

2016

Lark Central Air Conditioning

 LARK[®]
Central Air Conditioning
2016

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Shandong Lark Central Air Conditioning Co., Ltd.

Brief of LARK Company

As one of major manufacturers for central air conditioning in China, LARK central air conditioning is professional on R&D, production, project design and installation, after sales service. Totally covering 260,000 square meters, investing 360 million RMB,owning high qualified machines from Germany and Japan to ensure high level products. Lark has experienced in central air conditioning area for 12 years.

Lark takes care of every section of process and service for clients. Qualified products are produced according to ISO 9001:2000 and ISO14001:2004, Lark flexibly provides wide range of cassette, ceiling & floor, ducted, packaged rooftop, VRF, mini chillers, modular chillers, air cooled screw chillers, water cooled screw chillers, water source heat pump, ground source heat pump, fan coil, AHU, HRV etc. We are strongly committed to client's satisfaction through our experienced R&D division. Our market is based in China, Lark products have been sold to Europe, America, Africa, Middle east etc, qualified by CE and CCC certifications.



What LARK is doing and going to do, is to focus on not only current products offering and new products R&D but also service support and training for valued partners in the markets, to promote "LARK" famous in the world, to achieve win-win combination with clients for bright future.



PRODUCTS FAMILY

Super One



Duct 09-60 kbtu/h



Ceiling & floor 12-60 kbtu/h



Cassette 12-60 kbtu/h



Duct central 18-60 kbtu/h



Universal side-discharge outdoor unit 09-60kbtu/h



Universal top-discharge outdoor unit 18-60kbtu/h

High ESP Duct



Capacity 05-30 RT



Packaged Rooftop



Capacity 03-60 RT



Mini Chiller



Side-discharge type 2.5-5RT



Top-discharge type 6-15RT



VRF II DC INVERTER



VRF OUTDOOR 30-400 kbtu/h



Duct type 09-60kbtu/h



Ceiling type 12-60kbtu/h

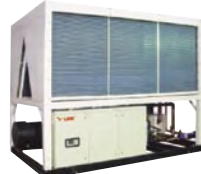


Cassette type 12-60kbtu/h



Wall mounted type 09-24kbtu/h

Modular Chiller



Air cooled modular chiller single modular capacity 14-217RT

Water Source Heat Pump



Capacity 01-14RT

Water-Cooled Screw Chiller



Capacity 42-515RT

PRODUCTS FAMILY

Ground Source Heat Pump



Capacity 42-372RT

Fan Coil



Air Handling Unit



Ceiling type 1,500-14,000m³/h Horizontal type 2,000-40,000m³/h Ceiling type 2,000-30,000m³/h

Modular Air Handling Unit



Modular type 2,000-100,000m³/h

Heat Recovery Ventilation



150-1,000m³/h 1,500-4,000m³/h 4,000-10,000m³/h

CONTENTS

Super One.....1

High ESP Duct..... 11

Packaged Rooftop..... 15

VRF II DC INVERTER..... 19

Mini Chiller 25

Modular Chiller..... 28

Super One

CONTENTS

Water Source Heat Pump.....	32
Water-Cooled Screw Chiller.....	35
Ground Source Heat Pump.....	39
Fan Coil.....	43
Air Handling Unit.....	49
Modular Air Handling Unit.....	56
Heat Recovery Ventilation.....	74



• Universal outdoor unit

The universal outdoor unit can work with different types indoor units in the same capacity for ducted,cassette,ceiling&floor.

• Wide capacity range, from 9,000Btu/h to 60,000Btu/h.

• Heat exchanger optimized design

The condenser adopts wavy fin to improve the cooling and heating capacity, especially improves heating capacity in low-temperature.

• The unit designs an exhaust muffler to reduce the heating noise.

• Indoor Unit On-Off control interface

A control interface on each indoor unit PCB available realizes the outside additional on/off.

• Advanced control mode

Independent control system, the outdoor units are controlled by itself.

• Auto changeover and restart

• Safe protection

Anti-freezing, Over heat, High/Low pressure, Discharge overload, Over-current ,Phase sequence protection and so on.

• Failure automatically display

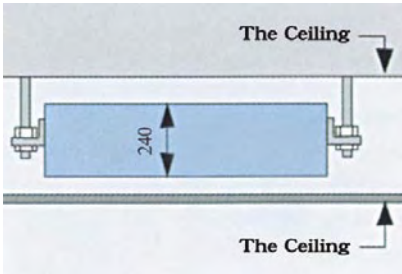
• Low ambient cooling(optional)

Cooling mode can run normally on the condition that the ambient air temperature falls down to -15°C.

• Wired controller,remote controller are optional

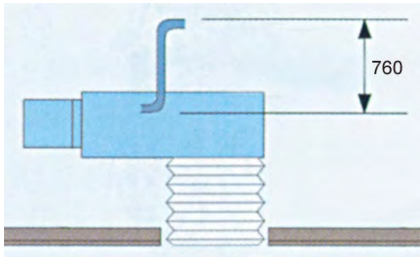
The indoor unit has variable control, remoted controller and wired controller selectable and the controller adopts graphical LCD display, vivid, intuitive and easy to understand.

Super Duct



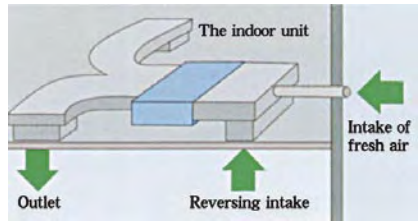
Saving space design

Ultra slim design, the whole thickness of indoor unit only 24cm. Concealed installation combine indoor decoration perfectly.



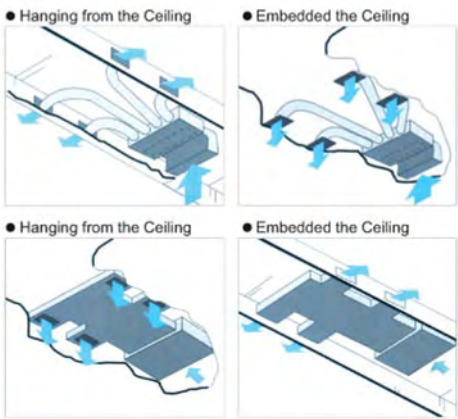
High efficient condensate pump

According to special requirement to choose the 760mm condense pump which avoid the trouble of leakage, meanwhile draining water clearal.



Outlet mounted freely

Using duct connection, outlet mounted freely, let the outdoor fresh air easily come into to keep the indoor air pure.



Multi-mode for installation

The indoor unit can be installed with an air return duct or without an air return duct according to the installation need.

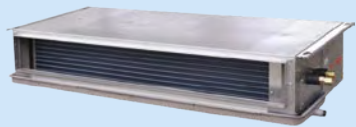


low noise fan wheel

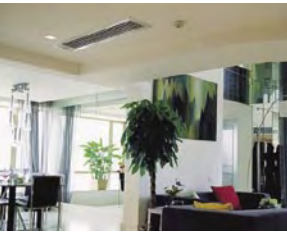
Powerful centrifugal plastic fan is adopted in the indoor unit to achieve super-silence.



