冷量 | Refrigeration Capacity **148~2636 kW**

#### 应用领域 Application

广泛应用于食品冷冻冷藏、水产、商业、石油、化工、煤炭、纺织、医药、造船、国防和科研等需要人工制冷的各个方面。

Widely used in food refrigeration and freezing, aquaculture, commercial, petroleum, chemical industry, coal, textiles, pharmaceuticals, shipbuilding, defense and scientific research in all aspects of needs artificial refrigeration.

#### 产品特性 Features

##### ■ 高可靠性

- 滑动轴承，运转寿命长
- 易损件少，运转平稳，适合长期运行

##### ■ 高效性

- 排气温度低，容积效率较高
- 国际领先的螺杆压缩机转子型线，效率高
- 能量无级调节

##### ■ 智能化

- 手动和微电脑全自动控制两种控制方式
- 由英国嘉德公司开发的专用微电脑控制器，速度快，控制功能强，实现了模块化、网络化



##### High Reliability

- \* Sliding bearing, long operating lifeone chiller, which can
- \* Less wearing parts, smooth operation, suitable for long-term operation

##### High efficiency

- \* Low exhaust temperature, high volumetric efficiency
- \* World's leading screw compressor rotor profile, high efficiency
- \* Energy stepless adjustment

##### Intellectualized

- \* Manual control and microcomputer automatic control
- \* The special microcomputer controller developed by UK Guardian company have features of fast running speed, strong control capability. And realize modularization and networking

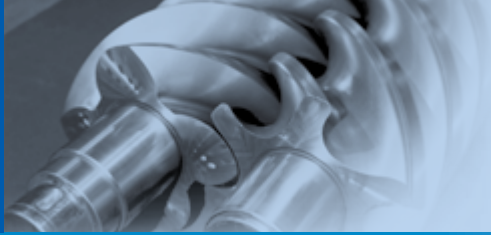


**JZLG 系列螺杆制冷压缩机组技术参数表**  
 JZLG Series Screw Compressor Unit Technology Parameter Table

机组型号 Unit Model JZLG			12.5	12.5F	16	16F	20	20F	25	25F	31.5	31.5F		
制冷剂 Refrigerant			R717	R22	R717	R22	R717	R22	R717	R22	R717	R22		
机组 Unit	制冷量 Refrigeration Capacity	空调工况 Air Conditioning Condition	kW	307.1	278.2	650.5	591.2	1385.2	1258.9	2760.4	2508.4	5431.6	4935.8	
		标准工况 Standard Condition		148.1	147.9	315.7	314.3	672.3	669.3	1339.9	1333.7	2636.5	2624.4	
		低温工况 Low Temperature Condition		53.4	56.9	113.5	121.0	242.3	258.2	483.3	515.2	951.3	1014.0	
		低温工况带经济器 Low Temperature Condition With Economizer		63.8	75.3	135.7	159.7	289.4	340.2	577.3	677.0	1136.5	1339.4	
	轴功率 Shaft Power	空调工况 Air Conditioning Condition	kW	55.3	52.7	116.5	111.0	245.2	233.5	487.7	464.4	959.1	913.2	
		标准工况 Standard Condition		39.5	41.1	83.2	86.6	175.1	182.2	348.3	362.3	584.9	712.5	
		低温工况 Low Temperature Condition		34.8	36.9	73.1	77.6	153.5	163.1	305.6	324.6	601.0	638.4	
		低温工况带经济器 Low Temperature Condition With Economizer		35.5	39.5	74.6	83.0	156.5	174.1	308.8	343.3	606.1	675.2	
	吸气管管径 Suction Pipe Diameter		mm	100		100		150		200		300		
	排气管管径 Exhaust Pipe Diameter		mm	65		80		100		150		200		
机组外形尺寸 (长 X 宽 X 高) Outline (LXWXH)		mm	2770x1200x1850		2965x1355x1920		3610x1520x2280		4855x1975x3070		5930x2300x3350			
重量 (约) Weight(About)	空调工况 Air Conditioning Condition	kg	2240		2860		5850		11000		17200			
	标准工况 Standard Condition				2920		5690		10900		16600			
	低温工况 Low Temperature Condition						5620							
压缩机 Compressor	理论输气量 Theory Gas Transmission Rate		m³/h	276		580		1215		2395		4700		
	能量调节范围 Energy Adjustment Scope		%	10 ~ 100 无级调节 Stepless adjustment										
主电动机 Main Motor	额定功率 Rated Power	空调工况 Air Conditioning Condition	kW	65		125		250		560		1250		
		标准工况 Standard Condition		55		100		220		450		900		
		低温工况 Low Temperature Condition						200						
电制 Power Standard			3P, 50Hz, 380V				3P, 50Hz, 380V/6kV/10kV							
油泵 Oil Pump	电动机功率 Motor Power		kW	1.5		1.5		5.5		11				
油冷却器 Oil Cooler	水冷 Water-Cooled	进水温度 Water Inlet Temp.	°C	≤32										
		进出水管径 Inlet/Outlet Water Pipe Diameter		mm	32		32		65		65		100	
		最大循环水量 The Largest Circulating Water		m³/h	7	5	12	8	25	17	51	35	97	75
	工质冷 Refrigerant-Cooled	进液口管径 Inlet Pipe Diameter		mm	20		32		40		65			
		出气口管径 Outlet Pipe Diameter		mm	32		50		65		100			

注: 1. 机组使用条件: 蒸发温度: -40°C ~ +5°C, 冷凝温度 ≤ +43°C, 排气温度 ≤ +105°C, 喷油温度: +25°C ~ +65°C, 油压高于排压: 0.15 ~ 0.3MPa  
 2. 空调工况: +5°C / +40°C,  
 标准工况: -15°C / +30°C,  
 低温工况: -35°C / +35°C

Note: • Condition: Evap. temp.: -40 °C ~ + 5 °C, Cond. temp. ≤ + 43 °C, Exhaust temp. ≤ + 105 °C, Oil injection temp.: + 25 °C ~ + 65 °C, oil pressure higher than discharge pressure: 0.15 ~ 0.3MPa  
 • Air conditioning condition: +5 °C / +40 °C, Standard conditions: -15 °C / + 30 °C, low temperature condition: -35 °C / + 35 °C



## JZVLG 系列可调内容积比螺杆制冷压缩机组

### JZVLG SERIES AUTO VI SCREW COMPRESSOR UNIT

#### 能力范围 Scope

理论排气量 | Theoretical Exhaust Volume **545~3990m<sup>3</sup>/h**

制 冷 量 | Refrigeration Capacity **296~1857 kW**

#### 应用领域 Application

广泛应用于食品冷冻冷藏、水产、商业、石油、化工、煤炭、纺织、医药、造船、国防和科研等需要人工制冷的各个方面。

Widely used in food refrigeration and freezing, aquaculture, commercial, petroleum, chemical industry, coal, textiles, pharmaceuticals, shipbuilding, defense and scientific research in all aspects of needs artificial refrigeration.



#### 产品特性 Features

##### ■ 高可靠性

- 高质量进口滚动轴承，运转寿命长

##### ■ 高效性

- 国际领先的螺杆压缩机转子型线，效率高
- 压差供油，降低功耗
- 内容积比和能量无级调节，保证机组始终运行在效率最高点
- 配置双补气口、双喷液口

##### ■ 智能化

- 手动和微电脑全自动控制两种控制方式
- 由英国嘉德公司开发的专用微电脑控制器，速度快，控制功能强，实现了模块化、网络化

##### High Reliability

- \* High quality import rolling bearings, long operating life

##### High efficiency

- \* World's leading screw compressor rotor profile, high efficiency
- \* Pressure differential oil supply, reducing power consumption
- \* Internal volume ratio and energy stepless adjustment, ensure the unit is always running at maximum efficiency point
- \* Configure dual air supply port, double ejection liquid port

##### Intellectualized

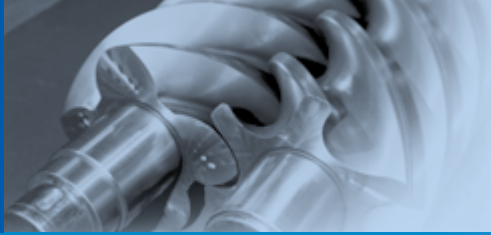
- \* Manual control method and microcomputer automatic control method.
- \* The special microcomputer controller developed by UK Guardian company have features of fast running speed, strong control capability. And realize modularization and networking

**JZVLG 系列可调内容积比螺杆制冷压缩机组技术参数表**  
 JZVLG Series Auto Vi Screw Compressor Unit Technology Parameter Table

机组型号 Unit Model JZVLG		A163D	F163D	A163	F163	A193D	F193D	A193T	F193T	A234D	F234D	A234	F234	A268D	F268D	A268	F268	A268T	F268T		
制冷剂 Refrigerant		R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	R717	R22		
机组 Unit	制冷量 Cooling Capacity	空调工况 Air Conditioning Condition	613.9	559.0	724.7	659.9	1017.8	926.7	1414.2	1287.6	1839.6	1674.9	2158.5	1965.2	2773	2525	3269	2976	3849	3504	
		标准工况 Standard Condition	296.0	296.1	349.5	349.6	490.8	491.0	682.0	682.3	887.2	887.5	1041.1	1041.3	1337	1338	1575	1577	1855	1857	
		低温工况 Low Temperature Condition	106.5	114.1	125.8	134.8	176.8	189.5	245.8	263.3	319.9	342.7	375.5	402.3	482	516	568	608	669	716	
		低温工况带经济器 Low Temperature Condition With Economizer	127.6	149.2	150.6	175.6	211.8	247.7	294.2	342.2	383.1	447.2	449.5	523.2	573	672	675	790	795	929	
	轴功率 Shaft Power	空调工况 Air Conditioning Condition	108.3	103.3	127.4	121.5	178.4	170.1	247.2	235.7	321.1	306.2	376.7	359.2	488	464	575	547	677	645	
		标准工况 Standard Condition	77.4	80.4	91.1	94.6	127.6	132.5	176.7	183.5	229.6	238.4	269.3	279.6	348	362	410	426	483	502	
		低温工况 Low Temperature Condition	67.8	72.0	79.7	84.7	111.6	118.6	154.5	162.0	200.8	213.4	235.6	250.4	304	323	359	381	422	449	
		低温工况带经济器 Low Temperature Condition With Economizer	70.2	78.1	82.7	92.0	115.3	128.4	159.8	177.5	206.9	230.2	242.1	269.1	326	368	385	432	453	508	
	吸气管管径 Suction Pipe Diameter		mm	DN100		DN125		DN125		DN150		DN150		DN200		DN200		DN225		DN250	
	排气管管径 Exhaust Pipe Diameter		mm	DN80				DN100				DN125				DN150					
	机组外形尺寸(长 X 宽 X 高) Outline (LXWXH)		mm	2980x1325x1635				3605x1555x2075				4205x1785x2750				5000x2200x3200					
	机组重量(约) Unit Weight(About)		kg	2970				6800				7475				11700		12800		13400	
压缩机 Compressor	理论输气量 Theory Gas Transmission Rate	m³/h	545		640		890		1240		1600		1870		2880		3395		3990		
	制冷量调节范围 Cooling Capacity Adjustment Scope	%	10 ~ 100 无级调节 Stepless adjustment																		
	内容积比调节范围 Inner Volume Ratio Adjustment Scope		2.5 ~ 5.0 无级调节 Stepless adjustment																		
主电动机 Main Motor	额定功率 Rated Power	kW	75/90/110/125		100/125/132		125/132/160/200		200/220/250		250/280/315/355		280/315/355/400		355/400/450/500		400/450/500/560/630		450/500/560/630/710		
	电制 Power Standard		3P, 50Hz, 380V				3P, 50Hz, 380V/6kV/10kV														
油泵 Oil Pump	电动机功率 Motor Power	kW	1.1						2.2												
油冷却器 Oil Cooler	水冷 Water-Cooled	进水温度 Water Inlet Temp.	≤32																		
		进出水管径 Inlet/Outlet Water Pipe Diameter	mm	32				65				65				100					
	工质冷 Refrigerant-Cooled	最大循环水量 The Largest Circulating Water	m³/h	12	8	14	9	18	11	25	14	32	18	37	22	53	34	63	40	72	45
		进液口管径 Inlet Pipe Diameter	mm	32				40				65									
出气口管径 Outlet Pipe Diameter	mm	50				65				100											

注: 1. 适用条件: 吸气压力: -0.028 ~ 0.42MPa(R717); -0.005 ~ 0.48MPa(R22), 对应饱和温度: -40℃ ~ 5℃, 排气压力: ≤ 1.6MPa, 对应饱和温度: ≤ 43℃, 喷油温度: +25℃ ~ +65℃, 冷却水进口温度: ≤ 32℃  
 2. 空调工况: +5℃ / +40℃, 标准工况: -15℃ / +30℃, 低温工况: -35℃ / +35℃

Note: Working conditions: Suction pressure: -0.028 ~ 0.42MPa (R717); -0.005 ~ 0.48 (R22), corresponding to the saturation temperature: -40℃ ~ 5℃, discharge pressure: ≤1.6MPa, corresponding to the saturation temperature: ≤43℃, Oil injector temperature: +25℃ ~ +65℃, cooling water inlet temperature: ≤32℃  
 Air conditioning condition: +5℃ / +40℃, Standard conditions: -15℃ / +30℃, low temperature condition: -35℃ / +35℃



## LGIII 系列可调内容积比螺杆式制冷压缩机组

### LGIII SERIES AUTO VI SCREW COMPRESSOR UNIT

#### 能力范围 Scope

理论排气量 | Theoretical Exhaust Volume **264~5678 m<sup>3</sup>/h**

名义制冷量 | Nominal Cooling Capacity **158~3566 kW(R717)**

#### 应用领域 Application

广泛应用于食品、啤酒、乳制品、制药、冷冻冷藏、石油、化工、矿业等各行业，是食品及工业制冷领域的最佳机型。

Widely used in food, brewery, dairy, pharmaceutical, refrigeration and freezing, petroleum, chemical industry, mining etc. industry and it is the best selection in the field of food and industrial refrigeration.



