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## **Air-cooled Chiller**

## Mini Chiller(Heat Pump)

Jet-Air Mini Chiller includes split type, integral type, modular integral type and inverter type. It can be connected to several fan coil units to achieve air conditioning through supplying hot water or cold water to the fan coil units. It doesn't need cooling tower and specialized room. You can select indoor terminals flexibly according to indoor decoration. It is well suited to hotels, restaurants, villas, offices, etc.

		Water side (w	ater temperature)		Air side (outdoor temperature)			
Item	Nominal oper	ating condition	Operating range		Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	12	7	7~12	2.5~6	35	-	16~43	
Heating	40	45	45~50	2.5~6	7	6	-15~28	

#### Features

#### **Excellent Anti-freezing Control**

Dual anti-freezing control is adopted. Anti-freezing control of waterflow switch and temperature point is adopted in water system. Meanwhile, anti-freezing control board is added to control the refrigerant side, so as to ensure safe and reliable operation of unit under low temperature or low load condition.



#### High Efficiency and Energy Saving

For the models above 10kW, optimized design of dual systems is adopted. The unit will automatically select single system operation or dual systems operation according to the load changes, so as to achieve balance between "supply and demand" and ensure reliable and high-efficiency operation of unit.



#### Convenient Installation and Maintenance

- The terminal is low-pressure water system pipeline with simple installation and without expensive refrigerant charging cost;
- Installation is convenient as the unit is equipped with water pump, expansion tank, automatic water makeup valve and safety valve; (available for split type and integral type)
- Specialized room and special foundation are not needed, convenient for installation and maintenance.



#### Multiple Control Functions and Protection Functions

#### 8 control functions:

- Memory control;
- Subroom control;
- · Fault diagnosing and alarming;
- Compressor balance operation control (dual systems);
- Multi-modular control;
- Capacity regulation control of multiple compressors;
- Control of auxiliary electric heating;
- Auto defrosting control.

#### Multiple protection functions:

- · Compressor high/low pressure protection;
- Air switch protection;
- Phase sequence protection;
- Over-current protection;
- Anti-freezing protection;
- Overheating protection;
- Waterflow switch protection;
- Electromagnetic interference prevention and lightning stroke prevention;
- Compressor high discharge temperature protection;
- Temperature sensor protection;
- Auto anti-freezing protection in winter.





## Integral Type (Inverter)









Wired controller











- Compressor inverter control regulates water temperature precisely.
- Integral installation is convenient and cost-saving.
- Precise system pressure control improves the anti-freezing function of the system.
- Two-stage compression technology is adopted to greatly improve the performance of system.

		Water side (water	r temperature)	Air side (outdoor temperature)			
Item	Nominal opera	ating condition Operating range			Nominal oper	Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	7~25	2~8	35	24	10~48
Heating	40	45	25~60	2~8	7	6	-20~35

Model	Heat po		JASA-HLR8Pd	JASA-HLR10Pd	JASA-HLR12Pd	JASA-HLR14Pd
Oih-	Cooling	kW	6.20	7.50	9.50	11.00
Capacity	Heating	kW	8.00	10.00	12.00	14.00
EER/COP		W/W	3.1/3.6	3.1/3.4	3.2/3.7	3.1/3.4
Power supply		V/Ph/Hz	220-240V	~ 50Hz	380-415\	/ 3N~ 50Hz
Power input	Cooling	kW	2.00	2.40	2.97	3.55
Power input	Heating	kW	2.25	2.90	3.24	4.12
0	Туре	-	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Compressor	Quantity	;=::	1	1	1	1
Refrigerant charge volume		kg	3.5	3.5	4.0	4.0
		l/s	0.30	0.36	0.45	0.53
Water flow volume		GPM	4.70	5.68	7.20	8.33
	Pump power input	kW	0.14	0.14	0.14	0.14
Built-in chilled water pump	Delivery lift	m	11	11	11	11
Built-in expansion vessel volu	ume	L	10	10	10	10
Chilled water outlet/inlet sore	w thread	inch	1	1	1	1
Sound pressure level		dB(A)	53	53	54	54
	Outline	mm	1390×412×890	1390×412×890	1390×367×1430	1390×367×1430
Dimension(W×D×H) Package		mm	1463×438×1035	1463×438×1035	1429×421×1585	1429×421×1585
Net weight/Gross weight	-	kg	140/155	140/155	194/210	194/210
Loading quantity	40'GP/40'HQ	set	80/80	80/80	43/43	43/43

	Model		JASA-HLR20Pd	JASA-HLR25Pd	JASA-HLR30Pd	JASA-HLR35Pd		
Canacib	Cooling	kW	20	25	28	32		
Capacity	Heating	kW	25	30	33	37		
EER/COP		W/W	3.13/3.21	2.91/3.45	3.11/3.24	3.08/3.49		
Power supply V/Ph/Hz			380V 3N~50Hz					
Daniel I and	Cooling	kW	6.4	8.6	9	10.4		
Power input	Heating	kW	7.8	8.7	10.2	10.6		
0	Туре	•	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary		
Compressor	Quantity	-	1	1	1	1		
Refrigerant charge volume kg		kg	7	9	8.2	9.7		
		m³h	3.44	4.3	4.82	5.5		
Water flow volume		l/s	0.96	1.19	1.34	1.53		
		GPM	12.62	15.78	17.69	20.19		
D. 31. 1 1.31	Pump power input	kW	0.75	0.75	0.75	0.75		
Built-in chilled water pump	Delivery lift	m	35	35	35	35		
Built-in expansion vessel volu	me	L	8	8	8	8		
Sound pressure level		db(A)	61	63	63	62		
Dii(MD11)	Outline	mm	930×765×1605	930×765×1605	1340×765×1605	1340×765×1605		
Dimension(W×D×H) Package		mm	1010×885×1775	1010×885×1775	1400×875×1775	1400×875×1775		
Net weight/Gross weight		kg	286/297	302/313	378/390	387/399		
Loading quantity	40'GP/40'HQ	set	26/26	26/26	21/21	21/21		



## Modular Air-cooled Scroll Chiller(Heat Pump)

#### D Series







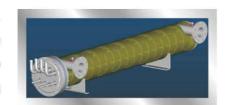
D series modular air-cooled scroll chillers can be widely used at newly-built or retrofitted industrial and civil buildings in various sizes, such as hotels, apartments, restaurants, office buildings, shopping malls, theaters, gyms, workshops, hospitals and other places where there are high requirements on noise level and air quality but it is troublesome to install the cooling tower.

		Water side (w	ater temperature)		Air side (outdoor temperature)			
Item	Nominal operating condition		Operating range		Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	12	7	5~20	2.5~6	35	-	15~45	
Heating	40	45	35~50	2.5~6	7	6	-15~24	

#### **Features**

#### High-efficiency Shell and Tube Heat Exchanger

As for the shell and tube heat exchanger, water inside it flows along the tube, which leaves large heat exchanging space and effectively prevents clogging caused by foreign matters or scale. As for the plate heat exchanger, the distance between plates is less than 3mm, which is vulnerably clogged owing to the bad water quality and causes the heat exchanger frozen up.



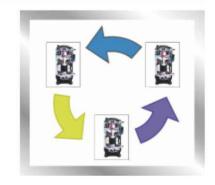
#### U-shaped Pipe Two-pass Design

The dual flow design of the U-shaped tube can enhance the heat exchange efficiency and effective superheating degree, thus increasing the performance of the unit.



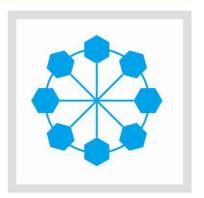
#### Compressor Operation Balance Technology

The unique compressor operation balance technology makes sure that each compressor operates in turn, which greatly prolongs the lifespan of compressor.



#### Free Master Module Design

Any single unit can operate as the master once connected with the wired controller. It overcomes the problem which would occur to the product of other manufacturer that the whole system would fail to work properly when there's malfunction for the fixed master unit.



#### Advanced Flow Dividing Technology

The pipeline and flow equalization plate are especially designed for D series modular air-cooled scroll chillers, which greatly improve flow dividing uniformity and heat exchange capacity.



#### Super Protection Functions

This series is equipped with advanced microcomputer control system, completed protection functions and powerful error diagnosis function.

Main protection functions: compressor high pressure protection, compressor low pressure protection, compressor overload protection, antifreezing protection, overheating protection, auto antifreezing protection in winter, waterflow switch protection, temperature sensor protection, phase sequence protection, high discharge temperature protection, etc.



#### **Excellent Compatibility**

The units of the same model or different models can be combined freely. For model 65 and model 80, each system can combine up to 16 modules. For model 130 and model 160, each system can combine up to 8 modules.



### 50Hz

Model	Heat pump		JASA-WRF65M	JASA-WRF80M	JASA-WRF130M	JASA-WRF160M	JASA-WRF249M	JASA-WRF280M	
Capacity	Cooling/Heating	kW	60/65	71/79.5	120/130	145/170	249/275	280/325	
Capacity	Cooling/Heating	RT	17.06/18.48	20.19/22.61	34.12/36.97	41.23/48.34	70.80/78.20	79.62/92.42	
Capacity steps		%	0-50%	-100%		0-25%-50%	-75%-100%		
EER/COP W/\		W/W	2.84/3.09	2.76/2.94	2.84/2.93	2.74/3.04	2.95/3.25	2.85/3.10	
Power supply		V-Ph-Hz			380-415V	~3N~50Hz			
Davisa lassid	Cooling	kW	21.1	25.7	42.3	53	84.4	98.2	
Power input	Heating	kW	21	27	44.4	56	84.6	104.8	
Type		-			Constant s	peed scroll			
Compressor	Starting mode	-		Direct starting					
	Quantity		2	2	4	4	4	4	
	Туре	-			Dry expansion eva	aporator			
	Water flow volume	I/s	2.87	3.39	5.73	6.93	11.89	13.39	
Water side heat	water now volume	GPM	46	54	91	110	189	212	
exchanger	Pressure drop	kPa	15	20	30	35	75	85	
	r roodaro arop	ft.WG	4.92	6.56	9.84	11.48	24.60	27.88	
	Connection pipe	-	DN	165	DN	180	DN	100	
	Туре	-			Aluminum fin	-copper tube			
Air side heat	Fan type and quantity	-	Axial-flow/2	Axial-flow/2	Axial-flow/4	Axial-flow/4	Axial-flow/8	Axial-flow/8	
exchanger	Total fan air flow	I/s	2×0.375×104	2×0.417×10 <sup>4</sup>	4×0.375×10 <sup>4</sup>	4×0.417×10 <sup>4</sup>	8×0.39×10°	8×0.43×10 <sup>4</sup>	
	Total fall all flow	CFM	2×0.795×104	2×0.882×10 <sup>4</sup>	4×0.795×10 <sup>4</sup>	4×0.882×10 <sup>4</sup>	8×0.8239×10 <sup>4</sup>	8×0.918×10 <sup>4</sup>	
	Total fan motor power	kW	2×0.65	2×0.95	4×0.65	4×0.95	8×0.65	8×0.75	
Sound pressure	evel	dB(A)	70	71	72	74	67	69	
Dimension	Outline(W×D×H)	mm	2040×1000×2230	2040×1000×2230	2226×1650×2230	2226×1650×2230	3980×2260×2450	3980×2260×2450	
Difficition	Package(W×D×H)	mm	2120×1080×2230	2120×1080×2230	2306×1730×2230	2306×1730×2230	4040×2260×2450	4040×2260×2450	
Net/Gross/Opera	ting weight	kg	740/745/814	792/797/871	1315/1320/1447	1504/1509/1654	2985/2995/3284	3278/3288/3606	
Loading quantity	40'GP/40'HQ	set	10/10	10/10	6/6	6/6	2/2	2/2	

Notes: This product model is under development. Jet-Air reserves the right to modify the specifications without prior notice. Please confirm the final specifications with our sales representatives

## Modular Air-cooled Scroll Chiller

#### E Series





Thanks to the compact and flexible modularized structure, E Series Modular Type Scroll Chillers can be widely used for newly-built and retrofitted large and small-sized industrial and civil air conditioning projects, like apartments, hotels, restaurants, office buildings, shopping malls, theaters, gyms, factories, hospitals, etc. It is also the ideal choice for where there is high requirement on noise and ambient environments and it is inconvenient to install the cooling tower.

		Water side (water	Air side (outdoor temperature)				
Item	Nominal operating condition		Operating	range	Nominal operating condition	Operating range	
	Inlet (°C)	Outlet (°C)	Outlet (°C)	I/O difference (°C)	DB (°C)	DB (°C)	
Cooling	12	7	5~20	2.5~6	35	0~46	

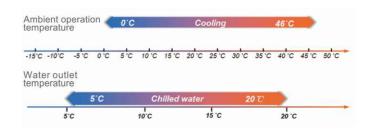
### **Features**

#### New Appearance Design

- For E series units, it's with beautiful appearance, highlighted outlines, and powerful visual impact.
- The zinc-nickle alloy screws have been put into use for higher corrosion resistance and reliability for the whole unit.

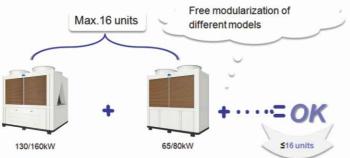
#### Wide Operation Range

Ambient operation temperature for E Series Modular unit is 0~46°C and the temperature range of water outlet is 5~20°C.



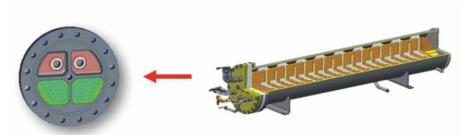
#### Powerful Compatibility

- Different models can be modularized freely and up to 16 units can be modularized in parallel.
- It can be modularized with any D series model.



#### High-efficiency Shell and Tube

- The dual-flow design can greatly improve the heat exchanging effect and the capacity of the unit.
- The specially-designed header box and flow distributor can largely improve the evenness of refrigerant vapor-liquid mixture after throttling and then improve the heat exchanging capacity of the shell and tube.



Flow distributor

Dry shell-and-tube heat exchanger

#### Low Noise Operation

Thanks to active and passive noise reduction technologies, noise of the model 130 can be lowered to 69dB(A), for creating quiet and comfortable environment for users.