KF(R)-26NW
KF(R)-35NW



KF(R)-50NW
KF(R)-70NW
KF(R)-100NW
KF(R)-120NW
KF(R)-140NW
KF(R)-170NW



T1 50Hz 60Hz



Model		KF(R)-26NW	KF(R)-35NW	KF(R)-50NW	KF(R)-70NW	KF(R)-100NW	KF(R)-120NW	KF(R)-140NW	KF(R)-170NW
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	2600/8871	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768	17000/58004
Rated heating capacity	W/Btu/h	2860/9758	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180	18500/63122
Rated cooling input power	W	860	1250	1820	2500	3800	4200	4900	6200
Rated heating input power	W	860	1250	1820	2500	3900	4200	4900	6200
Rated cooling current	A	4.1	5.9	8.6	11.8	5.8	6.4	7.4	9.4
Rated heating current	A	4.1	5.9	8.6	11.8	5.9	6.4	7.4	9.4
Noise level	dB(A)	<42/<48	<42/<50	<45/<56	<50/<58	<50/<60	<55/<62	<55/<62	<55/<62
Air flow	m³/h	550	700	900	1500	1600	1900	2000	2400
Indoor net dimension	mm	980x665x200	980x665x200	960x572x240	1290x572x240	1290x572x240	1600x572x240	1600x572x240	1600x572x240
Indoor packing dimension	mm	995x680x220	995x680x220	1075x595x265	1405x595x265	1405x595x265	1715x595x265	1715x595x265	1715x595x265
Outdoor net dimension	mm	760x255x525	760x255x525	850x310x580	865x310x710	930x350x920	910x340x1080	910x340x1080	910x340x1080
Outdoor packing dimension	mm	890x360x590	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240	1080x440x1240

T3 50Hz 60Hz



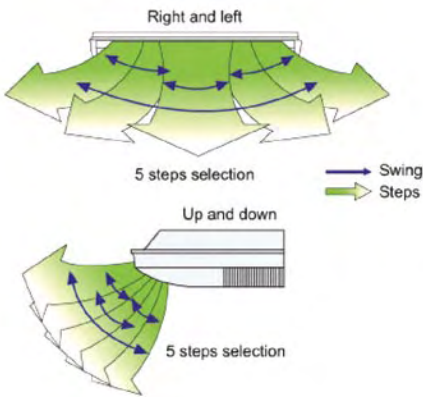
Model		KF(R)-26NWT	KF(R)-35NWT	KF(R)-50NWT	KF(R)-70NWT	KF(R)-100NWT	KF(R)-120NWT	KF(R)-140NWT
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	2600/8871	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768
Rated heating capacity	W/Btu/h	2860/978	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180
Rated cooling input power	W	980	1320	1920	2700	3800	4500	5300
Rated heating input power	W	920	1320	1920	2700	3900	4500	5300
Rated cooling current	A	4.6	6.1	8.8	12.8	5.8	7.8	9.0
Rated heating current	A	4.6	6.1	8.8	12.8	5.9	7.8	9.2
Noise level	dB(A)	<42/<48	<42/<50	<45/<56	<50/<58	<50/<60	<55/<62	<55/<62
Air flow	m³/h	550	700	900	1500	1600	1900	2000
Indoor net dimension	mm	980x665x200	980x665x200	960x572x240	1290x572x240	1290x572x240	1600x572x240	1600x572x240
Indoor packing dimension	mm	995x680x220	995x680x220	1075x595x265	1405x595x265	1405x595x265	1715x595x265	1715x595x265
Outdoor net dimension	mm	760x255x525	760x255x525	850x310x580	865x310x710	930x350x920	910x340x1080	910x340x1080
Outdoor packing dimension	mm	890x360x590	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240

Super Ceiling & Floor



Optional installation mode

The indoor unit can be installed on the floor or on the ceiling, it is determined by your actual need. It greatly decreases the space needed and also it can provide the same level of comfort, at the same time make service and installation more convenient and flexible.



Automatic control of airflow direction

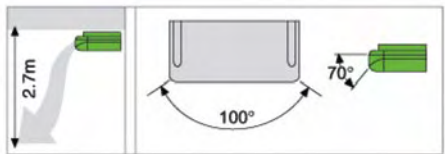
In order to realize the comfortable space with uniform temperature, the air conditioner uses two stepping motors to adjust the airflow automatically, send the air to every corner of the room.

The air flow direction can be controlled in 5 steps from up to down and from left to right, more selectable, more flexible.



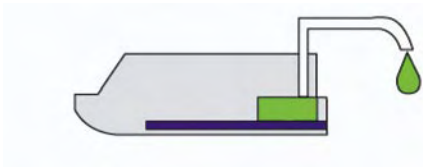
Taken-out air purify filter

The filter can be easily taken out, you need not take down the unit or open the air inlet grill, and realize convenient cleaning work.



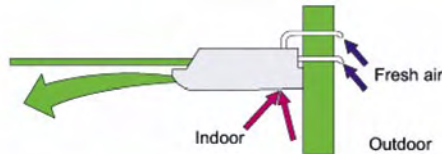
Large angle air supplying

100° wide angle louvers and 70° wide angle blades design to make a precise control of the airflow, it distributes the comfort air equally to every corner of the room.



Drain water lift-up mechanism

Optional drain water lift-up mechanism offers more flexible installation.



Fresh-air intake



Long-life & high efficiency air purify filter

The unit adopts high efficiency air purify filter, greatly improves the room air quality.



KF(R)-35DW
KF(R)-50DW



KF(R)-70DW
KF(R)-100DW



KF(R)-120DW
KF(R)-140DW
KF(R)-170DW



Model		KF(R)-35DW	KF(R)-50DW	KF(R)-70DW	KF(R)-100DW	KF(R)-120DW	KF(R)-140DW	KF(R)-170DW
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768	17000/58004
Rated heating capacity	W/Btu/h	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180	18000/61416
Rated cooling input power	W	1250	1820	3800	3800	4200	4900	6200
Rated heating input power	W	1250	1820	3900	3900	4200	4900	6200
Rated cooling current	A	5.9	8.6	11.8	5.8	6.4	7.4	9.4
Rated heating current	A	5.9	8.6	11.8	5.9	6.4	7.4	9.4
Noise level	dB(A)	<42/<48	<42/<50	<45/<56	<50/<58	<50/<60	<55/<62	<55/<62
Air flow	m³/h	600	800	1200	1400	1900	1900	2300
Indoor net dimension	mm	905x673x243	905x673x243	1288x673x243	1288x673x243	1672x673x243	1672x673x243	1672x673x243
Indoor packing dimension	mm	995x765x311	995x765x311	1375x765x311	1375x765x311	1760x765x311	1760x765x311	1760x765x311
Outdoor net dimension	mm	760x255x525	850x290x580	865x310x710	930x350x920	910x340x1080	910x340x1080	910x340x1330
Outdoor packing dimension	mm	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240	1080x440x1490



Model		KF(R)-35DWT	KF(R)-50DWT	KF(R)-70DWT	KF(R)-100DWT	KF(R)-120DWT	KF(R)-140DWT	KF(R)-170DWT
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768	17000/58004
Rated heating capacity	W/Btu/h	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180	18000/61416
Rated cooling input power	W	1320	1920	2700	3800	4700	5300	6500
Rated heating input power	W	1320	1920	2700	3900	4700	5300	6500
Rated cooling current	A	6.1	8.8	12.3	5.8	7.5	9.0	10.9
Rated heating current	A	6.1	8.8	12.3	5.9	7.5	9.2	10.9
Noise level	dB(A)	<42/<50	<45/<56	<50/<58	<50/<62	<55/<62	<55/<62	<58/<62
Air flow	m³/h	600	800	1200	1400	1900	1900	2300
Indoor net dimension	mm	905x673x243	905x673x243	1288x673x243	1288x673x243	1672x673x243	1672x673x243	1672x673x243
Indoor packing dimension	mm	995x765x311	995x765x311	1375x765x311	1375x765x311	1760x765x311	1760x765x311	1760x765x311
Outdoor net dimension	mm	760x255x525	850x290x580	865x310x710	930x350x920	910x340x1080	910x340x1080	910x340x1330
Outdoor packing dimension	mm	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240	1080x440x1490

Super Cassette



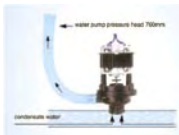
Fresh air intake design

A special fresh air intake can lead outdoor fresh air into the indoor for better air quality, which keeps you enjoy the fresh air all the time.



Higher condensate lift through the inner pump

A condensate pump is mounted inside of the cassette indoor unit. The condensate can be pumped up to 760mm from the drip tray.



Easy maintenance

The filter adopts the push-open design for easy dust filter change. The air filter can be removed and washed by water or vacuum for easy and convenient cleaning.



Airflow auto control

Round way airflow leads to cause comfortable temperature in the room, adjustable airflowing angle.