#### 产品特性 Features

##### ■ 高效设计

- 国际第三代 WL-C 转子型线，综合效率高
- 压差供油，一个小油泵仅在开机前使用，节省油泵功耗
- 能量、内容积比自动可调，保证压缩机在各种工况下运行更经济
- 吸气过滤器内置于机体内，使机组结构更紧凑，外形更美观
- 吸排气截止阀和止逆阀合二为一，有效的减小机组体积、降低流动阻力，同时减少了泄漏点

##### ■ 安全可靠

- 国际品牌滚动轴承，额定寿命达 40000h。保持精确定位，转子间隙小，相同工况下可提升制冷量
- 高品质机械密封，密封压力达 2.5MPa，防止泄漏，使用寿命长

##### ■ 高精度加工

- 压缩机三大件采用欧洲进口的加工中心加工，定位精度高
- 转子采用欧洲进口的智能螺杆磨床加工，极大提升了转子的精度，使转子直接互配，压缩机排气量显著提高

##### ■ 智能控制

- 先进的控制器及控制策略，保证机组时刻按最佳状态运行

#### 可选项 Optional

- 控制方式可选微机控制
- 防爆型
- 加大油冷型、热虹吸油冷型

##### Efficient design

- \* Adopt international III WL-C rotor profile with high overall efficiency
- \* Adopt differential pressure oil supply, a small pump only run before boot, saving oil pump power.
- \* Variable capacity and inner volume ratio in automatic to ensure the compressor is running more economical in a variety of conditions.
- \* Suction filter built into the body, making the unit more compact, more perfect appearance.
- \* Adopt stop-check valve for Suction and exhaust, which effectively reduce the volume of the unit, decrease the flow resistance and the leakage point

##### Safe and reliable

- \* International brand bearings, rated life up to 40000h. Maintain accurate positioning, rotor gap is small, improving cooling capacity in the same condition
- \* High quality mechanical seals, sealing pressure of 2.5MPa, preventing leakage, long service life

##### Precision machining

- \* Big three of compressor imported from Europe in the machining center, high positioning accuracy
- \* Rotor machining by Europe intelligent screw grinding machine, which greatly enhance the accuracy of the rotor, the rotor directly with each other, compressor displacement significantly increased

##### Intelligent control

- \* Advanced controllers and control strategies to ensure that the unit always run in the best condition

- \* Control optional PC control
- \* Explosion proof
- \* Increase oil cooled type, thermal siphon oil cooling type

## LGIII 螺杆式制冷压缩机组技术参数表

LGIII Series Auto Vi Screw Compressor Unit Technology Parameter Table

项目 Item		参数及型号 Parameter&Model		单位 Unit	LG12.5IIIA/F HLG12.5IIIA/F		LG16IIIDA/F HLG16IIIDA/F		LG16IIIA/F DLG16IIIA HLG16IIIA/F		LG20IIIDA/F HLG20IIIDA/F		LG20IIIA/F DLG20IIIA HLG20IIIA/F		LG20IIITA/F DLG20IIITA HLG20IIITA/F	
		R717	R22		R717	R22	R717	R22	R717	R22	R717	R22	R717	R22		
机组 Unit	制冷剂 Refrigerant			R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	R717	R22	
	制冷量 Refrigeration Capacity	高温工况 High Temperature Conditions	kW	288	256	483	431	643	573	968	863	1291	1150	1614	1438	
		中温工况 Middle Temperature Conditions		158	147	265	247	353	329	532	495	710	661	887	826	
		低温工况 Low Temperature Conditions		45	46	75	78	100	104	152	158	203	211	254	263	
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		173	168	290	283	386	377	582	567	776	757	970	946	
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		55	64	93	107	124	143	187	216	251	288	313	360	
	轴功率 Shaft Power	高温工况 High Temperature Conditions	kW	52.5	52.1	89	88.5	119	118	177	175	229	227	286	284	
		中温工况 Middle Temperature Conditions		49.8	48.7	84.7	82.8	113	110	168	164	218	213	272	266	
		低温工况 Low Temperature Conditions		34.4	34.9	58.8	59.7	79	80	117	119	150	153	188	191	
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		51.2	51.1	87	86.9	116	116	173	172	224	223	280	279	
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		37.1	39.2	63.5	67	84.8	89.4	126	133	162	172	203	215	
	机组尺寸 Dimension	长 L	mm	2830		3100		3100		3400(380V 电机 Motor) 3900( 高压电机 High pressure motor)		3400(380V 电机 Motor) 3900( 高压电机 High pressure motor)		3640(380V 电机 Motor) 4040( 高压电机 High pressure motor)		
		宽 (标配) W(Standard)	mm	1100		1210		1210		1265(380V Motor) 1510( 高压电机 High pressure motor)		1265(380V Motor) 1510( 高压电机 High pressure motor)		1265(380V 电机 Motor) 1510( 高压电机 High pressure motor)		
		宽 (带经济器) W(With Economic)	mm	1100		1276		1276		1265(380V 电机 Motor) 1510( 高压电机 High pressure motor)		1265(380V 电机 Motor) 1510( 高压电机 High pressure motor)		1265(380V 电机 Motor) 1510( 高压电机 High pressure motor)		
高 H		mm	1400		1770		1770		1825(380V 电机 Motor) 2215( 高压电机 High pressure motor)		1825(380V 电机 Motor) 2215( 高压电机 High pressure motor)		1930(380V 电机 Motor) 2320( 高压电机 High pressure motor)			
机组净重量 Unit Net Weight		kg	~ 1450		~ 2360		~ 2560		~ 4000 ~ 4300		~ 4200 ~ 4500		~ 5400 ~ 5800			
压缩机 Compressor	理论排气量 Theoretical Exhaust Qty		m³/h	264		436		574		852		1120		1400		
	制冷量调节范围 Cooling Capacity Adjustment Scope		10% ~ 100% 无级调节 Stepless Adjustment													
主电动机 Main Motor	功率 Power	高温工况 High Temperature Conditions	kW	65		100		125		200		250		315		
		中温工况 Middle Temperature Conditions		55		85		100		185		200		220		
		低温工况 Low Temperature Conditions		65		100		125		185		250		315		
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		55		85		110 100		185		200		220		
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		65		100		125		185		250		315		
	电制 Power Source	V/Hz	380/50						380/50 6k,10k/50		380/50 6k,10k/50		380/50 6k,10k/50			
额定转速 Rated Speed		r/min	2960													
油泵 Oil Pump	额定功率 Rated Power		kW	1.1												
	电制 Power Source		V/Hz	380/50												
油冷却器 Oil Cooler	标准型 Standard	水侧阻力损失 Water Lateral Resistance	MPa	≤0.06												
		冷却水流量 Cooling Water Flow Rate	m³/h	≥8	≥12		≥14		≥22		≥25		≥30			

# 螺杆压缩机组

Screw Compressor Unit



LGIII 螺杆式制冷压缩机组技术参数表 (续) LGIII Series Auto Vi Screw Compressor Unit Technology Parameter Table (Continued)

项目 Item		参数及型号 Parameter&Model	单位 Unit	LG25III DA/F DLG25IIIDA HLG25IIIDA/F	LG25III A/F DLG25IIIA HLG25IIIA/F	LG25IIITA/F DLG25IIITA HLG25IIITA/F	LG31.5IIIDA/F DLG31.5IIIDA HLG31.5IIIDA/F	LG31.5IIIA/F DLG31.5IIIA HLG31.5IIIA/F	LG31.5IIITA/F DLG31.5IIITA HLG31.5IIITA/F						
机组 Unit	制冷剂 Refrigerant			R717	R22	R717	R22	R717	R22	R717	R22	R717	R22		
	制冷量 Refrigeration Capacity	高温工况 High Temperature Conditions	kW	1914	1706	2520	2245	3259	2904	3991	3571	4772	4252	6489	5782
		中温工况 Middle Temperature Conditions		1052	980	1385	1289	1791	1668	2189	2045	2622	2441	3566	3320
		低温工况 Low Temperature Conditions		301	312	396	411	512	532	622	648	748	778	1018	1058
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		1151	1122	1515	1476	1959	1909	2394	2340	2868	2795	3900	3802
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		371	427	489	563	632	728	768	886	925	1064	1258	1447
	轴功率 Shaft Power	高温工况 High Temperature Conditions	kW	346	343	455	452	589	585	712	707	853	847	1161	1152
		中温工况 Middle Temperature Conditions		329	322	433	423	560	548	677	662	811	793	1103	1079
		低温工况 Low Temperature Conditions		228	232	301	305	389	395	469	476	561	570	763	775
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		338	337	445	444	575	574	696	695	833	831	1133	1131
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		247	260	325	343	420	443	507	535	605	640	823	870
	机组尺寸 Dimension	长 L	mm	4429		4429		4540		-		-		-	
		宽 (标配) W(Standard)	mm	1750		1750		1790		-		-		-	
		宽 (带经济器) W(With Economic)	mm	1750		1750		1790		-		-		-	
高 H		mm	2847		2847		2360		-		-		-		
机组净重量 Unit Net Weight		kg	~ 6800	~ 7200	~ 7500	~ 10000	~ 12600	~ 15200	~ 17200						
压缩机 Compressor	理论排气量 Theoretical Exhaust Qty	m³/h	1663		2189		2831		3510		4175		5678		
	制冷量调节范围 Cooling Capacity Adjustment Scope	10% ~ 100% 无级调节 Stepless Adjustment													
主电动机 Main Motor	功率 Power	高温工况 High Temperature Conditions	kW	400	500	630		800	1000	1250					
		中温工况 Middle Temperature Conditions		355	450	630		710	900	1250					
		低温工况 Low Temperature Conditions		315	400	500	450	560	710	900					
		中温工况 (配经济器) Middle Temperature Conditions (With Economizer)		355	450	560		800	900	1000					
		低温工况 (配经济器) Low Temperature Conditions (With Economizer)		315	400	500	450	630	710	900					
	电制 Power Source	V/Hz	380/50	6k,10k/50											
额定转速 Rated Speed		r/min	2960												
油泵 Oil Pump	额定功率 Rated Power	kW	1.5					2.2							
	电制 Power Source	V/Hz	380/50												
油冷却器 Oil Cooler	标准型 Standard	水侧阻力损失 Water Lateral Resistance	MPa ≤0.06												
		冷却水流量 Cooling Water Flow Rate	m³/h	≥40	≥45	≥60	≥75	≥90	≥120						

注: 1. 表中所列机组的制冷量和轴功率可在相应压缩机的性能曲线中查取, 压缩机所配主电动机功率可根据运行工况的轴功率选配  
 2. 高温工况: 5°C /40°C; 中温工况 (名义工况): -10°C /40°C; 低温工况: -35°C /40°C  
 3. 机组低压柜可选择 GKS-3 系列或 GKS-5 系列, 高压开关柜为 KYN28A-12 型  
 4. 使用条件: 蒸发温度: -45 ~ 12.5°C; 冷凝温度: ≤ 45°C; 排气温度 ≤ 105°C; 油温 ≤ 65°C; 油冷却器进水温度 20 ~ 32°C  
 5. 适用制冷剂: R717 (氨)、R22、R23、R134a、R507A、R404A、R407C、R290 (丙烷)、R1270 (丙烯)、R600a (异丁烷)、R744 (二氧化碳)、R704 (氦) 等  
 6. 表中参数及外形图, 合同签订后提供最终版本。  
 Note: · The cooling capacity and shaft power can be investigated in the corresponding compressor performance curve, the compressor unit motor power can be selected according to the operating conditions of the shaft power.  
 · High temperature condition: 5°C /40°C; Middle temperature condition: -10°C /40°C; Low temperature condition: -35°C /40°C  
 · Low pressure cabinet choose GKS-3 series or GKS-5 series, High Voltage Switchgear for KYN28A-12 type  
 · Operating conditions: Evap. Temp.: -45 ~ 12.5°C; Cond. Temp.: ≤45°C; Discharge temp. ≤105°C; Oil temp. ≤65°C; Oil cooler inlet water temp. 20~32°C  
 · Refrigerant: R717(Ammonia), R22, R23, R134a, R507, R404a, R407c, R290(Propane), R1270 (propylene), R600a (isobutane), R744 (carbon dioxide), R704 (helium), etc.  
 · Parameters and outline drawing, after signing the contract to provide the final version.