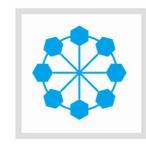
#### Compressor Operation Balance Technology

The unique compressor operation balance technology makes sure that each compressor operates in turn, which greatly prolongs the lifespan of compressor.



#### Free Master Module Design

Any single unit can operate as the master once connected with the wired controller. It overcomes the problem which would occur to the product of other manufacturer that the whole system would fail to work properly when there's malfunction for the fixed master unit.



#### **Super Protection Functions**

This series is equipped with advanced microcomputer control system, completed protection functions and powerful error diagnosis function.

Main protection functions: compressor high pressure protection, compressor low pressure protection, compressor overload protection, antifreezing protection, waterflow switch protection, temperature sensor protection, phase sequence protection, high discharge temperature protection, etc.



#### 50Hz



Model	Heat pump		JASA-WRF65ME	JASA-WRF80ME	JASA-WRF130ME	JASA-WRF160ME	
0 "	Castina II tastina	kW	65	82	132	162	
Capacity	Cooling/Heating	RT	18.48	23.32	37.54	46.07	
Capacity steps		%	0、50、100	0、50、100	0, 50, 100	0、25、50、75、100	
EER		W/W	3.20	3.19	3.20	3.00	
Power supply		V-Ph-Hz	400V~3N~50Hz	400V~3N~50Hz	400V~3N~50Hz	400V~3N~50Hz	
Power input	Cooling	kW	20.3	25.7	41.2	54.0	
	Туре	-		Constant sp	peed scroll		
Compressor	Starting mode	-	Direct startup				
	Quantity	-	2	2	2	4	
	Туре	( <del>-</del> ).		Dry expansion	n evaporator		
	Water flow volume	m³/h	11.20	14.10	22.70	27.90	
Water side heat		GPM	49	62	100	123	
exchanger	Pressure drop	kPa	45	60	60	60	
		ft.WG	14.76	19.68	19.68	19.68	
	Connection pipe			Flange co	nnection		
	Туре	-		Aluminum fin-	-copper tube		
Air side heat	Fan type and quantity			Axial-	flow		
iii olaa iiaat	Tatal fam. airflann	m³/h	2×1.2×10 <sup>4</sup>	2×1.4×10 <sup>4</sup>	4×1.2×10 <sup>4</sup>	4×1.4×10 <sup>4</sup>	
exchanger	Total fan airflow	CFM	2×0.7056×104	2×0.8239×10 <sup>4</sup>	4×0.7056×10 <sup>4</sup>	4×0.8239×10 <sup>4</sup>	
	Total fan motor power	kW	2×0.65	2×0.75	4×0.65	4×0.75	
Sound pressure	evel	dB(A)	66	67	70	70	
Dimension	Outline(W×D×H)	mm	2138×1025×2243	2138×1025×2243	2306×1980×2320	2306×1980×2320	
Dimension	Package(W×D×H)	mm	2198×1085×2243	2198×1085×2243	2366×2040×2320	2366×2040×2320	
Net/Gross/Operat	ing weight	kg	730/735/799	770/775/843	1280/1285/1409	1540/1545/1697	
Loading quantity	40'GP/40'HQ	set	11/11	11/11	5/5	5/5	



## Inverter Modular Air-cooled Chiller(Heat Pump)

### A Series





A Series Inverter Modular Air-cooled Chiller adopts all DC inverter and has wide operational range, compact design and can be modularized.

## **Features**

- High-efficiency and energy-saving, with all DC inverter compressor and fan;
  Quiet and wide operational range;

- Easy installation, modularized combination, intelligent control;
  With water pump switch function for prolonging service life of water pump;
- Long-distance one-key ON/OFF control.

		Water side (wa	ater temperature)		Air side (outdoor temperature)		
Item	Item Nominal opera		Оре	erating range	Nominal operating condition	Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	DB(°C)	
Cooling	12	7	5~20	2.5~6	35	-15~52	
Heating	40	45	35~50	2.5~6	7	-20~40	

#### 50Hz



Model	Heat pump		JASA-WRF35VM	JASA-WRF60VM	JASA-WRF65VM	
Capacity	Cooling/Heating	kW	32/36	60/65	65/70	
Capacity	Coomignicating	RT	9.10/10.24	17.06/18.48	18.48/19.91	
Capacity steps		%	0~100	0~100	0~100	
EER/COP		W/W	2.58/3.33	2.74/3.22	2.62/3.20	
Power supply		Ph/V/Hz	380-415V~3N~50Hz	380-415V~3N~50Hz	380-415V~3N~50Hz	
Power input	Cooling	kW	12.40	21.9	24.8	
r ower input	Heating		10.8	20.2	21.9	
	Туре	-		Inverter rotary		
Compressor	Starting mode					
	Quantity		1	2	2	
	Туре	-		Dry expansion evaporator		
	Water flow volume	I/s	1.53	2.87	3.11	
Water side heat	vvater now volume	GPM	24	46	49	
exchanger	Pressure drop	kPa	75	55	60	
	Pressure grop	ft.WG	24.6	18.04	19.68	
	Connection pipe	+	G1 1/2 External thread connection	G2 External thread connection	G2 External thread connection	
	Туре	-		Aluminum fin-copper tube		
Air side heat	Fan type and quantity	-		Axial-flow/2		
exchanger	Total fan airflow	l/s	2×0.347×10 <sup>4</sup>	2×0.333×10 <sup>4</sup>	2×0.333×10 <sup>4</sup>	
	Total lan allilow	CFM	2×0.736×10 <sup>4</sup>	2×0.707×104	2×0.707×10 <sup>4</sup>	
	Total fan motor power	kW	0.75	0.75	0.75	
Sound pressure	level	dB(A)	62	68	68	
Dimension	Outline(W×D×H)	mm	1340?45?605	2200×965×1675	2200×965×1675	
Package(W×D×H)		mm	1420×920×1775	2267×1030×1867	2267×1030×1867	
Net/Gross/Opera	ting weight	kg	379/391/862	689/725/758	689/725/758	
Loading quantity	40'GP/40'HQ	set	16/16	11/11	11/11	

#### 50Hz



Model	Heat pump		JASA-WRF35VM	JASA-WRF60VM
		kW	A CONTROL OF THE CONT	TO BE A STATE OF THE STATE OF T
Capacity	Cooling/Heating	RT	32/35 9.10/9.95	60/65 17.06/18.48
Citt		%		All Proposition And Conference Co
Capacity steps			0~100	0~100
EER/COP		W/W	2.74/3.3	2.88/3.27
Power supply	1	V/Ph/Hz	380-415V 3N~ 50Hz	380-415V 3N~ 50Hz
Power input	Cooling	kW	11.7	20.8
Heating		kW	10.6	19.9
Туре		-	Inverter rotary	Inverter rotary
Compressor	Starting mode	-	Inverter starting	Inverter starting
	Quantity		1	2
	Туре	-	Dry expansion evaporator	Dry expansion evaporator
		l/s	1.53	2.87
Water side heat	Water flow volume	GPM	24	46
exchanger		kPa	80	55
	Pressure drop	ft.WG	26.24	18.04
	Connection pipe	-	G1 1/2 External thread connection	G2 External thread connection
	Туре	-	Aluminum fin-copper tube	Aluminum fin-copper tube
	Fan type and quantity	-	Axial-flow/2	Axial-flow/2
Air side heat exchanger		l/s	2×0.175×104	2×0.333×104
3	Total fan air flow	CFM	2×0.371×104	2×0.707×104
	Total fan motor power	kW	0.75	0.75
Sound pressure	level	dB(A)	62	68
	Outline(W×D×H)	mm	1340×845×1605	2200×965×1675
Dimension	Package(W×D×H)	mm	1420×920×1775	2267×1030×1867
Net weight/Gross	weight/Operating weight	kg	405/422/445	686/722/755
Loading quantity	40'GP/40'HQ	unit	16/16	11/11





### Inverter Modular Air-cooled Chiller

#### **B** Series

B series DC Inverter Modular Air-cooled Chillers adopt all DC inverter technology and integrate high-efficiency shell-and-tube heat exchanger and high-efficiency fin heat exchange technology, with ultra-high energy efficiency and wide operating range, which can be widely used in newly-constructed and re-constructed big or small air conditioning projects of industrial and civil buildings.







High efficiency









Energy-saving function

Long-distance monitoring

### **Features**

· High efficiency and energy saving

①The all DC inverter technology realizes precise control and adjusts the best frequency according to load changes. Integrating high-efficiency shell-and-tube heat exchanger and high-efficiency fin heat exchange technology, the performance is superior.

②With energy-saving mode, the load is calculated automatically to formulate the best operating strategy according to customer needs.

- Wide operating range
- ① Cooling can be performed throughout the year, with reliable operation at ambient temperature from -15°C~48°C.
- ② Wide range heating is available, with stable operation at ambient temperature from -20°C~40°C.
- Quiet design
- ① High-efficiency noise reduction fan blade and motor design optimizes the air duct and improves the noise performance of the unit
- ② Special silent mode is available for low noise operation of the whole machine, quiet and comfortable.
- Intelligent control
- ① With special master module and slave module design, any module failure doesn't affect the normal operation of other units and any module can be the main module, with the units back up each other.
- ② It can be connected to the BMS building monitoring system to centrally manage and control up to 255 sets of units, with functions such as remote control of startup and stoppage, remote setting of unit parameters and failure alarms.
- ③ With modular combination design, up to 16 unit modules of the same or different cooling capacity can be combined, forming a series of products with cooling capacity in the range from 65kW to 1040kW.

	Water	side (water temperature)	Air side (outdoor temperature)			
Item	Nominal operati	ng condition	Opera	ting range	Nominal operating condition	Operating range
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	DB(°C)
Cooling	7	30	5~20	2.5~6	35	-15~48
Heating	45	15	35~50	2.5~6	7/6	-20~40

Model	Heat pump		JASA-WRF65VMB	JASA-WRF130VMB
Committee	Carline / Lastine	kW	65/70	130/140
Capacity	Cooling/Heating	RT	18.84/19.91	36.97/39.81
Capacity steps		%	10%~100%	10%~100%
EER/COP		W/W	3.11/3.48	3.08/3.48
Power supply		V/Ph/Hz	380V 3N~50Hz	380V 3N~50Hz
Power input	Cooling	kW	20.9	42.2
Heating		kW	20.1	40.2
Туре		-	All-hermetic	All-hermetic
Compressor	Starting mode	-	Inverter starting	Inverter starting
	Quantity	-	2	4
	Туре	-	Dry-type shell-and-tube evaporator	Dry-type shell-and-tube evaporator
	Water flow volume		3.106	6.212
Water side heat	Vater flow volume	GPM	49.29	98.59
exchanger	December dese	kPa	45	60
	Pressure drop	ft.WG	14.76	19.68
	Connection pipe	-	DN65/flange connection	DN65/flange connection
	Туре	-	High-efficiency finned coils	High-efficiency finned coils
	Fan type and quantity	-	Axial fan blade/2	Axial fan blade/4
Air side heat exchanger		l/s	2×0.43×104	2×0.86×104
	Total fan air flow	CFM	2×0.91×104	2×0.91×104
	Total fan motor power	kW	1.5	3
Sound pressure level		dB(A)	67	69
Outline(W×D×H)		mm	2130×1030×2150	2305×1980×2190
Dimension	Package(W×D×H)	mm	2190×1090×2150	2365×2040×2190
Net weight/Gross	weight	kg	720/756/792	1270/1334/1397
Loading quantity	40'GP/40'HQ	unit	1	1



13/14

#### Control System Lineup

ĺ					Scroll Chiller		
	Control	system / Produc	t Series	D series	E series	A series	B series
	Packaged	CF158	- 4	0	0		
	Packaged accessory	XE75-25/G	Toron Control of the			0	0
	Remote monitoring system	FG30-00/A(M)		•	•	•	
	BMS	CF614		0	0	0	0

Note: • means standard • means optional.

## **Screw Chiller**

## LME Series Air-Cooled Screw Chiller

It is a kind of air-cooled screw chillers that can be connected to all sorts of fan coil units to realize cooling/heating for civil or industrial buildings.





condenser





protection











ur timer

structure

- Thanks to V-shape fin structure, unit features small refrigerant pressure loss.
- With flooded type shell-and-tube design, evaporating temperature is increased, hence improving the heat exchanging efficiency and energy efficiency.
- Unit adopts low noise fan blades and specialized compressor noise reduction device, therefore sound level falls to 5dB(A) lower than the 2nd generation.
- Due to the totally-enclosed design, its appearance is harmonious and nice-looking.

		Water side (water	er temperature)	Air side (outdoor temperature)			
Item	Nominal operating of	ondition	Operating range		Nominal operating condition		Operating range
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35		18~52



## **Features**

#### Special Flooded Screw Compressor

- Special flooded screw compressor
- A. Apply special motor that can be up to Grade F with thermostability of 155°C.
- B. No speed-up gear mechanism design: twin screw compressor adopts direct-connected driving motor for reducing driving efficiency loss and for a more compact structure.
- C. Motor of compressor is cooled down through diluent cooling of gas-absorbing cavity to lower the temperature of motor, and ensure diluent cooling of refrigeration oil. It can prevent decrease of insulativity due to high temperature of motor; otherwise the motor will be burnt.
- D. Built-in air exhaust check valve: it can prevent back flow of refrigerant when the unit closes down; built-in oil separator and oil heater for ensureing oil return.
  - E. Slide valve stepless adjustment for exact match of cooling output and load of compressor.
- F. High accuracy SKF shaft bearing: This twin screw compressor adopts high accuracy SKF shaft bearing so that the clearance of compressor can be smaller, transmission efficiency will be higher, energy efficiency ratio of compressor will be higher, and service life of compressor will be longer.
- Reliable compressor operating range control technology (first-created in the industry)

The built-in pressure transducer and current transformer can conduct comprehensive control of high pressure, low pressure, current of compressor, and air exhaust temperature, so as to ensure reliable operation of compressor within the operating range.

Compressor motor cool-down technology (first-created in the industry)

Adopt electronic expansion valve control with wide adjustment range, which can precisely control gas absorbing and liquid spray volume; apply PD control method to feed back liquid spray information in advance to achieve fast adjustment and cool down motor directly, which can control temperature of motor and ensure reliability and performance of compressor

#### Unique Vertical Oil Separator

Adopt external oil separator design, apply four-stage (rotate separation, collision, natural sedimentation, filter separation) separating technology to ensure adequate filtration of refrigeration oil discharged from compressor, and prevent the refrigeration oil from leakage. The actual measurement efficiency of oil separation is up to 99.97%.