Low noise fan blade

The fan blade adopts the design of irregular helix; the indoor unit can run at the lowest sound level.



KF(R)-35QW
KF(R)-50QW

KF(R)-70QW
KF(R)-100QW
KF(R)-120QW
KF(R)-140QW
KF(R)-170QW



Model		KF(R)-35QW	KF(R)-50QW	KF(R)-70QW	KF(R)-100QW	KF(R)-120QW	KF(R)-140QW	KF(R)-170QW
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768	17000/58004
Rated heating capacity	W/Btu/h	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180	18000/61416
Rated cooling input power	W	1250	1920	2700	3800	4200	4900	6500
Rated heating input power	W	1250	1920	2700	3900	4200	4900	6500
Rated cooling current	A	5.9	8.8	12.3	5.8	6.4	7.4	10.9
Rated heating current	A	5.9	8.8	12.3	5.9	6.4	7.4	10.9
Noise level	dB(A)	<42/<50	<48/<56	<50/<58	<52/<60	<55/<62	<55/<62	<58/<65
Air flow	m³/h	500	800	1150	1300	1700	1700	2300
Indoor net dimension	mm	590x590x260	590x590x260	840x840x240	840x840x240	840x840x285	840x840x285	960x960x285
Indoor packing dimension	mm	675x675x310	675x675x310	855x885x260	855x885x260	855x885x305	855x885x305	1040x1040x305
Indoor panel dimension	mm	650x650x30	650x650x30	950x950x45	950x950x45	950x950x45	950x950x45	1140x1140x45
Indoor panel packing dimension	mm	720x720x135	720x720x135	1005x1005x100	1005x1005x100	1005x1005x100	1005x1005x100	1195x1195x100
Outdoor net dimension	mm	760x255x525	850x290x580	865x310x710	930x350x920	910x340x1080	910x340x1080	910x340x1330
Outdoor packing dimension	mm	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240	1080x440x1490



Model		KF(R)-35QWT	KF(R)-50QWT	KF(R)-70QWT	KF(R)-100QWT	KF(R)-120QWT	KF(R)-140QWT	KF(R)-170QWT
Power		220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph	380V/50Hz(60Hz)/3Ph
Rated cooling capacity	W/Btu/h	3500/11942	5000/17060	7000/23844	10000/34120	12000/40944	14000/47768	17000/58004
Rated heating capacity	W/Btu/h	3850/13136	5500/18766	7700/26272	11000/37532	13000/44365	15000/51180	18000/61416
Rated cooling input power	W	1320	1920	2700	3800	4500	5300	6500
Rated heating input power	W	1320	1920	2700	3900	4500	5300	6500
Rated cooling current	A	6.2	8.8	12.3	5.8	7.8	9.0	10.9
Rated heating current	A	6.2	8.8	12.3	5.9	7.8	9.2	10.9
Noise level	dB(A)	<42/<50	<48/<56	<50/<58	<52/<60	<55/<62	<55/<62	<58/<65
Air flow	m³/h	500	800	1150	1300	1700	1700	2300
Indoor net dimension	mm	590x590x260	590x590x260	840x840x240	840x840x240	840x840x285	840x840x285	960x960x285
Indoor packing dimension	mm	675x675x310	675x675x310	855x885x260	855x885x260	855x885x305	855x885x305	1040x1040x305
Indoor panel dimension	mm	650x650x30	650x650x30	950x950x45	950x950x45	950x950x45	950x950x45	1140x1140x45
Indoor panel packing dimension	mm	720x720x135	720x720x135	1005x1005x100	1005x1005x100	1005x1005x100	1005x1005x100	1195x1195x100
Outdoor net dimension	mm	760x255x525	850x290x580	865x310x710	930x350x920	910x340x1080	910x340x1080	910x340x1330
Outdoor packing dimension	mm	890x360x590	995x390x680	1025x395x790	1105x435x1120	1080x440x1240	1080x440x1240	1080x440x1490

Super Condensing Unit



Economical series

Performance

10.00 SEER & 13.00 SEER efficiency range
Cooling capacity from 1.5 to 5 tons
T3 tropical high efficiency condensing units

Features

The universal outdoor unit can work with different types indoor units in the same capacity for ducted, cassette, ceiling&floor, air handler.
Super quiet top air discharge
Sheet metal guard is standard. Optional nylon and grill guard is available
Coils are constructed of copper tubing with protected aluminum fins for durability and long lasting efficient operation
UL State-of-art compressor. Scroll compressors in 3, 4, 5 ton models
Refrigerant connections with a single control panel coverage servicing trouble-free.
Operating sounds are minimized through upward discharge air flow and innovative design
Service-free permanently lubercated motor-bearings
Service valves are standard on liquid and vapor sweat connections for ease of evacuating and recharging.



Model		LC-(H)18A2	LC-(H)24A2	LC-(H)30A2	LC-(H)36A2	LC-(H)42A2	LC-(H)48A2	LC-(H)60A2	LC-(H)60A9
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500	61500
Rated cooling input power	W	1920	2800	3600	4000	4500	5300	6800	6800
Rated heating input power	W	1920	2800	3600	4000	4500	5300	6800	6800
SEER	Btu/h-W	10	10	10	10	10	10	10	10
Voltage/Phase/Frequency	V/PH/Hz	208-230/1 ~ /60							208-230/3 ~ /60
Unit dimensions(W×D×H)	mm	574×574×635	574×574×635	574×574×635	574×574×635	768×768×735	768×768×735	768×768×735	768×768×735
Packaged dimensions (W×D×H)	mm	584×584×645	584×584×645	584×584×645	584×584×645	778×778×745	778×778×745	778×778×745	778×778×745
Net weight	kg	55	55	55	55	96	96	96	96
Shipping weight	kg	60	60	60	60	101	101	101	101
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	15.88	19	19	19



Model		LC-(H)18A2	LC-(H)24A2	LC-(H)30A2	LC-(H)36A2	LC-(H)42A2	LC-(H)48A2	LC-(H)60A2
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500
Rated cooling input power	W	1920	2800	3600	4000	4500	5300	6800
Rated heating input power	W	1920	2800	3600	4000	4500	5300	6800
SEER	Btu/h-W	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Voltage/Phase/Frequency	V/PH/Hz	220-240/1 ~ /50				380-415/3 ~ /50		
Unit dimensions(W×D×H)	mm	574×574×635	574×574×635	574×574×635	574×574×635	768×768×735	768×768×735	768×768×735
Packaged dimensions (W×D×H)	mm	584×584×645	584×584×645	584×584×645	584×584×645	778×778×745	778×778×745	778×778×745
Net weight	kg	54.5	54.5	54.5	54.5	96.0	96.0	96.0
Shipping weight	kg	59.0	59.0	59.0	59.0	101.0	101.0	101.0
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	15.88	19.0	19.0



Elegant series

Performance

10.00 SEER & 13.00 SEER Efficiency Range
Cooling capacity from 1.5 to 5 tons

Features

Elegant appeared design,it's more beautiful and much easier to harmonize with environment.
The universal outdoor units can work with different type indoor units in the same capacity for ducted, cassette,ceiling&floor, air handler.
One side metal guard removable ensures quick and easy access, to ensure saving service time and money.
Large-diameter turbo fan and vortex duck and incorporated for efficient and quiet airflow.Efficient compressor leads to smooth, efficient and reliable operation.
Grilled top and side guard ensures high efficient airflow and superior system performance.
Efficient coil constructed of grooved copper tube corrugated and lanced fins.