# JZSLG 系列单机双级螺杆制冷压缩机组

## JZSLG SERIES DUAL-STAGE SCREW COMPRESSOR UNIT

### 能力范围 Scope

理论排气量 | Theoretical Exhaust Volume **624~4800 m<sup>3</sup>/h**

制冷量 | Refrigeration Capacity **144~1191 kW(R717)**

### 应用领域 Application

广泛应用于食品加工、低温物流、食品速冻冷藏、屠宰、水产、医药、航空军工、石化等行业需要人工制冷的各环节，主要适用于蒸发温度在  $-55 \sim -30^{\circ}\text{C}$  的低温及超低温需求。

Widely used in food processing, cold logistics, frozen food refrigeration, slaughter, aquaculture, medicine, aviation industry, petrochemical and other industries need artificial refrigeration. Mainly used in the low and ultra-low temperature requirement of evaporative temperature in  $-55 \sim -30^{\circ}\text{C}$ .

### 产品特性 Features

#### ■ 结构完美、性能可靠

- 单机实现双级压缩，结构紧凑，布局合理，外形美观，制冷系统配置简化
- 进口的机械密封，其结构简单，安装方便，优越的密封性能，保证压缩机连续长期稳定地运行
- 先进的加工设备和工艺，保证更精确的加工精度和更高的工作效率，提高压缩机运转的可靠性
- 全滚动轴承，噪音低，振动小，转子精确定位，保证压缩机连续运转时间和高寿命
- 油冷却器采用水冷却方式，也可采用热虹吸冷却方式

#### ■ 高效节能

- 单级压比小，大压比工况 COP 高
- 国际领先的螺杆压缩机转子型线，效率高
- 压缩机压差供油，节省油泵功耗，提高油泵可靠性
- 高低压级都采用无级能量调节，保证高效运行
- 采用高效油分离器，保证油耗油量  $\leq 5\text{ppm}$ ，确保机组低油耗
- 高精度吸气和油过滤滤芯

#### ■ 超低温

- 蒸发温度最低可到  $-55^{\circ}\text{C}$

#### ■ 智能化

- 全自动微电脑控制，运行速度更快、可靠性更高、控制功能更强，已经实现了模块化、网络化，同时还具有外形美观、操作方便、人机界面友好等特点



#### Perfect Structure, Reliable Performance

- \* Single compressor realized dual-stage compression, compact structure, reasonable layout, nice appearance, refrigeration system configurations to simplify.
- \* Imported mechanical seal, its simple structure, easy installation, excellent sealing performance to ensure continuous long-term stable operation of the compressor.
- \* Advanced processing equipment and technology to ensure more precise machining accuracy and higher efficiency, improve the reliability of the compressor operation.
- \* Whole rolling bearing low noise, small vibration, rotor precise positioning to ensure continuous operation of the compressor and long life.
- \* Oil cooler with water cooling, thermal siphon cooling method can also be used

#### Energy efficient

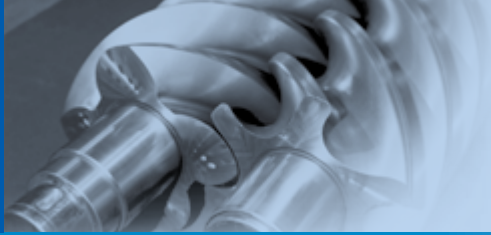
- \* Small single stage pressure ratio and high COP value in large pressure ratio condition
- \* World's leading screw compressor rotor profile, high efficiency
- \* Compressor differential pressure oil supply, saving power consumption, improving the reliability of the oil pump
- \* Both high and low stage using stepless adjustment energy to ensure efficient operation
- \* Adopting high efficient oil separator to ensure that oil fuel consumption  $\leq 5\text{ppm}$ , ensuring unit with low fuel consumption
- \* High precision suction and oil filter element

#### Ultra low temperature

- \* Evaporative temperature to as low as  $-55^{\circ}\text{C}$

#### Intellectualized

- \* Automatic microcomputer control, run faster, more reliable, more powerful control, has achieved a modular, network, and also has a beautiful appearance, convenient operation, friendly interface, etc.



### JZSLG 系列单机双级螺杆制冷压缩机组技术参数表

JZSLG Series Dual-stage Screw Compressor Unit Technology Parameter Table

参数及型号 Parameter&Model		单位 Unit	JZSLG16/12.5CS JZ2SLG16/12.5CS	JZFSLG16/12.5CS JZ2FSLG16/12.5CS	JZSLG20/16SS JZ2SLG20/16SS	JZFSLG20/16SS JZ2FSLG20/16SS	JZSLG20/16MS JZ2SLG20/16MS	JZFSLG20/16MS JZ2FSLG20/16MS
压缩机组 Compressor unit	制冷剂 Refrigerant		R717	R22	R717	R22	R717	R22
	名义制冷量 Nominal Refrigerating Capacity	kW	144.1	157.8	204.4	233.1	251.3	281.5
	名义轴功率 Middle Temperature Conditions	kW	71.5	82.9	106.2	118.7	124.5	141.6
	噪音 Noise		Db(A)	≤89		≤91		
	机组尺寸 Dimension	长 L	mm	3310		3780		
		宽 W	mm	1220		1495		
		高 H	mm	2240		2310		
机组净重量 Compressor Unit		kg	3150		5080		5200	
压缩机 Compressor	低压级理论排气量 Low Pressure Stage Discharge Capacity	m³/h	624		821		1030	
	高压级理论排气量 High Pressure Stage Discharge Capacity		197		416			
	低压级制冷量调节范围 Low Pressure Stage Discharge Capacity		10%~100% 无级调节 Stepless Regulation					
	高压级制冷量调节范围 High Pressure Stage Discharge Capacity		100%		10%~100% 无级调节 Stepless Regulation			
主电动机 Main Motor	电制 Electric source		380V 50Hz					
	额定功率 Nominal Power	kW	100		140	150	160	175
油泵电动机额定功率 Compressor Unit		kW	0.75		3			

参数及型号 Parameter&Model		单位 Unit	JZSLG20/16CS JZ2SLG20/16CS	JZFSLG20/16CS JZ2FSLG20/16CS	JZSLG25/20SS JZ2SLG25/20SS	JZFSLG25/20SS JZ2FSLG25/20SS	JZSLG25/20MS JZ2SLG25/20MS	JZFSLG25/20MS JZ2FSLG25/20MS
压缩机组 Compressor unit	制冷剂 Refrigerant		R717	R22	R717	R22	R717	R22
	名义制冷量 Nominal Refrigerating Capacity	kW	298.6	328.3	406.5	462.8	500.1	558.6
	名义轴功率 Middle Temperature Conditions	kW	143.2	165.5	207.2	231.9	243.0	277.4
	噪音 Noise		Db(A)	≤91		≤93		
	机组尺寸 Dimension	长 L	mm	3780		4180 或 (Or) 4878		
		宽 W	mm	1495		1850 或 (Or) 2090		
		高 H	mm	2310		2865 或 (Or) 3065		
机组净重量 Compressor Unit		kg	5500		8900		9000	
压缩机 Compressor	低压级理论排气量 Low Pressure Stage Discharge Capacity	m³/h	1230		1609		2009	
	高压级理论排气量 High Pressure Stage Discharge Capacity		416		821			
	低压级制冷量调节范围 Low Pressure Stage Discharge Capacity		10%~100% 无级调节 Stepless Regulation					
	高压级制冷量调节范围 High Pressure Stage Discharge Capacity		10%~100% 无级调节 Stepless Regulation					
主电动机 Main Motor	电制 Electric source		380V 50Hz		380V 或 (Or)6000V 或 (Or)10000V 50Hz			
	额定功率 Nominal Power	kW	185		200	280	315	355
油泵电动机额定功率 Compressor Unit		kW	3					



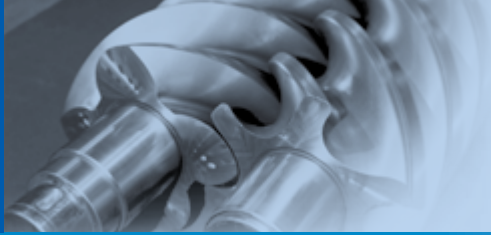
## JZSLG 系列单机双级螺杆制冷压缩机组技术参数表

JZSLG Series Dual-stage Screw Compressor Unit Technology Parameter Table

参数及型号 Parameter&Model		单位 Unit	JZSLG25/20CS JZ2SLG25/20CS	JZFSLG25/20CS JZ2FSLG25/20CS	JZSLG32/25SS JZ2SLG32/25SS	JZFSLG32/25SS JZ2FSLG32/25SS	JZSLG32/25MS JZ2SLG32/25MS	JZFSLG32/25MS JZ2FSLG32/25MS	JZSLG32/25CS JZ2SLG32/25CS	JZFSLG32/25CS JZ2FSLG32/25CS	
压缩机组 Compressor unit	制冷剂 Refrigerant		R717	R22	R717	R22	R717	R22	R717	R22	
	名义制冷量 Nominal Refrigerating Capacity	kW	592.5	649.6	815.6	928.5	1010.0	1128.4	1191.0	1306.3	
	名义轴功率 Middle Temperature Conditions	kW	278.8	323.3	404.4	463.8	479.3	547.8	553.9	643.0	
	噪音 Noise	Db(A)	≤93			≤96					
	机组尺寸 Dimension	长 L	mm	4180 或 (Or) 4878	4878	6430		6430		6430	
		宽 W	mm	1850 或 (Or) 2090	2090	2700		2700		2700	
		高 H	mm	2865 或 (Or) 3065	3065	3285		3285		3285	
机组净重量 Compressor Unit	kg	9000	11900	19560		19560		19560			
压缩机 Compressor	低压级理论排气量 Low Pressure Stage Discharge Capacity	m³/h	2402		3210		4004		4793		
	高压级理论排气量 High Pressure Stage Discharge Capacity		821		1609						
	低压级制冷量调节范围 Low Pressure Stage Discharge Capacity		10%~100% 无级调节 Stepless Regulation								
	高压级制冷量调节范围 High Pressure Stage Discharge Capacity		10%~100% 无级调节 Stepless Regulation								
主电动机 Main Motor	电制 Electric source		380V 或 (Or)6000V 或 (Or)10000V 50Hz		6000V 或 (Or) 10000V 50Hz						
	额定功率 Nominal Power	kW	355	400	560	630	630	710	710	800	
油泵电动机额定功率 Compressor Unit	kW	3									

注： 1. 名义制冷量、轴功率基于冷凝温度 +35℃、蒸发温度 -35℃、吸气过热 0℃、液体过冷 5℃  
2. 电机额定功率基于冷凝温度 +40℃、蒸发温度 -30℃，机组所配电机可以根据实际运行工况下轴功率进行调整  
3. 压缩机组使用条件：冷凝温度 ≤ 43℃，蒸发温度：-55 ~ -30℃，排气温度 ≤ 105℃，喷油温度：25 ~ 65℃  
4. 25/20SS、25/20MS、25/20CS 系列机组的外形和重量随电机有变化  
5. 适用制冷剂：R717、R22、R134a、R404A、R507、R290、R1270  
6. 型号 JZ\*\*SLG：第一个 \* 表示冷却方式，2 代表液氨或液氟冷却，水冷省略；第二个 \* 表示制冷剂，F 代表 R22，氨不表示  
7. 型号中最后两个字母分别代表低压级和高压级转子导程，C 表示长导程，M 表示中导程，S 表示短导程

Note: • Nominal cooling capacity, shaft power based on the cond. temp. + 35℃, the evap. temp. -35℃, suction superheat 0℃, liquid subcooling 5℃  
• Motor rated power based on the cond. temp. + 40℃, the evap. temp. -30℃, the unit of the motor can be adjusted with the actual operating conditions of the shaft power  
• Compressor conditions: cond. temp. ≤43℃, evap. temp.: -30 ~ -55℃, exhaust temperature ≤105℃, injector temperature: 25 ~ 65℃  
• 25 / 20SS, 25 / 20MS, 25 / 20CS series unit shape and weight is varied with motor  
• Applicable refrigerants: R717, R22, R134a, R404A, R507, R290, R1270  
• Model JZ \*\* SLG: first \* indicates a cooling mode, 2 representatives of ammonia or liquid fluorine cooling, water cooling is omitted; second \* indicates refrigerant, F for R22, ammonia no representation  
• Type in the last two letters represent the low pressure stage and high pressure stage rotor lead, C represents a long lead, M represents a medium lead, S for short lead



## 双机双级螺杆式制冷压缩机组

### DUAL-STAGE DUAL-COMPRESSOR SCREW UNIT

#### 能力范围 Scope

制冷量 | Refrigeration Capacity

153~1526.3kW(R717)

工 况 | Working Conditions

-35°C / 40°C

#### 应用领域 Applicant

广泛应用于食品冷冻冷藏、乳制品、远洋渔业生产加工、冷链物流、冷库、化工、多晶硅、电子、航空航天、制药、煤炭等行业中，是-55°C ~ -30°C 低温、超低温制冷领域首选产品。

Widely used in food refrigeration and freezing, dairy, ocean fisheries processing, cold chain, logistics, cold storage, chemical industry, polycrystalline silicon, electronics, aerospace, pharmaceuticals, coal etc. field. It is the first selection for low temp and ultra-low temp application of -55°C ~ -30°C .