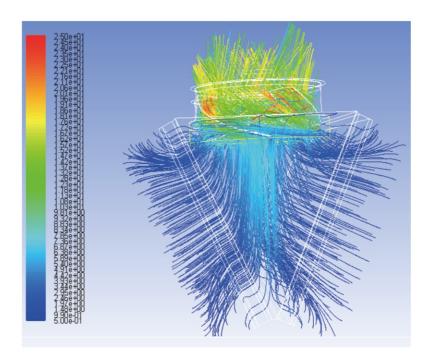


#### **Energy-saving**

• Flooded shell and tube design: adopt TURBO-BII evaporator that the evaporating pipe is soaking in liquid refrigerant for improving heat transfer capacity and cooling efficiency; the evaporating temperature is higher than 5.5°C; chilled water passes through the tube for reducing flowage pressure loss of water side and reduce energy consumption of water pump. This evaporator works with the high-performance and reliable special screw compressor, which can greatly improve cooling capaity and energy efficiency ratio of unit.



- Independent design of multiple compressors and multiple systems: it has four independent systems at most, with high energy efficiency of partial loading; the compressor adopts Y-Δ start-up with low start-up current.
- V shape condenser design: adopt V-shape layout with the best angle and the best air volume for more even distribution of air flow; adopt ripple fenestration aluminous condensing fin for higher heat exchange efficiency.



• Circulating design of economizer \*(optional): auxiliary refrigerant of economizer conducts heat exchange with main refrigerant, to improve condenser depression of refrigerant when the main refrigerant returns to the expanding valve inlet, and improve liquid seal effect. It ensures that the refrigerant is in liquid state when it enters into the main throttle valve (electronic expansion valve); at the same time, the auxiliary refrigerant directly gets into compressor after it is gasified, which will increase inspiratory capacity of compressor. Such design can help to increase cooling capacity by 10%.



 High-accuracy electronic expansion valve control: stepping motor can have 3810 steps at most, which combines coarse tuning and sharp tuning for precisely adjusting flow of refrigerant. It can dynamically control degree of superheat for outlet of evaporator, to achieve higher utilization ratio of heat exchange area and improve operational efficiency under deviate work condition and low-load work condition.





- Advanced Self-adaption Control:
- A. Automatically adjust yielding water temperature according to variation of load to ensure comfortable experience and energy saving during transition seasons;
- B. Start-up quantity of fan units can be controlled according to pressure, which can save more energy in transition seasons.

#### Safe and Reliable

- Ejecting oil return design: when the unit operates under bad oil return work condition, the ejector will be automatically started up to ensure reliable oil return of unit, which can solve the oil return problem of flooded unit.
- Multiple anti-freezing design of shell and tube:
- A. Water flowing through the heat exchange tube can prevent partial frost cracking.
- B. Adopt multi-slot tube plate design to improve hermetically-sealed construction for preventing the risk of leakage.
- C. Add water flow switch water-break protection.
- D. Adopt evaporating temperature control technology to conduct triple control for evaporating temperature, water yielding temperature of shell and tube, anti-freezing water temperature. It can ensure that the evaporating temperature inside the shell and tube is over 0½ for preventing frost cracking of shell and tube.



- Rotproof design:
- A. Hermetically sealed structure is adopted for preventing exposure of parts and components.
- B. Adopt rotproof gold aluminum foil and anticorrosive materials to make the fins, which can go through the neutral salt spray test for 2000 hours.
- C. Adopt three-layer protection design for the chassis: epoxy zinc rich primer, high build epoxy antirust paint, four fluorine fluorine carbon paint \*(optional).
- D. Parts and components of pipelines adopt zinc rich primer and four fluorine carbon paint \*(optional).
- E. Self-made sheet metal adopts rotproof whether resistant polyester powder sprays coating \*(optional).

#### High Comfort Level

- Ultralow temperature cooling design \*(optional): Apply control technology of inverter fan unit to conduct reliable cooling under the ambient temperature of -20°C.
- Stepless capacity adjustment: 50%-100% for single system and 25%-100% for dual systems; when compressor starts up under the minimum load, the cooling capacity of unit can be stepless adjusted according to the requirement of users. Adjust refrigerant volume by stepless slide valve for matching with actual load perfectly.
- Noise reduction and vibration damping design
- A. Low noise axial fan design: adopt the plastic fan blade made of low noise fiber glass with improvement of 20% and streamline ail foil design that the fan can be driven directly, which has lower noise than general fan units.
- B. Sound insulation and noise reduction design for fan \*(optional): sound insulation cover is specially designed for the fan that can further reduce the noise.

- C. Advanced technology of sound insulation and noise reduction for compressor \*(optional): according to the test and analysis of frequency spectrum for compressor, the sound insulation cover is specially designed for compressor to absorb the noise in different frequency spectrum by adopting multiple sound insulation material and sound insulation board.
- D. Vibration isolator \*(optional): the vibration isolator is made of natural rubber and supported by stainless steel. Natural rubber has good abrasive resistance, good acid and alkali resistance, high elasticity, strong tensile force and extensibility. The actual measured upper acceleration of vibration isolator is 125dB, lower acceleration of oscillating damper is 105dB; the vibration drop is 20dB and the damping rate is 90%.

#### Easy Installation

- On-site seamless splice technology: conduct on-site splicing for over 2 modules according to requirement of users, which can satisfy different requirement of cooling capacity.
- Built-in water conservation module \*(optional): the unit can set a built-in water conservation module according to requirement of users. The water conservation module has passed the installation test that its mating parts are highly matched with the unit; there fore there is no need to conduct separate design, model selection and purchase for the water pump.
- Automatically invoke matching parameter: display board can automatically identify unit model and automatically invoke matching parameter, which can save debugging time and avoid misoperation.

#### Advanced Control System

- Brand new controller, intelligent experience
- A. Manipulable and clear display interface for easy operation. The operational parameter, such as intake/yielding water temperature, ambient temperature, air exhaust temperature, suction temperature, high pressure, low pressure and current of compressor, etc., can be acquired immediately by pressing via the control menu.
- B. Advanced control function can provide three kinds of on/off mode: manual control, timer, long distance on/off. The control system can work out load deviation according to difference and variation of water temperature, so as to ensure the best energy utilization efficiency of unit.
- C. Complete safety protection that provides password protection function to prevent misoperation.
- Long distance control center\*
- A. Internet interface is reserved for the unit for transmitting operation status of unit in real time, so as to remotely monitor the unit and solve the malfunction of unit effectively.
- B. Long-distance control of multiple units. Maximum 8 sets of water-cooled screw chiller can be controlled simultaneously.

#### Note:

- \*: This function has been applied and used at domestic market at present, and is in development stage for overseas market.
- \*(optional): This function is not included in standard unit. It can be added according customer's requirement.





Model	Cooling o	nly	JASA-LMEA3QJD3E	JASA-LMEB30JD2E	JASA-LMEA40LE5E	JASA-LMEB40LE4E	JASA-LMEA50LE3E	JASA-LMEB50LE2E
Capacity	O I'	kW	320	350	420	470	520	580
Capacity	Cooling	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%
EER		W/W	3.20	3.24	3.23	3.22	3.21	3.22
Power supply V/F		V/Ph/Hz	380V 3N~50Hz					
Power input	Cooling	kW	100	108	130	146	162	180
	Туре		Semi-hermetic screw					
Compressor	Starting mode	-	Star delta start					
	Quantity	-	1	1	1	1	1	1
	Туре	1.50	Flooded evaporator					
	Water flow	m³/h	55.0	60.2	72.2	80.8	89.4	99.8
Water side heat	volume	GPM	243	265	319	356	394	440
exchanger	Pressure drop	kPa	≤35	≤35	≤45	≤45	≤45	≤45
	Pressure drop	ft.WG	≤11.7	≤11.7	≤15.1	≤15.1	≤15.1	≤15.1
	Connection pipe	-	DN100	DN100	DN125	DN125	DN125	DN125
	Туре	-			Aluminum fin-	-copper tube		
Air side heat	Total fan air	m³/h	20000×6	21500×6	20000×8	21500×8	20000×10	21500×10
exchanger	flow	CFM	11772×6	12654×6	11772×8	12654×8	11772×10	12654×10
ond larger	Total fan motor power	kW	1.5×6	1.8×6	1.5×8	1.8×8	1.5×10	1.8×10
Di .	Outline(W×D×H)	mm	3670×2330×2550	3670×2330×2550	4890×2330×2550	4890×2330×2550	6110×2250×2550	6110×2250×2550
Dimension	Package(W×D×H)	mm	3820×2330×2550	3820×2330×2550	5040×2330×2550	5040×2330×2550	6260×2330×2550	6260×2330×2550
Net/Gross/Opera	let/Gross/Operating weight		4130/4170/4213	4310/4350/4396	5210/5250/5314	5515/5555/5625	5980/6020/6100	6240/6280/6365
Loading quantity	oading quantity 40'GP/40'HQ		0/2	0/2	0/2	0/2	0/1	0/1

Note: \* The parameters are estimated, please refer to the value on the nameplate.

50Hz



Model	Cooling		JASA-LMEA33LF8E	JASA-LMEB33LF6E	JASA-LMEB43LF7E	JASA-LMEB43LF5E	JASA-LMEA44NF4E
0 "	0 "	kW	650	700	750	820	860
Capacity	Cooling	TR	184.8	199.1	213.3	233.2	244.5
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%
EER		W/W	3.25	3.24	3.19	3.22	3.25
Power supply		V/Ph/Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz
Power input	Cooling	kW	200	216	235	255	265
	Туре	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity		2	2	2	2	2
	Туре		Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow	m³/h	111.8	120.4	129.0	141.0	147.9
Water side heat	volume	GPM	493	531	569	622	652
exchanger		kPa	≤55	≤55	≤55	≤55	≤65
	Pressure drop	ft.WG	≤18.4	≤18.4	≤18.4	≤18.4	≤21.7
	Connection pipe	-	DN150	DN150	DN150	DN150	DN150
	Туре	-		,	Aluminum fin-copper tube		
Air side heat	Total fan air	m³/h	20000×12	21500×12	20000×14	21500×14	20000×16
exchanger	flow	CFM	11772×12	12654×12	11772×14	12654×14	11772×16
oxonangor	Total fan motor power	kW	1.5×12	1.8×12	1.5×14	1.8×14	1.5×16
D:	Outline(W×D×H)	mm	7340×2250×2550	7340×2250×2550	8560×2250×2550	8560×2250×2550	9780×2250×2550
Dimension	Package(W×D×H)	mm	7490×2330×2550	7490×2330×2550	8710×2330×2550	8710×2330×2550	9930×2330×2550
Net/Gross/Opera	ating Weight	kg	7920/7960/8078	8120/8160/8282	8350/8390/8517	9110/9150/9292	9860/9900/10057
Loading guantity	40'GP/40'HQ	set	0/1	0/1	0/1	0/1	0/1

Note: \* The parameters are estimated, please refer to the value on the nameplate.



#### 50Hz



Model	Cooling		JASA-LMEB44NF2E	JASA-LMEB54NG3E	JASA-LMEB54NG2E	JASA-LMEB33LF850LE3E	JASA-LMEB33LF650LE2
		kW	940	950	1050	1160	1280
Capacity	Cooling	TR	267.3	270.1	298.6	329.9	364.0
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	12.5%,25%~100%	8.3%,16.7%~100%	8.3%,16.7%~100%
EER		W/W	3.24	3.22	3.23	3.22	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	290	295	325	360	400
	Type	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	2	2	2	3	3
	Туре	-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow volume	m³/h	161.7	163.4	180.6	199.5	220.2
Nater side heat		GPM	713	720	796	880	971
exchanger	Pressure drop	kPa	≤60	≤60	≤70	≤55	≤55
		ft.WG	≤20.1	≤20.1	≤23.4	≤18.4	≤18.4
	Connection pipe	-	DN150	DN150	DN150	DN150+DN125	DN150+DN125
	Туре	-		1	Aluminum fin-copper tube		
Nin nida band	Total fan air	m³/h	21500×16	21500×18	21500×18	21500×22	21500×22
Air side heat exchanger	flow	CFM	12654×16	12654×18	12654×18	12654×22	12654×22
oxonangoi	Total fan motor power	kW	1.8×16	1.8×18	1.8×18	1.8×22	1.8×22
	Outline(W×D×H)	mm	9780×2250×2550	11000×2250×2550	11000×2250×2550	13450×2250×2550	13450×2250×2550
Dimension	Package(W×D×H)	mm	9930×2330×2550	11150×2330×2550	11150×2330×2550	13600×2330×2550	13600×2330×2550
Net/Gross/Opera	ating Weight	kg	9970/10010/10169	10280/10360/10486	11150/11230/11373	13900/13980/14178	14470/14550/14759
Loading quantity	40'GP/40'HQ	set	0/1	0/1	0/1	0/0	0/0

Note: The parameters are estimated, please refer to the value on the nameplate.

LMEB33LF850LE3E/Nb-M~LMEB33LF633LF6E/Nb-M are combined units, each part should be transported separately.

