

HIGH-EFFICIENCY WATER-COOLED SCREW CHILLER

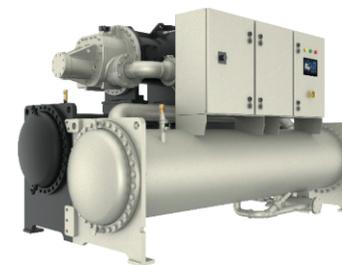
GREE high efficiency water cooled screw chillers are specifically designed products with reliable performance and high energy efficiency. These chillers are equipped with GREE's self-developed high efficiency semi-hermetic dual screw compressors, heat-exchangers, and adopt environmentally friendly refrigerant R134a, which offer a wide range capacity with low operation cost and lasting value to meet your unique requirements.

Nomenclature

LH	-	E	842	HJ1	GJ1	E	-	-2	/Nb
1	2	3	4	5	6	7	8	9	10

No.	Description	Options
1	Product type	LH - Water cooled screw chillers
2	Compressor drive	V-Variable-frequency drive (VFD), Omit-Fixed speed
3	Product function	E - Cooling only; P-Heat pump
4	Compressor Code	/
5	Evaporator Code	/
6	Condenser Code	/
7	Design No.	/
8	-	Q-Total heat recovery
9	Compressor quantity	Omit: 1, Other digit: actual quantity
10	Refrigerant	Nb-R134a

Product Lineup



Fixed frequency screw chiller

LHE-S series 115RT — 620RT
 LHE-P series 117RT — 641RT



VFD water cooled screw chiller

LHVE-S series 100RT — 700RT
 LHVE-P series 100RT — 700RT
 LHVP series 128RT — 500RT

LHE-S&LHE-P Series Fixed Speed Water-cooled Screw Chiller

LHE-S series screw water-cooled screw chillers are highly reliable, economical and high performance products with a nominal cooling capacity range of 115-620RT.

The LHE-P series is an upgraded version of the LHE-S with improved energy efficiency and COP is up to 6.40W/W, with a cooling capacity range from 117RT to 641RT under nominal operating conditions.



Features

Innovative dual screw semi-hermetic compressor

- Adopt the new LC series high reliable semi-hermetic dual screw compressor with smaller size, high energy efficiency, low vibration and low noise.
- Adopt GEX rotor profile design, reduced leakage triangle, and effectively improve the adiabatic efficiency by more than 5%.
- Adopt self-made semi-hermetic compressor to avoid refrigerant leakage, with built-in PTC temperature protector for the motor, motor winding temperature can be precisely detected and controlled.
- Thanks to the optimized cooling channel of the motor, cooling effect is better, which can enhance operation range of the compressor effectively.
- Class F insulation motor of three-phase asynchronous power supply.

High efficiency heat exchanger

- Falling film type evaporator with built-in refrigerant equalization and liquid baffle device to improve system reliability.
- Shell and tube condenser with built-in oil separation, reducing system pressure drop to make the airflow more uniform, compact structure, safe and reliable; bottom folded flow subcooling design to strengthen heat transfer and enhance subcooling.
- End tube support sheet with triple grooves for better tightness, and the designed working pressure on the water side is of 1.0MPa as standard, 1.6MPa and 2.0MPa optional.
- Factory insulated evaporator with 30mm wall thickness closed cell insulation material.
- Evaporator and condenser with flanged connection as standard, while the victaulic connection as optional.
- Optional marine water box for evaporator and condenser; optional online condenser tube cleaning device for condenser.

Intelligent and reliable oil management system

Active differential pressure oil return, multiple real-time monitoring of oil level/oil flow to ensure safe and stable operation of the unit.

Control panel

10" touch screen provides Chinese and English interface switching function to meet different needs, the display parameters are as follows:

Chilled water inlet and outlet temperature
 Cooling water inlet and outlet temperature
 Suction and discharge temperature
 Evaporation pressure
 Condensing pressure
 Number of starts of compressor
 Cumulative compressor running time
 Contactor status
 Solenoid valve status
 Water temperature setting value
 Etc.

Multiple protections

The unit has multiple protections function, such as high temperature protection for air discharge, safety valve protection, overheating protection for motor winding, low pressure protection, high pressure protection, anti-freezing protection, switch protection for water flow, phase loss and phase failure protection and sensors failure protection, ensuring stable operation under all kinds of conditions and avoiding the damage incurred.

Microprocessor based control system

- Adopt the self-developed and manufactured microprocessor based control system, enabling a powerful and precise control with prompt reaction.
- Base on actual requirements, the chilled water entering or leaving temperature can be selected as setting target.
- Standard interlock interface for chilled water pump, cooling water pump and cooling tower fan motor.
- Multiple timer setting and power-off memory restart function.
- Password protection function, access passwords of different authority levels can be set for safe operation.

Other optional configurations

- Star-delta start as standard, solid-state soft start optional;
- Rubber damping pad as standard vibration absorber, spring vibration isolator as optional;
- IP Rating for control cabinet is IP42 as standard, while IP54 can be optional available.

Specifications

LHE-S Series



Model			LHE542DD3ED4/Nb	LHE632DD2ED3/Nb	LHE642ED4ED2/Nb	LHE732EE4EEB/Nb	LHE742EE6EEA/Nb	LHE752EE5FEC/Nb
Cooling capacity	kW		404.3	474.7	509.8	580.1	650.5	738.4
	RT		115.0	135.0	145.0	165.0	185.0	210.0
Capacity adjustment range	%		25%-100%	25%-100%	25%-100%	25%-100%	25%-100%	25%-100%
COP	W/W		5.94	5.94	5.92	5.92	6.02	6.05
IPLV	W/W		7.13	7.15	7.14	7.14	7.19	7.27
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input		kW	68.1	79.9	86.1	98.0	108.0	122.0
Compressor	Type	-	Semi-hermetic dual screw					
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ	Y- Δ	Y- Δ
	Quantity	-	1	1	1	1	1	1
Refrigerant	Charge volume	kg	105	115	125	135	140	175
	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Oil charge volume		L	13	13	18	18	18	18
Evaporator	Type	-	Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	70	82	88	100	112	127
		GPM	306	359	386	439	493	559
	Pressure drop	kPa	61.3	55.0	46.2	63.8	63.4	66.5
		ft.WG	20.1	18.0	15.2	20.9	20.8	21.8
Connection pipe	mm	DN100	DN100	DN125	DN125	DN125	DN150	
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	87	102	110	125	140	159
		GPM	383	449	483	549	616	699
	Pressure drop	kPa	61.2	55.3	48.4	47.0	52.9	50.8
		ft.WG	20.1	18.1	15.9	15.4	17.4	16.7
Connection pipe	mm	DN125	DN125	DN125	DN125	DN150	DN150	
Sound pressure level		dB(A)	81.2	84.5	85.2	84.9	85.3	88.3
Dimension (WxDxH)	Outline	mm	2950x1160x2070	2950x1160x2070	2950x1160x2100	3250x1200x2170	3290x1200x2170	3290x1150x2200
	Package	mm	3000x1210x2170	3000x1210x2170	3000x1210x2200	3300x1250x2270	3340x1250x2270	3340x1200x2300
Net/gross/operating weight		kg	2800/2900/2990	2850/2950/3070	2930/3030/3150	3390/3490/3650	3460/3560/3750	3680/3780/4000



Model			LHE772FE6FEB/Nb	LHE842FE5GEC/Nb	LHE852GE8GEB/Nb	LHE872GE7GEA/Nb	LHE872GGBHGCE/Nb	LHE742HIPJP-2/Nb
Cooling capacity	kW		791.1	879.0	966.9	1108	1160	1301
	RT		225.0	250.0	275.0	315.1	329.9	370.0
Capacity adjustment range	%		25%-100%	25%-100%	25%-100%	25%-100%	25%-100%	12.5%-100%
COP	W/W		6.06	6.10	6.08	6.11	6.13	6.13
IPLV	W/W		7.30	7.23	7.22	7.25	7.24	7.26
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input		kW	130.5	144.1	159.0	181.3	189.2	212.2
Compressor	Type	-	Semi-hermetic dual screw					
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ	Y- Δ	Y- Δ
	Quantity	-	1	1	1	1	1	2
Refrigerant	Charge volume	kg	180	205	215	220	270	290
	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Oil charge volume		L	18	23	28	28	35	36
Evaporator	Type	-	Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	136	151	166	191	200	224
		GPM	599	666	732	839	878	985
	Pressure drop	kPa	70.4	70.4	71.7	76.4	60.2	71.8
		ft.WG	23.1	23.1	23.5	25.1	19.7	23.6
Connection pipe	mm	DN150	DN150	DN150	DN150	DN200	DN200	
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	170	189	208	238	249	280
		GPM	749	832	915	1049	1098	1232
	Pressure drop	kPa	50.6	50.9	50.6	54.4	62.3	62.6
		ft.WG	16.6	16.7	16.6	17.8	20.4	20.5
Connection pipe	mm	DN150	DN200	DN200	DN200	DN200	DN200	
Sound pressure level		dB(A)	88.9	89.1	89.3	89.6	89.8	86.8
Dimension (WxDxH)	Outline	mm	3300x1520x2000	3330x1610x1830	3350x1650x1800	3350x1650x2150	3760x1820x1900	4450x1830x1850
	Package	mm	3350x1570x2100	3380x1660x1930	3400x1700x1900	3400x1700x2200	3810x1870x2000	4500x1880x1950
Net/gross/operating weight		kg	3810/3910/4150	4420/4520/4750	4630/4730/5000	4770/4870/5200	5150/5250/5650	6450/6600/7780



Model		LHE752HINJM-2/Nb	LHE772HIMKIN-2/Nb	LHE842HKLKLL-2/Nb	LHE852JKPLK-2/Nb	LHE872JKNMKP-2/Nb
Cooling capacity	kW	1477	1582	1758	1934	2180
	RT	420.1	449.9	500.0	550.1	620.0
Capacity adjustment range	%	12.5%-100%	12.5%-100%	12.5%-100%	12.5%-100%	12.5%-100%
COP	W/W	6.15	6.14	6.12	6.11	6.13
IPLV	W/W	7.28	7.26	7.22	7.25	7.27
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input	kW	240.1	257.7	287.3	316.5	355.6
Compressor	Type	-	Semi-hermetic dual screw			
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ
	Quantity	-	2	2	2	2
Refrigerant	Charge volume	kg	310	340	470	500
	Type	-	R134a	R134a	R134a	R134a
Oil charge volume	L	36	36	46	56	56
Evaporator	Type	-	Falling film evaporator			
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	254	272	302	333
		GPM	1119	1198	1331	1465
	Pressure drop	kPa	72.3	71.6	81.7	83.1
		ft.WG	23.7	23.5	26.8	27.3
Connection pipe	mm	DN200	DN200	DN200	DN250	
Condenser	Type	-	Horizontal shell and tube condenser			
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	318	340	378	416
		GPM	1398	1498	1664	1831
	Pressure drop	kPa	63.0	61.9	72.5	71.6
		ft.WG	20.7	20.3	23.8	23.5
Connection pipe	mm	DN200	DN250	DN250	DN250	
Sound pressure level	dB(A)	89.9	90.1	90.5	91.3	91.6
Dimension (WxDxH)	Outline	mm	4500x1830x1850	4550x1850x1900	5050x1860x1900	5050x1950x1950
	Package	mm	4550x1880x1950	4600x1900x2000	5100x1910x2000	5100x2000x2050
Net/gross/operating weight	kg	6690/6840/8160	7660/7810/8440	8240/8390/9150	8700/8850/9700	9210/9360/10300

LHE-P Series



Model		LHE542DD4ED3/Nb	LHE632DE5EE2/Nb	LHE642EE4EE1/Nb	LHE732EE6FE5/Nb	LHE742EE5FE2/Nb	LHE752FE8GE7/Nb
Cooling capacity	kW	411.6	481.3	520.0	588.9	660.2	747.6
	RT	117.1	136.9	147.9	167.5	187.8	212.6
Capacity adjustment range	%	25%-100%	25%-100%	25%-100%	25%-100%	25%-100%	25%-100%
COP	W/W	6.16	6.17	6.16	6.12	6.24	6.23
IPLV	W/W	7.24	7.23	7.26	7.25	7.30	7.36
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input	kW	66.8	78.0	84.4	96.2	105.8	120.0
Compressor	Type	-	Semi-hermetic dual screw				
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ	
	Quantity	-	1	1	1	1	
Refrigerant	Charge volume	kg	105	115	135	140	
	Type	-	R134a	R134a	R134a	R134a	
Oil charge volume	L	13	13	18	18		
Evaporator	Type	-	Falling film evaporator				
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	
	Water flow rate	m ³ /h	71	83	89	101	
		GPM	312	364	394	446	
	Pressure drop	kPa	51.3	56.4	53.1	53.7	
		ft.WG	16.8	18.5	17.4	17.6	
Connection pipe	mm	DN100	DN100	DN125	DN125		
Condenser	Type	-	Horizontal shell and tube condenser				
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	
	Water flow rate	m ³ /h	88	103	112	127	
		GPM	390	456	492	557	
	Pressure drop	kPa	43.3	48.7	45.5	45.2	
		ft.WG	14.2	16.0	14.9	14.8	
Connection pipe	mm	DN125	DN125	DN125	DN125		
Sound pressure level	dB(A)	81.2	84.5	85.2	84.9		
Dimension (WxDxH)	Outline	mm	2950x1160x2070	3250x1160x2070	3250x1160x2170	3250x1200x2230	
	Package	mm	3000x1210x2170	3300x1210x2170	3300x1210x2270	3300x1250x2330	
Net/gross/operating weight	kg	2700/2800/2900	2910/3010/3100	3060/3160/3250	3550/3650/3850		



Model		LHE772FE4GE5/Nb	LHE842GE7HE3/Nb	LHE852GE6HE2/Nb	LHE872GG5JGD/Nb	LHE872GG4JGCE/Nb	LHE742HFJID-2/Nb	
Cooling capacity	kW	808.0	896.3	986.6	1135	1188	1330	
	RT	229.8	254.9	280.6	322.8	337.9	378.3	
Capacity adjustment range	%	25%-100%	25%-100%	25%-100%	25%-100%	25%-100%	12.5%-100%	
COP	W/W	6.30	6.34	6.32	6.40	6.35	6.38	
IPLV	W/W	7.44	7.37	7.37	7.43	7.44	7.40	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	
Power input	kW	128.2	141.4	156.0	177.4	187.2	208.4	
Compressor	Type	Semi-hermetic dual screw						
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ	Y- Δ	
	Quantity	-	1	1	1	1	2	
Refrigerant	Charge volume	kg	195	205	215	235	290	
	Type	-	R134a	R134a	R134a	R134a	R134a	
Oil charge volume	L	18	23	28	28	35	36	
Evaporator	Type	Falling film evaporator						
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	
	Water flow rate	m ³ /h	139	154	170	195	204	229
		GPM	612	679	747	860	898	1007
	Pressure drop	kPa	53.1	55.0	55.5	55.9	79.9	88.6
ft.WG		17.4	18.0	18.2	18.3	26.2	29.1	
Connection pipe	mm	DN150	DN150	DN150	DN200	DN200	DN200	
Condenser	Type	Horizontal shell and tube condenser						
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	
	Water flow rate	m ³ /h	174	193	212	244	256	286
		GPM	765	848	934	1074	1127	1259
	Pressure drop	kPa	48.7	47.0	47.0	47.7	47.9	86.2
ft.WG		16.0	15.4	15.4	15.6	15.7	28.3	
Connection pipe	mm	DN150	DN200	DN200	DN200	DN200	DN200	
Sound pressure level	dB(A)	88.9	89.1	89.3	89.6	89.8	86.8	
Dimension (WxDxH)	Outline	mm	3300x1610x1830	3350x17000x1850	3350x1700x1850	3760x1870x1950	3760x1870x1950	4550x1850x1900
	Package	mm	3350x1660x1930	3400x1750x1950	3400x1750x1950	3810x1920x2050	3810x1920x2050	4600x1900x2000
Net/gross/operating weight	kg	4090/4190/4450	4810/4910/5200	4870/4970/5250	5400/5500/5900	5420/5520/5950	6530/6680/7150	