#### 产品特性 Features

- 占地面积小，控制操作简单，安装省时省工
- 低压级不配油分离器与油冷却器，减少操作、运行、维护费用
- 低压级配用电机小，而不必考虑其启动
- 机组独立性强，可单台独立使用，也可多台并联使用
- 全自动控制，电机效率高，系统运行安全性和可靠性好
- 采用改进的两级压缩一级节流中间不完全冷却循环，两级过冷，运行更经济
- 采用全压差供油，无油泵功耗 且排除油泵故障
- 有三十多种组合方式，可根据不同的工况、不同的制冷剂选择最佳容积比
- 初期只有高压级运行，且可以满载运行，降温速度快，运行十分经济
- 采用两台压缩机及电机，大多数情况下可采用 380V 低压电机，降低成本
- 采用我公司技术成熟的螺杆 III 压缩机，维护费用低廉

- \* Less space occupied, simple operation and quick installation
- \* Low pressure stage has no oil separator or oil cooler, which assist to reduce operation and maintenance costs.
- \* Low pressure stage is equipped with a small motor, without considering its start
- \* The unit has strong independence. Single unit application and also several units used in parallel
- \* Automatic control, high motor efficiency, the system has good safety and reliability.
- \* Adopting an improved two-stage compression intermediate throttle incomplete cooling cycle, two subcooled, operation more economical
- \* Adopt full differential pressure oil supply, no oil pump consumption and exclude oil pump failure
- \* There are 30 kinds of combinations, select the best inner volume ratio according to different conditions, different refrigerants.
- \* Initial operation only has high pressure stage, and can run at full capacity in fast cooling speed and economical.
- \* Adopt two compressors and motors. In most condition, 380V low-voltage motor can meet requirement, which will assist to reduce cost.
- \* Adopt our generation III screw compressor in mature technology and low maintenance costs

#### 可选项 Optional

- 控制方式可选微机控制      Optional PC control
- 热虹吸油冷型                      Thermal siphon oil cooler

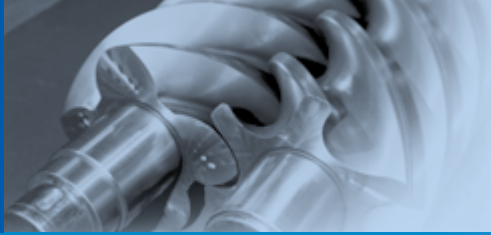
## 双机双级螺杆式制冷压缩机组技术参数表 (氨 R717)

### Dual-Stage Dual-compressor Screw Unit Technology Parameter (Ammonia R717)

简化型号 Model		16/12.5 16T/12.5	20D/12.5	20/16D 20T/16D 20T/16	25D/16 23.3T/16 25/16	25/20D 25T/20D 25T/20	31.5D/20 31.5/20T	31.5/25D 31.5T/25
工况 1 Condition 1 -35/40°C	制冷量 kW Refrigeration Capacity kW	153.0 165.7	223.3	303.3 372.2 381	445.0 /	591.8 /	905.8 1110.6	1125.2 /
	轴功率 kW Shaft Power kW	77.5 85.1	108.4	148.6 179.9 190	220.4 /	295.2 /	443.1 537.8	560.1 /
工况 2 Condition 2 -40/40°C	制冷量 kW Refrigeration Capacity kW	121.5 131.7	177.6	241.0 296.3 302.0	353.6 395.8 454.3	470.3 596.3 609.3	720.4 883.3	894.0 1187.6 1213.7
	轴功率 kW Shaft Power kW	70.3 76.8	96.4	133.9 159.7 171.9	198.1 218.6 250.3	266.1 327.0 341.1	395.2 480.5	505.4 645.6 680.0
低压级 / 高压级 标配主电机功率 kW Low pressure stage/High pressure stage main motor power kW		45/55、65 55/65、55	65/65	85/100 110/100 100/125	125/125 160/125 160/125	160/185 200/185 185/250	280/250 315/315	315/400、355 355/400 355/500
低压级 Low Pressure Stage	压缩机型号 Compressor Model	LG16 III LG16 III T	LG20 III D	LG20 III LG20 III T LG20 III T	LG25 III D LG23.3 III T LG25 III	LG25 III LG25 III T LG25 III T	LG31.5 III D LG31.5 III	LG31.5 III LG31.5 III T LG31.5 III T
高压级 High Pressure Stage	压缩机型号 Compressor Model	LG12.5 III LG12.5 III	LG12.5 III	LG16 III D LG16 III D LG16 III	LG16 III LG16 III LG16 III	LG20 III D LG20 III D LG20 III	LG20 III LG20 III T	LG25 III D LG25 III D LG25 III
能量调节范围 Capacity Adjustment Scope		10%~ 100%无级调节 Stepless Adjustment						
制冷工质 Refrigerant		氨 Ammonia R717						
冷冻机油充注量 Oil Filling Quantity L		350	400	550	700	750	950	1000
电源 Power		3P/50Hz						
油泵 Oil Pump	型号 Model	Y90L-6			Y90L-4		Y100L1-4	
	电机功率 Motor Power Kw	1.1			1.5		2.2	
油冷却器 Oil Cooler	热虹吸进 / 出口 Thermal Siphon Inlet / Outlet	DN32/ DN50	DN32/ DN50	DN40/ DN80	DN50/ DN100		DN80/ DN100	DN80/ DN125
	冷却水进 / 出口 Cooling Water Inlet/ Outlet	DN32	DN40	DN50	DN65		DN100	DN125
外形尺寸 Overall Dimensions	长 L(mm)	3000	3110	3540	3985	4385	5100	5300
	宽 W(mm)	1585	1735	1960	2120	2250	3000	3100
	高 H(mm)	1605	1810	1885	2180	2245	3100	3100
机组净重 Unit net weight kg		~ 3300	~ 3600	~ 5000	~ 7000	~ 8000	~ 15000	~ 17000

注: 1. 使用范围: 蒸发温度: -55°C ~ -25°C, 冷凝温度: 20°C ~ 45°C  
 2. 高压启动柜 根据需要选择 KYN28-12 型或 JYN2-10 型,  
 低压控制柜 GKS-5YY  
 3. 冷冻机油牌号: WL2  
 4. 表中参数及外形尺寸, 合同签订后提供最终版本。  
 5. 超出以上选型工况或更大型双机双级机组, 请与我司联系

Note: · Application scope: evaporative temperature: -55°C ~ -25°C ,condensing temperature: 20°C ~45°C  
 · High-voltage starter cabinet Select KYN28-12 type or JYN2-10 type as needed  
 · Low-voltage control cabinet GKS-5YY  
 · Lubrication oil grades: WL2  
 · We will provide the latest parameters and dimensions of unit after signing the contract  
 · Any requirement of dual-stage dual-compressor unit beyond the above condition, please contact us



### 双机双级螺杆式制冷压缩机组技术参数表（氟 R22）

#### Dual-stage Dual-compressor Screw Unit Technology Parameter (Freon R22)

简化型号 Model		16/12.5 16T/12.5	20D/16D 20/16D 20T/16	25D/20D 25/20D 25T/20	31.5D/20T	31.5D/25D 31.5/25D 31.5T/25
工况 1 Condition 1 -35/40°C	制冷量 kW Refrigeration Capacity kW	172.1 /	261.4 / /	517.5 / /	/	1053.0 / /
	轴功率 kW Shaft Power kW	88.1 /	136.0 / /	266.5 / /	/	538.9 / /
工况 2 Condition 2 -40/40°C	制冷量 kW Refrigeration Capacity kW	141.5 153.7	214.7 279.7 351.5	424.7 547.6 709.6	853.4	865.0 1041.4 1411.9
	轴功率 kW Shaft Power kW	81.2 86.7	126.3 155.3 197.1	248.7 304.7 391.4	474.0	500.1 578.2 781.7
低压级 / 高压级 标配主电机功率 kW Low pressure stage/High pressure stage main motor power kW		55. 45/65 55/55	65/100 90/100 100/125	132/185 185/185 200/250	280/315	280/355 315/355 400/500
低压级 Low Pressure Stage	压缩机型号 Compressor Model	LG16 III LG16 III T	LG20 III D LG20 III LG20 III T	LG25 III D LG25 III LG25 III T	LG31.5 III D	LG31.5 III D LG31.5 III LG31.5 III T
高压级 High Pressure Stage	压缩机型号 Compressor Model	LG12.5 III LG12.5 III	LG16 III D LG16 III D LG16 III	LG20 III D LG20 III D LG20 III	LG20 III T	LG25 III D LG25 III D LG25 III
能量调节范围 Capacity Adjustment Scope		10%~ 100%无级调节 Stepless Adjustment				
制冷工质 Refrigerant		氟 Freon R22				
冷冻机油充注量 Oil Filling Quantity L		350	550	750	950	1000
电源 Power		3P/50Hz				
油泵 Oil Pump	型号 Model	Y90L-6		Y90L-4	Y100L1-4	
	电机功率 Motor Power Kw	1.1		1.5	2.2	
油冷却器 Oil Cooler	热虹吸进 / 出口 Thermal Siphon Inlet / Outlet	DN32/ DN50	DN40/ DN80	DN50/ DN100	DN80/ DN100	DN80/ DN125
	冷却水进 / 出口 Cooling Water Inlet/ Outlet	DN32	DN50	DN65	DN100	DN125
外形尺寸 Overall Dimensions	长 L(mm)	3000	3540	4385	5100	5300
	宽 W(mm)	1585	1960	2250	3000	3100
	高 H(mm)	1605	1885	2245	3100	3100
机组净重 Unit net weight kg		~ 3300	~ 5000	~ 8000	~ 15000	~ 17000

- 注: 1. 使用范围: 蒸发温度: -55°C ~ -25°C, 冷凝温度: 20°C ~ 45°C  
 2. 高压启动柜 根据需要选择 KYN28-12 型或 JYN2-10 型,  
 低压控制柜 GKS-5YY 低压级主电机  
 3. 冷冻机油牌号: WL5  
 4. 表中参数及外形尺寸, 合同签订后提供最终版本。  
 5. 超出以上选型工况或更大型双机双级机组, 请与我公司联系

- Note: · Application scope: evaporative temperature: -55°C ~ -25°C, condensing temperature: 20°C ~ 45°C  
 · High voltage starter cabinet Select KYN28-12 type or JYN2-10 type as needed  
 · Low-voltage control cabinet GKS-5YY Low pressure stage main motor  
 · Lubrication oil grades: WL5  
 · We will provide the latest parameters and dimensions of unit after signing the contract  
 · Any requirement of dual-stage dual-compressor unit beyond the above condition, please contact us

# JLNLF 系列螺杆冷凝机组

## JLNLF SERIES SCREW CONDENSING UNIT

### 能力范围 Scope

项 目 Item		最大 Maximum	最小 Minimum	设计值 Design value
冷却水 Cooling Water	冷却水 Cooling Water	33°C	10°C	32°C
	温差 Temperature Difference	15°C	4°C	4°C

注：1. 当冷却水温度小于 20°C 时，冷却水采用大温差。  
2. 冷却水水质不低于 GB50050《工业循环冷却水处理设计规范》中的要求。  
3. 当用户使用工况和设计值不同或改变机组用途时，应咨询供货商，做相应变动。

Note: • Cooling water with large temperature difference when temperature of it is less than 20  
• The cooling water quality is not lower than GB50050 requirements in <industrial circulating cooling water treatment>  
• When the using condition is different from the design charge or change the unit value, consulting the supplier and make a corresponding change

### 应用领域 Applicant

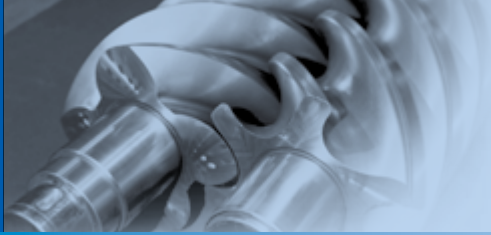
冰山股份 JLNLF 系列螺杆冷水机组，采用螺杆制冷压缩机组，配套高效的管壳式热交换器，具有能效比高、运行平稳等优点。机组设有自动能量调节及安全保护装置，操作简便，运行安全可靠，可广泛应用于石油、化工、煤炭、纺织、医药、水产、商业、食品工业和科研等需要人工制冷的场所。

JLNLF series screw water chiller adopts new series screw compressor unit, with high-efficiency shell-and-tube heat exchanger, having the advantages of high energy efficiency ratio, smooth and reliable operation and etc. Adopt automatic power control device and safety protection device, simple operation, safe and reliable running. Widely used in petroleum, chemical industry, coal, textile, medicine, seafood, commerce, food industry, scientific research, and the place needing artificial refrigeration.