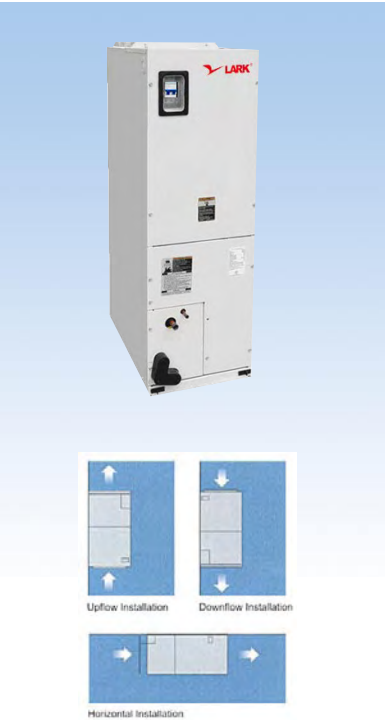
Model		LC-(H)18A2/B	LC-(H)24A2/B	LC-(H)30A2/B	LC-(H)36A2/B	LC-(H)42A2/B	LC-(H)48A2/B	LC-(H)60A2/B	LC-(H)60A9/B
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500	61500
Rated cooling input power	W	1920	2800	3600	4000	4500	5300	6800	6800
Rated heating input power	W	1920	2800	3600	4000	4500	5300	6800	6800
SEER	Btu/h-W	10	10	10	10	10	10	10	10
Voltage/Phase/Frequency	V/PH/Hz	208-230/1 ~ /60							208-230/3 ~ /60
Unit dimensions(W×D×H)	mm	701×568×705	701×568×705	701×568×705	701×568×705	885×760×705	885×760×705	885×760×705	885×760×705
Packaged dimensions (W×D×H)	mm	715×580×710	715×580×710	715×580×710	715×580×710	900×770×710	900×770×710	900×770×710	900×770×710
Net weight	kg	55	55	55	55	96	96	96	96
Shipping weight	kg	60	60	60	60	101	101	101	101
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	15.88	19	19	19



Model		LC-(H)18A2/B	LC-(H)24A2/B	LC-(H)30A2/B	LC-(H)36A2/B	LC-(H)42A2/B	LC-(H)48A2/B	LC-(H)60A2/B
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500
Rated cooling input power	W	1920	2800	3600	4000	4500	5300	6800
Rated heating input power	W	1920	2800	3600	4000	4500	5300	6800
SEER	Btu/h-W	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Voltage/Phase/Frequency	V/PH/Hz	220-240/1 ~ /50				380-415/3 ~ /50		
Unit dimensions(W×D×H)	mm	701×568×705	701×568×705	701×568×705	701×568×705	885×760×705	885×760×705	885×760×705
Packaged dimensions (W×D×H)	mm	715×580×710	715×580×710	715×580×710	715×580×710	900×770×710	900×770×710	900×770×710
Net weight	kg	54.5	54.5	54.5	54.5	96.0	96.0	96.0
Shipping weight	kg	59.0	59.0	59.0	59.0	101.0	101.0	101.0
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	15.88	19.0	19.0

Duct Central

High ESP Duct



Performance

Efficiency range from 10.00 SEER & 13.00 SEER
Nominal capacity from 1.5 to 5 tons

Features

- High quality galvanized panels ensure high corrosion resistance.
- High static pressure design makes unit independent of duct system.
- The evaporator uses high efficient inner screwed copper tubes and ripple style fins, which ensures state-of-the-art heat transfer technology.
- Special insulation design allows for quiet operation.
- Three-speed motor offers selectable airflow volume.
- Advanced design allows different unique installations.
- Rigorous electrical protection designed for more safety protection.
- Patented diffusing equipment offers high energy efficiency.



Model		LDC-(H)18A2	LDC-(H)24A2	LDC-(H)30A2	LDC-(H)36A2	LDC-(H)42A2	LDC-(H)48A2	LDC-(H)60A2
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500
Air flow	m³/h	1000	1500	1500	1900	2000	2600	3300
SEER	Btu/h-W	10	10	10	10	10	10	10
Voltage/Phase/Frequency	V/PH/Hz	208-230/1 ~ /60						
Unit dimensions(W×D×H)	mm	590×360×1100	590×360×1100	590×445×1223	590×535×1275	590×535×1275	590×535×1275	590×535×1375
Packaged dimensions (W×D×H)	mm	615×380×1112	615×380×1112	615×465×1235	615×555×1285	615×555×1285	615×555×1285	615×555×1385
Net weight	kg	44	44	65	67	67	75	75
Shipping weight	kg	49	49	70	72	72	77	77
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	22	22	22



Model		LDC-(H)18A4	LDC-(H)24A4	LDC-(H)30A4	LDC-(H)36A4	LDC-(H)42A4	LDC-(H)48A4	LDC-(H)60A4
Rated cooling capacity	Btu/h	18000	24000	30000	36000	42000	48000	60000
Rated heating capacity	Btu/h	19000	25000	33000	38000	43000	52000	61500
Air flow	m³/h	1000	1500	1500	1900	2000	2600	3300
SEER	Btu/h-W	10	10	10	10	10	10	10
Voltage/Phase/Frequency	V/PH/Hz	220-240/1 ~ /50						
Unit dimensions(W×D×H)	mm	590×360×1100	590×360×1100	590×445×1223	590×445×1223	590×535×1275	590×535×1275	590×535×1375
Packaged dimensions (W×D×H)	mm	615×380×1112	615×380×1112	615×465×1235	615×465×1285	615×555×1285	615×555×1285	615×555×1385
Net weight	kg	44	44	65	67	67	75	75
Shipping weight	kg	49	49	70	72	72	77	77
Refrigerant pipe	Liquid	Φ mm	6.35	9.52	9.52	9.52	9.52	9.52
	Gas	Φ mm	12.7	15.88	15.88	22	22	22



Features

- 12 sizes available ranging from 16 kW to 104 kW cooling capacity.
- Cooling only and heat pump version.
- Wide application as hotel, apartment, villa, factory, shopping center, office building, school, etc.
- Panels and frame are made from metal steel protected with polyester powder painting to ensure total resistance to atmospheric agents.
- High efficiency scroll compressor for the whole range, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.
- Compact indoor design, long air supply distance.
- Outdoor units are equipped with low noise axial fans.
- Indoor units are equipped with quiet centrifugal fans.
- Split installation, connected by means of flare/ welding coupling.

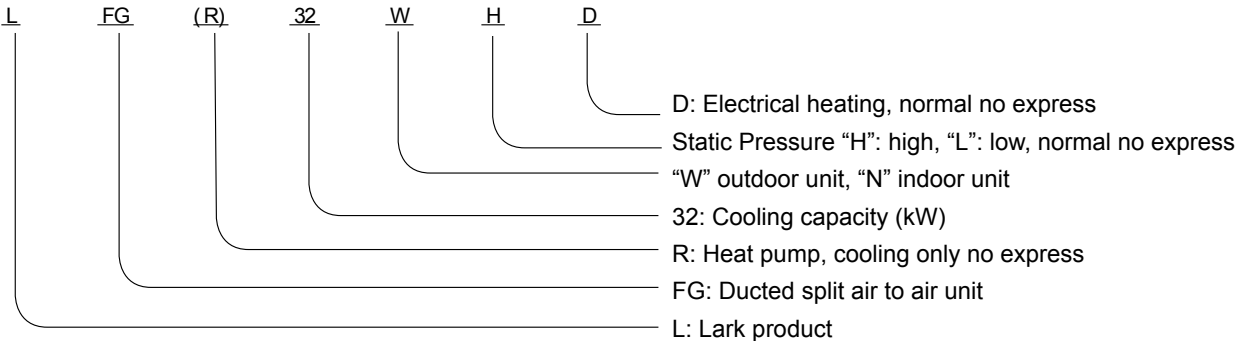
Easy operation line controller

- Cooling/Heating/Fan/Auto
- Error indication
- Timing On/Off
- Multi safety protection
- High/low pressure protection
- Overheat protection
- Current overload protection
- Phase sequence relay
- Time delay and antifreeze switch

