



## Skid-Mounted Separate Two-Stage Screw Compressor Unit

### Features

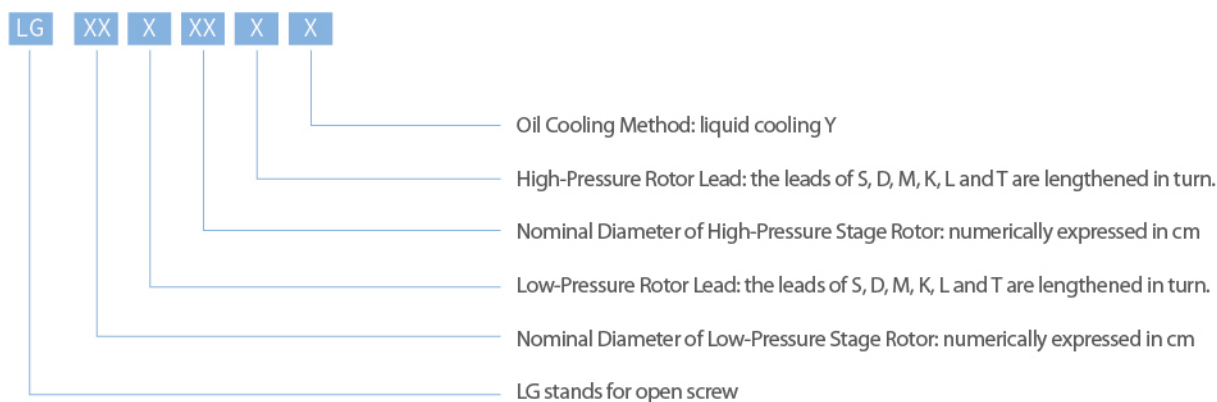
- It is suitable for low temperature refrigeration under evaporating temperature below  $-25^{\circ}\text{C}$ , and the efficiency is significantly higher than that of single-stage compressor unit with economizer;
- The mixing ratio is diverse. The optimum ratio can be selected according to different working conditions and medium of users. The ratio of high and low pressure of R717 is between 3 and 4, and that of R507A is between 2 and 3.
- The high and low pressure stages are equipped with energy adjustment devices to ensure that the unit is always efficient and economical under low temperature conditions;
- The compressor of high and low pressure stages starts in different stages with low starting current.
- The oil supply mode of low pressure stage compressor is pressure difference;
- The high-pressure stage can be operated independently to achieve rapid cooling and high efficiency.
- The unit is applicable to R717, R507A, R404A and other working medium;
- The unit can be configured as required by users.
- The control mode is automatic.

### Applicable Conditions

Refrigerant	R717	R507a
Discharge Pressure (MPa)	$\leq 1.67$	$\leq 1.95$
Suction Pressure (MPa)	$-0.05 \sim 0.005$	
Oil Pressure	0.1 ~ 0.3 Higher Than Discharge Pressure	
Oil Temperature ( $^{\circ}\text{C}$ )	30 ~ 65	
Cooling Water Inlet Temperature ( $^{\circ}\text{C}$ )	15 ~ 33	
Cooling Water Flow Deviation	$\pm 10\%$	

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

### Model of Dual-Machine Two-Stage Screw Skid Block Unit





## Main Technical Parameters of Unit (R717)

Item		Unit	LG16M12M	LG20M12M	LG20L16S	LG20T16M	
Refrigerant		Type	R717				
Compressor	Low Pressure Stage	Model	LG16M	LG20M	LG20L	LG20T	
		Theoretical Displacement	m <sup>3</sup> /h	598	1120	1486	1672
	High Pressure Level	Model	LG12M	LG12M	LG16S	LG16M	
		Theoretical Displacement	m <sup>3</sup> /h	285	285	385	598
Nominal Conditions		°C	+40/-40				
Nominal Refrigerating Capacity		kW	117	207	278	329	
Rated Power of Main Motor		Low Pressure Stage	kW	55	110	132	160
		High Pressure Stage	kW	65	65	90	132
Electrical System		Low Pressure Stage	3N 50HZ 380V				
		High Pressure Stage	3N 50HZ 380V				
Charging Volume of Refrigeration Oil		L	~ 240	~ 360	~ 360	~ 500	
Diameter of Intake Pipe		mm	DN125	DN150	DN200	DN200	
Diameter of Outtake Pipe		mm	DN65	DN65	DN80	DN80	
Inlet and Outlet Pipe Diameter of Economizer		mm	DN50	DN65	DN65	DN65	
Diameter of Safety Valve		mm	DN25	DN25	DN50	DN50	
Liquid/Oil Cooler		Type	Shell and Tube				
		Liquid Inlet Pipe Diameter	mm	DN32	DN40	DN40	DN40
		Discharge Pipe Diameter	mm	DN50	DN65	DN65	DN65
Oil Pump		Type	ZHB80P6		ZHB125P4		
		Motor Power	kW	1.5		2.2	
Dimensions (L*W*H)		mm	5400x1640x2340	5400x1640x2460	6040x1940x2780	6260x1940x2830	
Net Weight of Unit		kg	~ 3300	~ 4650	~ 6300	~ 7700	

Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. This table shows a long structure, if other forms are needed, it can be customized.