### 产品特性 Features

- 根据不同工况选配不同大小与结构的电机、冷凝器，机组各部始终处于最佳运行状态。
  - 机组全部带经济器，确保了用户节流机构的可靠性。
  - 采用高效卧式油分离器，分离效果更加突出。冷凝器换热管采用高效换热管，可靠性高。
  - 机组设置了冷量自动调节装置，可以在 10%~100% 范围内实现制冷量的无级调节，达到了经济节能的目的。机组设定了吸气压力低保护、排气压力高保护等，以防止机组运行故障，保护机组可靠运行。
  - 高智能化电气控制，英国嘉德 (GUARDIAN) 国际控制公司集欧美多家制冷公司的优点，针对“冰山”机组特点开发的专用微电脑控制器。运行速度更快、可靠性更高、控制功能更强，实现了模块化、网络化。
- \* According to the different working condition equipped different size and structure motor, evaporator, condenser, throttle mechanism, unit is always in the best running state
  - \* Adopt high-efficiency horizontal oil separator, having more outstanding separation effect.
  - \* Adopt refrigerant oil cooler, ensure no need cleaning oil cooler in using cycle
  - \* Unit sets refrigerant capacity automatic regulating device, 10~100% capacity stepless adjustment, achieving the goal of the economic and energy saving
  - \* Unit sets suction pressure low protection, discharge pressure high protection, discharge temperature high protection in order to prevent the unit operation failure, protecting the unit reliable operation.
  - \* High intelligent electrical control, British GUARDIAN international control company integrates the advantages of many refrigeration companies in Europe and the United States, according to the characteristics of the units to develop dedicated microcomputer controller. Running faster, higher reliability and stronger control function, implement modularization and networking.



### JLNLGF 系列螺杆冷凝机组技术参数表

#### JLNLGFSeries Screw Condensing Unit Specification& Data

单位 Unit		项目 Item	JLNLG12.5F(Z)		JLNLG16F(Z)		JLNLG20F(Z)	
制冷剂 Refrigerant			R22					
盐水适用出水温度范围 Brine outlet temp. range		°C	标准工况 Standard condition	低温工况 Low temp. condition	标准工况 Standard condition	低温工况 Low temp. condition	标准工况 Standard condition	低温工况 Low temp. condition
			-15≤t≤-25	-25<t≤-40	-15≤t≤-25	-25<t≤-40	-15≤t≤-25	-25<t≤-40
名义制冷量 Refrigeration Capacity		kW	145	60	329.5	148.6	676	293
蒸发温度 Evaporation temperature		°C	-15	-30	-15	-35	-35	
机组首次加油量 First charging oil		kg	130		220		400	
经济器 Economizer			有 Yes					
压缩机 Compressor	型号 Model		LG12.5		LG16		LG20	
	转速 Rotate Speed	r/min	2960					
	能量调节 Capacity Adjustable Range	%	10—100 无级调节 Stepless Adjustment					
电动机 Motor	功率 Power	kW	65	55	125	100	250	220
	电源 Power supply		3P,50Hz,380V					
油泵电机 Oil pump motor	功率 Power	kW	2.2		3		3	
	电源 Power supply	Mpa	3P,50Hz,380V					
贮液器容积 Oil pump motor		m <sup>3</sup>	0.5		0.58		1	
冷凝器 Condenser	冷却水流量 Cooling Water Flow	m <sup>3</sup> /h	39	18	90	48	176	80
	冷却水进出口径 Cooling water inlet&outlet caliber	mm	80	80	125	125	125	125
油冷却器 Oil cooler	冷却水流量 Cooling Water Flow	m <sup>3</sup> /h	6	6	8.2	9.6	22	25
	冷却水进出口径 Cooling water inlet&outlet caliber	mm	32	32	32	32	65	65
外形尺寸 Outline dim.	长 L (mm)	mm	3070		3323		4020	
	宽 W (mm)	mm	1990		2042		2500	
	高 H (mm)	mm	1850		1917		2280	
机组重量 Weight		kg	3300	3200	4610	4470	7580	7480

注：1. 名义工况：冷凝器冷却水进出温度 32℃ / 36℃  
2. 机组电机电压可选 380V / 660V / 6000V / 10000V，订货时请注明。

Note: · Note:1.Nominal condition: condenser cooling water inlet/outlet temperature 32℃ / 36℃  
· Optional unit motor voltage 380 v / 660 v / 6000 v / 10000 v, please specify when ordering.

## YSLGF 系列螺杆盐水机组

### YSLGF SERIES BRINE CHILLER

#### 能力范围 Scope

项 目 Item	最大值 Maximum	最小值 Minimum	设计值 Design value	
冷却水 Cooling Water	冷却水 Cooling Water	33℃	10℃	30℃
	温差 Temperature Difference	15℃	4℃	5℃
冷冻水 Chilling Water	出水温度 Water Outlet Temperature	0℃	-35℃	见技术参数表 Technology Parameter
	温差 Temperature Difference	7℃	4℃	5℃

- 注：1. 当冷却水温度小于 20℃ 时，冷却水采用大温差。  
2. 冷却水水质不低于 GB50050《工业循环冷却水处理设计规范》中的要求。  
3. 当用户使用工况和设计值不同或改变机组用途时，应咨询供货商，做相应变动。

- Note: · Cooling water with large temperature difference when temperature of it is less than 20  
· The cooling water quality is not lower than GB50050 requirements in <industrial circulating cooling water treatment>  
· When the using condition is different from the design charge or change the unit value, consulting the supplier and make a corresponding change

#### 应用领域 Applicant

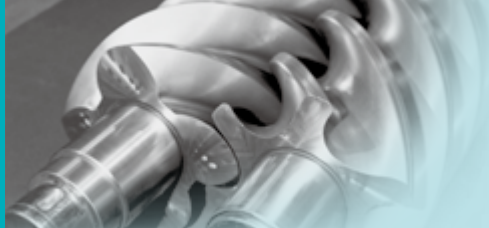
冰山 YSLGF 系列螺杆盐水机组，采用螺杆制冷压缩机组，配套高效的管壳式热交换器，具有能效比高、运行平稳等优点。机组设有自动能量调节及安全保护装置，操作简便，运行安全可靠，可广泛应用于石油、化工、煤炭、纺织、医药、水产、商业、食品工业和科研等需要人工制冷的场所。

YSVLGF series brine screw chiller adopts new series screw compressor unit, with high-efficiency shell-and-tube heat exchanger, having the advantages of high energy efficiency ratio, smooth and reliable operation and etc. Adopt automatic power control device and safety protection device, simple operation, safe and reliable running. Widely used in petroleum, chemical industry, coal, textile, medicine, seafood, commerce, food industry, scientific research, and the place needing artificial refrigeration.



#### 产品特性 Features

- 根据不同工况选配不同大小与结构的电机、蒸发器、冷凝器、节流机构等部件，机组各部始终处于最佳运行状态。
  - 采用高效卧式油分离器，分离效果更加突出；
  - 冷凝器、蒸发器、换热管均采用高效换热管，可靠性高。
  - 热交换器体积小、重量轻、换热效果更好盐水；
  - 节流机构、干燥过滤器等均采用丹麦 danfoss 产品，可靠性高；
  - 机组设置了冷量自动调节装置，可以在 10%~100% 范围内实现制冷量的无级调节，达到了经济节能的目的；
  - 机组设定了吸气压力低保护、排气压力高保护、排气温度高保护、盐水出水温度低保护、盐水流量低保护等，以防止机组运行故障，保护机组可靠运行；
  - 高智能化电气控制，英国嘉德 (GUARDIAN) 国际控制公司集欧美多家制冷公司的优点，针对“大冷”机组特点开发的专用微电脑控制器。运行速度更快、可靠性更高、控制功能更强，实现了模块化、网络化；
- \* According to the different working condition equipped different size and structure motor, evaporator, condenser, throttle mechanism, unit is always in the best running state
  - \* Adopt high-efficiency horizontal oil separator, having more outstanding separation effect.
  - \* Condenser adopt high-efficiency heat-exchange tube applied by American individual enterprise Woverine, having high reliability. Evaporator tube adopt copper-nickel tube applied by American individual enterprise Woverine, ensure brine side safety
  - \* Heat exchanger has small volume, light weight and the heat exchange efficiency is better.
  - \* Throttle mechanism and dry filter adopt danfoss from Denmark, with high reliability
  - Unit sets refrigerant capacity automatic regulating device, 10~100% capacity stepless adjustment, achieving the goal of the economic and energy saving
  - \* Unit sets suction pressure low protection, discharge pressure high protection, discharge temperature high protection, cooling water outlet temperature low protection, cooling water flow rate low protection and etc. in order to prevent the unit operation failure, protecting the unit reliable operation.
  - \* High intelligent electrical control, British GUARDIAN international control company integrates the advantages of many refrigeration companies in Europe and the United States, according to the characteristics of the units to develop dedicated microcomputer controller. Running faster, higher reliability and stronger control function, implement modularization and networking.



## YSLGF 系列螺杆盐水机组技术参数表

YSLGF Series Brine Chiller Specification & Data

项目 Item		YSLG12.5F(Z)	JYSLG12.5F(Z)	YSLG16F(Z)	JYSLG16F(Z)	YSLG20F(Z)				JYSLG20F(Z)					
单位 Unit															
制冷剂 Refrigerant		R22													
盐水适出水范围度 Brine outlet temp. range		°C	-10	-15	-10	-15	-10<ts-10	-20<ts-10	-25<ts-20	-10<ts-10	-20<ts-10	-25<ts-20	-30<ts-25	-35<ts-30	
名义制冷量 Refrigeration Capacity		kW	120	120	263	265	680	565	365	810	680	460	372	228	
机组制冷剂充装量 Refrigerant Charge		kg	100	180	180	180	400								
机组首次加油量 First charging oil		kg	130	220	220	220	400								
经济器 Economizer			无 No	有 Yes	无 No	有 Yes	无 No				有 Yes				
压缩机 Compressor	型号 Model		LG12.5		LG16		LG20								
	转速 Rotate Speed	r/min	2960												
	能量调节 Capacity Adjustable Range	%	10—100 无级调节 Stepless Adjustment												
电动机 Motor	功率 Power	kW	55	65	125	125	250	220	200	250	250	220	220	200	
	电源 Power Supply		3P,50Hz,380V												
油泵电机 Oil Pump Motor	功率 Power	kW	2.2		3		3								
	电源 Power Supply		3P,50Hz,380V												
蒸发器 Evaporator	盐水出水温度 Brine Inlet & Outlet Temp.	°C	-10	-15	-10	-15	-5	-10	-20	-5	-10	-20	-25	-35	
	盐水侧阻力 Brine Resistance	Mpa	≤0.07												
	盐水流量 Brine Flow	m³/h	24	24	52	53	132	112	74	157	135	94	76	48	
	盐水进出口径 Brine Inlet & Outlet Pipe	mm	80	80	100	100	150	150	150	150	150	150	150	150	
盐水质量浓度 Brine Mass Concentration	%	20.9	21.5	20.9	22.5	17	20.9	24.8	17	20.9	24.8	25.7	28		
冷凝器 Condenser	冷却水侧阻力 Cooling Water Resistance	MPa	≤0.07												
	冷却水流量 Cooling Water Flow	m³/h	32	34	70	73	142	120	80	170	145	103	86	55	
	冷却水进出口径 Cooling water inlet&outlet caliber	mm	80	80	125	125	150	150	150	150	150	150	150	150	
外形尺寸 Outline Dim.	长 L (mm)	mm	3000	3000	3320	3320	4780				3960				
	宽 W (mm)	mm	1810	1830	1954	1820	2560				2560				
	高 H (mm)	mm	1850	1850	2000	1950	2550				2550				
机组重量 Weight		kg	3500	4300	5000	5400	9220	9110	9020	8630	8530	8530	8450	8450	

注：1. 名义工况：冷冻水进出温差为 5℃，冷却水进出温度 30℃ / 35℃  
2. 机组电机电压可选 380V/440V/660V/6000V/10000V，订货时请注明。

Note: · Nominal condition: chilled water difference of inlet and outlet 5℃, cooling water inlet/outlet temperature 30℃ / 35℃  
· Optional unit motor voltage 380 v / 660 v / 6000 v / 10000 v, please specify when ordering.