Additional

Please declare the kind of refrigerant

Instruction of model



High ESP Duct



Product type			LFG(R)-16W		LFG(R)-20W		LFG(R)-25W		LFG(R)-32W	
			LFG(R)-16N		LFG(R)-20N		LFG(R)-25N		LFG(R)-32N	
Rated cooling capacity		kW/Btu/h	16	54608	20	68260	25	85325	32	109216
Rated heating capacity		kW/Btu/h	17.5	59728	22.6	77134	28.9	98636	35.8	122185
Cooling input power		kW	4.8		6.6		8.2		10.3	
Heating input power		kW	4.7		6.8		8.4		10.6	
Cooling current		A	8.71		12.87		16.62		21.09	
Heating current		A	8.5		12.74		16.46		20.88	
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Indoor unit		220/1/50/60		220/1/50/60		220/1/50/60		220/1/50/60	
Compressor	Type		Scroll							
	Amount		1		2		2		2	
Refrigerant	Type		R22/R407c							
	Quantity	kg	4.8		3×2		4×2		4.5×2	
	Control method		Thermal expansion valve							
Outdoor unit fan	Form		Axial fan		Axial fan		Axial fan		Axial fan	
	Amount		1		1		1		1	
	Air flow	m³/h	6500		8600		9400		12500	
Indoor unit fan	Form		Centrifugal fan		Centrifugal fan		Centrifugal fan		Centrifugal fan	
	Amount		2		2		2		2	
	Air flow	m³/h	3080		3500		4500		5650	
Noise	Outdoor unit	dB(A)	68		68		68		69	
	Indoor unit		66		66		66		68	
Dimension (L×W×H)	Outdoor unit	mm	1210×520×1080		1020×1030×830		1020×1030×830		1180×1130×960	
	Indoor unit		1200×860×430		1660×915×480		1660×915×480		1660×580×915	
Weight	Outdoor unit	kg	130		170		180		220	
	Indoor unit		80		90		100		150	
Refrigerant pipe	Liquid	mm	12.7		9.52/9.52		12.7/12.7		12.7/12.7	
	Gas	mm	19.05		15.88/15.88		19.05/19.05		19.05/19.05	



Product type			LFG(R)-36W		LFG(R)-42W		LFG(R)-48W		LFG(R)-52W	
			LFG(R)-36N		LFG(R)-42N		LFG(R)-48N		LFG(R)-52N	
Rated cooling capacity		kW/Btu/h	36	122868	42	143346	48	163824	52	177476
Rated heating capacity		kW/Btu/h	40.8	139250	46.9	160070	54.4	185667	58.9	201026
Cooling input power		kW	11.8		13.6		15.6		16.8	
Heating input power		kW	12		14		16.1		17.5	
Cooling current		A	22.88		26.99		32		32.89	
Heating current		A	22.65		26.72		31.68		32.56	
Power	Outdoor unit	V/PH/Hz	380/3/50		380/3/50		380/3/50		380/3/50	
	Indoor unit		380/3/50		380/3/50		380/3/50		380/3/50	
Compressor	Type		Scroll							
	Amount		1		2		2		2	
Refrigerant	Type		R22/R407c							
	Quantity	kg	10.5		9+4.5		9+4.5		10+4.5	
	Control method		Thermal expansion valve							
Outdoor unit fan	Form		Axial fan		Axial fan		Axial fan		Axial fan	
	Amount		1		2		2		2	
	Air flow	m³/h	14200		18800		18800		21500	
Indoor unit fan	Form		Centrifugal fan		Centrifugal fan		Centrifugal fan		Centrifugal fan	
	Amount		2		2		2		2	
	Air flow	m³/h	6450		7400		8550		9250	
Noise	Outdoor unit	dB(A)	72		73		73		74	
	Indoor unit		68		70		70		70	
Dimension (L×W×H)	Outdoor unit	mm	1180×1130×960		1640×1130×880		1640×1130×880		1840×1130×970	
	Indoor unit		1790×915×580		1840×1045×580		2065×1160×680		2165×1160×680	
Weight	Outdoor unit	kg	230		260		280		330	
	Indoor unit		160		180		200		220	
Refrigerant pipe	Liquid	mm	15.88		15.88/12.7		15.88/12.7		15.88/12.7	
	Gas	mm	28		28/19.05		28/19.05		28/19.05	



Product type			LFG(R)-62W LFG(R)-62N		LFG(R)-72W LFG(R)-72N		LFG(R)-88W LFG(R)-88N		LFG(R)-104W LFG(R)-104N	
Rated cooling capacity		kW/Btu/h	62	211606	72	245736	88	300344	104	354952
Rated heating capacity		kW/Btu/h	72.6	247784	81.9	279525	100	341300	115.8	395225
Cooling input power		kW	20.8		23.6		28.1		35.1	
Heating input power		kW	22		25		29.6		37	
Cooling current		A	41.29		47.55		50.23		70.25	
Heating current		A	40.88		47.08		49.7		69.55	
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Indoor unit		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
Compressor	Type		Scroll							
	Amount		2		2		2		2	
Refrigerant	Type		R22/R470c							
	Quantity	kg	9.5×2		10.5×2		12×2		15×2	
	Control method		Thermal expansion valve							
Outdoor unit fan	Form		Axial fan		Axial fan		Axial fan		Axial fan	
	Amount		2		2		2		2	
	Air flow	m³/h	26500		29880		36500		43500	
Indoor unit fan	Form		Centrifugal fan		Centrifugal fan		Centrifugal fan		Centrifugal fan	
	Amount		2		2		2		2	
	Air flow	m³/h	11450		12900		14800		17100	
Noise	Outdoor unit	dB(A)	74		74		74		74	
	Indoor unit		71		71		71		71	
Dimension (L×W×H)	Outdoor unit	mm	1840×970×1130		2120×970×1130		2165×1300×2030		2165×1300×2105	
	Indoor unit		1870×1230×980		1870×1230×1080		2100×1270×1180		2100×1270×1280	
Weight	Outdoor unit	kg	340		460		780		800	
	Indoor unit		230		300		320		400	
Refrigerant pipe	Liquid	mm	15.88/15.88		15.88/15.88		15.88/15.88		19.05/19.05	
	Gas	mm	28/28		28/28		28/28		35/35	

High ESP Duct

Packaged Rooftop

50Hz
60Hz


Product type		LFG(R)-36W		LFG(R)-42W		LFG(R)-48W		LFG(R)-52W		
		LFG(R)-36N		LFG(R)-42N		LFG(R)-48N		LFG(R)-52N		
Rated cooling capacity	kW/Btu/h	35.2	120138	42	143346	47.5	162118	53	180889	
Rated heating capacity	kW/Btu/h	38.02	129749	44.3	151128	51	174063	57.2	195360	
Cooling input power	kW	10.4		12.6		13.4		15.6		
Heating input power	kW	9.4		11		12.06		14.02		
Cooling current	A	18		21.4		24.2		25.2		
Heating current	A	16.6		18.6		22		32.56		
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Indoor unit		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
Compressor	Type		Scroll							
	Amount		1		2		2		2	
Refrigerant	Type		R410a							
	Quantity	kg	4.5×2		5.4×2		6.1×2		7×2	
Outdoor unit fan	Control method		Thermal expansion valve							
	Form		Axial fan		Axial fan		Axial fan		Axial fan	
	Amount		1		2		2		2	
	Air flow	m³/h	14000		16800		18800		21200	
Indoor unit fan	Form		Centrifugal fan		Centrifugal fan		Centrifugal fan		Centrifugal fan	
	Amount		2		2		2		2	
	Air flow	m³/h	6400		7300		8400		9000	
Noise	Outdoor unit	dB(A)	72		73		73		74	
	Indoor unit		68		70		70		70	
Dimension (L×W×H)	Outdoor unit	mm	1180×1130×960		1640×1130×880		1640×1130×880		1840×1130×970	
	Indoor unit		1790×915×580		1840×1045×580		2065×1160×680		2165×1160×680	
Weight	Outdoor unit	kg	230		260		280		330	
	Indoor unit		160		180		200		220	
Refrigerant pipe	Liquid	mm	15.88		15.88/12.7		15.88/12.7		15.88/12.7	
	Gas		28		28/19.05		28/19.05		28/19.05	