#### 50Hz



Model	Coolin		JASA-LMEB33LF833LF8E	JASA-LMEB33LF633LF6E	JASA-LMEB33LF643LF5E	JASA-LMEB43LF743LF7E	JASA-LMEB43LF543LF5		
		kW	1320	1400	1500	1520	1650		
Capacity	Cooling	TR	375.4	398.1	426.5	432.2	469.2		
Capacity steps		%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%		
ER		W/W	3.22	3.22	3.23	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	410	435	465	470	515		
	Туре	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw		
Compressor	Starting mode	2	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start		
	Quantity	-	4	4	4	4	4		
	Type	-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator		
	Water flow volume	m³/h	227.0	240.8	258.0	261.4	283.8		
Water side heat		GPM	1001	1062	1138	1153	1251		
exchanger	Pressure drop	kPa	≤60	≤60	≤60	≤60	≤60		
		ft.WG	≤20.1	≤20.1	≤20.1	≤20.1	≤20.1		
	Connection pipe	-	2×DN150	2×DN150	2×DN150	2×DN150	2×DN150		
	Туре	-		Aluminum fin-copper tube					
Air side heat	Total fan air	m³/h	21500×24	21500×24	21500×26	21500×28	21500×28		
exchanger	flow	CFM	12654×24	12654×24	12654×26	12654×28	12654×28		
on angor	Total fan motor power	kW	1.8×24	1.8×24	1.8×26	1.8×28	1.8×28		
	Outline(W×D×H)	mm	14670×2250×2550	14670×2250×2550	15890×2250×2550	17120×2250×2550	17120×2250×2550		
Dimension	Package(W×D×H)	mm	14820×2330×2550	14820×2330×2550	16040×2330×2550	17270×2330×2550	17270×2330×2550		
Net/Gross/Opera	ating Weight	kg	14880/14960/15178 15840/15920/16157		17140/17220/17483	16950/17030/17289	18470/18550/18839		
Loading quantity	40'GP/40'HQ	set	0/0	0/0	0/0	0/0	0/0		

Note: The parameters are estimated, please refer to the value on the nameplate. LMEB33LF643LF5E/Nb-M~LMEB43LF543LF5E/Nb-M are combined units, each part should be transported separately.



Model	Coolin	g	JASA-LMEB30JD33	JASA-LMED30JD24	JASA-LMED30JD24E	JASA-LMED40LE56	JASA-LMED40LE46E
		kW	358	408	448	518	573
Capacity	Cooling	TR	101.8	116.0	127.4	147.3	162.9
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
EER		W/W	3.17	3.11	3.11	3.18	3.18
Power supply		V/Ph/Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz
Power input	Cooling	kW	113	131	144	163	180
	Туре	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	1	1	1	1	1
	Туре	-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow volume	m³/h	61.6	70.2	77.1	89.1	98.6
Water side heat		GPM	271	309	340	393	435
exchanger	Pressure drop	kPa	≤35	≤45	≤45	≤45	≤50
		ft.WG	≤11.7	≤15.1	≤15.1	≤15.1	≤16.7
	Connection pipe	-	DN125	DN125	DN125	DN125	DN125
	Туре	-		,	Aluminum fin-copper tube		
Air side heat	Total fan air	m³/h	24000×6	26000×6	26000×6	24000×8	26000×8
exchanger	flow	CFM	14126×6	15304?	15304?	14126×8	15304?
onerialige.	Total fan motor power	kW	2.2×6	2.8×6	2.8×6	2.2×8	2.8×8
Outline(W×D×H		mm	3670×2250×2550	3670×2250×2550	3670×2250×2550	4890×2250×2550	4890×2250×2550
Dimension Package(W×D×H		mm	3820×2330×2550	3820×2330×2550	3820×2330×2550	5040×2330×2550	5040×2330×2550
Net/Gross/Opera	ting Weight	kg	4390/4430/4478	4410/4450/4498	4460/4500/44549	5515/5555/5625	5565/5605/5676
Loading quantity	40'GP/40'HQ	set	0/2	0/2	0/2	0/2	0/2

Note: The parameters are estimated, please refer to the value on the nameplate.

#### 50Hz



Model	Coolin	g	JASA-LMED50LE37	JASA-LMED50LE27E	JASA-LMED50LE18E	JASA-LMED33LF644E	JASA-LMED43LF564E
0	0 - 1	kW	678	743	808	898	1023
Capacity Cooling Capacity steps EER Power supply Power input Cooling Type Compressor Starting Quantit Type Water side heat exchanger  Air side heat exchanger  Air side heat exchanger  Dimension  Connect Type Total fa power Outline Packag  Net/Gross/Operating We	Cooling	TR	192.8	211.3	229.8	255.4	290.9
Capacity steps		KW   TR   %   2!   W/W   W/W   W/W   W/Ph/Hz   3   KW   - Sen   - Flo   M   GPM   GPM	25%,50%~100%	25%,50%~100%	25%,50%~100%	12.5%,25%~100%	12.5%,25%~100%
EER		W/W	3.18	3.11	3.00	3.10	3.10
Power supply		V/Ph/Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz
Power input Cooling		kW	213	239	269	290	330
	Туре	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Compressor	Starting mode	-	Star delta start	Star delta start	Star delta start	Star delta start	Star delta start
	Quantity	-	1	1	1	2	2
	Туре	-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow volume	m³/h	116.6	127.8	139.0	154.5	176.0
Water side heat		GPM	514	563	613	681	776
	D	kPa	≤55	≤55	≤55	≤65	≤70
	Pressure drop	ft.WG	≤18.4	≤18.4	≤18.4	≤21.7	≤23.4
	Connection pipe	-	DN150	DN150	DN150	DN150	DN200
	Туре	-		-	Aluminum fin-copper tube		
Air eide heat	Total fan air	m³/h	24000×10	26000×10	26000×10	26000×12	26000×14
	flow	CFM	14126×10	15304?0	15304?0	15304×12	15304?4
onenanger	Total fan motor power	kW	2.2×10	2.8×10	2.8×10	2.8×12	2.8×14
Outline(W×D×H)		mm	6110×2250×2550	6110×2250×2550	6110×2250×2550	7340×2250×2550	8560×2250×2550
Package(W×D×H		mm	6260×2330×2550	6260×2330×2550	6260×2330×2550	7490×2330×2550	8710×2330×2550
Net/Gross/Operating Weight		kg	6570/6610/6701	6620/6660/6752	6660/6700/6793	8715/8755/8889	9630/9670/9823
Loading quantity	40'GP/40'HQ	set	0/1	0/1	0/1	0/1	0/1

Note: The parameters are estimated, please refer to the value on the nameplate.  $\label{eq:note:parameters}$ 



50Hz



Model	Coolin		JASA-LMED44NF266E	JASA-LMED54NG276E	JASA-LME50LE2750LE27E	JASA-LME50LE1850LE18E
0'h	01	kW	1148	1318	1488	1617
Capacity	Cooling	TR	326.4	374.8	423.1	459.8
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	12.5%,25%~100%
EER		W/W	3.19	3.10	3.10	3.10
Power supply		V/Ph/Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz
Power input	Cooling	kW	360	425	425 480	
Туре		-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Compressor Starting mode		-	Star delta start	Star delta start	Star delta start	Star delta start
Quantity		-	2	2	2	2
Туре		-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow	m³/h	197.5	226.7	255.9	278.1
Water side heat	volume	GPM	871	1000	1128	1226
exchanger	Pressure drop	kPa	≤75	≤85	≤95	≤110
		ft.WG	≤25.0	≤28.4	≤31.8	≤36.8
	Connection pipe	-	DN200	DN200	2×DN150	2×DN150
	Туре	-		Aluminum fin-	copper tube	
Air side heat	Total fan air	m³/h	26000×16	26000×18	26000×20	26000×20
	flow	CFM	15304?6	15304?8	15304×20	15304×20
exchanger Total fan motor		kW	2.8×16	2.8×18	2.8×20	2.8×20
D:	Outline(W×D×H)	mm	9780×2250×2550	11000×2250×2550	12230×2250×2550	12230×2250×2550
Dimension Package(W×D×H		mm	9930×2330×2550	11150×2330×2550	12380×2330×2550	12380×2330×2550
Net/Gross/Operating Weight		kg	10310/10350/10516	11485/11525/11715	13240/13320/13505	13320/13400/13586
Loading quantity	40'GP/40'HQ	set	0/1	0/1	0/0	0/0

Note: The parameters are estimated, please refer to the value on the nameplate. LME50LE2750LE27E/Nb-M and LME50LE1850LE18E/Nb-M are combined units, each part should be transported separately.

## LMP Series Air-Cooled Screw Chiller (Heat Pump)

Jet-Air LMP series air-cooled screw chiller (heat pump) adopts Jet-Air brand air-cooled heat pump specialized compressor, flooded type shell-and-tube design and a totally enclosed structure. Featuring high efficiency, high reliability and low noise, this air conditioning equipment can provide cool water in summer and hot water in winter. It can be combined with fan coil unit, floor ceiling unit, packaged unit or other kinds of terminals.





Display panel Z2F20F

Modular

structure







copper









24 hour timer function



Long-distance monitoring



Energy saving;

- Jet-Air's efficient air-cooled heat pump specialized compressor;
- Heat pump flooded type shell-and-tube design;
- V-shaped structure for fins, efficient heat exchange design;
- Seamless connectivity on site, cooling capacity can be enlarged infinitely;
- Totally enclosed structure, low noise and low vibration design, safe and comfortable.

		Water side(water to	Air side(outdoor temperature)				
Item	Nominal operating	condition	Oper	ating range	Nominal oper	Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	18~52
Heatling	40	45	40~50	2.5~8	7	6	-15~24

#### 50Hz



Model	Heat pump	).	JASA-LMPA30JD4E	JASA-LMPB30JD3E	JASA-LMPA40JE2E	JASA-LMPB40JE1E	JASA-LMPA50LE8E	JASA-LMPB50LE7E
	Cooling	kW	315	340	400	445	505	550
Capacity	Cooling	TR	89.6	96.7	113.7	126.5	143.6	156.4
Oupdoity	Heating	kW	320	335	410	430	520	545
	riedurig	TR	91.0	95.3	116.6	122.3	147.9	155.0
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
EER		W/W	3.21	3.21	3.23	3.22	3.22	3.25
COP		W/W	3.23	3.22	3.25	3.21	3.25	3.22
Power supply			380V 3N~50Hz					
Dower input	Cooling	kW	98	106	124	138	157	169
Power input	Heating	kW	99	104	126	134	160	169
	Туре		Semi-hermetic screw					
Compressor	Starting mode	-	Star delta start					
	Quantity	-	1	1	1	1	1	1
	Туре	-	Flooded evaporator					
	Water flow	m³/h	54.2	58.5	68.8	76.5	86.9	94.6
Water side heat	volume	GPM	239	258	303	337	383	417
exchanger	Daniel de la constant	kPa	≤35	≤35	≤45	≤45	≤45	≤45
	Pressure drop	ft.WG	≤11.7	≤11.7	≤15.1	≤15.1	≤15.1	≤15.1
	Connection pipe	==	DN100	DN100	DN125	DN125	DN125	DN125
	Туре	2			Aluminum fi	n-copper tube		
Air side heat	Total fan air flow	m³/h	20000x6	21500x6	20000x8	21500x8	20000x10	21500x10
exchanger	Total fall all 110W	CFM	11772×6	12654×6	11772×8	12654×8	11772×10	12654×10
	Total fan motor	kW	1.5×6	1.8×6	1.5×8	1.8×8	1.5×10	1.8×10
Dimension	Outline(W×D×H)	mm	3670×2250×2550	3670×2250×2550	4890×2250×2550	4890×2250×2550	6110×2250×2550	6110×2250×2550
	Package(W×D×H)	mm	3820×2330×2550	3820×2330×2550	5040×2330×2550	5040×2330×2550	6260×2330×2550	6260×2330×2550
Net/Gross/Opera	et/Gross/Operating weight kg		4570/4610/4661	4600/4640/4692	5435/5475/5544	5500/5540/5610	6455/6495/6584	6590/6630/6722
Loading quantity 40'GP/40'HQ		set	0/2	0/2	0/2	0/2	0/1	0/1

Note: The parameters are estimated, please refer to the value on the nameplate.

#### 50Hz



Model	Heat pump	)	JASA-LMPA33LF6E	JASA-LMPB33LF5E	JASA-LMPA43LG4E	JASA-LMPB43LG3E	JASA-LMPA44LF2E	JASA-LMPB44LF1E
	Cooling	kW	640	690	730	790	825	900
Capacity	Cooling	TR	182.0	196.2	207.6	224.6	234.6	255.9
Capacity	Heating	kW	645	685	755	785	815	890
	riedung	TR	183.4	194.8	214.7	223.2	231.8	253.1
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%
EER		W/W	3.20	3.21	3.24	3.22	3.24	3.23
COP		W/W	3.26	3.25	3.25	3.23	3.26	3.22
Power supply		V/Ph/Hz	380V 3N~50Hz					
Deurer lenut	Cooling	kW	200	215	225	245	255	279
Power input	Heating	kW	198	211	232	243	250	276
	Туре	-	Semi-hermetic screw					
Compressor	Starting mode		Star delta start					
	Quantity	8	2	2	2	2	2	2
	Туре	=	Flooded evaporator					
	Water flow	m³/h	110.1	118.7	125.6	135.9	141.9	154.8
Water side heat	volume	GPM	485	523	554	599	626	683
exchanger	Decree des	kPa	≤55	≤55	≤55	≤55	≤65	≤60
	Pressure drop	ft.WG	≤18.4	≤18.4	≤18.4	≤18.4	≤21.7	≤20.1
	Connection pipe		DN150	DN150	DN150	DN150	DN150	DN150
	Туре				Aluminum fi	n-copper tube		
Air side heat	Total fan air flow	m³/h	20000×12	21500×14	20000×14	21500×14	20000×16	21500×16
exchanger	Total fan air now	CFM	11772×12	12654×14	20000×14	12654×14	11772×16	12654×16
	Total fan motor	kW	1.5×12	1.8×14	1.5×14	1.8×14	1.5×16	1.8×16
Dimension	Outline(W×D×H)	mm	7340×2250×2550	7340×2250×2550	8560×2250×2550	8560×2250×2550	9780×2250×2550	11000×2250×2550
DITTELISION	Package(W×D×H)	mm	7490×2330×2550	7490×2330×2550	8710×2330×2550	8710×2330×2550	9930×2330×2550	11150×2330×2550
Net/Gross/Opera	ting weight	kg	8550/8590/8721	8410/8450/8578	9900/9940/10098	10075/10115/10277	10910/10950/11128	11110/11150/11332
Loading quantity	40'GP/40'HQ	set	0/1	0/1	0/1	0/1	0/1	0/1

Note: The parameters are estimated, please refer to the value on the nameplate.





