



Single-Stage Screw Refrigeration Compressor Unit

Features

- The compressor has a full type spectrum and the displacement range is 285 m³/h ~ 14000m³/h;
- It is widely used and can be operated under high temperature, moderate temperature and low temperature conditions;
- The unit is suitable for R717, R507A, R404A and other working mediums;
- The unit can be customized according to the special needs of users;
- The standard configuration control mode is automatic.

Applicable Conditions

Refrigerant	R717A	R507A
Discharge Pressure (MPa)	≤1.67	≤1.95
Suction Pressure (MPa)	-0.03 ~ 0.586	
Oil Pressure (MPa)	0.1 ~ 0.3 Higher Than Discharge Pressure	
Oil Temperature (°C)	30 ~ 65	
Cooling Water Inlet Temperature (°C)	15 ~ 33	
Cooling Water Flow Deviation	±10%	

Note: If it is out of the conditions above, please contact MOON-TECH for making non-standard order.

Single-Stage Screw Refrigeration Compressor Model

LG X X X X

- Unit type: J refers to built-in economizer; others don't mean so.
- Cooling Method of Oil Cooler: Y means liquid cooling; Z means water cooling
- Rotor Lead: S, D, M, K, L and T leads are lengthened in turn
- Rotor Nominal Diameter: expressed in Arabic numerals in cm
- LG stands for screw



Main Technical Parameters of Unit

Item		Unit	Series 12 M	Series 16S	Series 16M	Series 20S	
Refrigerant		Category	R717/R507A				
Theoretical Displacement of Compressor		m ³ /h	285	385	598	806	
Refrigerating Capacity	High Temperature Conditions	kW	316/239	440/333	692/526	1001/711	
	Moderate Temperature Conditions	kW	175/161	244/224	384/355	555/480	
	Low Temperature Conditions	kW	62/63	88/89	138/141	201/194	
Motor Rated Power	High Temperature Conditions	kW	65/75	90/110	132/160	185/220	
	Moderate Temperature Conditions	kW	65/75	90/110	132/160	185/220	
	Low Temperature Conditions	kW	55/65	75/90	110/132	160/185	
Electrical System			3P 50HZ 380V				
Rated Speed		r/min	2960				
Charging Volume of Refrigeration Oil		L	~ 160	~ 240	~ 380		
Inlet and Outlet Pipe Diameter		mm	DN80/ DN65	DN125/ DN80		DN150/ DN100	
Inlet and Outlet Pipe Diameter of Economizer		mm	DN50	DN50	DN50	DN65	
Safety Valve Diameter		mm	DN20	DN25		DN32	
Oil Cooler	Type		Shell and Tube				
	Water Cooling	Inlet and Outlet Pipe Diameter	mm	DN32	DN40		DN65
		Cooling Water Flow	m ³ /h	~ 10	~ 15	~ 15	~ 20
		Water Quality Standard	GB50050 "Code for Design of Industrial Recirculating Cooling Water Treatment"				
	Liquid Cooling	Liquid Inlet Pipe Diameter	mm	DN25	DN32		DN40
		Discharge Pipe Diameter	mm	DN40	DN50		DN65
Oil Pump	Model		ZHB80P6	ZHB125P4		ZHB125P4 or ZHB150P6*	
	Motor Power	kW	1.5	2.2		2.2 or 3*	
Dimensions (L*W*H)		mm	2620X1370x1780	3060X1470x2030		3180X1640x2260	
Net Weight of Unit		kg	~ 2000	~ 2450	~ 2750	~ 4450	

Note:

1. High temperature working condition is +40/+5°C , moderate temperature working condition is +40/-10°C , low temperature working condition is +40/-35°C ; the corresponding high temperature working condition of R507A is +40/+ 0°C ;

With economizer, the liquid outlet temperature is 5°C higher than the saturation temperature of the air make-up pressure. The cooling water inlet temperature of the oil cooler is +33°C , and the temperature difference between the inlet and outlet water is 5°C .

2. *For series LG20S, the motor power is 3kW when used in R507A.