50Hz
60Hz


Product type		LFG(R)-62W		LFG(R)-72W		LFG(R)-88W		LFG(R)-104W		
		LFG(R)-62N		LFG(R)-72N		LFG(R)-88N		LFG(R)-104N		
Rated cooling capacity	kW/Btu/h	62.4	212971	71.8	245053.4	88	300344	104	354952	
Rated heating capacity	kW/Btu/h	68.6	234268	80.42	274460	100	341300	115.8	395225	
Cooling input power	kW	18		20		26.4		30.4		
Heating input power	kW	16.2		18		23.3		27		
Cooling current	A	31.2		34		48.4		56.1		
Heating current	A	28.4		31		45		52.1		
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Indoor unit		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
Compressor	Type	Scroll								
	Amount	2		2		2		2		
Refrigerant	Type	R410a								
	Quantity	kg	8.2×2		9.2×2		10.4×2		13.4×2	
	Control method	Thermal expansion valve								
Outdoor unit fan	Form	Axial fan		Axial fan		Axial fan		Axial fan		
	Amount	2		2		2		2		
	Air flow	m³/h	25000		28880		35200		42000	
Indoor unit fan	Form	Centrifugal fan		Centrifugal fan		Centrifugal fan		Centrifugal fan		
	Amount	2		2		2		2		
	Air flow	m³/h	11200		12500		14500		17000	
Noise	Outdoor unit	dB(A)	74		74		74		74	
	Indoor unit		71		71		71		71	
	Outdoor unit		1840×970×1130		2120×970×1130		2165×1300×2030		2165×1300×2105	
Dimension (L×W×H)	Indoor unit	1870×1230×980		1870×1230×1080		2100×1270×1180		2100×1270×1280		
	Outdoor unit	kg	340		460		780		800	
Weight	Indoor unit		230		300		320		400	
	Refrigerant pipe	Liquid	mm	15.88/15.88		15.88/15.88		15.88/15.88		19.05/19.05
Gas		mm	28/28		28/28		28/28		35/35	

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27℃ / WB 19℃ , ambient temperature DB 35℃ / WB 24℃
- Heating capacity is measured under the condition : indoor temperature DB 20℃ / WB 15℃ , ambient temperature DB 7℃ / WB 6℃



Features

Structure

Panels and frame are made from metal steel protected with polyester powder painting to ensure total resistance to atmospheric agents.

Direct expansion coils with condensate drain tray.

Hermetic compressor

High efficiency scroll compressor for the whole ranges, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

Ripple type acoustic insulation for compressor section, and thermal insulation for coil and fan section, low noise.

Fan

Forward curve centrifugal fan for air treatment section and axial fan for condensation section.

Front, side and underside air discharge of the treatment unit.

High external pressure, long air supply distance.

Electric panel

Electric panel consists of breakers and contactors for compressors and fan motors, phase sequence relay and other necessary protection devices for the main components.

Easy operation line controller:

Cooling/Heating//Auto

Error indication

Timing On/Off

Accessories

Air pressure switch for indoor fan.

Metal or plastic mesh for condensing coil.

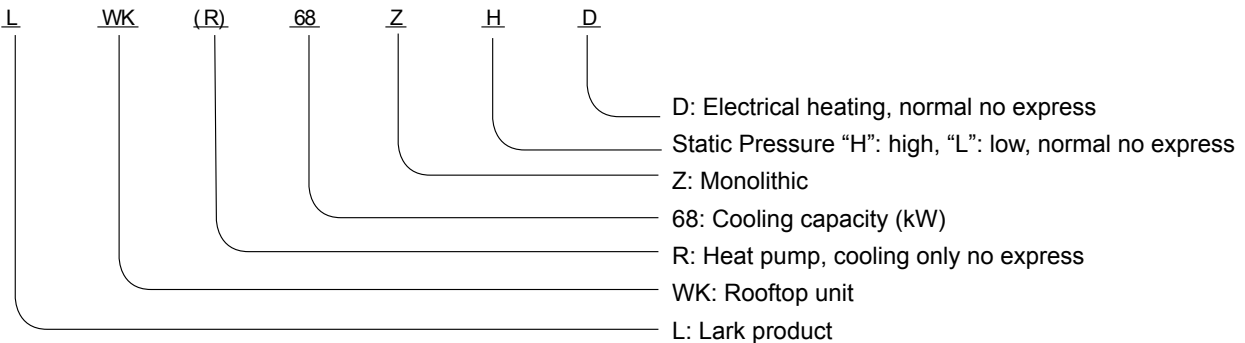
Optional supply / return air configurations.

Upgraded evaporator fan motor drives.

Additional

Please declare the kind of refrigerant and discharge /return air type.

Instruction of model



Packaged Rooftop



Product type			LWK(R)10Z		LWK(R)16Z		LWK(R)20Z		LWK(R)25Z		LWK(R)32Z		
Rated cooling capacity		kW/Btu/h	10.9	37202	16.2	55291	21.6	73721	24.2	82595	32.4	110581	
Rated heating capacity		kW/Btu/h	11.3	38567	17.3	59045	22.6	77134	26	88738	34.6	118090	
Compressor	Cooling input power	kW	3.3		4.9		6.6		7.6		9		
	Heating input power	kW	2.96		4.35		5.92		6.92		8		
	Power supply	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		
	Type		Scroll										
	Amount		1		1		2		2		2		
Refrigerant	Type		R22/R407c										
	Quantity	kg	3.6		5.8		7.3		8.4		9.5		
	Control method		Thermal expansion valve										
Condensation side													
Axial fan	Power supply	V/PH/Hz	380/3/50										
	Amount		1		1		1		1		1		
	Air flow	m³/h	4830		7020		8640		9430		12300		
	Motor power	kW	0.09		0.37		0.45		0.55		0.75		
Evaporation side													
Centrifugal fan	Power supply	V/PH/Hz	220/1/50		220/1/50		380/3/50		380/3/50		380/3/50		
	Amount		1		1		1		1		1		
	Air flow	m³/h	1700		2920		4250		5400		6300		
	Motor power	kW	0.5		0.7		0.7		1.1		1.5		
	Drive type		Direct										Belt
External static pressure		Pa	150		180		150		235		290		
Noise		dB(A)	67		71		72		70		72		
Dimension (L×W×H)		mm	1282×1040×895		1660×1040×895		1770×1390×1030		1940×1390×1030		2240×1390×1030		
Weight		kg	240		320		360		480		610		



Product type			LWK(R)36Z		LWK(R)42Z		LWK(R)52Z		LWK(R)63Z		LWK(R)72Z	
Rated cooling capacity		kW/Btu/h	35.6	121503	41.6	141981	53.2	181572	63.3	216043	71.4	243688
Rated heating capacity		kW/Btu/h	38	129694	44.6	152220	56.4	192493	67	228671	75.6	258023
Compressor	Cooling input power	kW	9.8		11.2		14.6		17		21	
	Heating input power	kW	8.7		10.2		13		15.38		18.6	
	Power supply	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Type		Scroll									
	Amount		2		2		2		2		2	
Refrigerant	Type		R22/R407c									
	Quantity	kg	10.3		12		15.2		18.1		20.4	
	Control method		Thermal expansion valve									
Condensation side												
Axial fan	Power supply	V/PH/Hz	380/3/50									
	Amount		1		2		2		2		2	
	Air flow	m³/h	14220		18830		21420		24620		28400	
	Motor power	kW	1.1		2×0.55		2×0.55		2×0.75		2×1.1	
Evaporation side												
Centrifugal fan	Power supply	V/PH/Hz	380/3/50		380/3/50		380/3/50		380/3/50		380/3/50	
	Amount		1		1		1		1		1	
	Air flow	m³/h	6800		7900		10450		11700		14400	
	Motor power	kW	2.2		2.2		3		3		4	
	Drive type		Belt									
External static pressure		Pa	270		250		280		275		380	
Noise		dB(A)	72		72		73		73		75	
Dimension (L×W×H)		mm	2540×1860×1030		2540×1860×1180		2490×2050×1370		2490×2050×1472		2840×2200×1490	
Weight		kg	700		780		860		950		980	