**₹**134A

Model	Heat pum		JASA-LMPB54NG2E	JASA-LMPB50LE750LE7E	JASA-LMPB33LF550LE7E	JASA-LMPB33LF533LF5E	JASA-LMPB33LF543LG3E	JASA-LMPB43LG343LG3
	Cooling	kW	1000	1120	1240	1380	1480	1580
Capacity	Cooling	TR	284.4	318.5	352.6	392.4	420.8	449.3
Cupacity	Heating	kW	980	1075	1230	1370	1470	1570
	riedurig	TR	278.7	305.7	349.8	389.6	418.0	446.4
Capacity steps		%	12.5%,25%~100%	12.5%,25%~100%	8.3%,16.7%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%	6.25%,12.5%~100%
EER		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	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz	380V 3N~50Hz
Power input	Cooling	kW	308	346	384	430	460	490
rower input	Heating	kW	303	334	380	422	454	486
	Туре	2	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	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	3	4	4	4
	Туре	-	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator	Flooded evaporator
	Water flow	m³/h	172.0	192.6	213.3	237.4	254.6	271.8
Water side heat	volume	GPM	758	849	940	1047	1122	1198
exchanger	Pressure drop	kPa	≤70	≤55	≤55	≤60	≤60	≤60
	riessure drop	ft.WG	≤23.4	≤18.4	≤18.4	≤20.1	≤20.1	≤20.1
	Connection pipe	2	DN150	DN150+DN125	DN150+DN125	2×DN150	2×DN150	2×DN150
	Туре	2			Aluminun	n fin-copper tube		
Air side heat	Total fan air flow	m³/h	21500×18	21500×20	21500×22	21500×24	21500×26	21500×28
exchanger	Total fall all 110W	CFM	12654×18	12654×20	12654×22	12654×24	12654×26	12654×28
	Total fan motor	kW	1.8×18	1.8×20	1.8×22	1.8×24	1.8×26	1.8×28
Dimension	Outline(W×D×H)	mm	11000×2250×2550	12230×2250×2550	13450×2250×2550	14670×2250×2550	15890×2250×2550	17120×2250×2550
DIMENSION	Package(W×D×H)	mm	11150×2330×2550	12380×2330×2550	13600×2330×2550	14820×2330×2550	16040×2330×2550	17270×2330×2550
Net/Gross/Operat	ing weight	kg	12380/12420/12628	13160/13200/13423	15000/15040/15300	16820/16860/17156	18485/18525/18855	20150/20190/20553
Loading quantity	40'GP/40'HQ	set	0/1	0/0	0/0	0/0	0/0	0/0

"Note: The parameters are estimated, please refer to the value on the nameplate.

LMPB33LF550LE7E/Nb-M~LMPB43LG343LG3E/Nb -Mare combined units, each part should be transported separately.

#### 50Hz

Model	Heat pump	)	JASA-LMPB30JD43E	JASA-LMPD30JD34E	JASA-LMPB40JE25E	JASA-LMPD40JE16E	JASA-LMPD50LE87	JASA-LMPD50LE77E
	Cooling	kW	392	438	493	548	638	708
Capacity	Cooling	TR	111.5	124.5	140.2	155.8	181.4	201.3
Capacity	Heating	kW	373	396	468	513	603	673
	riedurig	TR	106.1	112.6	133.1	145.9	171.5	191.4
Capacity steps		%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%	25%,50%~100%
EER		W/W	3.11	3.00	3.10	3.10	3.01	3.00
COP		W/W	3.19	3.17	3.18	3.19	3.17	3.10
Power supply		V/Ph/Hz	380V 3N~50Hz					
Power input	Cooling	kW	126	146	159	177	212	236
Power input	Heating	kW	117	125	147	161	190	217
	Туре	-	Semi-hermetic screw					
Compressor	Starting mode	17.	Star delta start					
	Quantity	-	1	1	1	1	1	1
	Туре	-	Flooded evaporator					
	Water flow	m³/h	67.4	75.3	84.8	94.3	109.7	121.8
Water side heat	volume	GPM	297	332	374	416	484	537
exchanger	Pressure drop	kPa	≤35	≤40	≤50	≤50	≤55	≤55
	Fressure drop	ft.WG	≤11.7	≤13.4	≤16.7	≤16.7	≤18.4	≤18.4
	Connection pipe	-	DN125	DN125	DN125	DN125	DN150	DN150
	Туре	-			Aluminum fi	n-copper tube		
Air side heat	Total fan air flow	m³/h	24000x6	26000x6	24000x8	26000x8	24000x10	26000x10
exchanger	Total fall all flow	CFM	14126x6	15304x6	14126x8	15304x8	14126x10	15304x10
	Total fan motor	kW	2.2x6	2.8x6	2.2x8	2.8x8	2.2x10	2.8x10
Dimension	Outline(W×D×H)	mm	3670×2250×2550	3670×2250×2550	4890×2250×2550	4890×2250×2550	6110×2250×2550	6110×2250×2550
Dimension	Package(W×D×H)	mm	3820×2330×2550	3820×2330×2550	5040×2330×2550	5040×2330×2550	6260×2330×2550	6260×2330×2550
Net/Gross/Operat	ing weight	kg	4790/4830/4886	4860/4900/4957	5870/5910/5987	5975/6015/6095	7000/7040/7140	7080/7120/7222
Loading quantity	40'GP/40'HQ	set	0/2	0/2	0/2	0/2	0/1	0/1

Note: The parameters are estimated, please refer to the value on the nameplate.



#### 50Hz



Model	Heat pump		JASA-LMPD50LE68E	JASA-LMPD33LF544E	JASA-LMPD43LG364E	JASA-LMPD44LF166E	JASA-LMPD54NG286E	JASA-LMPD50LE6850LE6
	Cooling	kW	768	878	988	1096	1316	1500
Capacity	Cooling	TR	218.4	249.7	280.9	311.7	374.2	426.5
Capacity	Heating	kW	690	792	909	1026	1203	1380
	rieating	TR	196.2	225.2	258.5	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%
EER		W/W	3.00	3.01	3.10	3.10	3.10	2.91
COP		W/W	3.07	3.17	3.18	3.19	3.12	3.07
Power supply		V/Ph/Hz	380V 3N~50Hz					
Power input	Cooling	kW	256	292	319	354	425	515
rower input	Heating	kW	225	250	286	322	386	450
	Туре	-	Semi-hermetic screw					
Compressor	Starting mode	-	Star delta start					
	Quantity	-	2	2	2	2	2	2
	Туре	-	Flooded evaporator					
	Water flow	m³/h	132.1	151.0	169.9	188.5	226.4	258.0
Water side heat	volume	GPM	582	666	749	831	998	1138
exchanger	Pressure drop	kPa	≤65	≤65	≤65	≤70	≤90	≤100
	riessure drop	ft.WG	≤21.7	≤21.7	≤21.7	≤23.4	≤30.1	≤33.5
	Connection pipe	n=	DN150	DN150	DN200	DN200	DN200	2×DN150
	Туре	~			Alumin	um fin-copper tube		
Air side heat	Total fan air flow	m³/h	26000x10	26000x12	26000x14	26000x16	26000x18	26000x20
exchanger	Total fall all 110W	CFM	15304x10	15304x12	15304x14	15304x16	15304x18	15304x20
	Total fan motor power	kW	2.8x10	2.8x12	2.8x14	2.8x16	2.8x18	2.8x20
Dimension	Outline(W×D×H)	mm	6110×2250×2550	7340×2250×2550	8560×2250×2550	9780×2250×2550	11000×2250×2550	12230×2250×2550
Dimension	Package(W×D×H)	mm	6260×2330×2550	7490×2330×2550	8710×2330×2550	9930×2330×2550	11150×2330×2550	12380×2330×2550
Net/Gross/Operal	ting weight	kg	7150/7190/7293	9450/9490/9639	10815/10855/11031	11730/11770/11965	12910/12950/13168	14300/14380/14586
Loading quantity	40'GP/40'HQ	set	0/2	0/2	0/2	0/2	0/1	0/0

Note: The parameters are estimated, please refer to the value on the nameplate. LMPD50LE6850LE68E/NbA-M is a combined unit, each part should be transported separately.

#### LMVE Series VFD Air-cooled Screw Chiller



LMVE series VFD air-cooled screw chiller doesn't require cooling towers and cooling water pumps, and is particularly suitable for areas that are lack of water. The unit doesn't need a special close control room, and can be installed on the roof, outdoor ground, etc. It adopts a new generation of high-performance permanent magnet synchronous inverter twin-screw compressor. Through the cooperative control of speed and capacity, the unit features more precise control and higher efficiency. Its operating range is wider, with stepless adjustment from 20% to 100%, and faster adjustment speed. Thanks to the optimized refrigeration system and the reliable control technology, the unit can operate efficiently at full load or partial load. The unit uses a DC inverter with small starting current and a wide voltage range. It is suitable for most countries and regions.

Ø









Self-diagnosis



Quality motor





Compact design Modular operating







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Vide operation

- High efficiency and energy saving; full load energy efficiency > 3.2; partial load energy efficiency > 5.0 (AHRI standard);
- Wide range of load adjustment; 20%~100% adjustment range for a single unit;
- Small starting current, less impact on the power grid and less installation cost;
- Wide range of operating temperature; reliable cooling at -15°C~52°C;
- Wide range of water temperature adjustment; the leaving water temperature could be decreased below 0°C if using ethylene glycol antifreeze(suitable for industrial low water temperature occasions).

		Water side(water to	Air side(outdoor temperature)					
Item	Nominal operating	condition	Operating range		Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	12	7	5~15	2.5~8	35	33	15~52	

Note: Please contact Jet-Air sales representative if there are the working condition and cooling requirement as below: ambient temperature < -15¥ and leaving water temperature < -4¥.

#### 50Hz



	Model		JASA-LMVEB30JD3	JASA-LMVED30JD2	JASA-LMVED30JD2E	JASA-LMVED30JD1E	JASA-LMVED40LE3
Cooling capacity		kW	320	350	385	410	470
Cooling power inp	out	kW	100	109	121	131	146
COP		kW/kW	3.20	3.21	3.18	3.13	3.22
Rated power inpu	t	kW	130	131	145	157	175
Power		V/Ph/Hz	1/2/27/		380V 3~50Hz	10000	-
Cooling adjustme	nt range	kW			20%~100%		
Operating control				Automatic microcompu	uter control, operating state	us display, error alarms	
Safety protection	1-		protection, water flow s	witch protection, low flow protection, freeze protect	, compressor over-load pro alarm, differential pressure tion, sensor protection, low	e protection, high oil press discharge superheating	ure difference protection
Compressor	Туре			High efficiency variable	e frequency variable volun	ne screw compressor	
Quantity			1	1	1	1	1
Refrigerant type			R134a	R134a	R134a	R134a	R134a
Air side heat	Heat exchanger type			N	Aluminum fin-copper tube		
exchanger	Fan rated power		6×1.5	6×1.5	6×1.8	6×2.2	8×1.5
	Water flow	m³/h	55.0	60.2	66.2	70.5	80.8
Water side heat	Pressure drop	kPa	≤35	≤35	≤40	≤40	≤45
exchanger	Туре				Flooded evaporator		
	Inlet/outlet tube diameter		DN100	DN100	DN100	DN100	DN125
0 #	Width	mm	3820	3820	3820	3820	5040
Outline dimension	Depth	mm	2250	2250	2250	2250	2250
ullicision	Height	mm	2550	2550	2550	2550	2550
5 1	Width	mm	3870	3870	3870	3870	5090
Package dimension	Depth	mm	2330	2330	2330	2330	2330
difficiation	Height	mm	2550	2550	2550	2550	2550
Net weight		kg	3840	3940	4280	4520	5370
Gross weight		kg	3880	3980	4320	4560	5410
Operating weight		kg	3958	4060	4406	4651	5518

#### 50Hz



	Model		JASA-LMVED40LE2E	JASA-LMVED40LE3E	JASA-LMVED50LE1	JASA-LMVED50LE1E	JASA-LMVED33LF6			
Cooling capacity		kW	520	580	630	700	770			
Cooling power inp	out	kW	167.0	181.0	197.0	218.0	242.0			
COP		kW/kW	3.11	3.20	3.20	3.21	3.18			
Rated power inpu	t	kW	200	217	236	262	290			
Power		V/Ph/Hz			380V 3~50Hz					
Cooling adjustmen	nt range	kW	20%~100%							
Operating control			Automatic microcomputer control, operating status display, error alarms							
Safety protection			protection, water flow s	witch protection, low flow a protection, freeze protecti	alarm, differential pressur- ion, sensor protection, lov	otection, phase loss/revers e protection, high oil press v discharge superheating o	ure difference protecti			
Compressor	Туре			High efficiency variable	e frequency variable volur	me screw compressor				
Comproscor	Quantity		1	1	1	2	2			
Refrigerant type	уре		R134a	R134a	R134a	R134a	R134a			
Air side heat	Heat exchanger type				Aluminum fin-copper tub	e				
exchanger	Fan rated power	v2 440	8×1.8	10×1.5	10×1.8	12×1.5	12×1.8			
	Water flow	m³/h	89.4	99.8	108.4	120.4	132.4			
Water side heat	Pressure drop	kPa	≤45	≤45	≤45	≤55	≤60			
exchanger	Туре				Flooded evaporator					
	Inlet/outlet tube diameter	1	DN125	DN125	DN125	DN150	DN150			
o #	Width	mm	5040	6260	6260	7490	7490			
Outline dimension	Depth	mm	2250	2250	2250	2250	2250			
uimension	Height	mm	2550	2550	2550	2550	2550			
	Width	mm	5090	6310	6310	7540	7540			
Package dimension	Depth	mm	2330	2330	2330	2330	2330			
umension	Height	mm	2550	2550	2550	2550	2550			
Net weight		kg	5520	5890	6410	7920	8600			
Gross weight		kg	5560	5930	6450	7960	8640			
Operating weight kg			5630	6008	6538	8078	8772			



#### 50Hz



	Model		JASA-LMVED33LF7E	JASA-LMVED43LF5E	JASA-LMVED44NF4E	JASA-LMVED44NF2E	JASA-LMVED54NG2E			
Cooling capacity		kW	820	905	940	1040	1150			
Cooling power inp	out	kW	262	288	292	334	364			
COP		kW/kW	3.13	3.14	3.22	3.11	3.16			
Rated power inpu	t	kW	314	346	350	401	437			
Power		V/Ph/Hz			380V 3~50Hz					
Cooling adjustme	nt range	kW			20%~100%					
Operating control			Automatic microcomputer control, operating status display, error alarms							
Safety protection	Туре			protection, freeze protecti	alarm, differential pressure ion, sensor protection, low e frequency variable volum	discharge superheating of				
Compressor	Quantity		2	2	2	2	2			
Refrigerant type		R134a	R134a	R134a	R134a	R134a				
Air side heat	Heat exchanger type				Aluminum fin-copper tube					
exchanger	Fan rated power		12×2.2	14×1.8	16×1.5	16×1.8	18×1.8			
	Water flow	m³/h	141.0	155.7	161.7	178.9	197.8			
Nater side heat	Pressure drop	kPa	≤60	≤65	≤70	≤70	≤70			
exchanger	Туре				Flooded evaporator					
	Inlet/outlet tube diameter		DN150	DN150	DN150	DN200	DN200			
- II	Width	mm	7490	8710	9930	9930	11150			
Outline dimension	Depth	mm	2250	2250	2250	2250	2250			
difficialori	Height	mm	2550	2550	2550	2550	2550			
D1	Width	mm	7540	8760	9980	9980	11200			
Package dimension	Depth	mm	2330	2330	2330	2330	2330			
annonoron	Height	mm	2550	2550	2550	2550	2550			
Net weight		kg	9350	9500	10780	11150	11930			
Gross weight		kg	9390	9540	10820	11230	12010			
Operating weight		kg	9537	9690	10996	11373	12169			

# LHE Series High-efficiency Water-cooled Screw Chiller





LHE series high-efficiency water-cooled screw chiller is specially desinged for improving efficiency and reducing operation cost. This chiller adopts Gree self-developed semi-hermetic twin screw compressor, high-efficiency flooded heat exchanger and eco-friendly R134a. Its EER can be up to 6.3. The cooling capacity under nominal working condition is 260~2100kW. LHE series high-efficiency water-cooled screw chiller can be applicable for offices, hospitals, schools, shopping malls, as well as factories.