## Main Technical Parameters of Unit (R717)

Item		Unit	LG25S16M	LG25M16M	LG25K20S	LG25L20S
Refrigerant		Type	R717			
Compressor	Low Pressure Stage	Model	LG25S	LG25M	LG25K	LG25L
		Theoretical Displacement	m <sup>3</sup> /h	1825	2289	2570
	High Pressure Level	Model	LG16M	LG16M	LG20S	LG20S
		Theoretical Displacement	m <sup>3</sup> /h	598	598	806
Nominal Conditions		°C	+40/-40			
Nominal Refrigerating Capacity		kW	354	429	502	551
Rated Power of Main Motor	Low Pressure Stage	kW	185	200	220	220
	High Pressure Stage	kW	132	132	185	185
Electrical System	Low Pressure Stage	3N 50HZ 380V				
	High Pressure Stage	3N 50HZ 380V				
Charging Volume of Refrigeration Oil		L	~ 600	~ 600	~ 600	~ 600
Diameter of Intake Pipe		mm	DN200	DN200	DN250	DN250
Diameter of Outtake Pipe		mm	DN80	DN80	DN100	DN100
Inlet and Outlet Pipe Diameter of Economizer		mm	DN65	DN65	DN80	DN80
Diameter of Safety Valve		mm	DN50	DN50	DN50	DN50
Liquid/Oil Cooler	Type	Shell and Tube				
	Liquid Inlet Pipe Diameter	mm	DN50	DN50	DN50	DN50
	Discharge Pipe Diameter	mm	DN80	DN80	DN80	DN80
Oil Pump	Type	ZHB125P4				
	Motor Power	kW	2.2			
Dimensions (L*W*H)		mm	6260X1940x2970	6260X1940x2970	6650X1940x3000	6650X1940x3000
Net Weight of Unit		kg	~ 8000	~ 9000	~ 11000	~ 12000

**Note:**

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. The table shows a long structure, if other forms are needed, it can be customized.



## Main Technical Parameters of Unit (R717)

Item		Unit	LG25T20S	LG32S20S	LG32M20M
Refrigerant		Type	R717		
Compressor	Low Pressure Stage	Model	LG25T	LG32S	LG32M
		Theoretical Displacement	m <sup>3</sup> /h	3208	3500
	High Pressure Level	Model	LG20S	LG20S	LG20M
		Theoretical Displacement	m <sup>3</sup> /h	806	806
Nominal Conditions		°C	+40/-40		
Nominal Refrigerating Capacity		kW	607	653	820
Rated Power of Main Motor	Low Pressure Stage	kW	250	280	315*
	High Pressure Stage	kW	185	185	250
Electrical System	Low Pressure Stage		3N 50HZ 380V		
	High Pressure Stage		3N 50HZ 380V		
Charging Volume of Refrigeration Oil		L	~ 900	~ 900	~ 900
Diameter of Intake Pipe		mm	DN350	DN350	DN350
Diameter of Outtake Pipe		mm	DN100	DN100	DN100
Inlet and Outlet Pipe Diameter of Economizer		mm	DN80	DN80	DN80
Diameter of Safety Valve		mm	DN50	DN50	DN50
Liquid/Oil Cooler	Type		Shell and Tube		
	Liquid Inlet Pipe Diameter	mm	DN65	DN65	DN65
	Discharge Pipe Diameter	mm	DN125	DN125	DN125
Oil Pump	Type		ZHB125P4		
	Motor Power	kW	2.2		
Dimensions (L*W*H)		mm	7870x2450x3480	8090x2450x3550	8300x2450x3550
Net Weight of Unit		kg	~ 17000	~ 18000	~ 20000

Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. \*Electrical system is 3N 50HZ 10kV.
4. The table shows a long structure, if other forms are needed, it can be customized.