Product type			LWK(R)88Z		LWK(R)104Z		LWK(R)120Z		LWK(R)150Z		LWK(R)190Z	
Rated cooling capacity		kW/Btu/h	87.2	297614	103.3	352563	118.8	405464	153.4	523554	188.5	643351
Rated heating capacity		kW/Btu/h	93.3	318433	110.5	377137	126.8	432768	164.3	560756	202	689426
Compressor	Cooling input power	kW	24.4		31.36		35.6		43.2		54.48	
	Heating input power	kW	21.14		27.52		32.4		37.2		48.4	
	Power supply	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Type		Scroll									
	Amount		2		4		4		4		4	
Refrigerant	Type		R22/R407c									
	Quantity	kg	24.9		29.5		33.9		43.8		54	
	Control method		Thermal expansion valve									
Condensation side												
Axial fan	Power supply	V/PH/Hz	380/3/50/60									
	Amount		2		4		4		4		4	
	Air flow	m³/h	42000		44800		49200		80000		84000	
	Motor power	kW	2×1.3		4×0.55		4×0.75		4×1.3		4×1.3	
Evaporation side												
Centrifugal fan	Power supply	V/PH/Hz	380/3/50		380/3/50		380/3/50		380/3/50		380/3/50	
	Amount		1		1		1		1		1	
	Air flow	m³/h	16600		19940		22000		29000		34900	
	Motor power	kW	4		5.5		7.5		7.5		15	
	Drive type		Belt									
External static pressure		Pa	345		390		390		360		430	
Noise		dB(A)	75		75		80		80		82	
Dimension (L×W×H)		mm	2840×2200×1580		3412×2210×1810		4700×2230×1615		5500×2230×1810		5880×2230×2010	
Weight		kg	1160		1600		1700		2300		2800	

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27°C / WB 19°C ,ambient temperature DB 35°C / WB 24°C;
- Heating capacity is measured under the condition : indoor temperature DB

Packaged Rooftop

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Product type		LWK(R)35Z		LWK(R)45Z		LWK(R)52Z		LWK(R)63Z		LWK(R)68Z	
Rated cooling capacity		kW/Btu/h	35.9 122527	45 153576	51.8 176793	62.3 212630	68.5 233791				
Rated heating capacity		kW/Btu/h	36.5 124575	47 160406	54 184302	65 221845	71 242323				
Compressor	Cooling input power	kW	10.4	13.7	8.95+6.08	17.9	19.7				
	Heating input power	kW	9.4	12.1	7.01+5.5	16.2	17.76				
	Power supply	V/PH/Hz	380/3/50/60	380/3/50/60	380/3/50/60	380/3/50/60	380/3/50/60				
	Type		Scroll								
Refrigerant	Amount		2	2	2	2	2				
	Type		R410a								
	Quantity	kg	5.2×2	6×2	8.9+5.8	9×2	9.7×2				
	Control method		Thermal expansion valve								
Condensation side											
Axial fan	Power supply	V/PH/Hz	380/3/50/60								
	Amount		1	2	2	2	2				
	Air flow	m³/h	14220	19200	21420	24620	28400				
	Motor power	kW	1.1	2×0.55	2×0.55	2×0.75	2×1.1				
Evaporation side											
Centrifugal fan	Power supply	V/PH/Hz	380/3/50/60	380/3/50/60	380/3/50/60	380/3/50/60	380/3/50/60				
	Amount		1	1	1	1	1				
	Air flow	m³/h	6800	9350	10450	11700	14400				
	Motor power	kW	2.2	2.2	3	3	4				
External static pressure	Drive type		Belt								
	Pa		270	290	280	275	380				
Noise	dB(A)		72	72	73	73	75				
Dimension (L×W×H)	mm		2540×1860×1030	2540×1860×1180	2490×2050×1370	2490×2050×1472	2840×2200×1490				
Weight	kg		700	830	860	950	980				



Product type		LWK(R)88Z		LWK(R)108Z		LWK(R)124Z		LWK(R)160Z		LWK(R)180Z		
Rated cooling capacity		kW/Btu/h	89.4	305122	108.8	371334	124.6	425260	158.4	540619	178.8	610244
Rated heating capacity		kW/Btu/h	92	313996	113	385669	130	443690	163	556319	185	631405
Compressor	Cooling input power	kW	26.3		31.12		35.8		44.12		52.8	
	Heating input power	kW	23.4		28.04		32.28		39.44		46.8	
	Power supply	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Type		Scroll									
	Amount		2		4		4		4		4	
Refrigerant	Type		R410a									
	Quantity	kg	12.6×2		7.8×4		8.9×4		10×4		12.8×4	
	Control method		Thermal expansion valve									
Condensation side												
Axial fan	Power supply	V/PH/Hz	380/3/50/60									
	Amount		2		4		4		4		4	
	Air flow	m³/h	35200		44280		52080		67200		75600	
	Motor power	kW	2×1.3		4×0.55		4×0.75		4×1.3		4×1.3	
Evaporation side												
Centrifugal fan	Power supply	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Amount		1		1		1		1		1	
	Air flow	m³/h	16600		19940		22000		29000		34900	
	Motor power	kW	4		5.5		7.5		7.5		15	
	Drive type		Belt									
External static pressure		Pa	345		390		390		360		430	
Noise		dB(A)	75		75		80		80		82	
Dimension (L×W×H)		mm	2840×2200×1580		3412×2210×1810		4700×2230×1615		5500×2230×1810		5880×2230×2010	
Weight		kg	1160		1600		1700		2300		2800	

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27℃ / WB 19℃ , ambient temperature DB 35℃ / WB 24℃ ;
- Heating capacity is measured under the condition : indoor temperature DB 20℃ / WB 15℃ , ambient temperature DB 7℃ / WB 6℃ .



----- Digital DCBL sine wave universal intelligent power module

----- Electronic expansion valve

----- Efficient PMSM compressor

World advanced 180°sine wave DC inverter control technique

Fully loaded with the newest technique, LARK takes the lead in researching and developing 180° sine wave inverter control technique in China while it operates 120° rectangular wave BLDC variable speed control technique, which roundly improve the efficiency of inverter air conditioner making the all-year-round cost greatly lowered, and its operation is quieter.

DD s UPM

Digital DCBL Sine Wave Universal Intelligent Power Module has the air conditioning system function control, electronic expansion valve control and thermodynamics optimization control, etc, many items of technical integrations, which realized compact size and versatility.

Efficient PM fan motor

Adopting DC PM motor, efficient and saving energy, the fan adopts stepless speed changing to change according to outdoor temperature or load and realize reliable refrigerant pressure control.

Efficient PMSM compressor

Adopting different compressor control technique to general BLDC and innovating in using sine wave control calculation method, thus it is efficient, saves energy and greatly reduces the motor's noise.

Oil equalizing valve

Advanced oil return technique guarantees the operation effect of system to the utmost extent under the precondition of guaranteeing oil equalizing between compressors.

Aero grille

The aero grille adopts such technique that guarantees the direction and strength of air having very small pressure loss.

Pressure sensor

Monitoring the working condition of unit at real-time, thus keeps the unit in optimal operation.

Heat exchanger

Adopting cross arrangement heat exchanger, thus effectively reduce the load of cooling operation.

Electronic expansion valve

Capillary is replaced with electronic expansion valve, which makes the air conditioning system be able to optimize energy and capacity distribution more precise.

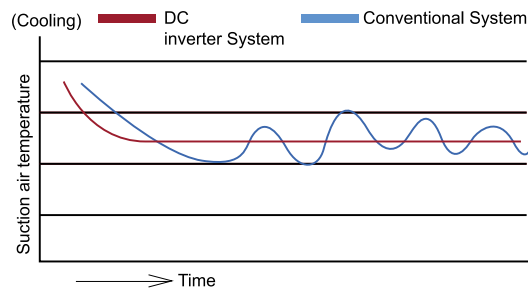
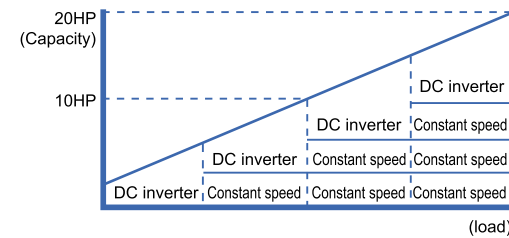
Piping

Adopting straightforward piping connection design.