# YCLGF 系列螺杆乙二醇机组

## YCLGF SERIES GLYCOL CHILLER

### 能力范围 Scope

项 目 Item	最大值 Maximum	最小值 Minimum	设计值 Design value
冷却水 Cooling Water	33°C	10°C	30°C
温差 Temperature Difference	15°C	4°C	5°C
冷冻水 Chilling Water	0°C	-25°C	见技术参数表 Technology Parameter
温差 Temperature Difference	8°C	4°C	5°C

注：1. 当冷却水温度小于 20°C 时，冷却水采用大温差。  
 2. 冷却水水质不低于 GB50050 《工业循环冷却水处理设计规范》中的要求。  
 3. 当用户使用工况和设计值不同或改变机组用途时，应咨询供货商，做相应变动。

Note: • Cooling water with large temperature difference when temperature of it is less than 20  
 • The cooling water quality is not lower than GB50050 requirements in <industrial circulating cooling water treatment>  
 • When the using condition is different from the design charge or change the unit value, consulting the supplier and make a corresponding change

### 应用领域 Applicant

冰山 YCLGF 系列螺杆乙二醇机组，采用螺杆制冷压缩机组，配套高效的管壳式热交换器，具有能效比高、运行平稳等优点。机组设有自动能量调节及安全保护装置，操作简便，运行安全可靠，可广泛应用于石油、化工、煤炭、纺织、医药、水产、商业、食品工业和科研等需要人工制冷的场所。

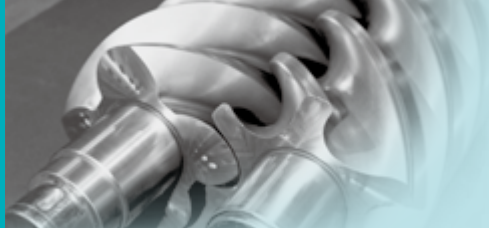
YCVLGF series glycol screw chiller adopts new series screw compressor unit, with high-efficiency shell-and-tube heat exchanger, having the advantages of high energy efficiency ratio, smooth and reliable operation and etc. Adopt automatic power control device and safety protection device, simple operation, safe and reliable running. Widely used in petroleum, chemical industry, coal, textile, medicine, seafood, commerce, food industry, scientific research, and the place needing artificial refrigeration.



### 产品特性 Features

- 根据不同工况选配不同大小与结构的电机、蒸发器、冷凝器、节流机构等部件，机组各部始终处于最佳运行状态。
- 采用高效卧式油分离器，分离效果更加突出。
- 冷凝器、蒸发器、换热管均采用高效换热管，可靠性高。
- 节流机构、干燥过滤器等均采用丹麦 danfoss 产品，可靠性高。
- 机组设置了冷量自动调节装置，可以在 10%-100% 范围内实现制冷量的无级调节，达到了经济节能的目的。
- 机组设定了吸气压力低保护、排气压力高保护、排气温度高保护、盐水出水温度低保护、盐水流量低保护等，以防止机组运行故障，保护机组可靠运行。
- 高智能化电气控制，英国嘉德 (GUARDIAN) 国际控制公司集欧美多家制冷公司的优点，针对“冰山”机组特点开发的专用微电脑控制器。运行速度更快、可靠性更高、控制功能更强，实现了模块化、网络化。

- \* According to the different working condition equipped different size and structure motor, evaporator, condenser, throttle mechanism, unit is always in the best running state
- \* Adopt high-efficiency horizontal oil separator, having more outstanding separation effect.
- \* Adopt refrigerant oil cooler, ensure no need cleaning oil cooler in using cycle
- \* American individual enterprise Woverine, having high reliability; At the same time, the heat exchanger has small volume, light weight and the heat exchange efficiency is better.
- \* Throttle mechanism and dry filter adopt danfoss from Denmark, with high reliability
- \* Unit sets refrigerant capacity automatic regulating device, 10~100% capacity
- \* stepless adjustment, achieving the goal of the economic and energy saving
- \* Unit sets suction pressure low protection, discharge pressure high protection, discharge temperature high protection, brine outlet temperature low protection, brine flow rate
- \* low protection and etc. in order to prevent the unit operation failure, protecting the unit reliable operation.
- High intelligent electrical control, British GUARDIAN international control company integrates the advantages of many refrigeration companies in Europe and the United States, according to the characteristics of the units to develop dedicated microcomputer controller. Running faster, higher reliability and stronger control function, implement modularization and networking.



## YCLGF 系列螺杆乙二醇机组技术参数表

YCLGF Series Glycol Chiller Specification & Data

单位 Unit		项目 Item	YCLG12.5F(Z)	JYCLG12.5F(Z)	YCLG16F(Z)	JYCLG16F(Z)	YCLG20F(Z)			JYCLG20F(Z)		
制冷剂 Refrigerant			R22									
盐水适出水范围度 Brine outlet temp. range		°C	-10	-15	-10	-15	-10<t≤0	-20<t≤-10	-25<t≤-20	-10<t≤0	-20<t≤-10	-25<t≤-20
名义制冷量 Refrigeration Capacity		kW	125	125	263	265	680	565	365	810	680	460
机组制冷剂充装量 Refrigerant in package unit		kg	100	100	180	180	400					
机组首次加油量 First charging oil		kg	130	130	220	220	400					
经济器 Economizer			无 No	有 Yes	无 No	有 Yes	无 No			有 Yes		
压缩机 Compressor	型号 Model		LG12.5		LG16		LG20					
	转速 Rotate Speed	r/min	2960									
	能量调节 Capacity adjustable	%	10—100 无级调节 Stepless Adjustment									
电动机 Motor	功率 Power	kW	55	65	125	125	250	220	200	250	250	220
	电源 Power Supply		3P,50Hz,380V									
油泵电机 Oil Pump Motor	功率 Power	kW	2.2		3		3					
	电源 Power Supply		3P,50Hz,380V									
蒸发器 Evaporator	乙二醇出水温度 Glyco outlet temp.	°C	-10	-15	-10	-15	-5	-10	-20	-5	-10	-20
	乙二醇侧阻力 Resistance	Mpa	≤0.07									
	乙二醇流量 Glyco flow	m³/h	23	24	49	50	124	106	74	147	128	93
	乙二醇进出口径 Dim. Of glyco inlet/outlet	mm	80	80	100	100	150	150	150	150	150	150
	乙二醇质量浓度 Glyco mass concentration	%	31	35	31.2	35	23.6	31.2	45	23.6	31.2	45
冷凝器 Condenser	冷却水侧阻力 Resistance	MPa	≤0.07									
	冷却水流量 Cooling Water Flow	m³/h	32	34	70	73	142	120	80	170	145	103
	冷却水进出口径 Cooling water inlet&outlet caliber	mm	80	80	125	125	150	150	150	150	150	150
外形尺寸 Outline Dim.	长 L (mm)	mm	3000	3000	3320	3320	3965			3960		
	宽 W (mm)	mm	1810	1830	1954	1820	2560			2560		
	高 H (mm)	mm	1850	1850	2000	1950	2550			2550		
机组重量 Weight		kg	3530	4200	5100	5400	8280	8180	8080	8640	8540	8440

注：1. 名义工况：冷冻水进出温差为 5℃，冷却水进出温度为 30℃ / 35℃。  
2. 机组电机电压可选 380V / 440V / 660V / 6000V / 10000V，订货时请注明。  
3. 当用户要求载冷剂出水温度低于 -25℃ 时，请使用其它非腐蚀性载冷剂代替乙二醇溶液。

Note: · Nominal condition: chilled water difference of inlet and outlet 5℃, cooling water inlet/outlet temperature 32℃ / 36℃  
· Optional unit motor voltage 380 v / 660 v / 6000 v / 10000 v, please specify when ordering.  
· When secondary refrigerant water outlet temperature below 25℃, please use other noncorrosive secondary refrigerant instead of glycol solution.



## 陆用制冷压缩机组

### LAND REFRIGERATION COMPRESSOR

#### 能力范围 Scope

制冷量 | Refrigeration Capacity

26.7~512 kW

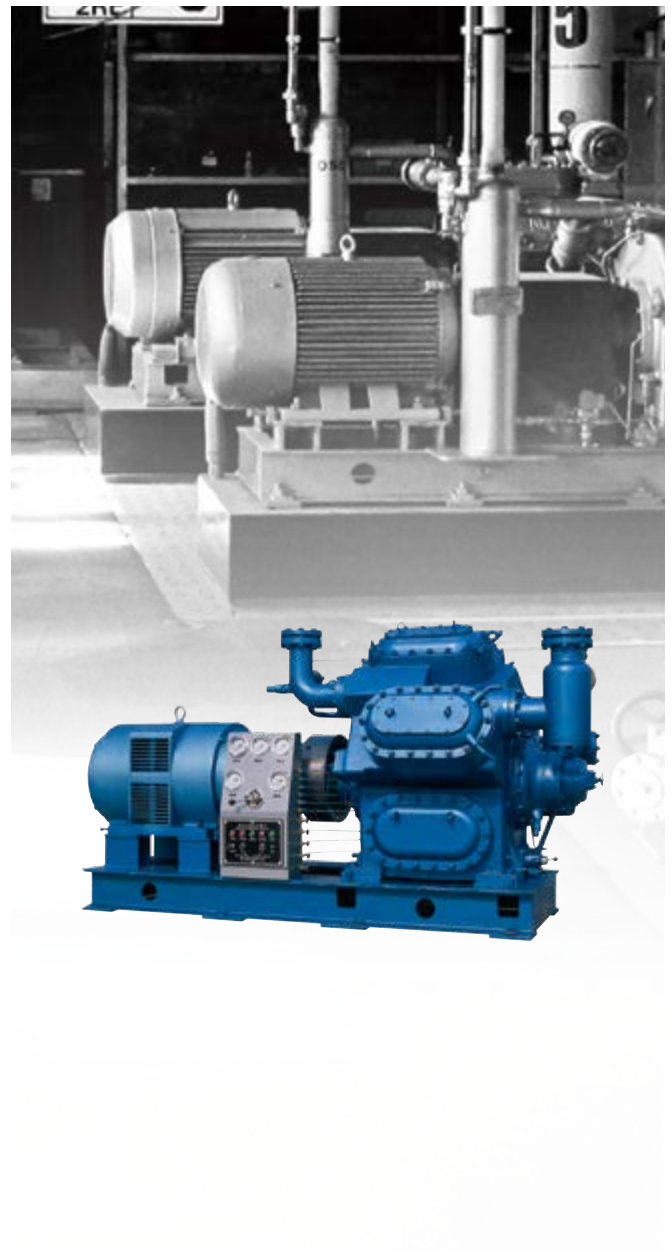
#### 应用领域 Application

广泛应用于国民经济各部门需要实现人工制冷的场合，如石油、化工、制药等工业产品的生产，国防、科研方面的低温试验，食品的低温加工贮藏和运输，工厂、医院及公共场所等大型建筑的空气调节等。

Widely used in various fields need to achieve artificial refrigeration, such as petroleum, chemical industry, pharmaceutical, cryogenic laboratory of national defense and scientific research, food low temp processing, storage and transportation, and low temperature test, low temperature processing of food storage and transportation, air conditioning in factories, hospitals and other large public places building.