Operat	ting condition of nominal	cooling (water temperatu	re)	Operating range (water temperature)				
Chille	d water	Cooling water		Chilled water		Cooling water		
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	I/O difference(°C)	
	7	30	2	4~15	2.5~8	18~35	3.5~8	

## Features

#### Semi-closed Dual Screw Compressor for High-efficiency Unit

- Design for Jet-Air water-cooled screw chiller especially according to actual pressure ratio, high matching degree with the unit, reducing the overcompression and insufficient compression during the operation of compressor effectively, thus enhancing system energy efficiency.
- Self-developed efficient rotor type line (Chinese patent for utility model No.ZL201120008270.9), interdigitation gap is optimized, connection cable is short and the efficiency is even higher.
- Thanks to three-level combined built-in oil separator, the efficiency is over 99.7%, making the system more stable with lower noise.
- Adopt self-made closed motor to avoid refrigerant leakage and built-in PTC temperature protector for the motor, motor winding temperature can be effectively detected.
- Thanks to optimized cooling channel of the motor, cooling effect is better, which can enhance operation range of the compressor effectively.

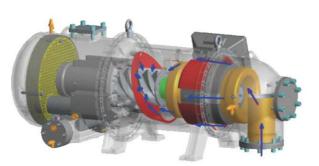






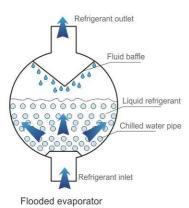
#### Low Pressure Loss Design

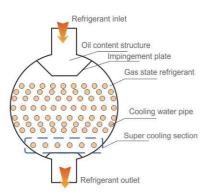
- Thanks to brand new design of "evaporation direct connection" air inlet structure, suction resistance is only 1kPa and cooling capacity of compressor will enhance by 2%.
- Thanks to spiral air inlet structure of low pressure loss, streamline air suction mouth design reduces the loss of suction resistance, increasing suction density of compressor and improving cooling capacity of compressor.
- Thanks to brand new air discharge low pressure loss pipeline design, resistance of the air discharge side is only 5kPa.



#### Heat Exchanger

- Flooded evaporator, built-in refrigerant uniform device and gas liquid separator device to make the refrigerant evenly distributed. During suction process, the liquid refrigerant quantity is less, enhancing heat efficiency of evaporation and improving unit energy efficiency.
- A device to prevent the high-speed and high-pressure gas from impacting the heat exchanger tube is set at the upper condenser, containing the vibration of heat exchanger tube and improving the operation reliability of condenser; the built-in subcooling device at the bottom can enhance subcooling degree and improve refrigeration circulation efficiency of water chiller.
- Efficient heat exchanger, intensifying the heat transfer efficiency of water side and refrigerant side at the same time, further enhances energy efficiency of water chiller. Adopting mechanical expanded tube joint as the sealing method for heat exchange tube and tube plate, 3 sealed grooves are designed in the expanded tube joint, improving the sealing reliability.





Shell and tube condenser

#### Vertical Oil Separator

Adopt efficient vertical oil separator, the structure is tight, through cyclone separation, inertial impaction, natural settingand adsorption separation, oil and gas is separated thoroughly, oil separation efficiency is up to 99.98%.



#### New Throttling Structure

The high precision electronic expansion valve can adjust the flow of refrigerant accurately, keep track of the variation of evaporator liquid level timely; further optimizes the control logic, calculate the control liquid level automatically, and quickly adjust the actual value, realizing "output according to actual demand", ensuring high energy efficiency of some loads of the unit, making the unit operation range wider.



#### Strict Tests

Components are strictly tested before entering the factory. Impellers are made of high-strength aluminum alloy, which is highly anti-corrosive. They must pass strict tests after manufacturing. Heat exchangers are designed in strict accordance with relevant codes of pressure vessels and tested in 1.5 times of working pressure. The unit will take complete performance tests and reliability tests before leaving the factory.

#### Multiple Protections

The unit has multiple protections function, such as high temperature protection for air discharge, overheat protection for frequency converter, 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 electronic component protection, ensuring stable operation under all kinds of conditions and avoiding the damage incurred.



failure protection









low pressure protection over-heat protection temperature protection







Anti-freezing

Electric component over-temperature protection

#### Convenient Installation and Maintenance

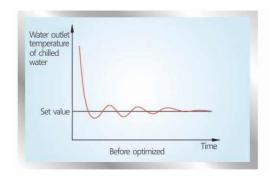
- Dual units and dual circuits design for unit maintenance.
- Tight structure design with small floor space.
- Parallel arrangement of evaporator and condenser to lower unit gravity center, ensuring transportation safety.
- Before leaving the factory, sufficient refrigerant and refrigerant oil has been charged, on-site charging is needless.
- Before leaving the factory, tests have been conducted according to national standard and the designated working conditions of the user; just connect the water pipe and power on site for operation.

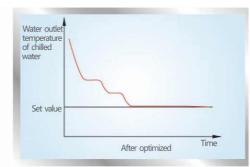


#### Auto-adjusting Technology, Stable Output

The control system can not only adjust load according to cold water leaving temperature but also predict and compensate the change of air conditioning load based on the change rate of cold water entering temperature. The unit can achieve faster load adjustment and stable water leaving temperature.

When the unit is under bad working condition, it will adjust the running parameters to keep itself running rather than frequently stop. The unit can operate stably and reliably to satisfy customers' refrigerating demand.





#### Color Touch Screen Display Control Center

Control: It's with intelligent control system and friendly human-machine interaction interface; If the display screen is damaged accidentally, the unit can be operated manually through the equipped switch.

- Color touch screen of 12 inches
- Visual and dynamic information
- Intelligent image data
- Auto backup of parameter and synchronization
- Dual system control logic
- Auto detection protection



#### High-performance Digital Single Processing Platform

The control system adopts high-performance 32-bit CPU and DSP digital signal processor. The excellent data collection accuracy and data processing capability ensure timely and precise system control. The unit also adopts the intelligent Fuzzy-PID compound control algorithm, which is a control method comprising the intelligent technology, fuzzy technology and PID control algorithm, ensuring fast response and stable performance.

#### Authority Classification with Passwords

Control center has access passwords for operators so that set values won't be changed without authorization. Access authority is classified to user access and manufacturer access. User password is used to start up unit and enter the interface of user parameter setting. It is managed and can be changed by the user. Manufacturer password is used to enter the interface of manufacture parameter setting. Any change of the manufacture parameters may affect unit's reliability; therefore it must be kept by professional engineering and debugging personnel.

Mode	JASA-LHE	-	353CE5AE2	353CE4AE1E	533CE3CE3	553CE2CE2	553CE1CE1E	643EE7EE7
IVIOGE	I JASA-LHE	kW	261.6	294.7	341.3	367.9	425.8	455.3
Cooling capacity		RT	74.4	83.8	97.0	104.6	121.1	129.4
Campait cadicate	and range	%	14.4	83.8	97.0		121.1	129.4
Capacity adjustr	nent range	W/W	5.89	5.94	6.01	6.05	6.06	6.02
PLV		W/W	6.94	7.04	7.11	7.16	7.11	7.04
Power supply		V/Ph/Hz	0.94	7.04	7.11 380V 3	12000000000	7.11	7.04
ower supply ower input		kW	44.4	49.6	56.8	~ 50FIZ	70.3	75.6
RLA		A	78.4	87.6	100.4	107.4	124.2	133.6
(LA	Type	A	70.4		ermanent magnetic syn			133.0
`	Starting mode	-		Semi-closed p		oft start	compressor	
Compressor	Quantity	-	1	1	1	on start	1	1
Refrigerant char	1	kg	85	100	105	110	115	130
terrigerant char	Type	- Ng	65	100	10000	lest-170	113	130
Refrigeration oil	Charge volume	L	20	20	20	23	23	23
	Type	L	20	20	Flooded shell and		23	23
		m·°C/kW	0.018	0.018	0.018	0.018	0.018	0.018
		m³/h	41	46	53	58	125	71
vaporator	Water flow rate	GPM	180	203	235	253	549	313
vaporator		kPa	36.6	37.8	32.5	35.6	32.1	33.7
	Pressure drop	ft.H <sub>2</sub> O	12.0	12.4	10.7	11.7	10.5	11.1
	Connection pipe	mm	DN100	DN100	DN100	DN100	DN100	DN125
	Туре	-	Divioo	DIVIOO	Horizontal shell an		DIVIOO	DIVIES
	Fouling factor	m-°C/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow	m³/h	51	57	66	71	83	88
Condenser	volume	GPM	224	252	292	314	363	389
70110011001		kPa	41.9	44.7	42.2	42.3	46.1	40.9
	Pressure drop	ft.H <sub>2</sub> O	13.7	14.7	13.8	13.9	15.1	13.4
	Connection pipe	mm	DN100	DN100	DN125	DN125	DN125	DN125
ound pressure		dB(A)	81	81.2	82	82.5	82.8	83
	Outline(W×D×H)	mm	3170×1188×1850	3170×1188×1850	3175×1365×1959	3175×1365×1959	3175×1365×1959	3240×1465×2040
Dimension	Package(W×D×H)		3400×1350×1900	3400×1350×1900	3400×1550×2050	3400×1550×2050	3400×1550×2050	3400×1600×2200
Net/Gross/Opera	ating weight	kg	2300/2400/2450	2330/2430/2450	2730/2850/2900	2780/2880/2950	2800/2900/2950	3350/3450/3550
oading quantity		set	1	1	1	1	1	1

#### 50Hz

50Hz



**₹134A** 

Mode	JASA-LHE		653EE6EE6	653EE5EE5E	822EE4EE4	832EE3EE3	832EE2EE2E	862EE1EE1E
Cooling consult	5	kW	484.6	544.7	593.7	663	698.0	744.9
Cooling capacity		RT	137.8	154.8	168.8	188.5	198.5	211.8
Capacity adjustn	nent range	%			25%-	100%		
ER		W/W	6.05	6.03	6.02	6.02	6.02	6.03
PLV		W/W	7.17	7.02	7.06	7.05	7.10	7.11
ower supply		V/Ph/Hz			380V 3	~ 50Hz		
ower input		kW	80.1	90.3	98.6	110.1	116.0	123.6
RLA		Α	141.5	159.5	174.2	194.5	204.8	218.4
	Type	-		Semi-closed p	ermanent magnetic syn	chronous inverter screw	compressor	1)1
Compressor	Starting mode	-			Y—/S0			
	Quantity	-	1	1	1	1	1	1
efrigerant char	ge volume	kg	140	150	180	190	180	180
	Туре	-			CPI-So	lest-170	II STOCKSON	
defrigeration oil	Charge volume	L	23	23	28	28	28	28
	Туре	-			Flooded shell and	tube evaporator		
	Fouling factor	m-°C/kW	0.018	0.018	0.018	0.018	0.018	0.018
	1111	m³/h	76	85	93	104	109	116
vaporator	Water flow rate	GPM	334	375	409	456	481	513
	D	kPa	36.5	40.7	36.2	39.6	36.4	35.6
	Pressure drop	ft.H <sub>2</sub> O	12.0	13.3	11.9	13.0	11.9	11.7
	Connection pipe	mm	DN125	DN125	DN150	DN150	DN150	DN150
	Туре	-			Horizontal shell an	d tube condenser	'	1
	Fouling factor	m-°C/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow	m³/h	94	106	115	129	135	144
ondenser	volume	GPM	414	465	507	566	596	636
	D	kPa	43.1	45.3	41.8	44.2	43.1	36.3
	Pressure drop	ft.H <sub>2</sub> O	14.1	14.9	13.7	14.5	14.1	11.9
	Connection pipe	mm	DN125	DN125	DN150	DN150	DN150	DN150
ound pressure	level(Max.)	dB(A)	83.5	83.8	85	86	86.8	87
	Outline(W×D×H)	mm	3240×1465×2040	3240×1465×2040	3240×1508×2100	3240×1508×2100	3240×1508×2100	3240×1508×2100
imension	Package(W×D×H)	100000000000000000000000000000000000000	3400×1600×2200	3400×1600×2200	3400×1650×2250	3400×1650×2250	3400×1650×2250	3400×1650×2250
let/Gross/Opera	iting weight	kg	3370/3470/3550	3400/3500/3600	3830/3930/4050	3880/3980/4100	3930/4030/4150	3980/4080/4200
	40'GP/40'HQ	set	1	1	1	1	1	1

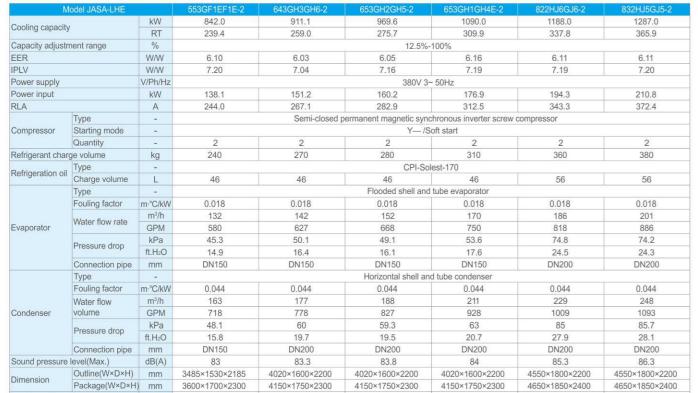
Note: These models are not for EU.