Item		Unit	Series 20M	Series 20L	Series 20T	Series 25S	
Refrigerant		Category	R717/R507A				
Theoretical Displacement of Compressor		m ³ /h	1120	1486	1670	1825	
Refrigerating Capacity	High Temperature Conditions	kW	1339/1007	1756/1320	1872/1411	2172/1642	
	Moderate Temperature Conditions	kW	743/680	975/892	1040/954	1207/1110	
	Low Temperature Conditions	kW	269/272	353/357	385/382	443/453	
Motor Rated Power	High Temperature Conditions	kW	250/315	315/400	400/450	450/500	
	Moderate Temperature Conditions	kW	250/315	315/400	400/450	400/500	
	Low Temperature Conditions	kW	200/250	250/355	280/400	315/450	
Electrical System			3P 50HZ 380V	3P 50HZ 380V 3P 50HZ 10kV (or 6kV)	3P 50HZ 10kV (or 6kV)		
Rated Speed		r/min	2960				
Charging Volume of Refrigeration Oil		L	~ 380	~ 450	~ 650	~ 700	
Inlet and Outlet Pipe Diameter		mm	DN150/ DN100	DN200/ DN150	DN200/ DN150	DN200/ DN150	
Inlet and Outlet Pipe Diameter of Economizer		mm	DN65	DN65	DN65	DN80	
Safety Valve Diameter		mm	DN32	DN50	DN50	DN50	
Oil Cooler	Type		Shell and Tube				
	Water Cooling	Inlet and Outlet Pipe Diameter	mm	DN65	DN65	DN65	DN65
		Cooling Water Flow	m ³ /h	~ 25	~ 30	~ 35	~ 35
		Water Quality Standard	GB50050 "Code for Design of Industrial Recirculating Cooling Water Treatment"				
	Liquid Cooling	Liquid Inlet Pipe Diameter	mm	DN40	DN40	DN40	DN50
		Discharge Pipe Diameter	mm	DN65	DN65	DN65	DN80
Oil Pump	Model		ZHB125P4 or ZHB150P6*		ZHB150P6	ZHB220P4	
	Motor Power	kW	2.2 or 3*		3	4	
Dimensions (L*W*H)		mm	3180X1610x2260	3610X1760x2540	4300X2140x3070	4600X2140x3150	
Net Weight of Unit		kg	~ 4660	~ 5900	~ 10000	11000 ~ 12000	

Note:

- High temperature working condition is +40/+5°C , moderate temperature working condition is +40/-10°C , low temperature working condition is +40/-35°C ; the corresponding high temperature working condition of R507A is +40/+0°C ;
With economizer, the liquid outlet temperature is 5°C higher than the saturation temperature of the air make-up pressure. The cooling water inlet temperature of the oil cooler is +33°C , and the temperature difference between the inlet and outlet water is 5°C .
- When the high-voltage motor is selected for the unit LG20L, the oil charge is 700kg, and the external dimensions and quality refer to the series LG20T.
- * For series LG20M/LG20L, the motor power is 3kW when used in R507A.



Main Technical Parameters of Unit

Item		Unit	Series 25M	Series 25K	Series 25L	Series 25T
Refrigerant		Category	R717/R507A			
Theoretical Displacement of Compressor		m ³ /h	2289	2564	2840	3208
Refrigerating Capacity	High Temperature Conditions	kW	2731/2069	2906/2275	3393/2579	3691/2890
	Moderate Temperature Conditions	kW	1518/1400	1618/1540	1889/1746	2055/1956
	Low Temperature Conditions	kW	557/567	594/622	694/ 705	755/790
Motor Rated Power	High Temperature Conditions	kW	500/630	560/710	630/800	710/900
	Moderate Temperature Conditions	kW	500/630	560/710	560/800	710/900
	Low Temperature Conditions	kW	400/560	400/630	500/710	500/800
Electrical System			3P 50HZ 10kV (or 6kV)			
Rated Speed		r/min	2960			
Charging Volume of Refrigeration Oil		L	~ 700	~ 700	~ 700	~ 1000
Inlet and Outlet Pipe Diameter		mm	DN200/ DN150	DN250/ DN150	DN250/ DN150	DN350/ DN150
Inlet and Outlet Pipe Diameter of Economizer		mm	DN80	DN80	DN80	DN125
Safety Valve Diameter		mm	DN50	DN50	DN50	2XDN50
Oil Cooler	Type		Shell and Tube			
	Water Cooling	Inlet and Outlet Pipe Diameter	mm	Dn65		Dn100
		Cooling Water Flow	m ³ /h	~ 55		~ 90
		Water Quality Standard	Gb50050 "Code for Design of Industrial Recirculating Cooling Water Treatment"			
	Liquid Cooling	Liquid Inlet Pipe Diameter		DN50		DN65
Discharge Pipe Diameter		mm	DN80		DN125	
Oil Pump	Model		ZHB220P4		ZHB300P8	
	Motor Power		kW	4		5.5
Dimensions (L*W*H)		mm	4600X2140x3150		7990X2930x3650	
Net Weight of Unit		kg	11000 ~ 12000		~ 19000	

Note:

1. High temperature working condition is +40/+5°C , moderate temperature working condition is +40/-10°C , low temperature working condition is +40/-35°C ; the corresponding high temperature working condition of R507A is +40/+ 0°C ;
2. With economizer, the liquid outlet temperature is 5°C higher than the saturation temperature of the air make-up pressure. The cooling water inlet temperature of the oil cooler is +33°C , and the temperature difference between the inlet and outlet water is 5°C .