#### 产品特性 Features

- 采用 Y 系列高效节能型电动机，防护等级为 IP23
  - 机组转速高、体积小、零部件互换性强
  - 压缩机轴封为进口轴封，密封垫为进口原材料
  - 设有能量调节装置，可实现无负荷启动
  - 装有放油三通阀，可在正常运转中加油
  - 运行安全可靠
- \* Adopt Y series of high efficiency energy-saving motors, protection class IP23
  - \* Unit is with high speed, small size and interchangeable parts
  - \* Compressor shaft seal and gasket are import brand.
  - \* Provided energy adjustment device to realize unit start without load
  - \* Equipped with three-way oil drainage valve. Oil can be charged during normal operation
  - \* Safe and reliable operation



# 活塞式压缩机组

Reciprocating Compressor Unit



## 100 系列活塞式压缩机组技术参数表

Series 100 Reciprocating Compressor Unit Technology Parameter Table

单位 Unit			型号 Model	2AZ10	4AV10	6AW10	8AS10	4ASJ10	8ASJ10
机组 Unit	制冷量 Refrigeration Capacity	标准工况 Standard Condition	kW	26.7	54	81.4	108	17.5 工况 -35°C /+35°C	37.2 工况 -35°C /+35°C
		空调工况 Air Conditioning Condition		54	116	174.4	232.6		
	轴功率 Shaft Power	标准工况 Standard Condition	kW	8.12	16	23.8	31.6	10.1 工况 -35°C /+35°C	20.4 工况 -35°C /+35°C
		空调工况 Air Conditioning Condition		12	24	36	48		
压缩机 Compressor	活塞行程容积 Theoretical Displacement		m³/h	63.3	126.6	190	253.3	31.65 (94.95)	63.3 (190)
	能量调节范围 Capacity Regulating Range				0,1/2,1	0,1/3,2/3,1	0,1/4,1/2,3/4,1	0,1/3,2/3,1	0,1/3,2/3,1
	进气管径 Suction Pipe Dia.		mm	50	50	65	80	32 (50)	40 (65)
	排气管径 Discharge Pipe Dia.		mm	40	50	65	80	32 (50)	40 (65)
	冷却水耗量 Cooling Water Consumption		kg/h	300	500	750	1000	500	1000
电机 Moter	功率 Power	标准工况 Standard Condition	kW	13	22	37	45	15	30
		空调工况 Air Conditioning Condition	kW	15	30	45	55		
	电压 Voltage	标准工况 Standard Condition	V	380				380	
		空调工况 Air Conditioning Condition	V	380					
	转数 Revolution	标准工况 Standard Condition	r/min	960				960	
		空调工况 Air Conditioning Condition	r/min	960					
外型尺寸 (长 x 宽 x 高) Outline (LXWXH)		标准工况 Standard Condition	mm	1495×747×850	1917×845×1320	2046×841×1153	2142×855×1167	1750×1135×1310	2663×1025×1978
		空调工况 Air Conditioning Condition	mm	1495×747×850	1989×845×1320	2115×841×1147	2191×855×1167		
机组重量 Unit Weight		标准工况 Standard Condition	kg	575	1066	1330	1520	1300	1700
		空调工况 Air Conditioning Condition	kg	603	1100	1480	1600		

注: 1. 适用条件: 单级: 最高排气压力 ≤ 1.5MPa, 最高排气温度 ≤ 150°C, 最大压差 ≤ 1.4MPa; 双级: 低压级, 最高排气压力 ≤ 0.7MPa, 最高排气温度 ≤ 120°C, 最大压差 ≤ 0.8MPa; 高压级, 最高排气压力 ≤ 1.5MPa, 最高排气温度 ≤ 150°C, 最大压差 ≤ 1.4MPa  
2. 括号内数据为低压级参数  
3. 标准工况: -15°C /30°C, 空调工况: +5°C /+40°C

Note: • Conditions: Single-stage: the maximum discharge pressure ≤ 1.5MPa, the maximum discharge temperature ≤ 150°C, the maximum pressure ≤ 1.4MPa; two-stage: Low stage, the maximum discharge pressure ≤ 0.7MPa, Maximum discharge temperature ≤ 120°C, the maximum pressure ≤ 0.8MPa; High stage, the maximum discharge pressure ≤ 1.5MPa, the maximum discharge temperature ≤ 150°C, the maximum pressure ≤ 1.4MPa  
• Data in parentheses are the low stage parameters  
• Standard condition: -15°C /30°C, Air conditioning condition: +5°C /+40°C

## 125 系列活塞式压缩机组技术参数表

Series 125 Reciprocating Compressor Unit Technology Parameter Table

单位 Unit		型号 Model		JZY812.5	JZY612.5	YFY412.5	JZY412.5	JZYS812.5
机组 Unit	制冷量 Refrigeration Capacity	标准工况 Standard Condition	kW	250	187.5	125	125	81
		空调工况 Air Conditioning Condition		545	409	272.5	272.5	
	轴功率 Shaft Power	标准工况 Standard Condition	kW	70.5	53	35.5	35.5	44.2
		空调工况 Air Conditioning Condition		106	79.5	53.5	53.5	
压缩机 Compressor	活塞行程容积 Theoretical Displacement		m <sup>3</sup> /h	565	424	282.5	282.5	141(424)
	能量调节范围 Capacity Regulating Range			0,1/4,1/2,3/4,1	0,1/3,2/3,1	0,1/2,1	0,1/2,1	0,1:1,1:2,1:3
	进气管径 Suction Pipe Dia.		mm	125	100	80	80	80(125)
	排气管径 Discharge Pipe Dia.		mm	100	80	60	60	60(100)
	冷却水耗量 Cooling Water Consumption		kg/h	1800	1500	1200	1200	1800
电机 Moter	功率 Power	标准工况 Standard Condition	kW	95	75	55	55	75
		空调工况 Air Conditioning Condition	kW	115	95	75	75	
	电压 Voltage	标准工况 Standard Condition	V	380				380
		空调工况 Air Conditioning Condition	V	380				
	转数 Revolution	标准工况 Standard Condition	r/min	1000				1000
		空调工况 Air Conditioning Condition	r/min	1000				
外型尺寸 (长 x 宽 x 高) Outline (LXWXH)		标准工况 Standard Condition	mm	2233×1123×1450	2196×1078×1381	2028×1260×1484	2028×951×1375	2184×1031×1446
		空调工况 Air Conditioning Condition	mm	2415×1123×1450	2246×1078×1381	2124×1260×1484	2124×951×1375	
机组重量 Unit Weight		标准工况 Standard Condition	kg	2933	2378	2123	1998	2540
		空调工况 Air Conditioning Condition	kg	3555	2688	2287	2162	

注：1. 适用条件：单级：最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa；双级：低压级，最高排气压力≤0.7MPa，最高排气温度≤120℃，最大压差≤0.8MPa；高压级，最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa  
 2. 括号内数据为低压级参数  
 3. 标准工况：-15℃/30℃，空调工况：+5℃/+40℃

Note：• Conditions: Single-stage: the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa; two-stage: Low stage, the maximum discharge pressure ≤0.7MPa, Maximum discharge temperature ≤120℃, the maximum pressure ≤0.8MPa; High stage, the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa  
 • Data in parentheses are the low stage parameters  
 • Standard condition: -15℃/30℃, Air conditioning condition: +5℃/+40℃

# 活塞式压缩机组

Reciprocating Compressor Unit



## 170 系列活塞式氨制冷压缩机组技术参数表

Series 170 Reciprocating Compressor Unit Technology Parameter Table

单位 Unit			型号 Model		JZY4AV17	JZY6AW17	JZY8AS17	JZY4ASJ17	JZY8ASJ17
机组 Unit	制冷量 Refrigeration Capacity	标准工况 Standard Condition	kW	256	384	512	81.4	163	
		空调工况 Air Conditioning Condition		558	840	1116			
	轴功率 Shaft Power	标准工况 Standard Condition	kW	71.9	107.1	142	42.75	83.9	
		空调工况 Air Conditioning Condition		107	160	213			
压缩机 Compressor	活塞行程容积 Theoretical Displacement		m <sup>3</sup> /h	550	825	1100	137(412)	275(825)	
	能量调节范围 Capacity Regulating Range			0,1/2,1	0,1/3,2/3,1	0,1/4,1/2,3/4,1	0,1/3,2/3,1	0,1/3,2/3,1	
	进气管径 Suction Pipe Dia.		mm	100	125	150	65(100)	80(125)	
	排气管径 Discharge Pipe Dia.		mm	80	100	125	65(80)	65(100)	
	冷却水耗量 Cooling Water Consumption		kg/h	2000	3000	4000	1500	2000	
电机 Moter	功率 Power	标准工况 Standard Condition	kW	95	132	190	70	132	
		空调工况 Air Conditioning Condition	kW	132	190	250			
	电压 Voltage	标准工况 Standard Condition	V	380			380		
		空调工况 Air Conditioning Condition	V	380					
	转数 Revolution	标准工况 Standard Condition	r/min	750			750		
		空调工况 Air Conditioning Condition	r/min	750					
外型尺寸 (长 x 宽 x 高) Outline (LXWXH)		标准工况 Standard Condition	mm	2730×1273×1653	2923×1465×1939	3074×1550×1971	2586×1579×1721	2901×1546×1816	
		空调工况 Air Conditioning Condition	mm	2781×1273×1653	3023×1465×1939	3144×1550×1971			
机组重量 Unit Weight		标准工况 Standard Condition	kg	5080	5500	6040	4320	5850	
		空调工况 Air Conditioning Condition	kg	5160	5570	6190			

注: 1. 适用条件: 单级: 最高排气压力 ≤ 1.5MPa, 最高排气温度 ≤ 150°C, 最大压差 ≤ 1.4MPa; 双级: 低压级, 最高排气压力 ≤ 0.7MPa, 最高排气温度 ≤ 120°C, 最大压差 ≤ 0.8MPa; 高压级, 最高排气压力 ≤ 1.5MPa, 最高排气温度 ≤ 150°C, 最大压差 ≤ 1.4MPa  
2. 括号内数据为低压级参数  
3. 标准工况: -15°C /30°C, 空调工况: +5°C /+40°C

Note: · Conditions: Single-stage: the maximum discharge pressure ≤ 1.5MPa, the maximum discharge temperature ≤ 150°C, the maximum pressure ≤ 1.4MPa; two-stage: Low stage, the maximum discharge pressure ≤ 0.7MPa, Maximum discharge temperature ≤ 120°C, the maximum pressure ≤ 0.8MPa; High stage, the maximum discharge pressure ≤ 1.5MPa, the maximum discharge temperature ≤ 150°C, the maximum pressure ≤ 1.4MPa  
· Data in parentheses are the low stage parameters  
· Standard condition: -15°C /30°C, Air conditioning condition: +5°C /+40°C

## 船用活塞压缩机组

### MARINE RECIPROCATING COMPRESSOR UNIT

#### 能力范围 Scope

制冷量 | Refrigeration Capacity

**26.7~512 kW**

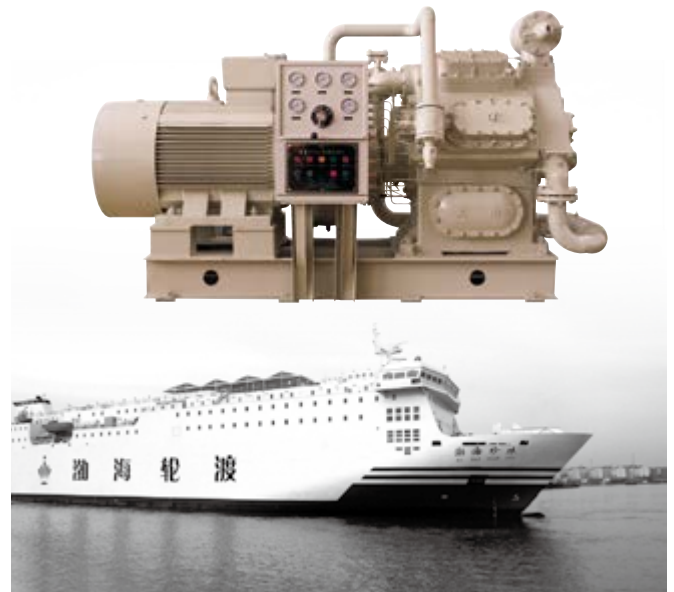
#### 应用领域 Application

活塞式制冷压缩机在冷凝温度  $\leq 40^{\circ}\text{C}$ ，蒸发温度单级  $+5^{\circ}\text{C} \sim -30^{\circ}\text{C}$ 、双极  $-25^{\circ}\text{C} \sim -45^{\circ}\text{C}$  的范围内，应用于船上的食品低温加工、冷藏运输及船上的空气调节。

船用超低温压缩机的最低蒸发温度可达  $-70^{\circ}\text{C}$ ，可用于需要超低温冷冻的场合，如金枪鱼的冷冻及冷藏等。

Reciprocating compressors are widely applied in marine food low temperature processing, refrigerated shipment and air conditioning under the condition of less than or equal to  $40^{\circ}\text{C}$  of condensing temp, evaporative temp of  $+5^{\circ}\text{C} \sim -30^{\circ}\text{C}$  for single-stage, and  $-25^{\circ}\text{C} \sim -45^{\circ}\text{C}$  for dual-stage.