#### 50Hz

cooling capacity capacity adjustme ER PLV ower supply ower input LA compressor efrigerant charge		kW RT % W/W W/W V/Ph/Hz kW A	932EE9EE9E 842.0 239.4 5.78 7.72 145.8 257.6	942HE3GE3 911.8 259.2 25%- 5.79 7.65	952HE2GE2 971.7 276.5 -100% 5.83 7.50	952HE1GE1E 1052.0 299.1 5.90 7.56	533GF2EF2-2 697.5 198.3 12.5% 6.02 7.10	553GF2EF2-2 744.1 211.5 -100% 6.03
apacity adjustme ER PLV ower supply ower input iLA compressor efrigerant charge	Type Starting mode	RT % W/W W/W V/Ph/Hz kW A	239.4 5.78 7.72	259.2 25% 5.79 7.65	276.5 100% 5.83 7.50	299.1 5.90	198.3 12.5% 6.02	211.5 -100% 6.03
DER PLV ower supply ower input LA compressor cefrigerant charge	Type Starting mode	% W/W W/W V/Ph/Hz kW A	5.78 7.72	25%- 5.79 7.65	5.83 7.50	5.90	12.5% 6.02	-100% 6.03
DER PLV ower supply ower input LA compressor cefrigerant charge	Type Starting mode	W/W W/W V/Ph/Hz kW A	7.72 145.8	5.79 7.65	5.83 7.50	(7,07.70)	6.02	6.03
ower supply ower input LA ompressor efrigerant charge	Type Starting mode	W/W V/Ph/Hz kW A	7.72 145.8	7.65	7.50	(7,07.70)	(20000000)	75,5,5,5,0
ower supply ower input  LA  ompressor  efrigerant charge	Type Starting mode	V/Ph/Hz kW A	145.8			7.50		7.14
ower input  LA  ompressor  efrigerant charge	Type Starting mode	kW A		157.4			7.10	7.14
ompressor Sefrigerant charge	Starting mode	Α			166.8	178.4	115.9	123.5
ompressor Softigerant charge	Starting mode			278.1	294.2	315.2	204.8	218.2
efrigerant charge	Starting mode	-			permanent magnetic sync	VEVI 5000		210.2
efrigerant charge				Gerrii-ciosed p	Y—/So		compressor	
efrigerant charge		-	1	1	1 - /30	1	2	2
efrigeration oil		kg	240	260	260	280	200	220
etrineration oil	Type	-	240	200	CPI-Sol		200	220
	Charge volume	L	35	35	35	35	40	46
	Type	_	30	33	Flooded shell and		40	40
1	The state of the s	m·°C/kW	0.018	0.018	0.018	0.018	0.018	0.018
-	rouling factor	m³/h	132	143	152	164	109	116
/aporator	Water flow rate	GPM	580	628	670	724	480	512
raporator		kPa	36.7	29.5	29.2	29.5	36.1	40.5
F	Pressure drop	ft.H <sub>2</sub> O	12.0	9.7	9.6	9.7	11.8	13.3
7	Connection pine	250000110	DN150	9.7 DN150	DN150	9.7 DN150	DN150	DN150
	Connection pipe	mm	DIA 120	DIN 150			DIN 150	DIVIOU
-	Type Fouling factor	- 00/1.14/	0.044	0.044	Horizontal shell and		0.044	0.044
		m·°C/kW m³/h	0.044 164	178	0.044 189	0.044 205	0.044	144
	Water flow volume	GPM	723	783	834	901	596	635
ondenser	volume	kPa	41.0	32.9	32.5	32.6	41.1	46.0
F	Pressure drop	ft.H <sub>2</sub> O	13.4	10.8	10.7	10.7	13.5	15.1
5	Constanting size	000000000000000000000000000000000000000					10000	1000000
	Connection pipe	mm dP(A)	DN150	DN200	DN200	DN200	DN150	DN150
ound pressure le	and the second second second	dB(A)	88	88.5	88.8	89	82.3	82.8
maneion	Outline(W×D×H)	mm	3260×1740×2370	3390×1830×2370	3390×1830×2370	3390×1830×2370	3485×1530×2185	3485×1530×2185
	Package(W×D×H)	mm	3450×1850×2550	3450×1850×2550	3450×1850×2550	3450×1850×2550	3600×1700×2300	3600×1700×2300
et/Gross/Operation		kg set	4800/4950/5100	5400/5550/5700	5500/5650/5750	5600/5750/5950 1	5250/5450/5500	5330/5530/5600

#### 50Hz



6380/6580/6750

6420/6620/6800

7790/8040/8250

7850/8100/8300

Note: These models are not for EU.

Loading quantity 40'GP/40'HQ set

5380/5580/5700

6350/6550/6700

Net/Gross/Operating weight



#### 50Hz

50Hz									<b>₹</b> 134A		
M	lodel JASA-LHE		832HJ4GJ4E-2	842HJ4GJ4E-2	932KK3JK3-2	932KK4JK4-2	942KK2JK2-2	952KK1JK1E-2	952LK1JK5E-2		
0		kW	1386.0	1467.0	1583.0	1682.0	1832.0	1982.0	2102		
Cooling capacity		RT	394.1	416.8	450.1	478.2	520.9	563.5	597.4		
Capacity adjust	ment range	%									
EER		W/W	6.12	6.15	5.78	5.80	5.82	5.85	5.91		
IPLV		W/W	7.15	7.14	7.72	7.68	7.69	7.63	7.54		
Power supply		V/Ph/Hz			380V 3	~ 50Hz					
Power input		kW	226.5	238.5	273.7	289.9	314.6	338.9	355.6		
RLA		А	400.2	421.4	483.0	511.8	556.0	559.1	629.0		
	Туре	-		Semi-closed peri	manent magnetic sy	nchronous inverter s	screw compressor				
Compressor	Starting mode	-		Y— /Soft start							
	Quantity	-	2	2	2	2	2	2	2		
Refrigerant charge volume kg		kg	420	420	550	550	580	600	600		
Defineration	Туре	-									
Refrigeration oil	Charge volume	L	56	56	70	70	70	70	70		
	Туре	-		Flooded shell and tube evaporator							
	Fouling factor	m·°C/kW	0.018	0.018	0.018	0.018	0.018	0.018	0.018		
	Water flow rate	m³/h	217	229	248	263	286	310	329		
Evaporator		GPM	954	1010	1090	1158	1261	1365	1447		
	Pressure drop	kPa	72.8	80.5	54.2	53.7	56.8	54.1	52.2		
		ft.H <sub>2</sub> O	23.9	26.4	17.8	17.6	18.6	17.7	17.1		
	Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	DN250	DN250		
	Туре	-		Horizontal shell and tube condenser							
	Fouling factor	m·°C/kW	0.044	0.044	0.044	0.044	0.044	0.044	0.044		
	Water flow	m³/h	267	283	309	328	357	386	409		
Condenser	volume	GPM	1177	1245	1360	1444	1572	1699	1799		
	December dans	kPa	84.4	93	35.3	35.4	37.5	36.2	37.2		
	Pressure drop	ft.H <sub>2</sub> O	27.7	30.5	11.6	11.6	12.3	11.9	12.2		
	Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	DN250	DN250		
Sound pressure	level(Max.)	dB(A)	87	87.3	88.3	88.8	89	89.3	89.5		
Dimension	Outline(W×D×H)	mm	4550×1800×2200	4550×1800×2200	4600×1770×2490	4600×1770×2490	4720×1900×2530	4720×1900×2530	4720×1900×2530		
DIFFERSION	Package(W×D×H)	mm	4550×1800×2200	4550×1800×2200	4650×1900×2650	4650×1900×2650	4750×2000×2700	4750×2000×2700	4750×2000×2700		
Net/Gross/Oper	ating weight	kg	7900/8150/8400	7950/8200/8450	9450/9760/10050	9600/9910/10200	9700/10010/10250	9750/10060/10400	9800/10110/10500		
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1	1		

Note: These models are not for EU.

**₹**134A

# LHVE Series Permanent Magnetic Synchronous VFD Screw Chiller





Jet-Air LHVE series permanent magnetic synchronous VFD screw chiller (R134a) is specially designed to improve efficiency and reduce operation cost. Adopting the advanced semi-closed permanent magnetic synchronous inverter screw compressor, the latest efficient falling film heat exchanger and the eco-friendly refrigerant R134a, the product is energy-saving with high reliability, ensuring long-term stable operation, which is energy-efficient. Cooling capacity range under nominal condition is 120 ~ 600RT. It is widely applied to all kinds of office buildings, hospitals, schools and malls. Besides, it can be adopted in cooling occasions of technological process.

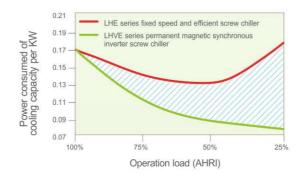
Opera	ting condition of nominal	cooling (water temperatu	re)	Operating range (water temperature)				
Chilled water		Cooling water		Chille	d water	Cooling water		
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	I/O difference(°C)	
21	7	30	ם	4~15	2.5~8	18~35	3.5~8	

### **Features**

#### Synergy Control Method of Speed and Volume

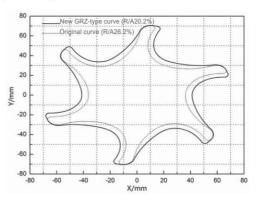
- Adjust the load with rotation speed to realize consecutive adjustment of 20%-100% of one single compressor load;
- The consecutive adjustment structure of discharge volume can adjust the discharge volume according to actual operation condition, realizing consistent internal and external pressure ratio, heat insulation of compressor has enhanced about 8.4%;
- Under some load conditions, lower the operation power of compressor, which can be up to 60%.

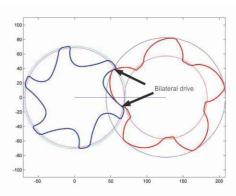




#### Bilateral Drive and Efficient GRZ-type Curve

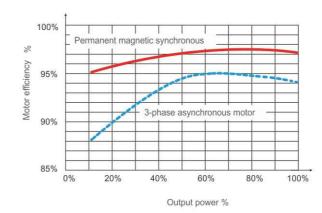
- The GRZ-type curve has decreased the leaked triangle area of 50%, reduced the leakage capacity of refrigerant and improved compressor performance;
- The GRZ-type curve improves the stiffness of female rotor and decreases the deformation by about 28.3%;
- Drive point is set in both high and low pressure side, the male and female rotor will increase/decrease speed at the same time, ensuring a stable mesh.

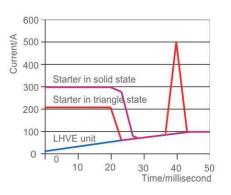




#### Efficient Permanent Magnetic Synchronous Inverter Motor

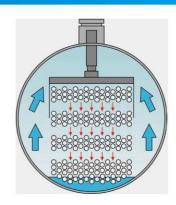
- The permanent magnetic synchronous motor adopts the built-in method of V-shape magnetic steel, by taking advantage of the saliency effect of magnetic circuit, which enhances the motor torque;
- Inverter startup, the starting current is below 10A, the impact to the overall power grid is small;
- Under full load working condition, motor efficiency is above 95%; under rated power, compared with traditional 3-phase asynchronous motor, it has enhanced by 3%; for some other loads, it has enhanced by 5% ~ 7%.





#### Efficient Heat Exchanger

- Mixed and falling film evaporator, injection is set in multiple layers, refrigerant is evenly distributed, which has enhanced heat transfer efficiency effectively, the refrigerant volume has decreased 35%;
- Multifunctional condenser, built-in oil content, integrate space settlement with screening technology, thus ensuring effective separation of oil and gas; the S-shape supercooling structure has enhanced the degree of supercooling.





#### Full DC Electronic Control System

- The control circuit adopts 24V full DC electronic control component, which effectively reduces electromagnetic interference, safe and reliable:
- Meet the wide voltage input between 328-528V; 50/60Hz is compatible.

#### Strict Tests

Components are strictly tested before entering the factory. Impellers are made of high-strength aluminum alloy, which is highly anti-corrosive. They must pass strict tests after manufacturing. Heat exchangers are designed in strict accordance with relevant codes of pressure vessels and tested in 1.5 times of working pressure. The unit will take complete performance tests and reliability tests before leaving the factory.

#### Multiple Protections

The unit has multiple protections function, such as high temperature protection for air discharge, overheat protection for frequency converter, 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 electronic component protection, ensuring stable operation under all kinds of conditions and avoiding the damage incurred.







Safety valve

protection



low pressure protection

Motor winding



over-heat protection temperature protection





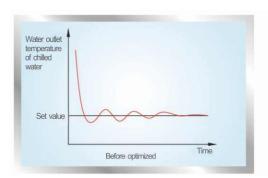
protection

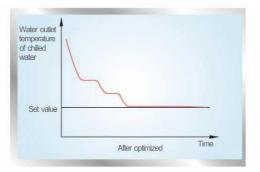
Electric component over-temperature protection

#### Auto-adjusting Technology, Stable Output

The control system can not only adjust load according to cold water leaving temperature but also predict and compensate the change of air conditioning load based on the change rate of cold water entering temperature. The unit can achieve faster load adjustment and stable water leaving temperature.

When the unit is under bad working condition, it will adjust the running parameters to keep itself running rather than frequently stop. The unit can operate stably and reliably to satisfy customers' refrigerating demand.





#### Color Touch Screen Display Control Center

Control: It's with intelligent control system and friendly human-machine interaction interface. If the display screen is damaged accidentally, the unit can be operated manually through the equipped switch.