Model		LHE752HEJIB-2/Nb	LHE772HICJIA-2/Nb	LHE842KKRMKN-2/Nb	LHE852KKQMKM-2/Nb	LHE872KKPNKQ-2/Nb	
Cooling capacity	kW	1506	1607	1812	2000	2252	
	RT	428.3	457.1	515.4	568.8	640.5	
Capacity adjustment range	%	12.5%-100%	12.5%-100%	12.5%-100%	12.5%-100%	12.5%-100%	
COP	W/W	6.40	6.37	6.35	6.36	6.38	
IPLV	W/W	7.41	7.37	7.39	7.44	7.45	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	
Power input	kW	235.5	252.1	285.4	314.4	353.0	
Compressor	Type	Semi-hermetic dual screw					
	Starting mode	-	Y- Δ	Y- Δ	Y- Δ	Y- Δ	
	Quantity	-	2	2	2	2	
Refrigerant	Charge volume	kg	310	340	500	520	560
	Type	-	R134a	R134a	R134a	R134a	R134a
Oil charge volume	L	36	36	46	56	56	
Evaporator	Type	Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	259	276	312	344	387
		GPM	1140	1217	1372	1515	1705
	Pressure drop	kPa	94.4	85.1	68.1	73.7	73.5
ft.WG		31.0	27.9	22.3	24.2	24.1	
Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	
Condenser	Type	Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	324	346	390	430	484
		GPM	1426	1521	1715	1893	2132
	Pressure drop	kPa	84.3	76.9	63.9	63.6	64.2
ft.WG		27.7	25.2	21.0	20.9	21.1	
Connection pipe	mm	DN200	DN250	DN250	DN250	DN250	
Sound pressure level	dB(A)	89.9	90.1	90.5	91.3	91.6	
Dimension (WxDxH)	Outline	mm	4550x1850x1900	4550x1850x1900	5100x2100x2050	5100x2100x2050	5100x2100x2050
	Package	mm	4600x1900x2000	4600x1900x2000	5150x2150x2100	5150x2150x2100	5150x2150x2100
Net/gross/operating weight	kg	6770/6920/7450	7150/7300/7870	9200/9350/10120	9300/9450/10230	9760/9910/10740	

Note:

Working conditions: Leaving chilled water temperature 7°C ,water flow 0.172[m³/(h · kW)]; Entering cooling water temperature 30°C , water flow 0.215[m³/(h · kW)]; Fouling factor at the chilled water side 0.0176 m²·°C /kW, Fouling factor at the cooling water side 0.044 m²·°C /kW

Operation Range of LHE-S and LHE-P

Chilled water		Cooling water	
LWT (°C)	Difference between EWT & LWT (°C)	EWT(°C)	Difference between EWT & LWT (°C)
4~15	2.5~10	18~35	3.5~10

LWT: Leaving water temperature
EWT: Entering water temperature

LHVE-S&LHVE-P&LHVP Series VFD Water-cooled Screw Chiller



Gree LHVE-S series VFD water-cooled screw chiller is an innovative product with balance install and operation cost, with features of high reliability, compact structure and easy maintenance. LHVE-P is a higher-efficiency series upgraded on LHVE-S series. LHVP is a heat pump series upgraded based on LHVE-S series. The capacity under nominal working condition ranges from 100 to 700RT.

Features

Innovative dual screw semi-hermetic compressor

- Adopt the new LCV series highly reliable semi-hermetic dual screw compressor with compact structure, high energy efficiency, low vibration and low noise.
- Adopt GEX-V rotor profile design, complete free-form sealing, reduced leakage triangle, and effectively improve the adiabatic efficiency by more than 5%.
- Adopt rotational speed with slide valve movement to adjust the compression ratio, high efficiency operation with 10%-100% stepless capacity adjustment of individual compressor.
- Under certain load conditions, the operating power of the compressor can be reduced by up to 60% compared to that of the fixed frequency unit.

Permanent magnet synchronous motor

- Enhanced motor torque by adopting a built-in V-shaped magnetic steel with the significant effect of the magnetic circuit.
- Motor starting current of less than 10A, minimized impact on the overall power grid.
- Motor rated efficiency of 97.5%, and the full working condition efficiency is above 95%.
- Motor insulation class H;

High efficiency heat exchanger

- Falling film evaporator with 0.1mm ultra-thin film, greatly improving evaporation effect; new super high-efficiency falling film evaporation tube, heat exchange efficiency is 15-30% higher than flooded heat exchange tube; multi-layer refrigerant equalization design, 12.5%~100% load change evenly distributes gas-liquid two-phase refrigerant.
- The shell and tube condenser is with built-in oil separator of high separation efficiency, which reduces the impact of refrigerant flow and lower the noise as well.
- The end tube support of heat exchangers adopts triple groove end tube support design, and the working pressure on the water side is of 1.0MPa as standard, 1.6MPa or 2.0MPa is optional.
- Factory insulated evaporator with 30mm wall thickness closed cell insulation material.
- Evaporator and condenser with flanged connection as standard, while the victaulic connection as optional.
- Optional marine water box for evaporator and condenser; optional online cleaning device for condenser.

Intelligent and reliable oil management system

Active differential pressure oil return, multiple real-time monitoring of oil level/oil flow to ensure safe and stable operation of the unit.

Control panel

Equipped with 10" touch screen, reliable use under -20 ~ 70°C ambient temperature, providing with Chinese and English language switching function to meet different needs. The display parameters are as follows:

Chilled water inlet and outlet temperature
Cooling water inlet and outlet temperature
Suction and discharge temperature
Evaporation pressure
Condensing pressure
Number of starts of compressor
Cumulative compressor running time
Contactor status
Solenoid valve status
Water temperature setting value
Etc.

Multiple protections

The unit has multiple protection functions, such as High temperature protection for air discharge, Overheat protection for inverter, Safety valve protection, Overheating protection for motor winding, Low pressure protection, High pressure protection, Anti-freezing protection, Switch protection for water flow, Phase loss and phase failure protection and Sensors failure protection, ensuring stable operation under all kinds of conditions and avoiding the damage incurred.

Microprocessor based control system

- Adopt the self-developed and manufactured microprocessor based control system, enabling a powerful and precise control with prompt reaction.
- Base on actual requirements, the chilled water entering or leaving temperature can be selected as setting target.
- Standard interlock interface for chilled water pump, cooling water pump and cooling tower fan motor.
- Multiple timer setting and power-off memory restart function.
- Password protection function, access passwords of different authority levels can be set for safe operation.

Other optional configurations

- Optional quick start
- The unit is equipped with rubber damping pad as standard and spring isolators as optional
- IP Rating for control cabinet is IP42 as standard, while IP54 can be optional available.

Specifications

LHVE-S Series



Model			LHVE542DD3ED4/Nb	LHVE542DD2ED3/Nb	LHVE542ED4ED2/Nb	LHVE642EE6EEA/Nb	LHVE742EE5FEC/Nb	LHVE772FE6FEB/Nb
Cooling capacity	kW		351.6	439.5	527.4	615.3	703.2	791.1
	RT		100.0	125.0	150.0	175.0	200.0	225.0
Capacity adjustment range	%		10%-100%	10%-100%	10%-100%	10%-100%	10%-100%	10%-100%
COP	W/W		6.01	6.00	5.98	6.07	6.15	6.09
IPLV	W/W		8.57	8.55	8.54	8.59	8.71	8.64
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input		kW	58.5	73.2	88.2	101.4	114.4	130.0
Compressor	Type		Semi-hermetic dual screw					
	Starting mode		VFD	VFD	VFD	VFD	VFD	VFD
	Quantity		1	1	1	1	1	1
Refrigerant	Charge volume	kg	90	115	125	150	175	195
	Type		R134a	R134a	R134a	R134a	R134a	R134a
Oil charge volume		L	13	13	13	18	18	18
Evaporator	Type		Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	60	76	91	106	121	136
		GPM	266	333	399	466	533	599
	Pressure drop	kPa	52.4	52.2	52.8	62.4	66.2	76.0
		ft.WG	17.2	17.1	17.3	20.5	21.7	24.9
Connection pipe		mm	DN100	DN100	DN125	DN125	DN150	DN150
Condenser	Type		Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	76	94	113	132	151	170
		GPM	333	416	499	582	666	749
	Pressure drop	kPa	51.9	52.3	55.4	51.7	50.2	54.6
		ft.WG	17.0	17.2	18.2	17.0	16.5	17.9
Connection pipe		mm	DN125	DN125	DN125	DN150	DN150	DN150
Sound pressure level		dB(A)	81.2	83.5	84.5	85.3	86.3	86.8
Dimension (WxDxH)	Outline	mm	2950x1160x2070	2950x1160x2070	2950x1160x2070	3290x1200x2100	3290x1250x2200	3300x1520x1800
	Package	mm	3000x1210x2170	3000x1210x2170	3000x1210x2170	3340x1250x2200	3340x1300x2300	3350x1570x1900
Net/gross/operating weight		kg	2800/2900/2990	2850/2950/3070	2930/3030/3150	3020/3120/3320	3450/3550/3770	3810/3910/4150



Model			LHVE772FE5GEC/Nb	LHVE772GE8GEB/Nb	LHVE872GE7GEA/Nb	LHVE872GGBHGC/Nb	LHVE642HIPJIP-2/Nb	LHVE742HINJIM-2/Nb
Cooling capacity	kW		879.0	966.9	1055	1231	1231	1406
	RT		250.0	275.0	300.1	350.1	350.1	399.9
Capacity adjustment range	%		10%-100%	10%-100%	10%-100%	10%-100%	10%-100%	5%-100%
COP	W/W		6.16	6.16	6.18	6.14	6.17	6.19
IPLV	W/W		8.75	8.74	8.77	8.64	8.70	8.73
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input		kW	142.6	157.0	170.6	200.5	199.5	227.1
Compressor	Type		Semi-hermetic dual screw					
	Starting mode		VFD	VFD	VFD	VFD	VFD	VFD
	Quantity		1	1	1	1	1	2
Refrigerant	Charge volume	kg	205	230	235	270	280	290
	Type		R134a	R134a	R134a	R134a	R134a	R134a
Oil charge volume		L	23	23	28	28	35	36
Evaporator	Type		Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	151	166	181	212	212	242
		GPM	666	732	799	932	932	1065
	Pressure drop	kPa	76.0	77.5	76.0	65.1	70.2	71.5
		ft.WG	24.9	25.4	24.9	21.4	23.0	23.5
Connection pipe		mm	DN150	DN150	DN150	DN200	DN200	DN200
Condenser	Type		Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	189	208	227	265	265	302
		GPM	832	915	999	1165	1165	1331
	Pressure drop	kPa	55.0	54.7	53.8	67.4	61.3	62.3
		ft.WG	18.0	17.9	17.6	22.1	20.1	20.4
Connection pipe		mm	DN200	DN200	DN200	DN200	DN200	DN200
Sound pressure level		dB(A)	87.4	88.3	89.2	89.8	90.2	86.8
Dimension (WxDxH)	Outline	mm	3330x1610x1870	3350x1650x1900	3350x1650x1900	3760x1930x2000	4450x1830x2050	4450x1830x2050
	Package	mm	3380x1660x1970	3400x1700x2000	3400x1700x2000	3810x1980x2100	4500x1880x2150	4500x1880x2150
Net/gross/operating weight		kg	4200/4300/4530	4450/4550/4820	4770/4870/5200	5660/5760/6160	6650/6750/7300	7010/7160/7440



Model		LHVE772HIMKIN-2/Nb	LHVE772HILKIL-2/Nb	LHVE772JPLIL-2/Nb	LHVE872JINMIP-2/Nb	LHVE872KINMIK-2/Nb	
Cooling capacity	KW	1582	1758	1934	2110	2461	
	RT	449.9	500.0	550.1	600.1	699.9	
Capacity adjustment range	%	5%-100%	5%-100%	5%-100%	5%-100%	5%-100%	
COP	W/W	6.15	6.20	6.20	6.21	6.19	
IPLV	W/W	8.69	8.76	8.76	8.77	8.76	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	
Power input		kW	257.2	283.6	312.0	339.9	397.3
Compressor	Type	-	Semi-hermetic dual screw				
	Starting mode	-	VFD	VFD	VFD	VFD	VFD
	Quantity	-	2	2	2	2	2
Refrigerant	Charge volume	kg	340	360	420	460	560
	Type	-	R134a	R134a	R134a	R134a	R134a
Oil charge volume	L	36	46	46	56	56	
Evaporator	Type	-	Falling film evaporator				
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	272	302	333	363	423
		GPM	1198	1331	1465	1598	1864
	Pressure drop	kPa	77.3	77.0	78.3	76.4	77.2
		ft.WG	25.4	25.3	25.7	25.1	25.3
Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	
Condenser	Type	-	Horizontal shell and tube condenser				
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	340	378	416	454	529
		GPM	1498	1664	1831	1997	2330
	Pressure drop	kPa	66.8	68.4	67.6	65.9	67.4
		ft.WG	21.9	22.4	22.2	21.6	22.1
Connection pipe	mm	DN250	DN250	DN250	DN250	DN250	
Sound pressure level	dB(A)	89.1	90.5	91.3	91.6	91.8	
Dimension (WxDxH)	Outline	mm	4500x1850x2100	4500x1850x2100	4500x1950x2150	4500x2000x2200	4500x2150x2200
	Package	mm	4550x1900x2200	4550x1900x2200	4550x2000x2250	4550x2050x2300	4550x2200x2300
Net/gross/operating weight	kg	7400/7550/8180	7680/7830/8530	8050/8200/9010	8900/9050/9950	10050/10200/11250	