## Main Technical Parameters of Unit (R717)

Item		Unit	LG32L20L	LG40S25M	LG40M25L
Refrigerant		Type	R717		
Compressor	Low Pressure Stage	Model	LG32L	LG40S	LG40M
		Theoretical Displacement	m <sup>3</sup> /h	5182	6514
	High Pressure Level	Model	LG20L	LG25M	LG25L
		Theoretical Displacement	m <sup>3</sup> /h	1486	2289
Nominal Conditions		°C	+40/-40		
Nominal Refrigerating Capacity		kW	974	1255	1450
Rated Power of Main Motor	Low Pressure Stage	kW	355	400	450
	High Pressure Stage	kW	355	500	630
Electrical System	Low Pressure Stage		3N 50HZ 10KV		
	High Pressure Stage		3N 50HZ 10KV		
Charging Volume of Refrigeration Oil		L	~ 900	~ 1500	~ 1500
Diameter of Intake Pipe		mm	DN350	DN400	DN400
Diameter of Outtake Pipe		mm	DN100	DN150	DN150
Inlet and Outlet Pipe Diameter of Economizer		mm	DN80	DN150	DN150
Diameter of Safety Valve		mm	DN50	DN50X2	DN50X2
Liquid/Oil Cooler	Type		Shell and Tube		
	Liquid Inlet Pipe Diameter	mm	DN65	DN125	DN125
	Discharge Pipe Diameter	mm	DN125	DN150	DN150
Oil Pump	Type		ZHB125P4	ZHB220P4	ZHB220P4
	Motor Power	kW	2.2	4	4
Dimensions (L*W*H)		mm	9020x2450x3550	10600X3740X4050	10600X3740X4050
Net Weight of Unit		kg	~ 22000	~ 32000	~ 34000

### Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. This table shows a long structure, if other forms are needed, it can be customized.



## Main Technical Parameters of Unit (R507A)

Item		Unit	LG16M12M	LG20M16M	LG20L16M	LG20T20S
Refrigerant		Type	R507A			
Compressor	Low Pressure Stage	Model	LG16M	LG20M	LG20L	LG20T
		Theoretical Displacement	m <sup>3</sup> /h	598	1120	1486
	High Pressure Level	Model	LG12M	LG16M	LG16M	LG20S
		Theoretical Displacement	m <sup>3</sup> /h	285	598	598
Nominal Conditions		°C	+40/-40			
Nominal Refrigerating Capacity		kW	157	314	396	462
Rated Power of Main Motor	Low Pressure Stage	kW	65	132	160	185
	High Pressure Stage	kW	75	160	160	220
Electrical System	Low Pressure Stage		3N 50HZ 380V			
	High Pressure Stage		3N 50HZ 380V			
Charging Volume of Refrigeration Oil		L	~ 240	~ 360	~ 360	~ 550
Diameter of Intake Pipe		mm	DN125	DN150	DN200	DN200
Diameter of Outtake Pipe		mm	DN65	DN80	DN80	DN100
Inlet and Outlet Pipe Diameter of Economizer		mm	DN50	DN65	DN65	DN80
Diameter of Safety Valve		mm	DN25	DN25	DN25	DN50
Liquid/Oil Cooler	Type		Shell and Tube			
	Liquid Inlet Pipe Diameter	mm	DN32	DN40	DN40	DN40
	Discharge Pipe Diameter	mm	DN50	DN65	DN65	DN65
Oil Pump	Type		ZHB80P6	ZHB125P4		ZHB150P6
	Motor Power	kW	1.5	2.2		3
Dimensions (L*W*H)		mm	5400x1640x2340	5400x1640x2460	6040x1940x2780	6260x1940x2830
Net Weight of Unit		kg	~ 3300	~ 4650	~ 6300	~ 7700

Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
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## Main Technical Parameters of Unit (R507A)

Item		Unit	LG25S20S	LG25M20M	LG25K20M	LG25L20L	
Refrigerant		Type	R507A				
Compressor	Low Pressure Stage	Model	LG25S	LG25M	LG25K	LG25L	
		Theoretical Displacement	m <sup>3</sup> /h	1825	2289	2570	2840
	High Pressure Level	Model	LG20S	LG20M	LG20M	LG20L	
		Theoretical Displacement	m <sup>3</sup> /h	806	1120	1120	1486
Nominal Conditions		°C	+40/-40				
Nominal Refrigerating Capacity		kW	496	644	703	820	
Rated Power of Main Motor		Low Pressure Stage	kW	200	220	250	250
		High Pressure Stage	kW	220	315	315	400*
Electrical System		Low Pressure Stage	3N 50HZ 380V				
		High Pressure Stage	3N 50HZ 380V				
Charging Volume of Refrigeration Oil		L	~ 550	~ 550	~ 550	~ 550	
Diameter of Intake Pipe		mm	DN200	DN200	DN250	DN250	
Diameter of Outtake Pipe		mm	DN100	DN100	DN100	DN100	
Inlet and Outlet Pipe Diameter of Economizer		mm	DN80	DN80	DN80	DN80	
Diameter of Safety Valve		mm	DN50	DN50	DN50	DN50	
Liquid/Oil Cooler		Type	Shell and Tube				
		Liquid Inlet Pipe Diameter	mm	DN50	DN50	DN50	DN50
		Discharge Pipe Diameter	mm	DN80	DN80	DN80	DN80
Oil Pump		Type	ZHB150P6				
		Motor Power	kW	3			
Dimensions (L*W*H)		mm	6260x1940x2970	6650x1940x2970	6650x1940x3000	6900x1940x3000	
Net Weight of Unit		kg	~ 8000	~ 9000	~ 10000	~ 12000	

### Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. \*Electrical system is 3N 50HZ 10kV.
4. The table shows a long structure, if other forms are needed, it can be customized.



## Main Technical Parameters of Unit (R507A)

Item		Unit	LG25T20L	LG32S25S	LG32M25M	LG32L25M
Refrigerant		Type	R507A			
Compressor	Low Pressure Stage	Model	LG25T	LG32S	LG32M	LG32L
		Theoretical Displacement	m <sup>3</sup> /h	3208	3500	4341
	High Pressure Level	Model	LG20L	LG25S	LG25M	LG25M
		Theoretical Displacement	m <sup>3</sup> /h	1486	1825	2289
Nominal Conditions		°C	+40/-40			
Nominal Refrigerating Capacity		kW	886	998	1244	1409
Rated Power of Main Motor	Low Pressure Stage	kW	280	315	400	450
	High Pressure Stage	kW	400	500	630	630
Electrical System	Low Pressure Stage		3N 50HZ 10kV			
	High Pressure Stage		3N 50HZ 10kV			
Charging Volume of Refrigeration Oil		L	~ 900	~ 900	~ 900	~ 900
Diameter of Intake Pipe		mm	DN350	DN350	DN350	DN350
Diameter of Outtake Pipe		mm	DN100	DN150	DN150	DN150
Inlet and Outlet Pipe Diameter of Economizer		mm	DN80	DN80	DN80	DN80
Diameter of Safety Valve		mm	DN50	DN50	DN50	DN50
Liquid/Oil Cooler	Type		Shell and Tube			
	Liquid Inlet Pipe Diameter	mm	DN65	DN65	DN65	DN65
	Discharge Pipe Diameter	mm	DN125	DN125	DN125	DN125
Oil Pump	Type		ZHB150P6	ZHB220P4		
	Motor Power	kW	3	4		
Dimensions (L*W*H)		mm	7870x2450x3480	8090x2450x3580	8300x2450x3550	8300x2450x3550
Net Weight of Unit		kg	~ 17000	~ 18000	~ 19000	~ 20000

Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
3. This table shows a long structure, if other forms are needed, it can be customized.

## Main Technical Parameters of Unit (R507A)

Item		Unit	LG40S32S	LG40M32M
Refrigerant		Type	R507A	
Compressor	Low Pressure Stage	Model	LG40S	LG40M
		Theoretical Displacement	m <sup>3</sup> /h	6514
	High Pressure Level	Model	LG32S	LG32M
		Theoretical Displacement	m <sup>3</sup> /h	3500
Nominal Conditions		°C	+40/-40	
Nominal Refrigerating Capacity		kW	1833	2142
Rated Power of Main Motor	Low Pressure Stage	kW	560	630
	High Pressure Stage	kW	900	1120
Electrical System	Low Pressure Stage		3N 50HZ 10kV	
	High Pressure Stage		3N 50HZ 10kV	
Charging Volume of Refrigeration Oil		L	~ 1500	~ 1500
Diameter of Intake Pipe		mm	DN400	DN400
Diameter of Outtake Pipe		mm	DN200	DN200
Inlet and Outlet Pipe Diameter of Economizer		mm	DN150	DN150
Diameter of Safety Valve		mm	DN50X2	DN50X2
Liquid/Oil Cooler	Type		Shell and Tube	
	Liquid Inlet Pipe Diameter	mm	DN125	DN125
	Discharge Pipe Diameter	mm	DN150	DN150
Oil Pump	Type		ZZB400P6	
	Motor Power	kW	7.5	
Dimensions (L*W*H)		mm	10600X3740x4050	11000X3740x4050
Net Weight of Unit		kg	~ 33000	~ 35000

### Note:

1. The main motor of the unit is configured according to the nominal working condition. Under this configuration, the unit can be put into operation at full load under the evaporation temperature of -40°C or below.
2. Due to the difference in the working conditions of the unit, the power of the main motor may be different, and the outline dimensions will also vary with the main motor, which are not listed one by one in the table.
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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.