- Color touch screen of 12 inches
- Visual and dynamic information
- Intelligent image data
- Auto backup of parameter and synchronization
- Dual system control logic
- Auto detection protection



#### High-performance Digital Single Processing Platform

The control system adopts high-performance 32-bit CPU and DSP digital signal processor. The excellent data collectionaccuracy and data processing capability ensure timely and precise system control. The unit also adopts the intelligent Fuzzy-PID compound control algorithm, which is a control method comprising the intelligent technology, fuzzy technologyand PID control algorithm, ensuring fast response and stable performance.

#### Authority Classification with Passwords

Control center has access passwords for operators so that set values won't be changed without authorization. Access authority is classified to user access and manufacturer access. User password is used to start up unit and enter the interface of user parameter setting. It is managed and can be changed by the user. Manufacturer password is used to enter the interface of manufacture parameter setting. Any change of the manufacture parameters may affect unit's reliability; therefore it must be kept by professional engineering and debugging personnel.





Model			JASA-LHVE432GE8GE8	JASA-LHVE432GE7GE7	JASA-LHVE432GE6GE6	JASA-LHVE532GE5GE5	JASA-LHVE532GE4GE			
Cooling capacity		kW	348.3	421.4	470.7	522.5	574.7			
Cooling Capacity		RT	99.1	119.9	133.9	148.6	163.5			
Capacity adjustment range %		%	10%-100%							
EER		W/W	5.94	5.93	5.88	5.88	5.88			
IPLV		W/W	9.93	10.08	10.10	9.96	10.04			
Power supply		V/Ph/Hz		380V 3~ 5	0Hz/60HzĠ400-415V 3~ 5	50Hz/60Hz				
Power input		kW	58.6	71.0	80.0	88.9	97.7			
	Туре	-		Semi-closed permanent	magnetic synchronous in	verter screw compressor				
Comperssor	Starting mode	-			Inverter startup					
	Quantity	-	1	1	1	1	1			
Refrigerant charge	e volume	kg	140	140	140	180	180			
Refrigeration oil	Туре	N <del>-</del>			CPI-Solest-170					
Reingeration oil	Charge volume	L	20	20	20	23	23			
	Туре	-	Mixed falling film evaporator							
	Fouling factor	m-°C/kW	0.0176	0.0176	0.0176	0.0176	0.0176			
	Water flow rate	m³h	54	65	73	81	89			
Evaporator		GPM	238	286	321	357	392			
	Pressure drop	kPa	38.3	38.4	39.2	40.0	40.8			
		ft.H <sub>2</sub> O	12.6	12.6	12.9	13.1	13.4			
	Connection pipe	mm	DN125	DN125	DN125	DN125	DN125			
	Туре	-		Horizontal shell and tube condenser						
	Fouling factor	m-°C/kW	0.044	0.044	0.044	0.044	0.044			
	Water flow volume	m³h	68	82	92	102	122			
Condenser	vvater now volume	GPM	299	361	405	449	493			
	Pressure drop	kPa	45.6	45.6	45.7	44.8	45.7			
	riessure drop	ft.H <sub>2</sub> O	15.0	15.0	15.0	14.7	15.0			
	Connection pipe	mm	DN150	DN150	DN150	DN150	DN150			
Sound pressure level(Max.) dB(A)		dB(A)	80.0	82.0	84.0	82.0	83.0			
Standard	Outline(W×D×H)	mm	3320×1560×1980	3320×1560×1980	3320×1560×1980	3320×1570×1980	3320×1570×1980			
Dimension	Package(W×D×H)	mm	3400×1600×2100	3400×1600×2100	3400×1600×2100	3400×1650×2100	3400×1650×2100			
Net/Gross/Operat	ing weight	kg	3500/3650/3710	3550/3700/3770	3600/3750/3820	3680/3830/3900	3700/3850/3930			
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1			

50/60Hz



	Model		JASA-LHVE832HE3JE3	JASA-LHVE832HE2JE2	JASA-LHVE532LJ4LJ4-2	JASA-LHVE532LJ3LJ3-2	JASA-LHVE532LJ2LJ2			
0 11 17		kW	931.2	991.6	1045.0	1149.0	1271.0			
Cooling capacity		RT	264.8	282.0	297.2	326.8	361.5			
Capacity adjustment range %		10%-100%			5%-100%	1				
ER		W/W	5.63	5.62	6.21	6.17	6.11			
PLV		W/W	9.70	9.71	10.58	10.61	10.61			
ower supply		V/Ph/Hz		380V 3~ 5	0Hz/60HzĠ400-415V 3~ 5	60Hz/60Hz	de la companya de la			
ower input		kW	165.4	176.5	168.3	186.2	207.9			
	Туре	-		Semi-closed permanent	magnetic synchronous in	verter screw compressor				
omperssor	Starting mode		Inverter startup							
	Quantity	-	1	1	2	2	2			
efrigerant charge	volume	kg	250	280	360	360	400			
	Type	-			CPI-Solest-170					
efrigeration oil	Charge volume	L	28	28	46	46	46			
	Туре			N	Mixed falling film evaporator					
	Fouling factor	m-°C/kW	0.0176	0.0176	0.0176	0.0176	0.0176			
	Water flow rate	m³h	144	154	162	178	197			
vaporator		GPM	634	678	713	784	867			
	Pressure drop	kPa	40.0	34.3	37.9	39.6	43.6			
		ft.H <sub>2</sub> O	13.1	11.3	12.4	13.0	14.3			
	Connection pipe	mm	DN150	DN150	DN200	DN200	DN200			
	Туре	-		Horizontal shell and tube condenser						
	Fouling factor	m-°C/kW	0.044	0.044	0.044	0.044	0.044			
	Water flow volume	m³h	182	194	202	222	246			
ondenser	water now volume	GPM	801	854	889	997	1083			
	Pressure drop	kPa	42.8	43.7	43.0	46.3	47.2			
	Pressure drop	ft.H <sub>2</sub> O	14.0	14.3	14.1	15.2	15.5			
	Connection pipe	mm	DN200	DN200	DN200	DN200	DN200			
Sound pressure level(Max.) dB(A)		dB(A)	83.0	84.0	84.0	85.0	86.0			
imension	Outline(W×D×H)	mm	3400×1860×2040	3400×1860×2040	4600×1920×2090	4600×1920×2090	4600×1920×2090			
IIIIerisiori	Package(W×D×H)	mm	3450×1900×2150	3450×1900×2150	4650×1950×2300	4650×1950×2300	4650×1950×2300			
let/Gross/Operati	ng weight	kg	5100/5300/5400	5150/5350/5460	7850/8100/8320	7900/8150/8370	7950/8200/8430			
oading quantity	40'GP/40'HQ	set	1	1	1	1	1			

### 50/60Hz



Model			JASA-LHVE532GE3GE3	JASA-LHVE732HE7JE7	JASA-LHVE732HE6JE6	JASA-LHVE732HE5JE5	JASA-LHVE832HE4JE4			
		kW	644.4	696.6	757.6	817.7	870.9			
Cooling capacity		RT	183.3	198.1	215.5	232.6	247.7			
Capacity adjustment range %		%		10%-100%						
ER	7	W/W	5.86	5.86	5.84	5.82	5.65			
PLV		W/W	10.08	10.00	10.03	10.04	9.68			
ower supply		V/Ph/Hz		380V 3~ 5	50Hz/60HzĠ400-415V 3~ 5	50Hz/60Hz				
ower input		kW	110.1	118.9	129.8	140.6	154.2			
	Туре	-	arases.	Semi-closed permanen	t magnetic synchronous in	verter screw compressor				
omperssor	Starting mode	-			Inverter startup					
	Quantity	-	1	1	1	1	1			
efrigerant charge	volume	kg	200	220	220	250	250			
	Туре	-	200 220		CPI-Solest-170					
efrigeration oil	Charge volume	L	23	23 23		23	28			
Evaporator	Type		23 23 23 28 28 Mixed falling film evaporator							
	Fouling factor	m·°C/kW	0.0176	0.0176	0.0176	0.0176	0.0176			
	Water flow rate	m³h	100	108	117	127	135			
		GPM	440	476	515	559	594			
	Pressure drop	kPa	40.9	40.8	40.8	35.1	37.5			
		ft.H <sub>2</sub> O	13.4	13.4	13.4	11.5	12.3			
	Connection pipe	mm	DN125	DN150	DN150	DN150	DN150			
	Type	-		Horizontal shell and tube condenser						
	Fouling factor	m-°C/kW	0.044	0.044	0.044	0.044	0.044			
	14/ 1 6 1	m³h	126	136	148	159	171			
ondenser	Water flow volume	GPM	555	599	652	700	753			
	200000000000000000000000000000000000000	kPa	44.9	44.0	41.6	43.3	43.6			
	Pressure drop	ft.H <sub>2</sub> O	14.7	14.4	13.6	14.2	14.3			
	Connection pipe	mm	DN150	DN200	DN200	DN200	DN200			
Sound pressure level(Max.) dB(A)		84.0	82.0	83.0	84.0	82.0				
	Outline(W×D×H)	mm	3320×1570×1980	3400×1700×2010	3400×1700×2010	3400×1700×2010	3400×1860×2040			
mension	Package(W×D×H)	mm	3400×1650×2100	3400×1700×2100	3400×1700×2100	3400×1700×2100	3450×1900×2150			
et/Gross/Operati	ng weight	kg	3750/3900/3980	4350/4500/4610	4400/4550/4660	4450/4600/4720	5050/5250/5350			
pading quantity	40'GP/40'HQ	set	1	1	1	1	1			

### 50/60Hz



	Model		JASA-LHVE 732MJ8MJ8-2	JASA-LHVE 732MJ6MJ6-2	JASA-LHVE 732MJ5MJ5-2	JASA-LHVE 832MJ7MJ7-2	JASA-LHVE 832MJ3MJ3-2	JASA-LHVE 832MJ2MJ2-2			
0 11 11		kW	1393.0	1498.0	1602.0	1742.0	1846.0	1951.0			
Cooling capacity		RT	396.2	426.1	455.6	495.4	525.0	554.9			
Capacity adjustme	ent range	%	5%-100%								
ER	100 m	W/W	6.19	6.15	6.12	5.97	5.97	5.95			
PLV		W/W	10.63	10.64	10.64	10.28	10.32	10.32			
ower supply		V/Ph/Hz		38	30V 3~ 50Hz/60HzĠ4	00-415V 3~ 50Hz/60H	łz				
ower input		kW	224.9	243.4	261.6	292.0	309.0	328.1			
	Туре	-		Semi-closed pe	rmanent magnetic syr	nchronous inverter scr	rew compressor				
omperssor	Starting mode				Inverter	startup					
	Quantity	-	2	2	2	2	2	2			
Refrigerant charge volume		kg	440	440	500	500	500	560			
Refrigeration oil	Туре	-		CPI-Solest-170							
emgeration oil	Charge volume	L	46	46	46	56	56	56			
	Туре	-	Mixed falling film evaporator								
	Fouling factor	m-°C/kW	0.0176	0.0176	0.0176	0.0176	0.0176	0.0176			
	Water flow rate	m³h	216	232	248	270	286	302			
vaporator		GPM	951	1021	1092	1189	1259	1330			
	Pressure drop	kPa	44.5	45.3	45.3	45.3	46.1	47.8			
		ft.H <sub>2</sub> O	14.6	14.9	14.9	14.9	15.1	15.7			
	Connection pipe	mm	DN200	DN200	DN200	DN250	DN250	DN250			
	Туре	-		Horizontal shell and tube condenser							
	Fouling factor	m·°C/kW	0.044	0.044	0.044	0.044	0.044	0.044			
	Water flow volume	m³h	269	290	310	338	358	379			
ondenser	vvater now volume	GPM	1184	1277	1365	1488	1576	1669			
	Pressure drop	kPa	47.1	47.2	47.3	48.4	48.3	49.3			
	r ressure drop	ft.H <sub>2</sub> O	15.4	15.5	15.5	15.9	15.8	16.2			
	Connection pipe	mm	DN250	DN250	DN250	DN250	DN250	DN250			
Sound pressure level(Max.)		dB(A)	84.0	85.0	86.0	84.0	85.0	86.0			
	Outline(W×D×H)	mm	4620×1960×2130	4620×1960×2130	4620×1960×2130	4620×1960×2130	4620×1960×2130	4620×1960×2130			
imension	Package(W×D×H)	mm	4650?100?350	4650×2100×2350	44650×2100×2350	4650×2100×2350	4650×2100×2350	4650×2100×2350			
let/Gross/Operati	ing weight	kg	8850/9100/9380	8900/9150/9430	8950/9200/9490	10000/10250/10600	10100/10350/10700	10200/10450/1081			
oading quantity	40'GP/40'HQ	set	1	1	1	1	1	1			



#### Control System Lineup

						Screw Chiller			
Contr	ol system / Product	Series	LME Series Air-Cooled Screw Chiller	LMP Series Air-Cooled Screw Chiller (Heat Pump)	LME Series Air-Cooled Screw Chiller(60Hz)	LMR Series Partial Heat Recovery Air-cooled Screw Chiller	LMVE Series VFD Air-cooled Screw Chiller	LHE Series High-efficiency Water-cooled Screw Chiller	LHVE Series Permanent Magnetic Synchronous VFD Screw Chiller
Wired controller	JASA-Z2F3Q		•	•	•	•	•		
	JASA-Z2F20	(a)	•	•	•		•		
Display panel	JASA- CM18-GZ12/A(M)	4						•	
	JASA- G18TM120A	4							•
Remote monitoring system	JASA- FG30-00/A-(M)							•	•
BMS	Modbus Rtu		•	•	•	•	•	•	•

Note: • means standard



## **Local Reference Projects**





#### 35 sets Rooftop Inverter & Large Ducted Inverter

Address: Breda Campus Building Paarl /Cape Town /South Africa



3 sets Rooftop Inverter Address: 69 – 73 Elizabeth Eybers Street Randhart Alberton /Johannesburg /South Africa







#### 28 sets ASI Underceiling Inverter

Address: Mofumahadi Manapo Mopeli Hospital 72 Mampoi Road, Phuthaditjhaba-A Phuthaditjhaba /Free State /South Africa



#### 605 sets Q PLUS Inverter

Address: Anglo Operations Anglo Tumela Mine Schilpadnest Farm Amandelbult /Rustenburg /South Africa







#### 164 sets J-Smart

Address: Maropeng Building Doornfontein Campus 55 Beit Street, Doornfontein Johannesburg / South Africa