LHVE-P Series



Model		LHVE542DD4ED3/Nb	LHVE542DE5EE2/Nb	LHVE542EE4EE1/Nb	LHVE642EE5FE2/Nb	LHVE742FE8GE7/Nb	LHVE772FE4GE5/Nb	
Cooling capacity	KW	351.6	439.5	527.4	615.3	703.2	791.1	
	RT	100.0	125.0	150.0	175.0	200.0	225.0	
Capacity adjustment range	%	10%-100%	10%-100%	10%-100%	10%-100%	10%-100%	10%-100%	
COP	W/W	6.25	6.23	6.18	6.29	6.28	6.35	
IPLV	W/W	8.84	8.80	8.75	8.89	8.89	8.99	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	
Power input		kW	56.3	70.5	85.3	97.8	112.0	124.5
Compressor	Type	-	Semi-hermetic dual screw					
	Starting mode	-	VFD	VFD	VFD	VFD	VFD	
	Quantity	-	1	1	1	1	1	
Refrigerant	Charge volume	kg	100	120	150	175	195	205
	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Oil charge volume	L	13	13	13	18	18	18	
Evaporator	Type	-	Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	60	76	91	106	121	136
		GPM	266	333	399	466	533	599
	Pressure drop	kPa	42.5	52.3	58.7	53.0	58.3	55.4
		ft.WG	13.9	17.2	19.3	17.4	19.1	18.2
Connection pipe	mm	DN100	DN100	DN125	DN150	DN150	DN150	
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	76	94	113	132	151	170
		GPM	333	416	499	582	666	749
	Pressure drop	kPa	35.7	44.9	50.4	45.8	48.9	50.8
		ft.WG	11.7	14.7	16.5	15.0	16.0	16.7
Connection pipe	mm	DN125	DN125	DN125	DN150	DN150	DN150	
Sound pressure level	dB(A)	81.2	83.5	84.5	85.3	86.3	86.8	
Dimension (WxDxH)	Outline	mm	2950x1160x2070	3290x1160x2070	3290x1160x2070	3290x1250x2150	3300x1650x1860	3300x1650x1860
	Package	mm	3000x1210x2170	3340x1210x2170	3340x1210x2170	3340x1300x2250	3350x1700x1960	3350x1700x1960
Net/gross/operating weight	kg	2850/2950/3080	2910/3010/3100	3060/3160/3250	3430/3530/3710	4010/4110/4350	4170/4270/4510	



Model		LHVE772GE7HE3/ Nb	LHVE772GE6HE2/ Nb	LHVE872GG5JGD/ Nb	LHVE872GG4JGC/Nb	LHVE642HIFJID-2/Nb	LHVE742HIEJIB-2/Nb	
Cooling capacity	kW	879.0	966.9	1055	1231	1231	1406	
	RT	250.0	275.0	300.1	350.1	350.1	399.9	
Capacity adjustment range	%	10%-100%	10%-100%	10%-100%	10%-100%	10%-100%	5%-100%	
COP	W/W	6.36	6.36	6.42	6.37	6.38	6.40	
IPLV	W/W	9.00	9.00	9.09	8.98	9.04	9.06	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	
Power input		kW	138.2	152.0	164.3	193.3	219.8	
Compressor	Type	-	Semi-hermetic dual screw					
	Starting mode	-	VFD	VFD	VFD	VFD	VFD	
	Quantity	-	1	1	1	1	2	
Refrigerant	Charge volume	kg	215	230	235	270	290	
	Type	-	R134a	R134a	R134a	R134a	R134a	
Oil charge volume		L	23	23	28	28	35	
Evaporator	Type	-	Falling film evaporator					
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176	0.0176	
	Water flow rate	m ³ /h	151	166	181	212	212	242
		GPM	666	732	799	932	932	1065
	Pressure drop	kPa	57.5	58.0	70.7	86.2	83.6	90.4
		ft.WG	18.9	19.0	23.2	28.3	27.4	29.7
Connection pipe	mm	DN150	DN150	DN200	DN200	DN200	DN200	
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440	0.0440	
	Water flow rate	m ³ /h	189	208	227	265	265	302
		GPM	832	915	999	1165	1165	1331
	Pressure drop	kPa	49.1	49.0	49.8	51.7	81.1	80.5
		ft.WG	16.1	16.1	16.3	17.0	26.6	26.4
Connection pipe	mm	DN200	DN200	DN200	DN200	DN200	DN200	
Sound pressure level		dB(A)	87.4	88.3	89.2	89.8	90.2	
Dimension (WxDxH)	Outline	mm	3350x1700x1950	3350x1700x1950	3760x1950x2050	3760x1950x2050	4450x1830x2050	4450x1830x2050
	Package	mm	3400x1750x2050	3400x1750x2050	3810x2000x2150	3810x2000x2150	4500x1880x2150	4500x1880x2150
Net/gross/operating weight		kg	4800/4900/5100	4870/4970/5250	6100/6200/6500	5020/5120/6650	6750/6850/7290	7110/7260/7680

Model		LHVE672HICKIC-2/Nb	LHVE772JIFLIF-2/Nb	LHVE772JIDLIE-2/Nb	LHVE852KIFMIF-2/Nb	LHVE872KIENIE-2/Nb
Cooling capacity	kW	1582	1758	1934	2110	2461
	RT	449.9	500.0	550.1	600.1	699.9
Capacity adjustment range	%	5%-100%	5%-100%	5%-100%	5%-100%	5%-100%
COP	W/W	6.40	6.48	6.46	6.47	6.47
IPLV	W/W	9.06	9.18	9.15	9.18	9.18
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
Power input		kW	247.3	271.5	299.3	326.2
Compressor	Type	-	Semi-hermetic dual screw			
	Starting mode	-	VFD	VFD	VFD	VFD
	Quantity	-	2	2	2	2
Refrigerant	Charge volume	kg	340	420	460	560
	Type	-	R134a	R134a	R134a	R134a
Oil charge volume		L	36	46	46	56
Evaporator	Type	-	Falling film evaporator			
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176
	Water flow rate	m ³ /h	272	302	333	363
		GPM	1198	1331	1465	1598
	Pressure drop	kPa	89.3	81.6	85.3	79.5
		ft.WG	29.3	26.8	28.0	26.1
Connection pipe	mm	DN200	DN200	DN250	DN250	
Condenser	Type	-	Horizontal shell and tube condenser			
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440
	Water flow rate	m ³ /h	340	378	416	454
		GPM	1498	1664	1831	1997
	Pressure drop	kPa	80.7	77.4	81.1	80.8
		ft.WG	26.5	25.4	26.6	26.5
Connection pipe	mm	DN250	DN250	DN250	DN250	
Sound pressure level		dB(A)	89.1	90.5	91.3	
Dimension (WxDxH)	Outline	mm	4500x1850x2100	4500x1950x2150	4500x1950x2150	4500x2200x2250
	Package	mm	4550x1900x2200	4550x2000x2250	4550x2000x2250	4550x2250x2350
Net/gross/operating weight		kg	7400/7550/8160	8250/8400/9080	9000/9150/9900	10260/10410/11290

Note:

Working conditions: Leaving chilled water temperature 7°C ,water flow 0.172[m³/(h · kw)]; Entering cooling water temperature 30°C , water flow 0.215[m³/(h · kw)]; Fouling factor at the chilled water side 0.0176 m²·°C /kW, fouling factor at the cooling water side 0.044 m²·°C /kW

Operation Range of LHVE-S and LHVE-P

Chilled water		Cooling water	
LWT (°C)	Difference between EWT & LWT (°C)	EWT (°C)	Difference between EWT & LWT (°C)
4~15	2.5~10	18~35	3.5~10

LWT : Leaving water temperature
EWT : Entering water temperature

LHVP Series



Model		LHVP540DD2ED3/Nb	LHVP640EE6EEA/Nb	LHVP770EE5FEC/Nb	LHVP770FE5GEC/Nb	
Cooling capacity	kW	450	630	730	880	
	RT	128.0	179.2	207.6	250.3	
Heating capacity	kW	466	652	756	915	
	RT	132.5	185.5	214.9	260.3	
Capacity adjustment range	%	25-100%	25-100%	25-100%	25-100%	
COP _c	W/W	7.51	7.56	7.58	7.68	
COP _h	W/W	5.23	5.25	5.25	5.27	
ACOP	W/W	6.51	6.5436	6.5548	6.6196	
Power supply	-M	Ph,V,Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz	380V 3~ 50Hz
	-G	Ph,V,Hz	59.9	83.3	96.3	114.6
Power input(Cooling)	kW	89.0	124.2	143.9	173.7	
Power input(Heating)	kW	91.1	129.0	145.8	178.7	
Compressor	Type	-	Semi-hermetic dual screw			
	Starting mode	-	VFD			
	Quantity	-	1	1	1	1
Evaporator	Type	-	R134a	R134a	R134a	R134a
	Type	-	Falling film evaporator			
	Fouling factor	m ² ·°C /kW	0.0176	0.0176	0.0176	0.0176
Water flow rate(Cooling)	m ³ /h	77	108	126	151	
	GPM	341	477	553	666	
Pressure drop(Cooling)	kPa	55.9	65.0	70.7	76.6	
	ft.WG	18.3	21.3	23.2	25.1	
Water flow rate(Heating)	m ³ /h	97	135	157	189	
	GPM	426	596	691	833	
Pressure drop(Heating)	kPa	91	96	102	115	
	ft.WG	29.7	31.5	33.5	37.7	
Connection pipe	mm	DN100	DN125	DN150	DN150	
Condenser	Type	-	Horizontal shell and tube condenser			
	Fouling factor	m ² ·°C /kW	0.0440	0.0440	0.0440	0.0440
	Water flow rate(Cooling)	m ³ /h	97	135	157	189
		GPM	426	596	691	833
	Pressure drop(Cooling)	kPa	63	55	57	59
		ft.WG	20.6	18.2	18.7	19.5
	Water flow rate(Heating)	m ³ /h	77	108	126	151
		GPM	341	477	553	666
	Pressure drop(Heating)	kPa	41.2	38.4	38.7	37.2
		ft.WG	13.5	12.6	12.7	12.2
Connection pipe	mm	DN125	DN150	DN150	DN200	
Dimension (WxDxH)	Outline	mm	2950x1260x2070	3290x1300x2150	3290x1250x2200	3330x1610x1870
	Package	mm	3000x1310x2170	3340x1350x2250	3340x1300x2300	3380x1660x1970
Net/gross/operating weight	kg	2880/2980/3100	3360/3460/3660	3680/3780/4000	4420/4520/4750	

Note:

Working conditions of cooling: Leaving chilled water temperature 7°C ; Entering water source temperature 25°C ;

Working conditions of heating: Entering water source temperature 10°C ; Leaving hot water temperature 45°C .

Fouling factor at the chilled water side 0.0176 m² · °C /kW, fouling factor at the cooling water side 0.044 m² · °C /kW.

Operation Range of LHVP

Chilled water (Load side)		Cooling water (Source side)	
LWT (°C)	Difference between EWT & LWT (°C)	EWT(°C)	Difference between EWT & LWT (°C)
4~15	2.5~10	18~35	2.5~10
35~60	3.5~10	10~22	2.5~8

LWT: Leaving water temperature

EWT: Entering water temperature

HIGH-EFFICIENCY AIR-COOLED SCREW CHILLER

Nomenclature

LM	V	E	B	33	LF8	50	LE3	E	-	/Nb	-M
1	2	3	4	5	6	7	8	9	10	11	12

No.	Description	Options
1	Product type	LM-Air cooled screw chillers
2	Compressor drive	V- Variable frequency drive (VFD), Omit-Fixed speed
3	Product function	E-Cooling only;P-Heat pump
4	Condenser Code	A, B, C, D
5	Number of system I, II condenser V-shape coil pair	33-3 V-shape coil pairs for system I&II condenser respectively
6	System I, II Shell and tube evaporator model	-
7	Number of system III, IV condenser V-shape coil pair	50-5 V-shape coil pairs for system III & 0 V-shape coil pair for system IV condenser(no system IV)
8	System III, IV shell and tube evaporator model	-
9	Economizer function	E-With economizer; Omit-Without economizer
10	Special features	Omit-Without special features
11	Refrigerant	Nb-R134a
12	Power supply	M-380V 3N~ 50Hz

Product Lineup



Fix speed air cooled screw chiller

LME Series(50Hz)	90RT	470RT
LME Series(60Hz)	76RT	470RT
LMP Series(50Hz)	90RT	450RT
LMR Series(50Hz)	90RT	470RT
LMR Series(60Hz)	51RT	200RT



VFD air cooled screw chiller

LMVE Series	82RT	407RT
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LME&LMP Series Fixed Speed Air Cooled Screw Chiller



Features

Dual screw semi-hermetic compressor

- Compact structure, the motor is cooled by the suction refrigerant with stable and high efficiency operation.
- Built-in discharge check valve prevents the back flow of refrigerant when the compressor stop operation.
- Compressor integrated with built-in oil separation screen and oil heater, and with efficient oil return through differential pressure mechanism, ensuring reliable system operation.
- Stepless adjustment of the slide valve ensures precise matching of the compressor's output capacity and load demand.
- High-precision SKF bearings for higher transmission efficiency and improved compressor life.
- Class F insulation motor of three-phase asynchronous power supply.
- Single compressor system capacity can be steplessly adjusted at 50%-100% load, and dual-compressor system capacity can be steplessly adjusted at 25%-100% load.

High efficiency heat exchanger

- Adopting flooded evaporator with built-in refrigerant equalization and liquid baffle device to enhance system reliability, with evaporation temperature higher than 5.5°C .
- Evaporator with triple groove end tube support design, water side working pressure is of 1.0MPa as standard, 1.6MPa or 2.0MPa is optional.
- Factory insulated evaporator with 30mm wall thickness closed cell insulation material.
- Evaporator and condenser with flanged connection as standard, while the victaulic connection as optional.
- Optional marine water box for evaporator.
- Condenser is designed with V-shaped arrangement, the optimized angle provides more uniform airflow distribution, corrugated slot aluminum finned copper tube, enabling its higher heat transfer efficiency.
- Anti-corrosive golden fins for the condenser which can withstand 2000 hours neutral salt spray test.

Economizer

The flasher economizer is adopted for increasing the cooling capacity by 10% and improving the cooling efficiency at the same time.

High-accuracy electronic expansion valve (EXV) control

3810 pulses EXV which combines coarse and fine adjustment for precisely adjusting flow of refrigerant to maintain the correct superheat, thus to improve heat exchanging efficiency under deviation and especially part-load working condition.

Intelligent and reliable oil lubrication system

- In addition to the built-in oil separation screen of the compressor, the unit is also equipped with an external vertical oil separator to ensure the efficiency of oil separation.
- Vapor injection oil return will be automatically initiated to ensure the oil return from the external oil separator when needed, to ensure sufficient oil lubrication for critical components inside the compressor.

Modular design

Different models with different capacities (modules) can be seamlessly integrated into one system by connecting the shell and tube heat exchanger, to expand the cooling capacity. The modular design facilitates lifting and transportation, and reduce the installation space as well. Each module can be set as the master unit, and when one fails, the other remains operational.