Item		Unit	Series 32S	Series 32D	Series 32M	Series 32L	
Refrigerant		Category	R717 / R507A				
Theoretical Displacement of Compressor		m ³ /h	3500	3920	4341	5182	
Refrigerating Capacity	High Temperature Conditions	kW	4118/3130	4395/3442	5167/3930	6178/4696	
	Moderate Temperature Conditions	kW	2292/2119	2446/2329	2877/2659	3439/3178	
	Low Temperature Conditions	kW	844/861	901/946	1060/1080	1268/1287	
Motor Rated Power	High Temperature Conditions	kW	800/1000	900/1120	1000/1120	1120/1400	
	Moderate Temperature Conditions	kW	710/1000	800/1000	900/1120	1000/1400	
	Low Temperature Conditions	kW	560/800	630/900	710/1000	900/1250	
Electrical System		3P 50HZ 10kV (or 6kV)					
Rated Speed		r/min	2960				
Charging Volume of Refrigeration Oil		L	~ 1250				
Inlet and Outlet Pipe Diameter		mm	DN350/ DN200				
Inlet and Outlet Pipe Diameter of Economizer		mm	DN125				
Safety Valve Diameter		mm	2XDN50				
Oil Cooler	Type		Shell and Tube				
	Water Cooling	Inlet and Outlet Pipe Diameter	mm	DN100			
		Cooling Water Flow	m ³ /h	~ 90			
		Water Quality Standard	GB50050"Code for Design of Industrial Recirculating Cooling Water Treatment"				
	Liquid Cooling	Liquid Inlet Pipe Diameter	mm	DN65			
		Discharge Pipe Diameter	mm	DN125			
Oil Pump	Model		ZZB400P6				
	Motor Power	kW	7.5				
Dimensions (L*W*H)		mm	~ 7990x2930x3650				
Net Weight of Unit		kg	~ 21700				

Note:

- High temperature working condition is +40/+5°C , moderate temperature working condition is +40/-10°C , low temperature working condition is +40/-35°C ; the corresponding high temperature working condition of R507A is +40/+ 0°C ;
- With economizer, the liquid outlet temperature is 5°C higher than the saturation temperature of the air make-up pressure. The cooling water inlet temperature of the oil cooler is +33°C , and the temperature difference between the inlet and outlet water is 5°C .



Main Technical Parameters of Unit

Item		Unit	Series 32T	Series 40S	Series 40M	Series 40L
Refrigerant		Category	R717/R507A			
Theoretical Displacement of Compressor		m ³ /h	5890	6514	7539	9500
Refrigerating Capacity	High Temperature Conditions	kW	6660/5215	7362/5711	8415/6548	10112/7958
	Moderate Temperature Conditions	kW	3708/3530	4099/3868	4760/4471	5586/5274
	Low Temperature Conditions	kW	1367/1430	1494/1530	1757/1763	2013/2134
Motor Rated Power	High Temperature Conditions	kW	1250/1600	1600/1800	1800/2240	2200/2500
	Moderate Temperature Conditions	kW	1120/1500	1400/1800	1600/2240	2200/2500
	Low Temperature Conditions	kW	1000/1400	1120/1500	1250/2000	1600/2200
Electrical System			3P 50HZ 10kV (or 6kV)			
Rated Speed		r/min	2960			
Charging Volume of Refrigeration Oil		L	~ 1250	~ 1800	~ 2600	
Inlet and Outlet Pipe Diameter		mm	DN350/ DN250	DN400/ DN300		
Inlet and Outlet Pipe Diameter of Economizer		mm	DN125	DN150	DN200	
Safety Valve Diameter		mm	2XDN50	2XDN50	2xDN80	
Oil Cooler	Type		Shell and Tube			
	Water Cooling	Inlet and Outlet Pipe Diameter	mm	DN100	DN125	DN150
		Cooling Water Flow	m ³ /h	~ 90	~ 150	~ 210
		Water Quality Standard		GB50050 "Code for Design of Industrial Recirculating Cooling Water Treatment"		
	Liquid Cooling	Liquid Inlet Pipe Diameter	mm	DN65	DN125	DN150
		Discharge Pipe Diameter	mm	DN125	DN150	DN200
Oil Pump	Model		ZZB400P6	ZZB800P6	ZZB1200P4	
	Motor Power		kW	7.5	15	22
Dimensions (L*W*H)		mm	~ 7990x2930x3650	~ 9920x3500x4550	12000x4420x4900	
Net Weight of Unit		kg	~ 26000	~ 37000	~ 41000	

Note:

- High temperature working condition is +40/+5°C , moderate temperature working condition is +40/-10°C , low temperature working condition is +40/-35°C ; the corresponding high temperature working condition of R507A is +40/+ 0°C ;
- With economizer, the liquid outlet temperature is 5°C higher than the saturation temperature of the air make-up pressure. The cooling water inlet temperature of the oil cooler is +33°C , and the temperature difference between the inlet and outlet water is 5°C .



MOON-TECH advocates the use of ODP=0, low-GWP environmentally-friendly working medium, independently research and develop green and efficient compressor products, and actively promotes the process of working medium substitution. Due to the limited space, the sample book cannot list detailed compressor performance parameters, outline drawings of unit, work flow charts and foundation drawings, etc. If necessary, please contact our staff.