Marine super-low temp. reciprocating compressor could be reach  $-70^{\circ}\text{C}$  of evaporative temp in lowest, which could be applied in super-low temp freezing and refrigerating system, such as tuna processing etc.



#### 产品特性 Features

- 船用压缩机组中的压缩机有单级、单机双极和超低温三种机型，均属高速、多缸、逆流式压缩机，设有能量调节装置，可实现无负荷启动，压缩机还设有装放油阀，可在运转中加油
- 压缩机组由压缩机、电动机、控制台等组成，其中，单机双级机型还设有中间冷却器
- 所有机组均设有高效油分离器和自动回油装置
- 这些部件均安装在同一公共基座上
- 控制台上装有高、中压、油压继电器，保护机器运行安全可靠
- 另，船用机组均经摇摆台试验，可保证在航行中的可靠运行

- \* Marine reciprocating compressors include three models, single stage, single dual-stage and super-low temp.
- \* All of them belong to high-speed, multi-cylinder and counterflow type compressor.
- \* The unit is equipped with capacity adjustment device to realize no load starting, equipped with oil charge / discharge valve to make it possible to charge lubrication oil in running condition.
- \* The compressor package unit is composed of compressor, motor, control board etc.
- \* Besides that, single dual-stage compressor is equipped with inter-cooler as well.
- \* All units are equipped with high efficiency oil separator and auto oil return device.
- \* Above elements are mounted in a common base .
- \* The control board include high and middle pressure relay, oil pressure relay, which could protect the compressor to be safe and reliable.
- \* To ensure the reliability during royaage, all the marine reciprocating compressors should be tested on swinging eaperimental bench.

# 船用压缩机组

Marine Compressor Unit

## 船用活塞压缩机组技术参数表

Marine Reciprocating Compressor Unit Technology Parameter Table

单位 Unit	型号 Model	CYF4F <sub>2</sub> V10	CYF6F <sub>2</sub> W10	CYF8F <sub>2</sub> S10	CYF4F <sub>2</sub> SJ10	YF18F <sub>2</sub> SJ10	CHS2F <sub>2</sub> Z10	CJZT810C
制冷剂 Refrigerant		R22						
工况 Work Condition	°C	-15/30			-35/35		-5/40	-35/35
机组制冷量 Unit Ref. Cap.	kW	52.3	81.4	104	18.3	36.6	51.2	54.4
形式 Type		开启式 Open Type						
压缩机型号 Compressor Model		4F <sub>2</sub> V10	6F <sub>2</sub> W10	8F <sub>2</sub> S10	4F <sub>2</sub> SJ10	8F <sub>2</sub> SJ10	2F <sub>2</sub> Z10	T810C
压缩机理论输气量 Compressor Theoretical Volume	m <sup>3</sup> /h	126.6	190	253.3	高压 High stage 31.65	高压 High stage 63.3	63.3	高压 High stage 90.4
					低压 Low stage 94.95	低压 Low stage 190		低压 Low stage 272
能量调节范围 Cap. Regulating Range		0,1/2,1	0,1/3,2/3,1	0,1/4,1/2,3/4,1	0,1/3,2/3,1	0,1/3,2/3,1		0,1/3,2/3,1
电制 Power	V	220V/50Hz、380V/50Hz						
配用电动机型号及功率 Motor Type and Power	kW	YH200L2-6/22	YH250M-6/37	YH280S-6/45	YH200L1-6/18.5	YH225M-6/30	YH180L-6/15	YH250M-6/37
启动柜 Starting Cabinet		CYF4F <sub>2</sub> SJ10-G			CYF4F <sub>2</sub> SJ10-G	8F <sub>2</sub> SJ10-CG	CHS2F <sub>2</sub> Z10-ZT	CJZT810C-G
压缩机转数 Revolution	r/min	960						
压缩机吸气管径 Suction Pipe Dia.	mm	50	65	100	高压 High stage 32	高压 High stage 40	50	高压 High stage 60
					低压 Low stage 50	低压 Low stage 65		低压 Low stage 80
压缩机排气管径 Discharge Pipe Dia	mm	50	65	80	高压 High stage 32	高压 High stage 40	40	高压 High stage 50
					低压 Low stage 50	低压 Low stage 65		低压 Low stage 60
压缩机曲轴箱装油量 Crankshaft Box Oil Cap.	kg	12	15	15	8	15	8.5	20
机组重量 Unit Weight	kg	1130	1450	1675	1124	1655	3100	1836
外型尺寸 Outline(长×宽×高)(LxWxH)	mm	1920×950×1350	2065×1175×1320	2225×1285×1475	2075×960×1535	2300×1010×1520	2110×1020×1300	2048×1073×1204
备注 Remark					装有中间冷却器 Equipped with intercooler			装有直接式冷却器 Equipped with direct-cooler



## 船用活塞压缩机组技术参数表

### Marine Reciprocating Compressor Unit Technology Parameter Table

单位 Unit	型号 Model	CJZT810CD	CJZS812.5-1	CJZS812.5C	CJZS812.5CDW	CJZ812.5	CYF612.5	CYF412.5	
制冷剂 Refrigerant		R22							
工况 Work Condition	°C	-35/35			-60/35	+5/40	-15/35	-15/30	
机组制冷量 Unit Ref. Cap.	kW	54.4	93.31	102.64	22.41	470	169.3	120	
形式 Type		开启式 Open Type							
压缩机型号 Compressor Model		T810C	CS812.5	CS812.5C	CS812.5CDW	812.5-1	612.5-1	412.5-1	
压缩机理论输气量 Compressor Theoretical Volume	m³/h	高压 High stage 90.4	高压 High stage 141	高压 High stage 155	高压 High stage 155	565	424	283	
		低压 Low stage 272	低压 Low stage 424	低压 Low stage 466	低压 Low stage 466				
能量调节范围 Cap. Regulating Range		0,1/3,2/3,1	0,1/3,2/3,1	0,1/3,2/3,1	0,1/3,2/3,1	0,1/4,1/2,3/4,1	0,1/3,2/3,1	0,1/2,1	
电制 Power	V	220V/50Hz、380V/50Hz							
配用电机型号及功率 Motor Type and Power	kW	Y280T-6/37	Y-H315S-6/75kw			132	75	55	
启动柜 Starting Cabinet		CJZT810C-G	CJZS812.5-G220/ CJZS812.5-G380						
压缩机转数 Revolution	r/min	960							
压缩机吸气管径 Suction Pipe Dia.	mm	80	低压 Low stage 125			125	100	80	
压缩机排气管径 Discharge Pipe Dia.	mm	50	高压 High stage 65			100	80	65	
压缩机曲轴箱装油量 Crankshaft Box Oil Cap.	kg	20	40	40	40	40	37	37	
机组重量 Unit Weight	kg	1719	2800		2850	3425	2680	2050	
外型尺寸 (长×宽×高) Outline (LxWxH)	mm	1612×1040×1036	2660×1350×1560		2660×1400×1700	2600×1650×1644	2500×1550×1420	2300×1450×1400	
备注 Remark		装有直接式冷却器 Equipped with intercooler							

注：1. 适用条件：单级：最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa；双级：低压级，最高排气压力≤0.7MPa，最高排气温度≤120℃，最大压差≤0.8MPa；高压级，最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa

2. 括号内数据为低压级参数

3. 标准工况：-15℃/30℃，空调工况：+5℃/+40℃

Note：• Conditions: Single-stage: the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa; two-stage: Low stage, the maximum discharge pressure ≤0.7MPa, Maximum discharge temperature ≤120℃, the maximum pressure ≤0.8MPa; High stage, the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa

• Data in parentheses are the low stage parameters

• Standard condition: -15℃/30℃, Air conditioning condition: +5℃/+40℃

## 船用螺杆压缩机组

### MARINE SCREW COMPRESSOR UNIT

#### 能力范围 Scope

制冷量 | Refrigeration Capacity

363~866kW

#### 应用领域 Application

广泛应用于船上的食品低温加工、冷藏运输及船上的空气调节。

Widely applied in ship of food preservation, refrigerated transportation and marine air conditioning.

#### 产品特性 Features

##### ■ 可靠性：

- 1、滑动轴承，运转寿命长
- 2、易损件少，运转平稳，适合长期运行
- 3、机组针对海上运行环境进行专门设计，机组均经摇摆台试验，可保证在航行中的可靠运行。

##### ■ 高效性：

- 1、排气温度低，容积效率较高
- 2、国际领先的螺杆压缩机转子型线，效率高
- 3、能力无级调节

##### ■ 智能化：

- 1、手动和微电脑全自动控制两种控制方式
- 2、由英国嘉德公司开发的专用微电脑控制器，速度快、控制功能强，实现了模块化、网络化

##### \* High reliability

1. Adopt sliding bearings, long operating life
2. Less wearing parts, smooth operation, suitable for long-term operation
3. Unit designs according to the marine operating environment, through rolling table test, ensure reliable operation in the sailing.

##### \* High efficiency

1. Low exhaust temperature, high volumetric efficiency
2. Adopt world leading screw compressor rotor profile, high efficiency
3. Energy stepless adjustment

##### \* Intellectualized

1. Manual control method and microcomputer automatic control method
2. The special microcomputer controller developed by UK Guardian company, have features of fast running speed, strong control capability. And realize modularization and networking.

## 船用螺杆压缩机技术参数表

Marine Screw Compressor Unit Technology Parameter Table

单位 Unit		型号 Model	CJZKF <sub>2</sub> 16W		CJJZKF <sub>2</sub> 16W		CJZLG20F		CJJZLG20F			
机组 Unit	制冷剂 Refrigerant		R22									
	工况 Condition	°C	+5/+40	-10/+35		-35/+35	+5/+40	-10/+35		-35/+35		
	制冷量 Refrigerating capacity	kW	594	363	407	158	1264	773	866	337		
	轴功率 Shaft power	kW	111	97	105	88	233	204	220	185		
	首次加油量 First charging oil	kg	220				400					
	吸气管管径 Suction pipe diameter		DN 100				DN 150					
	排气管管径 Discharge pipe diameter		DN 80				DN 100					
	机组外形尺寸 Outline dimension	mm					2850×1280×1900		3100×1390×2120		3100×1420×2120	
	重量 Weight	kg			3435	3650	5670	5620	5900	5420		
压缩机 Compressor	型号 Type		LG16				LG20					
	理论输气量 Theroretical discharge	m <sup>3</sup> /h	580				1215					
	能量调节范围 Capacity adjustable range	%	10-100 无级调节 Stepless regulation									
主电机 Motor	型号 Type		Y315M-2H		Y315S-2H	Y355M2-2H	Y355M1-2H		Y315L2-2H			
	额定功率 Rated power	kW	132		110	250	220		200			
	电制 Power supply		3P、380V、50Hz									
油泵 Oil pump	型号 Type		Y100L2-4H									
	循环油量 Circulation oil rate	L/min	120									
	电机功率 Motor power	kW	3									
油冷却器 Oil cooler	冷却介质 Cooling medium		海水 Sea-water									
	进水温度 Water inlet temperature	°C	≤32									
	进水管径 Inlet&outlet pipe diameter		DN 50				DN 65					
	最大循环水量 Max.circulation water rate	m <sup>3</sup> /h	10				17					

注：1. 适用条件：单级：最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa；双级：低压级，最高排气压力≤0.7MPa，最高排气温度≤120℃，最大压差≤0.8MPa；高压级，最高排气压力≤1.5MPa，最高排气温度≤150℃，最大压差≤1.4MPa  
 2. 括号内数据为低压级参数  
 3. 标准工况：-15℃/30℃，空调工况：+5℃/+40℃

Note: Conditions: Single-stage: the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa; two-stage: Low stage, the maximum discharge pressure ≤0.7MPa, Maximum discharge temperature ≤120℃, the maximum pressure ≤0.8MPa; High stage, the maximum discharge pressure ≤1.5MPa, the maximum discharge temperature ≤150℃, the maximum pressure ≤1.4MPa  
 • Data in parentheses are the low stage parameters  
 • Standard condition: -15℃/30℃, Air conditioning condition: +5℃/+40℃

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