Control panel

7" key screen or 10" touch screen be selected and the display screen provides Chinese and English interface switching function to meet different needs, the display parameters are as follows:

Chilled water inlet and outlet temperature
Suction and exhaust temperature
Evaporation pressure
Condensing pressure
Compressor start times
Cumulative compressor running time
Contactor status
Solenoid valve status
Water temperature setting value
Etc.

Multiple protection functions

The unit has several protection functions, such as for high exhaust temperature protection, safety valve protection, motor winding overheating protection, low pressure protection, high pressure protection, anti-freeze protection, on/off protection of water flow, lack of reverse phase, sensor failure protection and fan overcurrent protection to ensure stable operation under various conditions and to avoid damage caused.

Microprocessor based control system

- Adopt the self-developed and manufactured microprocessor based control system, enabling a powerful and precise control with prompt reaction.
- Base on actual requirements, the chilled water entering or leaving temperature can be selected as setting target.
- Standard interlock interface for chilled water pump and cooling water pump.
- Multiple timer setting and power-off memory restart function.
- Password protection function, access passwords of different authority levels can be set for safe operation.

Other optional configurations

- Star-delta start as standard, and solid-state soft start as optional
- Metal vibration isolator as standard, spring vibration isolator as optional
- The IP rating of electric control cabinet is IPX4 as standard, IP55 is optional
- External static pressure options of fan can be 80Pa, 100Pa, 300Pa
- The heat pump unit can be equipped with -20°C heating option
- Compressor sound enclosure is optional
- Built-in hydraulic module is optional

Specifications

LME series(50Hz)



Model	Cooling only		LMEA30JD3E/ Nb-M	LMEB30JD2E/ Nb-M	LMEA40LE5E/ Nb-M	LMEB40LE4E/ Nb-M	LMEA50LE3E/ Nb-M	LMEB50LE2E/ Nb-M
Capacity	Cooling	kW	320	350	420	470	520	580
		TR	91.0	99.5	119.4	133.6	147.9	164.9
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
COP		WW	3.20	3.24	3.23	3.22	3.21	3.22
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	100	108	130	146	162	180
		Type	Semi-hermetic screw					
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	1	1	1	1	1	1
	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m ³ /h	55.0	60.2	72.2	80.8	89.4	99.8
		GPM	243	265	319	356	394	440
	Pressure drop	kPa	≤ 35	≤ 35	≤ 45	≤ 45	≤ 45	≤ 45
		ft.WG	≤ 11.5	≤ 11.5	≤ 14.8	≤ 14.8	≤ 14.8	≤ 14.8
Connection pipe	-	DN100	DN100	DN125	DN125	DN125	DN125	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m ³ /h	19500 × 6	21500 × 6	19500 × 8	21500 × 8	19500 × 10	21500 × 10
		CFM	11477 × 6	12654 × 6	11477 × 8	12654 × 8	11477 × 10	12654 × 10
	Total fan motor power	kW	1.5 × 6	1.8 × 6	1.5 × 8	1.8 × 8	1.5 × 10	1.8 × 10
Dimension (W × D × H)	Outline	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6110 × 2250 × 2550	6110 × 2250 × 2550
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2330 × 2550	6260 × 2330 × 2550
Net/Gross/Operting Weight		kg	4130/4170/4213	4310/4350/4396	5210/5250/5314	5515/5555/5625	5980/6020/6100	6240/6280/6365



Model	Cooling only		LMEA33LF8E/ Nb-M	LMEB33LF6E/ Nb-M	LMEB43LF7E/ Nb-M	LMEB43LF5E/ Nb-M	LMEA44NF4E/ Nb-M	LMEB44NF2E/ Nb-M
Capacity	Cooling	kW	650	700	750	820	860	940
		TR	184.8	199.1	213.3	233.2	244.5	267.3
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
COP		WW	3.25	3.24	3.19	3.22	3.25	3.24
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	200	216	235	255	265	290
		Type	Semi-hermetic screw					
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	2	2	2	2	2	2
	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m ³ /h	111.8	120.4	129.0	141.0	147.9	161.7
		GPM	493	531	569	622	652	713
	Pressure drop	kPa	≤ 55	≤ 55	≤ 55	≤ 55	≤ 65	≤ 60
		ft.WG	≤ 18.0	≤ 18.0	≤ 18.0	≤ 18.0	≤ 21.3	≤ 19.7
Connection pipe	-	DN150	DN150	DN150	DN150	DN150	DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m ³ /h	19500 × 12	21500 × 12	19500 × 14	21500 × 14	19500 × 16	21500 × 16
		CFM	11477 × 12	12654 × 12	11477 × 14	12654 × 14	11477 × 16	12654 × 16
	Total fan motor power	kW	1.5 × 12	1.8 × 12	1.5 × 14	1.8 × 14	1.5 × 16	1.8 × 16
Dimension (W × D × H)	Outline	mm	7340 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	8560 × 2250 × 2550	9780 × 2250 × 2550	9780 × 2250 × 2550
	Package	mm	7490 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550	8710 × 2330 × 2550	9930 × 2330 × 2550	9930 × 2330 × 2550
Net/Gross/Operting Weight		kg	7920/7960/8078	8120/8160/8282	8350/8390/8517	9110/9150/9292	9860/9900/10057	9970/10010/10169



Model	Cooling only		LMEB54NG2E/Nb-M	LMEB33LF650LE2E/ Nb-M	LMEB33LF633LF6E/ Nb-M	LMEB33LF643LF5E/ Nb-M	LMEB43LF543LF5E/ Nb-M
Capacity	Cooling	kW	1050	1280	1400	1500	1650
		TR	298.6	364.0	398.1	426.5	469.2
Capacity steps		%	12.5%,25%~100%	8.3%,16.7%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%
COP		W/W	3.23	3.20	3.22	3.23	3.20
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	325	400	435	465	515
Compressor	Type	-	Semi-hermetic screw				
	Starting mode	-	Star delta start				
	Quantity	-	2	3	4	4	4
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator				
	Water flow rate	m³/h	180.6	220.2	240.8	258.0	283.8
		GPM	796	971	1062	1138	1251
	Pressure drop	kPa	≤ 70	≤ 55	≤ 60	≤ 60	≤ 60
		ft.WG	≤ 23.0	≤ 18.0	≤ 19.7	≤ 19.7	≤ 19.7
	Connection pipe	-	DN150	DN150+DN125	2 × DN150	2 × DN150	2 × DN150
Air side heat exchanger	Type	-	Aluminum fin-copper tube				
	Total fan air flow	m³/h	21500 × 18	21500 × 22	21500 × 24	21500 × 26	21500 × 28
		CFM	12654 × 18	12654 × 22	12654 × 24	12654 × 26	12654 × 28
	Total fan motor power	kW	1.8 × 18	1.8 × 22	1.8 × 24	1.8 × 26	1.8 × 28
Dimension (W × D × H)	Outline	mm	11000 × 2250 × 2550	13450 × 2250 × 2550	14670 × 2250 × 2550	15890 × 2250 × 2550	17120 × 2250 × 2550
	Package	mm	11150 × 2330 × 2550	13600 × 2330 × 2550	14820 × 2330 × 2550	16040 × 2330 × 2550	17270 × 2330 × 2550
Net/Gross/Operting Weight		kg	11150/11230/11373	14470/14550/14759	15840/15920/16157	17140/17220/17483	18470/18550/18839

Note: LMEB33LF650LE2E/Nb-M~LMEB43LF543LF5E/Nb-M can be splitted into two parts and transported separately.

Model	Cooling only		LMEB30JD33/ Nb-M	LMED30JD24/ Nb-M	LMED30JD24E/ Nb-M	LMED40LE56/ Nb-M	LMED40LE46E/ Nb-M	LMED50LE37/ Nb-M	LMED50LE27E/ Nb-M
Capacity	Cooling	kW	358	408	448	518	573	678	743
		TR	101.8	116.0	127.4	147.3	162.9	192.8	211.3
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
COP		W/W	3.17	3.11	3.11	3.18	3.18	3.18	3.11
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	113	131	144	163	180	213	239
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	1	1	1	1	1	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m³/h	61.6	70.2	77.1	89.1	98.6	116.6	127.8
		GPM	271	309	340	393	435	514	563
	Pressure drop	kPa	≤ 35	≤ 45	≤ 45	≤ 45	≤ 50	≤ 55	≤ 55
		ft.WG	≤ 11.5	≤ 14.8	≤ 14.8	≤ 14.8	≤ 16.4	≤ 18.0	≤ 18.0
	Connection pipe	-	DN125	DN125	DN125	DN125	DN125	DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m³/h	24000 × 6	26000 × 6	26000 × 6	24000 × 8	26000 × 8	24000 × 10	26000 × 10
		CFM	14126 × 6	15304 × 6	15304 × 6	14126 × 8	15304 × 8	14126 × 10	15304 × 10
	Total fan motor power	kW	2.2 × 6	2.8 × 6	2.8 × 6	2.2 × 8	2.8 × 8	2.2 × 10	2.8 × 10
Dimension (W × D × H)	Outline	mm	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	4890 × 2250 × 2550	6110 × 2250 × 2550	6110 × 2250 × 2550
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2330 × 2550	6260 × 2330 × 2550
Net/Gross/Operting Weight		kg	4500/4540/4590	4410/4450/4498	4570/4610/4661	5545/5595/5656	5585/5625/5697	6270/6310/6395	6400/6440/6528

Model	Cooling only		LMED50LE18E/ Nb-M	LMED33LF644E/ Nb-M	LMED43LF564E/ Nb-M	LMED44NF266E/ Nb-M	LMED54NG276E/ Nb-M	LME50LE2750/ LE27E/Nb-M	LME50LE1850/ LE18E/Nb-M
Capacity	Cooling	kW	808	898	1023	1148	1318	1488	1617
		TR	229.8	255.4	290.9	326.4	374.8	423.1	459.8
Capacity steps		%	25%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
COP		W/W	3.00	3.10	3.10	3.19	3.10	3.10	3.10
Power supply		V/Ph/Hz	380V/3N~/50Hz						
Power input	Cooling	kW	269	290	330	360	425	480	522
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	2	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m³/h	139.0	154.5	176.0	197.5	226.7	255.9	278.1
		GPM	613	681	776	871	1000	1128	1226
	Pressure drop	kPa	≤ 55	≤ 60	≤ 65	≤ 70	≤ 75	≤ 80	≤ 80
		ft.WG	≤ 18.0	≤ 19.7	≤ 21.3	≤ 23.0	≤ 24.6	≤ 26.2	≤ 26.2
	Connection pipe	-	DN150	DN150	DN200	DN200	DN200	2 × DN150	2 × DN150
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m³/h	26000 × 10	26000 × 12	26000 × 14	26000 × 16	26000 × 18	26000 × 20	26000 × 20
		CFM	15304 × 10	15304 × 12	15304 × 14	15304 × 16	15304 × 18	15304 × 20	15304 × 20
	Total fan motor power	kW	2.8 × 10	2.8 × 12	2.8 × 14	2.8 × 16	2.8 × 18	2.8 × 20	2.8 × 20
Dimension (W × D × H)	Outline	mm	6110 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	9780 × 2250 × 2550	11000 × 2250 × 2550	12230 × 2250 × 2550	12230 × 2250 × 2550
	Package	mm	6260 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550	9930 × 2330 × 2550	11150 × 2330 × 2550	12380 × 2330 × 2550	12380 × 2330 × 2550
Net/Gross/Operting Weight		kg	6440/6480/6569	8600/8640/8772	9645/9685/9838	10610/10650/10822	11385/11425/11613	12800/12880/13056	12880/12960/13138

Note: LME50LE2750LE27E/Nb-M、LME50LE1850LE18E/Nb-M can be splitted into two parts and transported separately.

LME series(60Hz)



Model	Cooling only		LMEA30JD3/ Nb-H	LMEA30JD3E/ Nb-H	LMEB30JD2/ Nb-H	LMEB30LE5/ Nb-H	LMEB30LE5E/ Nb-H	LMEB40LE4/ Nb-H	LMEB40LE3E/ Nb-H
Capacity	Cooling	kW	270	310	330	360	390	450	480
		TR	76.8	88.2	93.9	102.4	110.9	128.0	136.5
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
COP		W/W	3.10	3.10	3.06	3.05	3.00	3.13	3.04
Power supply		V/Ph/Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz
Power input	Cooling	kW	87	100	108	118	130	144	158
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	1	1	1	1	1	1
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m³/h	46.4	53.3	56.8	61.9	67.1	77.4	82.6
		GPM	205	235	250	273	296	341	364
	Pressure drop	kPa	≤ 35	≤ 35	≤ 35	≤ 40	≤ 45	≤ 45	≤ 45
		ft.WG	≤ 11.5	≤ 11.5	≤ 11.5	≤ 13.1	≤ 14.8	≤ 14.8	≤ 14.8
	Connection pipe	-	DN100	DN100	DN100	DN100	DN125	DN125	DN125
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m³/h	21500 × 6	21500 × 6	21500 × 6	21500 × 6	21500 × 6	21500 × 8	21500 × 8
		CFM	12654 × 6	12654 × 6	12654 × 6	12654 × 6	12654 × 6	12654 × 8	12654 × 8
	Total fan motor power	kW	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 8	1.5 × 8
Dimension (W × D × H)	Outline	mm	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	4890 × 2250 × 2550
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550
Net/Gross/Operting Weight		kg	3830/3870/3907	4230/4270/4315	4370/4410/4457	4850/4890/4947	4990/5030/5090	5410/5450/5518	5610/5650/5722



Model	Cooling only		LMEB50LE2/ Nb-H	LMEB50LE1E/ Nb-H	LMEA33LF8E/ Nb-H	LMEB33LF6/ Nb-H	LMEB33LF7/ Nb-H	LMEB33LF5E/ Nb-H	LMEB43NF4/ Nb-H	
Capacity	Cooling	kW	550	600	620	670	720	780	820	
		TR	156.4	170.6	176.3	190.6	204.8	221.8	233.2	
Capacity steps		%	25%,50%~100%	25%,50%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	
COP		W/W	3.06	3.00	3.10	3.10	3.06	3.00	3.04	
Power supply		V/Ph/Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	
Power input	Cooling	kW	180	200	200	216	235	260	270	
		Type	Semi-hermetic screw							
Compressor	Starting mode		Star delta start							
		Quantity	-	1	1	2	2	2	2	2
		Type	R134a							
Water side heat exchanger	Type	Flooded evaporator								
		Water flow rate	m ³ /h	94.6	103.2	106.6	115.2	123.8	134.2	141.0
		GPM	417	455	470	508	546	592	622	
		Pressure drop	kPa	≤ 45	≤ 50	≤ 55	≤ 55	≤ 55	≤ 60	≤ 65
			ft.WG	≤ 14.8	≤ 16.4	≤ 18.0	≤ 18.0	≤ 18.0	≤ 19.7	≤ 21.3
Connection pipe	-	DN125	DN125	DN150	DN150	DN150	DN150	DN150		
Air side heat exchanger	Type	Aluminum fin-copper tube								
		Total fan air flow	m ³ /h	21500 × 10	21500 × 10	21500 × 12	21500 × 12	21500 × 12	21500 × 12	21500 × 14
			CFM	12654 × 10	12654 × 10	12654 × 12	12654 × 12	12654 × 12	12654 × 12	12654 × 14
		Total fan motor power	kW	1.5 × 10	1.5 × 10	1.5 × 12	1.5 × 12	1.5 × 12	1.5 × 12	1.5 × 14
Dimension (W × D × H)	Outline	mm	6110 × 2250 × 2550	6110 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	
		Package	mm	6260 × 2330 × 2550	6260 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550
Net/Gross/Operting Weight		kg	6100/6140 /6222	6180/6220 /6304	7440/7480 /7589	8120/8160 /8282	8350/8390 /8517	9110/9150 /9292	9130/9170 /9313	

Model	Cooling only		LMEB50LE150LE1E/ Nb-H	LMEB33LF750LE2/ Nb-H	LMEB33LF550LE1E/ Nb-H	LMEB33LF733LF7/ Nb-H	LMEB33LF533LF5E/ Nb-H	LMEB43NF233LF5E/ Nb-H	
Capacity	Cooling	kW	1270	1300	1380	1450	1580	1650	
		TR	361.2	369.7	392.5	412.4	449.4	469.3	
Capacity steps		%	12.5%,25%~100%	8.3%,16.7%~100%	8.3%,16.7%~100%	6.3%,12.5%~100%	6.3%,12.5%~100%	6.3%,12.5%~100%	
COP		W/W	3.10	3.06	3.03	3.10	3.06	3.08	
Power supply		V/Ph/Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	
Power input	Cooling	kW	410	425	455	468	516	536	
		Type	Semi-hermetic screw						
Compressor	Starting mode		Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
		Quantity	-	2	3	3	4	4	4
		Type	R134a						
Water side heat exchanger	Type	Flooded evaporator							
		Water flow rate	m ³ /h	218.4	223.6	237.4	249.4	271.8	283.8
		GPM	963	986	1047	1100	1198	1251	
		Pressure drop	kPa	≤ 70	≤ 60	≤ 60	≤ 60	≤ 60	≤ 70
			ft.WG	≤ 23.0	≤ 19.7	≤ 19.7	≤ 19.7	≤ 19.7	≤ 23.0
Connection pipe	-	DN200	DN150+DN125	DN150+DN125	2 × DN150	2 × DN150	2 × DN150		
Air side heat exchanger	Type	Aluminum fin-copper tube							
		Total fan air flow	m ³ /h	21500 × 20	21500 × 22	21500 × 22	21500 × 24	21500 × 24	21500 × 24
			CFM	12654 × 20	12654 × 22	12654 × 22	12654 × 24	12654 × 24	12654 × 24
		Total fan motor power	kW	1.5 × 20	1.5 × 22	1.5 × 22	1.5 × 24	1.5 × 24	1.5 × 24
Dimension (W × D × H)	Outline	mm	12230 × 2250 × 2550	13450 × 2250 × 2550	13450 × 2250 × 2550	14670 × 2250 × 2550	14670 × 2250 × 2550	14670 × 2250 × 2550	
		Package	mm	12380 × 2330 × 2550	13600 × 2330 × 2550	13600 × 2330 × 2550	14820 × 2330 × 2550	14820 × 2330 × 2550	14820 × 2330 × 2550
Net/Gross/Operting Weight		kg	12410/12490/12658	14450/14530/14739	15290/15370/15596	16700/16780/17034	18220/18300/18584	18290/18370/18656	

Note: LMEB50LE150LE1E/Nb-H~LMEB43NF233LF5E/Nb-H can be splitted into two parts and transported separately.



Model	Cooling only		LMEB43NF2E/ Nb-H	LMEB44NG3/ Nb-H	LMEB44NG2E/ Nb-H	LMEB54NG2/ Nb-H	LMEB54NH2/ Nb-H	LMEB54NH2E/ Nb-H	
Capacity	Cooling	kW	870	900	950	1000	1100	1230	
		TR	247.4	256.0	270.2	284.4	312.9	349.8	
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	
COP		W/W	3.04	3.05	3.01	3.09	3.01	3.03	
Power supply		V/Ph/Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	
Power input	Cooling	kW	286	295	316	324	366	406	
		Type	Semi-hermetic screw						
Compressor	Starting mode		Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
		Quantity	-	2	2	2	2	2	2
		Type	R134a						
Water side heat exchanger	Type	Flooded evaporator							
		Water flow rate	m ³ /h	149.6	154.8	163.4	172.0	189.2	211.6
		GPM	660	683	720	758	834	933	
		Pressure drop	kPa	≤ 65	≤ 60	≤ 60	≤ 70	≤ 55	≤ 70
			ft.WG	≤ 21.3	≤ 19.7	≤ 19.7	≤ 23.0	≤ 18.0	≤ 23.0
Connection pipe	-	DN150	DN150	DN200	DN200	DN200	DN200		
Air side heat exchanger	Type	Aluminum fin-copper tube							
		Total fan air flow	m ³ /h	21500 × 14	21500 × 16	21500 × 16	21500 × 18	21500 × 18	21500 × 18
			CFM	12654 × 14	12654 × 16	12654 × 16	12654 × 18	12654 × 18	12654 × 18
		Total fan motor power	kW	1.5 × 14	1.5 × 16	1.5 × 16	1.5 × 18	1.5 × 18	1.5 × 18
Dimension (W × D × H)	Outline	mm	8560 × 2250 × 2550	9780 × 2250 × 2550	9780 × 2250 × 2550	11000 × 2250 × 2550	11000 × 2250 × 2550	11000 × 2250 × 2550	
		Package	mm	8710 × 2330 × 2550	9930 × 2330 × 2550	9930 × 2330 × 2550	11150 × 2330 × 2550	11150 × 2330 × 2550	11150 × 2330 × 2550
Net/Gross/Operting Weight		kg	9180/9220/9364	9970/10010/10169	10280/10360/10486	11060/11140/11281	12200/12280/12444	13260/13340/13525	

Model	Cooling only		LMEA30JD3/ Nb-U	LMEA30JD3E/ Nb-U	LMEB30JD2/ Nb-U	LMEB30LE5/ Nb-U	LMEB30LE5E/ Nb-U	LMEB40LE4/ Nb-U	LMEB40LE3E/ Nb-U	
Capacity	Cooling	kW	270	310	330	360	390	450	480	
		TR	76.8	88.2	93.9	102.4	110.9	128.0	136.5	
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	
COP		W/W	3.10	3.10	3.06	3.05	3.00	3.13	3.04	
Power supply		V/Ph/Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	
Power input	Cooling	kW	87	100	108	118	130	144	158	
		Type	Semi-hermetic screw							
Compressor	Starting mode		Star delta start							
		Quantity	-	1	1	1	1	1	1	1
		Type	R134a							
Water side heat exchanger	Type	Flooded evaporator								
		Water flow rate	m ³ /h	46.4	53.3	56.8	61.9	67.1	77.4	82.6
		GPM	205	235	250	273	296	341	364	
		Pressure drop	kPa	≤ 35	≤ 35	≤ 35	≤ 40	≤ 45	≤ 45	≤ 45
			ft.WG	≤ 11.5	≤ 11.5	≤ 11.5	≤ 13.1	≤ 14.8	≤ 14.8	≤ 14.8
Connection pipe	-	DN100	DN100	DN100	DN100	DN125	DN125	DN125		
Air side heat exchanger	Type	Aluminum fin-copper tube								
		Total fan air flow	m ³ /h	21500 × 6	21500 × 6	21500 × 6	21500 × 6	21500 × 6	21500 × 8	21500 × 8
			CFM	12654 × 6	12654 × 6	12654 × 6	12654 × 6	12654 × 6	12654 × 8	12654 × 8
		Total fan motor power	kW	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 6	1.5 × 8	1.5 × 8
Dimension (W × D × H)	Outline	mm	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	4890 × 2250 × 2550	
		Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550
Net/Gross/Operting Weight		kg	3830/3870/3907	4230/4270/4315	4370/4410/4457	4850/4890/4947	4990/5030/5090	5410/5450/5518	5610/5650/5722	



Model	Cooling only		LMEB50LE2/ Nb-U	LMEB50LE1E/ Nb-U	LMEA33LF8E/ Nb-U	LMEB33LF6/ Nb-U	LMEB33LF7/ Nb-U	LMEB33LF5E/ Nb-U	LMEB43NF4/ Nb-U
Capacity	Cooling	kW	550	600	620	670	720	780	820
		TR	156.4	170.6	176.3	190.6	204.8	221.8	233.2
Capacity steps		%	25%,50%~100%	25%,50%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
COP		W/W	3.06	3.00	3.10	3.10	3.06	3.00	3.04
Power supply		V/Ph/Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz
Power input	Cooling	kW	180	200	200	216	235	260	270
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	1	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	94.6	103.2	106.6	115.2	123.8	134.2	141.0
		GPM	417	455	470	508	546	592	622
	Pressure drop	kPa	≤ 45	≤ 50	≤ 55	≤ 55	≤ 55	≤ 60	≤ 65
		ft.WG	≤ 14.8	≤ 16.4	≤ 18.0	≤ 18.0	≤ 18.0	≤ 19.7	≤ 21.3
Connection pipe	-	DN125	DN125	DN150	DN150	DN150	DN150	DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	21500 × 10	21500 × 10	21500 × 12	21500 × 12	21500 × 12	21500 × 12	21500 × 14
		CFM	12654 × 10	12654 × 10	12654 × 12	12654 × 12	12654 × 12	12654 × 12	12654 × 14
	Total fan motor power	kW	1.5 × 10	1.5 × 10	1.5 × 12	1.5 × 12	1.5 × 12	1.5 × 12	1.5 × 14
Dimension (W × D × H)	Outline	mm	6110 × 2250 × 2550	6110 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550
	Package	mm	6260 × 2330 × 2550	6260 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550
Net/Gross/Operting Weight		kg	6100/6140/6222	6180/6220/6304	7440/7480/7589	8120/8160/8282	8350/8390/8517	9110/9150/9292	9130/9170/9313

Model	Cooling only		LMEB50LE150LE1E/ Nb-U	LMEB33LF750LE2/ Nb-U	LMEB33LF550LE1E/ Nb-U	LMEB33LF733LF7/ Nb-U	LMEB33LF533LF5E/ Nb-U	LMEB43NF233LF5E/ Nb-U	
Capacity	Cooling	kW	1270	1300	1380	1450	1580	1650	
		TR	361.2	369.7	392.5	412.4	449.4	469.3	
Capacity steps		%	12.5%,25%~100%	8.3%,16.7%~100%	8.3%,16.7%~100%	6.3%,12.5%~100%	6.3%,12.5%~100%	6.3%,12.5%~100%	
COP		W/W	3.10	3.06	3.03	3.10	3.06	3.08	
Power supply		V/Ph/Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	
Power input	Cooling	kW	410	425	455	468	516	536	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	2	3	3	4	4	4	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	218.4	223.6	237.4	249.4	271.8	283.8	
		GPM	963	986	1047	1100	1198	1251	
	Pressure drop	kPa	≤ 70	≤ 60	≤ 60	≤ 60	≤ 60	≤ 70	
		ft.WG	≤ 23.0	≤ 19.7	≤ 19.7	≤ 19.7	≤ 19.7	≤ 23.0	
Connection pipe	-	DN200	DN150+DN125	DN150+DN125	2 × DN150	2 × DN150	2 × DN150		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	21500 × 20	21500 × 22	21500 × 22	21500 × 24	21500 × 24	21500 × 24	
		CFM	12654 × 20	12654 × 22	12654 × 22	12654 × 24	12654 × 24	12654 × 24	
	Total fan motor power	kW	1.5 × 20	1.5 × 22	1.5 × 22	1.5 × 24	1.5 × 24	1.5 × 24	
Dimension (W × D × H)	Outline	mm	12230 × 2250 × 2550	13450 × 2250 × 2550	13450 × 2250 × 2550	14670 × 2250 × 2550	14670 × 2250 × 2550	14670 × 2250 × 2550	
	Package	mm	12380 × 2330 × 2550	13600 × 2330 × 2550	13600 × 2330 × 2550	14820 × 2330 × 2550	14820 × 2330 × 2550	14820 × 2330 × 2550	
Net/Gross/Operting Weight		kg	12410/12490/12658	14450/14530/14739	15290/15370/15596	16700/16780/17034	18220/18300/18584	18290/18370/18656	

Note:

LMEB50LE150LE1E/Nb-U~LMEB43NF233LF5E/Nb-U can be splitted into two parts and transported separately.

Working condition of cooling: Leaving chilled water temperature 7°C , water flow volume: 0.172 m³/h per kW cooling capacity, outdoor ambient temperature 35°C (DB).



Model	Cooling only		LMEB43NF2E/Nb-U	LMEB44NG3/Nb-U	LMEB44NG2E/Nb-U	LMEB54NG2/Nb-U	LMEB54NH2/Nb-U	LMEB54NH2E/Nb-U	
Capacity	Cooling	kW	870	900	950	1000	1100	1230	
		TR	247.4	256.0	270.2	284.4	312.9	349.8	
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	
COP		W/W	3.04	3.05	3.01	3.09	3.01	3.03	
Power supply		V/Ph/Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	
Power input	Cooling	kW	286	295	316	324	366	406	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	2	2	2	2	2	2	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	149.6	154.8	163.4	172.0	189.2	211.6	
		GPM	660	683	720	758	834	933	
	Pressure drop	kPa	≤ 65	≤ 60	≤ 60	≤ 70	≤ 55	≤ 70	
		ft.WG	≤ 21.3	≤ 19.7	≤ 19.7	≤ 23.0	≤ 18.0	≤ 23.0	
Connection pipe	-	DN150	DN150	DN200	DN200	DN200	DN200		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	21500 × 14	21500 × 16	21500 × 16	21500 × 18	21500 × 18	21500 × 18	
		CFM	12654 × 14	12654 × 16	12654 × 16	12654 × 18	12654 × 18	12654 × 18	
	Total fan motor power	kW	1.5 × 14	1.5 × 16	1.5 × 16	1.5 × 18	1.5 × 18	1.5 × 18	
Dimension (W × D × H)	Outline	mm	8560 × 2250 × 2550	9780 × 2250 × 2550	9780 × 2250 × 2550	11000 × 2250 × 2550	11000 × 2250 × 2550	11000 × 2250 × 2550	
	Package	mm	8710 × 2330 × 2550	9930 × 2330 × 2550	9930 × 2330 × 2550	11150 × 2330 × 2550	11150 × 2330 × 2550	11150 × 2330 × 2550	
Net/Gross/Operting Weight		kg	9180/9220/9364	9970/10010/10169	10280/10360/10486	11060/11140/11281	12200/12280/12444	13260/13340/13525	

Operation Range of LME Series

Item	Water side(water temperature)				Air side(outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition	Operating range	
	EWT (°C)	LWT (°C)	LWT (°C)	Difference between EWT & LWT (°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	15~52

LWT : Leaving water temperature

EWT : Entering water temperature

LMP Series Air-Cooled Screw Chiller (Heat Pump)



Model	Cooling only		LMPA30JD4E/Nb-M	LMPB30JD3E/Nb-M	LMPA40JE2E/Nb-M	LMPB40JE1E/Nb-M	LMPA50LE8E/Nb-M	LMPB50LE7E/Nb-M	
Capacity	Cooling	kW	315	340	400	445	505	550	
		TR	89.6	96.7	113.7	126.5	143.6	156.4	
	Heating	kW	320	335	410	430	520	545	
		TR	91.0	95.3	116.6	122.3	147.9	155.0	
Capacity steps	%	25%,50%~100%							
COP _c	W/W	3.21	3.21	3.23	3.22	3.22	3.25		
COP _h	W/W	3.23	3.22	3.25	3.21	3.25	3.22		
Power supply	V/Ph/Hz	380V/3N~/50Hz							
Power input	Cooling	kW	98	106	124	138	157	169	
	Heating	kW	99	104	126	134	160	169	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	1	1	1	1	1	1	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	54.2	58.5	68.8	76.5	86.9	94.6	
		GPM	239	258	303	337	383	417	
	Pressure drop	kPa	≤ 35	≤ 35	≤ 45	≤ 45	≤ 45	≤ 45	
		ft.WG	≤ 11.5	≤ 11.5	≤ 14.8	≤ 14.8	≤ 14.8	≤ 14.8	
Connection pipe	-	DN100	DN100	DN125	DN125	DN125	DN125		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	19500 × 6	21500 × 6	19500 × 8	21500 × 8	19500 × 10	21500 × 10	
		CFM	11477 × 6	12654 × 6	11477 × 8	12654 × 8	11477 × 10	12654 × 10	
	Total fan motor power	kW	1.5 × 6	1.8 × 6	1.5 × 8	1.8 × 8	1.5 × 10	1.8 × 10	
Dimension (W × D × H)	Outline	mm	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	4890 × 2250 × 2550	6110 × 2250 × 2550	6110 × 2250 × 2550	
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2330 × 2550	6260 × 2330 × 2550	
Net/Gross/Operting Weight	kg	4570/4610/4661	4600/4640/4692	5435/5475/5544	5500/5540/5610	6450/6495/6584	6590/6630/6722		

Model	Cooling only		LMPB54NG2E/Nb-M	LMPB55NH1E/Nb-M	LMPB33LF550LE7E/Nb-M	LMPB33LF533LF5E/Nb-M	LMPB33LF543LG3E/Nb-M	LMPB43LG343LG3E/Nb-M	
Capacity	Cooling	kW	1000	1120	1240	1380	1480	1580	
		TR	284.4	318.5	352.6	392.4	420.8	449.3	
	Heating	kW	980	1075	1230	1370	1470	1570	
		TR	278.7	305.7	349.8	389.6	418.0	446.4	
Capacity steps	%	12.5%,25%~100%							
COP	W/W	3.25	3.24	3.23	3.21	3.22	3.22		
COP	W/W	3.23	3.22	3.24	3.25	3.24	3.23		
Power supply	V/Ph/Hz	380V/3N~/50Hz							
Power input	Cooling	kW	308	346	384	430	460	490	
	Heating	kW	303	334	380	422	454	486	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	2	2	3	4	4	4	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	172.0	192.6	213.3	237.4	254.6	271.8	
		GPM	758	849	940	1047	1122	1198	
	Pressure drop	kPa	≤ 70	≤ 55	≤ 55	≤ 60	≤ 60	≤ 60	
		ft.WG	≤ 23.0	≤ 18.0	≤ 18.0	≤ 19.7	≤ 19.7	≤ 19.7	
Connection pipe	-	DN150	DN150+DN125	DN150+DN125	2 × DN150	2 × DN150	2 × DN150		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	21500 × 18	21500 × 20	21500 × 22	21500 × 24	21500 × 26	21500 × 28	
		CFM	12654 × 18	12654 × 20	12654 × 22	12654 × 24	12654 × 26	12654 × 28	
Total fan motor power	kW	1.8 × 18	1.5 × 20	1.5 × 22	1.5 × 24	1.5 × 26	1.5 × 28		
Dimension (W × D × H)	Outline	mm	11000 × 2250 × 2550	12230 × 2250 × 2550	13450 × 2250 × 2550	14670 × 2250 × 2550	15890 × 2250 × 2550	17120 × 2250 × 2550	
	Package	mm	11150 × 2330 × 2550	12380 × 2330 × 2550	13600 × 2330 × 2550	14820 × 2330 × 2550	16040 × 2330 × 2550	17270 × 2330 × 2550	
Net/Gross/Operting Weight	kg	12380/12420/12628	13160/13200/13423	15000/15040/15300	16820/16860/17156	18485/18525/18855	20150/20190/20553		

Note: LMPB33LF550LE7E/Nb-LMPB43LG343LG3E/Nb can be splitted into two parts and transported separately.



Model	Cooling only		LMPA33LF6E/Nb-M	LMPB33LF5E/Nb-M	LMPB43LG4E/Nb-M	LMPB43LG3E/Nb-M	LMPA44LF2E/Nb-M	LMPB44LF1E/Nb-M	
Capacity	Cooling	kW	640	690	730	790	825	900	
		TR	182.0	196.2	207.6	224.6	234.6	255.9	
	Heating	kW	645	685	755	785	815	890	
		TR	183.4	194.8	214.7	223.2	231.8	253.1	
Capacity steps	%	12.5%,25%~100%							
COP _c	W/W	3.20	3.21	3.24	3.22	3.24	3.23		
COP _h	W/W	3.26	3.25	3.25	3.23	3.26	3.22		
Power supply	V/Ph/Hz	380V/3N~/50Hz							
Power input	Cooling	kW	200	215	225	245	255	279	
	Heating	kW	198	211	232	243	250	276	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	2	2	2	2	2	2	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	110.1	118.7	125.6	135.9	141.9	154.8	
		GPM	485	523	554	599	626	683	
	Pressure drop	kPa	≤ 55	≤ 55	≤ 55	≤ 55	≤ 65	≤ 60	
		ft.WG	≤ 18.0	≤ 18.0	≤ 18.0	≤ 18.0	≤ 21.3	≤ 19.7	
Connection pipe	-	DN150	DN150	DN150	DN150	DN150	DN150		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	19500 × 12	21500 × 12	19500 × 14	21500 × 14	19500 × 16	21500 × 16	
		CFM	11477 × 12	12654 × 12	11477 × 14	12654 × 14	11477 × 16	12654 × 16	
	Total fan motor power	kW	1.5 × 12	1.8 × 12	1.5 × 14	1.8 × 14	1.5 × 16	1.8 × 16	
Dimension (W × D × H)	Outline	mm	7340 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	8560 × 2250 × 2550	9780 × 2250 × 2550	11000 × 2250 × 2550	
	Package	mm	7490 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550	8710 × 2330 × 2550	9930 × 2330 × 2550	11150 × 2330 × 2550	
Net/Gross/Operting Weight	kg	8550/8590/8721	8410/8450/8578	9900/9940/10098	10075/10115/10277	10910/10950/11128	11110/11150/11332		

Model	Cooling only		LMPB30JD43E/Nb-M	LMPD30JD34E/Nb-M	LMPB40JE25E/Nb-M	LMPD40JE16E/Nb-M	LMPD50LE87/Nb-M	LMPD50LE77E/Nb-M	
Capacity	Cooling	kW	392	438	493	548	638	708	
		TR	111.5	124.5	140.2	155.8	181.4	201.3	
	Heating	kW	344	385	460	513	603	650	
		TR	97.8	109.5	130.8	145.9	171.5	184.8	
Capacity steps	%	25%,50%~100%							
COP	W/W	3.02	3.00	3.10	3.10	3.01	3.00		
COP	W/W	3.07	3.06	3.13	3.19	3.02	3.00		
Power supply	V/Ph/Hz	380V/3N~/50Hz							
Power input	Cooling	kW	130	146	159	177	212	236	
	Heating	kW	112	126	147	161	200	217	
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	
	Quantity	-	1	1	1	1	1	1	
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	67.4	75.3	84.8	94.3	109.7	121.8	
		GPM	297	332	374	416	484	537	
	Pressure drop	kPa	≤ 35	≤ 45	≤ 45	≤ 50	≤ 55	≤ 55	
		ft.WG	≤ 11.5	≤ 14.8	≤ 14.8	≤ 16.4	≤ 18.0	≤ 18.0	
Connection pipe	-	DN125	DN125	DN125	DN125	DN150	DN150		
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	24000 × 6	26000 × 6	24000 × 8	26000 × 8	26000 × 10	26000 × 10	
		CFM	14126 × 6	15304 × 6	14126 × 8	15304 × 8	15304 × 10	15304 × 10	
	Total fan motor power	kW	2.2 × 6	2.8 × 6	2.2 × 8	2.8 × 8	2.8 × 10	2.8 × 10	
Dimension (W × D × H)	Outline	mm	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	4890 × 2250 × 2550	6110 × 2250 × 2550	6110 × 2250 × 2550	
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2330 × 2550	6260 × 2330 × 2550	
Net/Gross/Operting Weight	kg	4710/4750/4804	4860/4900/4957	5570/5610/5681	5975/6015/6095	6650/6590/6783	6570/6610/6701		

Model	Cooling only		LMPD50LE68E/ Nb-M	LMPD33LF544E/ Nb-M	LMPD43LG364E/ Nb-M	LMPD44LF166E/ Nb-M	LMPD54NG286E/ Nb-M	LMPD50LE6850LE 68E/NbA-M
Capacity	Cooling	kW	768	878	988	1096	1316	1510
		TR	218.4	249.7	280.9	311.7	374.2	429.4
	Heating	kW	690	770	898	1026	1203	1380
		TR	196.2	219.0	255.4	291.8	342.1	392.4
Capacity steps		%	25%,50%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
COP		W/W	3.00	3.01	3.06	3.10	3.04	3.00
COP		W/W	3.07	3.06	3.13	3.19	3.12	3.07
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	256	292	323	354	433	503
	Heating	kW	225	252	287	322	386	450
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	2	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m ³ /h	132.1	151.0	169.9	188.5	226.4	259.7
		GPM	582	666	749	831	998	1145
	Pressure drop	kPa	≤ 55	≤ 60	≤ 65	≤ 70	≤ 75	≤ 80
		ft.WG	≤ 18.0	≤ 19.7	≤ 21.3	≤ 23.0	≤ 24.6	≤ 26.2
Connection pipe	-	DN150	DN150	DN200	DN200	DN200	2 × DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m ³ /h	26000 × 10	26000 × 12	26000 × 14	26000 × 16	26000 × 18	26000 × 20
		CFM	15304 × 10	15304 × 12	15304 × 14	15304 × 16	15304 × 18	15304 × 20
Total fan motor power	kW	2.8 × 10	2.8 × 12	2.8 × 14	2.8 × 16	2.8 × 18	2.8 × 20	
Dimension (W × D × H)	Outline	mm	6110 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	9780 × 2250 × 2550	11000 × 2250 × 2550	12230 × 2250 × 2550
	Package	mm	6260 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550	9930 × 2330 × 2550	11150 × 2330 × 2550	12380 × 2330 × 2550
Net/Gross/Operting Weight		kg	7150/7190/7293	9230/9270/9415	9795/9835/9991	10565/10605/10776	11630/11670/11863	14300/14380/14586

Note:

LMPD50LE6850LE68E/NbA-M can be splitted into two parts and transported separately.

Working conditions of cooling: Leaving chilled water temperature 7°C, water flow volume: 0.172 m³/h per kW cooling capacity, outdoor ambient temperature 35°C (DB).

Working conditions of heating: Leaving water temperature 45°C, water flow volume: 0.172 m³/h per kW cooling capacity, outdoor ambient temperature 7°C (DB)/6°C (WB).

Operation Range of LMP Series

Item	Water side(water temperature)				Air side(outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	EWT (°C)	LWT (°C)	LWT (°C)	Difference between EWT & LWT (°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	15~52
Heating	40	45	5~15	2.5~8	7	6	-15~24

LWT: Leaving water temperature

EWT: Entering water temperature

LMR Series Fixed Speed Heat Recovery Air Cooled Screw Chiller



Heat recovery function

- Recover the waste heat by adopting a purpose-designed built-in shell and tube heat exchanger, with heat recovery ratio of 20%;
- Water temperature of heat recovery is as high as 55°C with free energy consumption; reduce the cost of operation and your environmental footprint.
- Working mode of heat recovery and non-heat recovery can be switched freely during operation to optimized operation efficiency.
- Control the startup quantity of condenser fan according to high pressure, water temperature of heat recovery and ambient temperature to ensure the heat recover efficiency is optimal;

Specifications

LMR series(50Hz)

Model	Cooling only		LMEA30JD3ER/Nb-M	LMEB30JD2ER/Nb-M	LMEA40LE5ER/Nb-M	LMEB40LE4ER/Nb-M	LMEA50LE3ER/Nb-M	LMEB50LE2ER/Nb-M
Capacity	Cooling	kW	320	350	420	470	520	580
		TR	91.0	99.5	119.4	133.6	147.9	164.9
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
COP		W/W	3.20	3.24	3.23	3.22	3.21	3.22
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	100	108	130	146	162	180
Heat recovery		kW	64	70	84	94	104	116
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start					
	Quantity	-	1	1	1	1	1	1
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m ³ /h	55.0	60.2	72.2	80.8	89.4	99.8
		GPM	243	265	319	356	394	440
	Pressure drop	kPa	≤ 35	≤ 35	≤ 45	≤ 45	≤ 45	≤ 45
		ft.WG	≤ 11.5	≤ 11.5	≤ 14.8	≤ 14.8	≤ 14.8	≤ 14.8
Connection pipe	-	DN100	DN100	DN125	DN125	DN125	DN125	
Heat recovery exchanger	Type	-	Shell-and-tube heat exchanger					
	Water flow rate	m ³ /h	11.0	12.0	14.4	16.2	17.9	20.0
		GPM	49	53	64	71	79	88
	Pressure drop	kPa	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
		ft.WG	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3
Connection pipe	-	DN65	DN65	DN80	DN80	DN80	DN80	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m ³ /h	19500 × 6	21500 × 6	19500 × 8	21500 × 8	19500 × 10	21500 × 10
		CFM	11477 × 6	12654 × 6	11477 × 8	12654 × 8	11477 × 10	12654 × 10
Total fan motor power	kW	1.5 × 6	1.8 × 6	1.5 × 8	1.8 × 8	1.5 × 10	1.8 × 10	
Dimension (W × D × H)	Outline	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6110 × 2250 × 2550	6110 × 2250 × 2550
	Package	mm	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2330 × 2550	6260 × 2330 × 2550
Net/Gross/Operting Weight		kg	4220/4260/4304	4400/4440/4488	5300/5340/5406	5605/5645/5717	6070/6110/6191	6330/6370/6457

Model	Cooling only		LMEA33LF8ER/Nb-M	LMEB33LF6ER/Nb-M	LMEB43LF7ER/Nb-M	LMEB43LF5ER/Nb-M	LMEA44NF4ER/Nb-M	LMEB44NF2ER/Nb-M
Capacity	Cooling	kW	650	700	750	820	860	940
		TR	184.8	199.1	213.3	233.2	244.5	267.3
Capacity steps		%	12.5%,25%-100%	12.5%,25%-100%	12.5%,25%-100%	12.5%,25%-100%	12.5%,25%-100%	12.5%,25%-100%
COP		W/W	3.25	3.24	3.19	3.22	3.25	3.24
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	200	216	235	255	265	290
Heat recovery		kW	130	140	150	164	172	188
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start					
	Quantity	-	2	2	2	2	2	2
Refrigerant			R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m³/h	111.8	120.4	129.0	141.0	147.9	161.7
		GPM	493	531	569	622	652	713
	Pressure drop	kPa	≤ 55	≤ 55	≤ 55	≤ 55	≤ 65	≤ 60
		ft.WG	≤ 18.0	≤ 18.0	≤ 18.0	≤ 18.0	≤ 21.3	≤ 19.7
Connection pipe		DN150	DN150	DN150	DN150	DN150	DN150	
Heat recovery exchanger	Type	-	Shell-and-tube heat exchanger					
	Water flow rate	m³/h	22.4	24.1	25.8	28.2	29.6	32.3
		GPM	99	106	114	124	130	143
	Pressure drop	kPa	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
		ft.WG	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3
Connection pipe		2 × DN65	2 × DN65	DN65+DN80	DN65+DN80	2 × DN80	2 × DN80	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m³/h	19500 × 12	21500 × 12	19500 × 14	21500 × 14	19500 × 16	21500 × 16
		CFM	11477 × 12	12654 × 12	11477 × 14	12654 × 14	11477 × 16	12654 × 16
	Total fan motor power	kW	1.5 × 12	1.8 × 12	1.5 × 14	1.8 × 14	1.5 × 16	1.8 × 16
Dimension (W × D × H)	Outline	mm	7340 × 2250 × 2550	7340 × 2250 × 2550	8560 × 2250 × 2550	8560 × 2250 × 2550	9780 × 2250 × 2550	9780 × 2250 × 2550
	Package	mm	7490 × 2330 × 2550	7490 × 2330 × 2550	8710 × 2330 × 2550	8710 × 2330 × 2550	9930 × 2330 × 2550	9930 × 2330 × 2550
Net/Gross/Opening Weight		kg	8100/8140/8262	8300/8340/8466	8530/8570/8701	9290/9330/9476	10040/10080/10241	10150/10190/10353

Model	Cooling only		LMEB54NG2ER/Nb-M	LMEB50LE250LE2ER/Nb-M	LMEB33LF650LE2ER/Nb-M	LMEB33LF633LF6ER/Nb-M	LMEB33LF643LF5ER/Nb-M	LMEB43LF543LF5ER/Nb-M
Capacity	Cooling	kW	1050	1160	1280	1400	1500	1650
		TR	298.6	329.9	364.0	398.1	426.5	469.2
Capacity steps		%	12.5%,25%-100%	8.3%,16.7%-100%	8.3%,16.7%-100%	6.25%,12.5%-100%	6.25%,12.5%-100%	6.25%,12.5%-100%
COP		W/W	3.23	3.22	3.20	3.22	3.20	3.20
Power supply		V/Ph/Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz	380V/3N~/50Hz
Power input	Cooling	kW	325	360	400	435	465	515
Heat recovery		kW	210	232	256	280	300	330
Compressor	Type	-	Semi-hermetic screw					
	Starting mode	-	Star delta start					
	Quantity	-	2	3	3	4	4	4
Refrigerant			R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator					
	Water flow rate	m³/h	180.6	199.52	220.2	240.8	258.0	283.8
		GPM	796	879.7175984	971	1062	1138	1251
	Pressure drop	kPa	≤ 70	≤ 55	≤ 55	≤ 60	≤ 60	≤ 60
		ft.WG	≤ 23.0	≤ 18.0	≤ 18.0	≤ 19.7	≤ 19.7	≤ 19.7
Connection pipe		DN150	DN150+DN125	DN150+DN125	2 × DN150	2 × DN150	2 × DN150	
Heat recovery exchanger	Type	-	Shell-and-tube heat exchanger					
	Water flow rate	m³/h	36.1	39.904	44.0	48.2	51.6	56.8
		GPM	159	175.9435197	194	212	228	250
	Pressure drop	kPa	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
		ft.WG	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3
Connection pipe		2 × DN80	2 × DN65+DN80	2 × DN65+DN80	4 × DN65	3 × DN65+DN80	2 × DN65+2 × DN80	
Air side heat exchanger	Type	-	Aluminum fin-copper tube					
	Total fan air flow	m³/h	21500 × 18	21500 × 22	21500 × 22	21500 × 24	21500 × 26	21500 × 28
		CFM	12654 × 18	12654 × 22	12654 × 22	12654 × 24	12654 × 26	12654 × 28
	Total fan motor power	kW	1.8 × 18	1.8 × 22	1.8 × 22	1.8 × 24	1.8 × 26	1.8 × 28
Dimension (W × D × H)	Outline	mm	11000 × 2250 × 2550	12230 × 2250 × 2550	13450 × 2250 × 2550	14670 × 2250 × 2550	15890 × 2250 × 2550	17120 × 2250 × 2550
	Package	mm	11150 × 2330 × 2550	13380 × 2330 × 2550	13600 × 2330 × 2550	14820 × 2330 × 2550	16040 × 2330 × 2550	17270 × 2330 × 2550
Net/Gross/Opening Weight		kg	11330/11410/11557	12660/12740/12913	14740/14820/15035	16200/16280/16524	17500/17580/17850	18830/18910/19207

Note: LMEB33LF850LE3ER/Nb-M-LMEB43LF543LF5ER/Nb-M can be splitted into two parts and transported separately.

LMR series(60Hz)

Model	Cooling only		LSBLGF180MHR/NbA-H	LSBLGF235MHR/NbA-H	LSBLGF280MHR/NbA-H	LSBLGF350MHR/NbA-H	LSBLGF470MHR/NbA-H	LSBLGF580MHR/NbA-H	LSBLGF700MHR/NbA-H
Capacity	Cooling	kW	180	235	280	350	470	580	700
		TR	51.2	66.8	79.6	99.5	133.6	164.9	199.1
Capacity steps		%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	12.5%,25%-100%
COP		W/W	3.21	3.05	3.22	3.07	3.22	3.22	3.07
Power supply		V/Ph/Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz	380V/3N~/60Hz
Power input	Cooling	kW	56	77	87	114	146	180	228
Heat recovery		kW	36	47	56	70	94	116	140
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	1	1	1	1	1	2
Refrigerant			R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m³/h	31.0	40.4	48.2	60.2	80.8	99.8	120.4
		GPM	137	178	212	265	356	440	531
	Pressure drop	kPa	≤ 35	≤ 35	≤ 35	≤ 35	≤ 45	≤ 50	≤ 55
		ft.WG	≤ 11.5	≤ 11.5	≤ 11.5	≤ 11.5	≤ 14.8	≤ 16.4	≤ 18.0
Connection pipe		DN80	DN80	DN100	DN100	DN125	DN125	DN150	
Heat recovery exchanger	Type	-	Shell-and-tube heat exchanger						
	Water flow rate	m³/h	6.2	8.1	9.6	12.0	16.2	20.0	24.1
		GPM	27	36	42	53	71	88	106
	Pressure drop	kPa	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
		ft.WG	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3
Connection pipe		DN65	DN65	DN65	DN65	DN80	DN80	2 × DN65	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m³/h	21500 × 4	21500 × 4	21500 × 6	21500 × 6	21500 × 8	21500 × 10	21500 × 12
		CFM	12654 × 4	12654 × 4	12654 × 6	12654 × 6	12654 × 8	12654 × 10	12654 × 12
	Total fan motor power	kW	1.5 × 4	1.5 × 4	1.5 × 6	1.5 × 6	1.5 × 8	1.5 × 10	1.5 × 12
Dimension (W × D × H)	Outline	mm	2450 × 2250 × 2550	2450 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	6110 × 2250 × 2550	7340 × 2250 × 2550
	Package	mm	2600 × 2330 × 2550	2600 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2250 × 2550	7490 × 2250 × 2550
Net/Gross/Opening Weight		kg	2980/3020/3040	3510/3550/3580	4310/4350/4396	4320/4360/4406	5470/5510/5579	6780/6820/6916	8595/9635/8767

LMR series(60Hz)

Model	Cooling only		LSBLGF180MHR/NbA-Q	LSBLGF235MHR/NbA-Q	LSBLGF280MHR/NbA-Q	LSBLGF350MHR/NbA-Q	LSBLGF470MHR/NbA-Q	LSBLGF580MHR/NbA-Q	LSBLGF700MHR/NbA-Q
Capacity	Cooling	kW	180	235	280	350	470	580	700
		TR	51.2	66.8	79.6	99.5	133.6	164.9	199.1
Capacity steps		%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	12.5%,25%-100%
COP		W/W	3.21	3.05	3.22	3.07	3.22	3.22	3.07
Power supply		V/Ph/Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz	460V/3~/60Hz
Power input	Cooling	kW	56	77	87	114	146	180	228
Heat recovery		kW	36	47	56	70	94	116	140
Compressor	Type	-	Semi-hermetic screw						
	Starting mode	-	Star delta start						
	Quantity	-	1	1	1	1	1	1	2
Refrigerant			R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m³/h	31.0	40.4	48.2	60.2	80.8	99.8	120.4
		GPM	137	178	212	265	356	440	531
	Pressure drop	kPa	≤ 35	≤ 35	≤ 35	≤ 35	≤ 45	≤ 50	≤ 55
		ft.WG	≤ 11.5	≤ 11.5	≤ 11.5	≤ 11.5	≤ 14.8	≤ 16.4	≤ 18.0
Connection pipe		DN80	DN80	DN100	DN100	DN125	DN125	DN150	
Heat recovery exchanger	Type	-	Shell-and-tube heat exchanger						
	Water flow rate	m³/h	6.2	8.1	9.6	12.0	16.2	20.0	24.1
		GPM	27	36	42	53	71	88	106
	Pressure drop	kPa	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
		ft.WG	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3	≤ 3.3
Connection pipe		DN65	DN65	DN65	DN65	DN80	DN80	2 × DN65	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m³/h	21500 × 4	21500 × 4	21500 × 6	21500 × 6	21500 × 8	21500 × 10	21500 × 12
		CFM	12654 × 4	12654 × 4	12654 × 6	12654 × 6	12654 × 8	12654 × 10	12654 × 12
	Total fan motor power	kW	1.5 × 4	1.5 × 4	1.5 × 6	1.5 × 6	1.5 × 8	1.5 × 10	1.5 × 12
Dimension (W × D × H)	Outline	mm	2450 × 2250 × 2550	2450 × 2250 × 2550	3670 × 2250 × 2550	3670 × 2250 × 2550	4890 × 2250 × 2550	6110 × 2250 × 2550	7340 × 2250 × 2550
	Package	mm	2600 × 2330 × 2550	2600 × 2330 × 2550	3820 × 2330 × 2550	3820 × 2330 × 2550	5040 × 2330 × 2550	6260 × 2250 × 2550	7490 × 2250 × 2550
Net/Gross/Opening Weight		kg	2980/3020/3040	3510/3550/3580	4310/4350/4396	4320/4360/4406	5470/5510/5579	6780/6820/6916	8595/9635/8767

Note:

LMEB33LF850LE3ER/Nb-M-LMEB43LF543LF5ER/Nb-M can

Operation Range of LMR Series

Item	Water side(water temperature)				Air side(outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition		Operating range
	EWT (°C)	LWT (°C)	LWT (°C)	Difference between EWT & LWT (°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	15~52

LWT : Leaving water temperature
EWT : Entering water temperature

LMVE Series VFD Air Cooled Screw Chiller

GREE LMVE series VFD water cooled screw chiller, adopts advanced semi-hermetic compressor with VFD (variable frequency drive with permanent magnet synchronous DC inverter technology) motor, with cooling capacity under ranges from 82 TR to 407TR, which is featured with energy-saving and easy installation.



Features

Dual screw semi-hermetic compressor

- Compact structure, the motor is cooled by the inhaled refrigerant, good cooling effect.
- Built-in discharge check valve: it can prevent the back flow of refrigerant when the equipment is closed.
- The compressor has a built-in oil separation screen and oil heater, and adopts differential pressure to return oil to ensure reliable system operation.
- Designed according to the actual pressure ratio, it is well matched with this unit, thus effectively reducing over-compression and under-compression during the operation of the compressor, thus improving the system efficiency.
- High-efficiency GRZ type line developed independently with reduced leakage triangle, shorten contact line length, reasonable distribution of yin and yang rotor torque, and double-side drive contact points to ensure smooth engagement of acceleration and deceleration, effectively improving compressor efficiency.
- High-precision SKF bearings, higher transmission efficiency, and improved use compressor life.
- High efficiency operation with 20%-100% stepless capacity adjustment of individual compressor, and operation with 10%-100% stepless capacity adjustment of dual compressor.
- Under certain load conditions, the operating power of the compressor can be reduced by up to 60% compared to that of the fixed frequency unit.

Permanent magnet synchronous motor

- Enhanced motor torque by adopting a built-in V-shaped magnetic steel with the significant effect of the magnetic circuit.
- Motor starting current of less than 10A, minimized impact on the overall power grid.
- Motor rated efficiency of 97.5%, and the full working condition efficiency is above 95%.
- Motor insulation class H;

High efficiency heat exchanger

- Flooded type shell and tube evaporator with built-in refrigerant equalization and liquid baffle device to improve system reliability, with evaporation temperature higher than 5.5°C .
- Evaporator with triple groove end tube support design, water side working pressure is of 1.0Mpa as standard, 1.6MPa or 2.0MPa is optional.
- Factory insulated evaporator with 30mm wall thickness closed cell insulation material.
- Evaporator and condenser with flanged connection as standard, while the victaulic connection as optional.
- Optional marine water box for evaporator.
- Condenser design with V-shaped arrangement, the best angle, the best airflow, so that the airflow distribution is more uniform, corrugated slot aluminum condensing fin design, higher heat transfer efficiency.
- Anti-corrosive golden fins for the condenser which can withstand 2000 hours neutral salt spray test.

Economizer

The flasher economizer is adopted for increasing the cooling capacity by 10% and improving the cooling efficiency at the same time.

High-accuracy electronic expansion valve (EXV) control

3810 pulses EXV which combines coarse and fine adjustment for precisely adjusting flow of refrigerant to maintain the correct superheat, thus to improve heat exchanging efficiency under deviation and especially part-load working condition.

Intelligent and reliable oil lubrication system

- In addition to the built-in oil separation screen of the compressor, the unit is also equipped with an external vertical oil separator to ensure the efficiency of oil separation.
- Vapor injection oil return will be automatically initiated to ensure the oil return from the external oil separator when needed, to ensure sufficient oil lubrication for critical components inside the compressor.

Modular design

Different models with different capacities (modules) can be seamlessly integrated into one system by connecting the shell and tube heat exchanger, to expand the cooling capacity. The modular design facilitates lifting and transportation, and reduce the installation space as well. Each module can be set as the master unit, and when one fails, the other remains operational.

Control panel

Equipped with 10" touch screen, reliable use under -20 ~ 70 °C ambient temperature, providing Chinese and English language switching function to meet different needs, the display parameters are as follows:

Chilled water inlet and outlet temperature
Cooling water inlet and outlet temperature
Suction and discharge temperature
Evaporation pressure
Condensing pressure
Number of starts of compressor
Cumulative compressor running time
Contactor status
Solenoid valve status
Water temperature setting value
Etc.

Multiple protection functions

The unit has several protection functions, such as for high exhaust temperature protection, inverter overheating protection, safety valve protection, motor winding overheating protection, low pressure protection, high pressure protection, anti-freeze protection, on/off protection of water flow, lack of reverse phase, sensor failure protection and fan overcurrent protection to ensure stable operation under various conditions and to avoid damage caused.

Microprocessor based control system

- Adopt the self-developed and manufactured microprocessor based control system, enabling a powerful and precise control with prompt reaction.
- Base on actual requirements, the chilled water entering or leaving temperature can be selected as setting target.
- Standard interlock interface for chilled water pump and cooling water pump.
- Multiple timer setting and power-off memory restart function.
- Password protection function, access passwords of different authority levels can be set for safe operation.

Other optional configurations

- Optional quick start
- Metal vibration isolator as standard, spring vibration isolator as optional
- The IP rating of electric control cabinet is IPX4 as standard, IP55 is optional
- External static pressure options of fan can be 80Pa, 100Pa, 300Pa
- Compressor sound enclosure is optional
- Built-in hydraulic module is optional

Specifications

High Efficiency Series

Model	Cooling only	LMVEA30JD94E/ Nb-M	LMVEB30JD84E/ Nb-M	LMVED30JD84E/ Nb-M	LMVEA40JE75E/ Nb-M	LMVEB40JE65E/ Nb-M	LMVED40JE55E/ Nb-M	
Capacity	Cooling	kW	290	320	350	390	420	470
		TR	82.5	91.0	99.5	110.9	119.4	133.6
Capacity steps	%	20%~100%	20%~100%	20%~100%	20%~100%	20%~100%	20%~100%	
COP	W/W	3.22	3.20	3.21	3.25	3.23	3.24	
Power supply	V/Ph/Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	
Power input	Cooling	kW	90	100	109	120	130	145
Compressor	Type	High efficiency variable frequency variable volume screw compressor						
	Starting mode	VFD						
	Quantity	1	1	1	1	1	1	
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	Flooded evaporator						
	Water flow rate	m³/h	49.9	55.0	60.2	67.1	72.2	80.8
		GPM	220	243	265	296	319	356
	Pressure drop	kPa	≤ 35	≤ 35	≤ 35	≤ 45	≤ 45	≤ 45
		ft.WG	≤ 11.5	≤ 11.5	≤ 11.5	≤ 14.8	≤ 14.8	≤ 14.8
Connection pipe	-	DN100	DN100	DN100	DN125	DN125	DN125	
Air side heat exchanger	Type	Aluminum fin-copper tube						
	Total fan air flow	m³/h	19500 × 6	19500 × 6	21500 × 6	19500 × 8	19500 × 8	21500 × 8
		CFM	11477 × 6	11477 × 6	12654 × 6	11477 × 8	11477 × 8	12854 × 8
Total fan motor power	kW	1.5 × 6	1.5 × 6	1.8 × 6	1.5 × 8	1.5 × 8	1.8 × 8	
Dimension (W × D × H)	Outline	mm	3820 × 2250 × 2550	3820 × 2250 × 2550	3820 × 2250 × 2550	5040 × 2250 × 2550	5040 × 2250 × 2550	5040 × 2250 × 2550
	Package	mm	3970 × 2330 × 2550	3970 × 2330 × 2550	3970 × 2330 × 2550	5190 × 2330 × 2550	5190 × 2330 × 2550	5190 × 2330 × 2550
Net/Gross/Operting Weight	kg	4385/4425/4473	4535/4575/4626	4680/4720/4774	5460/5500/5569	5610/5650/5722	6000/6040/6120	

Model	Cooling only	LMVEB50LE78E/ Nb-M	LMVED50LE68E/ Nb-M	LMVEB60LF48E/ Nb-M	LMVED60LF48E/ Nb-M	LMVED33LF544E/ Nb-M	LMVED43LG454E/ Nb-M	
Capacity	Cooling	kW	520	580	630	695	700	820
		TR	147.9	164.9	179.1	197.6	199.1	233.2
Capacity steps	%	20%~100%	20%~100%	20%~100%	20%~100%	10%~100%	10%~100%	
COP	W/W	3.33	3.33	3.32	3.31	3.21	3.23	
Power supply	V/Ph/Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	
Power input	Cooling	kW	156	174	190	210	218	254
Compressor	Type	High efficiency variable frequency variable volume screw compressor						
	Starting mode	VFD						
	Quantity	1	1	1	1	2	2	
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a	
Water side heat exchanger	Type	Flooded evaporator						
	Water flow rate	m³/h	89.4	99.8	108.4	119.5	120.4	141.0
		GPM	394	440	478	527	531	622
	Pressure drop	kPa	≤ 45	≤ 50	≤ 55	≤ 60	≤ 55	≤ 55
		ft.WG	≤ 14.8	≤ 16.4	≤ 18.0	≤ 19.7	≤ 18.0	≤ 18.0
Connection pipe	-	DN125	DN125	DN150	DN150	DN150	DN150	
Air side heat exchanger	Type	Aluminum fin-copper tube						
	Total fan air flow	m³/h	19500 × 10	21500 × 10	19500 × 12	21500 × 12	21500 × 12	21500 × 14
		CFM	11477 × 10	121054 × 10	11477 × 12	121254 × 12	121254 × 12	121254 × 14
Total fan motor power	kW	1.5 × 10	1.8 × 10	1.5 × 12	1.8 × 12	1.8 × 12	1.8 × 14	
Dimension (W × D × H)	Outline	mm	6260 × 2250 × 2550	6260 × 2250 × 2550	7490 × 2250 × 2550	7490 × 2250 × 2550	7490 × 2250 × 2550	8710 × 2250 × 2550
	Package	mm	6410 × 2330 × 2550	6410 × 2330 × 2550	7640 × 2330 × 2550	7640 × 2330 × 2550	7640 × 2330 × 2550	8860 × 2330 × 2550
Net/Gross/Operting Weight	kg	6380/6420/6508	6980/7020/7120	7230/7270/7375	7330/7370/7477	9150/9190/9333	9910/9950/10108	

Model	Cooling only		LMVED44LF155E/ Nb-M	LMVED54NG185E/ Nb-M	LMVED50LE650LE688E/ Nb-M	LMVED60LF250LE488E/ Nb-M	LMVED60LF260LF288E/ Nb-M
Capacity	Cooling	kW	940	1050	1160	1280	1400
		TR	267.3	298.6	329.9	364.0	398.1
Capacity steps		%	10%~100%	10%~100%	10%~100%	10%~100%	10%~100%
COP		W/W	3.24	3.29	3.33	3.33	3.33
Power supply		V/Ph/Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz
Power input	Cooling	kW	290	319	348	384	420
Compressor	Type	-	High efficiency variable frequency variable volume screw compressor				
	Starting mode	-	VFD				
	Quantity	-	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator				
	Water flow rate	m ³ /h	161.7	180.6	199.5	220.2	240.8
		GPM	713	796	880	971	1062
	Pressure drop	kPa	≤ 60	≤ 80	≤ 70	≤ 70	≤ 70
		ft.WG	≤ 19.7	≤ 26.2	≤ 23.0	≤ 23.0	≤ 23.0
Connection pipe	-	DN150	DN200	2 × DN125	DN150+DN125	2 × DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube				
	Total fan air flow	m ³ /h	21500 × 16	21500 × 18	21500 × 20	21500 × 22	21500 × 24
		CFM	121254 × 16	121254 × 18	121254 × 20	121254 × 22	121254 × 24
Total fan motor power	kW	1.8 × 16	1.8 × 18	1.8 × 20	1.8 × 22	1.8 × 24	
Dimension (W × D × H)	Outline	mm	9930 × 2250 × 2550	11150 × 2250 × 2550	12380 × 2250 × 2550	13750 × 2250 × 2550	14980 × 2250 × 2550
	Package	mm	10080 × 2330 × 2550	11300 × 2330 × 2550	12530 × 2330 × 2550	13900 × 2330 × 2550	15130 × 2330 × 2550
Net/Gross/Opening Weight		kg	11080/11120/11302	11950/11990/12189	14700/14740/14994	14460/14500/14749	14660/14700/14953

Note: LMVED50LE650LE688E/Nb-M~LMVED60LF260LF288E/Nb-M can be splitted into two parts and transported separately.

Standard Series

Model	Cooling only		LMVEF30JE75/ Nb-M	LMVEF30JE65/ Nb-M	LMVEH30JE55E/ Nb-M	LMVEF40LE78/ Nb-M	LMVEF40LE68/ Nb-M	LMVEH40LF68E/ Nb-M	LMVEF50LF48/ Nb-M
Capacity	Cooling	kW	385	420	460	515	555	610	665
		TR	109.5	119.4	130.8	146.5	157.8	173.5	189.1
Capacity steps		%	20%~100%	20%~100%	20%~100%	20%~100%	20%~100%	20%~100%	20%~100%
COP		W/W	3.13	3.11	3.05	3.12	3.10	3.00	3.12
Power supply		V/Ph/Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz
Power input	Cooling	kW	123	135	151	165	179	203	213
Compressor	Type	-	High efficiency variable frequency variable volume screw compressor						
	Starting mode	-	VFD						
	Quantity	-	1	1	1	1	1	1	1
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	66.2	72.2	79.1	88.6	95.5	104.9	114.4
		GPM	292	319	349	391	421	463	504
	Pressure drop	kPa	≤ 45	≤ 45	≤ 45	≤ 45	≤ 50	≤ 55	≤ 55
		ft.WG	≤ 14.8	≤ 14.8	≤ 14.8	≤ 14.8	≤ 16.4	≤ 18.0	≤ 18.0
Connection pipe	-	DN125	DN125	DN125	DN125	DN125	DN150	DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	24000 × 6	24000 × 6	26000 × 6	24000 × 8	24000 × 8	26000 × 8	24000 × 10
		CFM	14126 × 6	14126 × 6	15304 × 6	14126 × 8	14126 × 8	15304 × 8	14126 × 10
Total fan motor power	kW	2.2 × 6	2.2 × 6	2.8 × 6	2.2 × 8	2.2 × 8	2.8 × 8	2.2 × 10	
Dimension (W × D × H)	Outline	mm	3820 × 2250 × 2550	3820 × 2250 × 2550	3820 × 2250 × 2550	5040 × 2250 × 2550	5040 × 2250 × 2550	5040 × 2250 × 2550	6260 × 2250 × 2550
	Package	mm	3970 × 2330 × 2550	3970 × 2330 × 2550	3970 × 2330 × 2550	5190 × 2330 × 2550	5190 × 2330 × 2550	5190 × 2330 × 2550	6410 × 2330 × 2550
Net/Gross/Opening Weight		kg	4660/4700/4753	4810/4850/4906	4910/4950/5008	5495/5535/5605	5965/6005/6084	6115/6155/6237	7020/7060/7160

Model	Cooling only		LMVEH50LF48E/ Nb-M	LMVEF33LF355/ Nb-M	LMVEH33LF255E/ Nb-M	LMVEH43MG785E/ Nb-M	LMVEH44MH588E/ Nb-M	LMVEH54NG588E/ Nb-M	LMVEH50LF450LF488E/ Nb-M
Capacity	Cooling	kW	715	840	920	1070	1220	1325	1430
		TR	203.3	238.9	261.6	304.3	346.9	376.8	406.6
Capacity steps		%	20%~100%	10%~100%	10%~100%	10%~100%	10%~100%	10%~100%	10%~100%
COP		W/W	3.00	3.11	3.05	3.02	3.00	3.00	3.00
Power supply		V/Ph/Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz	380V 3N~ 50Hz
Power input	Cooling	kW	238	270	302	354	406	441	476
Compressor	Type	-	High efficiency variable frequency variable volume screw compressor						
	Starting mode	-	VFD						
	Quantity	-	1	2	2	2	2	2	2
Refrigerant	Type	-	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Water side heat exchanger	Type	-	Flooded evaporator						
	Water flow rate	m ³ /h	123.0	144.5	158.2	184.0	209.8	227.9	246.0
		GPM	542	637	698	811	925	1005	1084
	Pressure drop	kPa	≤ 60	≤ 55	≤ 60	≤ 85	≤ 85	≤ 90	≤ 95
		ft.WG	≤ 19.7	≤ 18.0	≤ 19.7	≤ 27.9	≤ 27.9	≤ 29.5	≤ 31.2
Connection pipe	-	DN150	DN150	DN150	DN200	DN200	DN200	2 × DN150	
Air side heat exchanger	Type	-	Aluminum fin-copper tube						
	Total fan air flow	m ³ /h	26000 × 10	24000 × 12	26000 × 12	26000 × 14	26000 × 16	26000 × 18	26000 × 20
		CFM	15304 × 10	14126 × 12	15304 × 12	15304 × 14	15304 × 16	15304 × 18	15304 × 20
Total fan motor power	kW	2.8 × 10	2.2 × 12	2.8 × 12	2.8 × 14	2.8 × 16	2.8 × 18	2.8 × 20	
Dimension (W × D × H)	Outline	mm	6260 × 2250 × 2550	7490 × 2250 × 2550	7490 × 2250 × 2550	8710 × 2250 × 2550	9930 × 2250 × 2550	11150 × 2250 × 2550	12380 × 2250 × 2550
	Package	mm	6410 × 2330 × 2550	7640 × 2330 × 2550	7640 × 2330 × 2550	8860 × 2330 × 2550	10080 × 2330 × 2550	11300 × 2330 × 2550	12530 × 2330 × 2550
Net/Gross/Opening Weight		kg	7170/7210 /7313	9515/9555 /9705	9815/9555 /10011	10430/10470 /10639	11110/11150 /11332	12285/12325 /12531	13740/13780 /14015

Note:

LMVEH50LF450LF488E/Nb-M can be splitted into two parts and transported separately.

Working condition of cooling: Leaving chilled water temperature 7°C , water flow volume: 0.172 m³/h per kW cooling capacity, outdoor ambient temperature 35°C (DB).

Operation Range of LMVE Series

Item	Water side(water temperature)				Air side(outdoor temperature)		
	Nominal operating condition		Operating range		Nominal operating condition	Operating range	
	EWT (°C)	LWT (°C)	LWT (°C)	Difference between EWT & LWT (°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	15~52

LWT : Leaving water temperature

EWT : Entering water temperature