VRF II DC INVERTER

Realizing precise capacity control

For 10, 20, 30, 40HP models, the outdoor unit has two compressors, one DC inverter compressor and one constant speed compressor. The DC inverter compressor can realize precise capacity control and effectively reduce the start-up current of system.



When the inverter air conditioner is started, it operates efficiently to quickly reach the set temperature, and then it will operate in low speed saving energy to maintain a constant room temperature.

Wide operating temperature range

LARK modular multi system air conditioning may operate in a rather wider temperature range. It can make heating at ultra low temperature in winter and powerful cooling at high temperature in summer.

Self billing calculation ARV II DC inverter system

When centralized heating and cooling, it performs air conditioning billing calculations quickly and automatically.

PMSM compressor

Reliable quality and long service life
DC inverter compressor motor rotates smoothly, further improving operating efficiency and reducing vibration and noise.



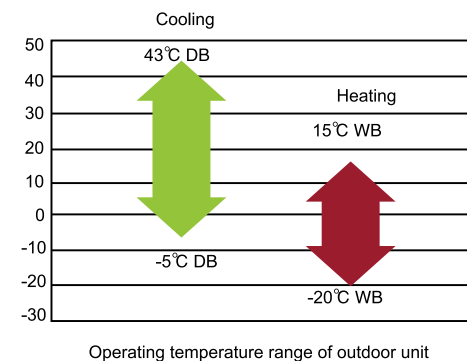
Reliable quality and long service life

Max capacity control, indoor unit individually controlled

In any environment and under any working condition, it has powerful max capacity output.
Simultaneously pursuing max capacity and energy saving in operation makes full use of advantages of inverter.

All efficient indoor and outdoor units adopt expansion valve throttle mode

Electronic expansion valves respond to changes in load in outdoor units and continually control the flow rate of refrigerant. In this way, the VRFII DC inverter system maintains a nearly constant room temperature without the typical temperature changes that occur with a conventional ON/OFF control system. Its cooling & heating system can automatically optimize and adjust in any season and environment with any load, realizing efficient operation.

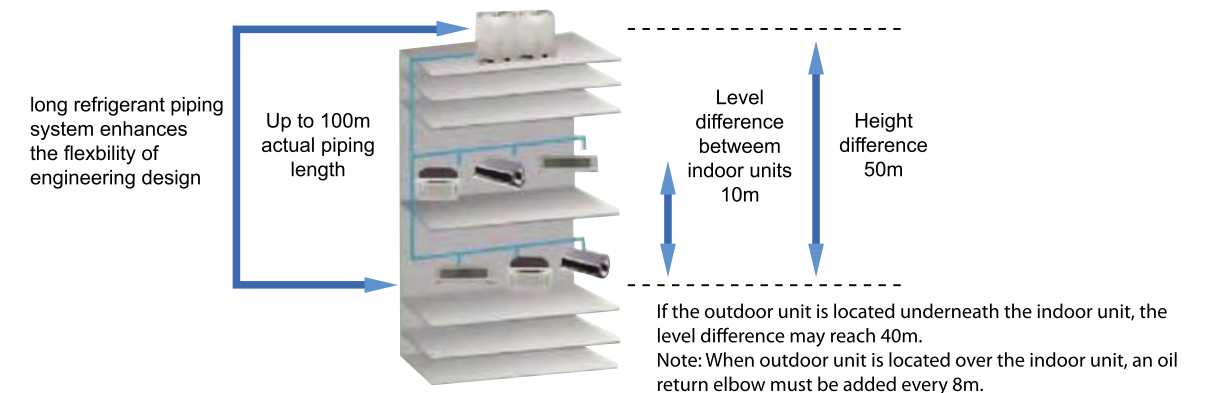
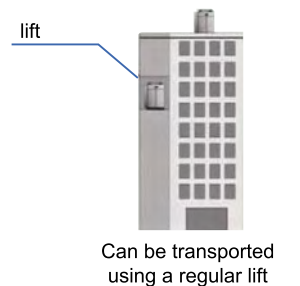
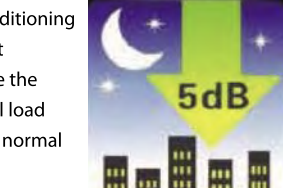


Self-diagnostic system

The self-diagnosis function detects malfunctions in major locations in the system and displays the type of malfunction and location. This allows servicing and maintenance to be performed more efficiently.

Lightweight and compact unit body

- Simple installation-the lightweight and compact outdoor units can be transported using a regular lift. Units can be installed on each floor. The pipes are narrow and few in number, making layout simple. Inspection after installation is straightforward.
- Simple wiring-the wiring system of outdoor unit is simple, with low cost and high efficiency.
- Simple piping-the VRFII DC inverter system can be used to develop a large-scale air conditioning system on a single refrigerant piping circuit, thus reducing the space and costs required for air conditioning equipment.



System Constraints

Max number of combined outdoor units	4
Max HP of combined outdoor units	40HP
Max number of connectable indoor units	64
System constraints indoor/outdoor unit capacity ratio	50-130%
Max actual piping length	100m
Max level difference (outdoor unit underneath)	50(40)m
Max total piping length	300m

Outdoor unit Combination

	Capacity (HP)	Model	Combination	No. of indoor unit
Basic	10	L-(H)100A5/MuDI	10	16
Double	20	L-(H)200A5/MuDI	10+10	32
Three	30	L-(H)300A5/MuDI	10+10+10	48
Four	40	L-(H)400A5/MuDI	10+10+10+10	64

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50Hz 60Hz



Product type			LAV08NMVERA		LAV10MVERA		LAV12MVERA		LAV14MVERA	
Rated cooling capacity		kW/Btu/h	22.6	77100	28	95500	33.5	114300	40	136500
Rated heating capacity		kW/Btu/h	25.0	85300	31.5	107500	37.5	127900	45	153500
Cooling input power		kW	5.28		7.36		8.58		12.31	
Heating input power		kW	5.89		7.97		9.1		11.69	
Cooling current		A	8.7		12.2		14.2		20.3	
Heating current		A	9.7		13.2		15.1		19.3	
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60	
	Indoor unit		230/1/50/60		230/1/50/60		230/1/50/60		230/1/50/60	
Compressor	Type		Scroll							
	Amount		1		1		1		1	
Refrigerant	Type		R410a							
	Quantity	kg	10		10		12		12	
	Control method		Electrical expansion valve							
Outdoor unit fan	Form		Axial fan		Axial fan		Axial fan		Axial fan	
	Amount		1		1		1		1	
	Air flow	m³/h	10000		10000		12000		12000	
Piping connection	Gas piping	mm	19.05		22.22		25.4		25.4	
	Liquid piping	mm	9.52		9.52		12.7		12.7	
	Oil equalization pipin	mm	9.52		9.52		9.52		9.52	
Noise	Outdoor unit	dB(A)	58		58		60		60	
Dimension (L×W×H)	Net		990×750×1750		990×750×1750		1390×750×1750		1390×750×1750	
	Packing	mm	1050×840×1800		1050×840×1800		1500×840×1800		1500×840×1800	
Weight	Net weight	kg	235		235		275		275	
	Gross weight		250		250		300		300	
Controls	BMS		Yes		Yes		Yes		Yes	
	Modular number		16		16		16		16	

Performance values reforer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27℃ / WB 19℃ , ambient temperature DB 35℃ / WB 24℃
- Heating capacity is measured under the condition : indoor temperature DB 20℃ / WB 15℃ , ambient temperature DB 7℃ / WB 6℃

50Hz 60Hz



Product type			LAV16NMVERA		LAV18MVERA AV08+AV10		LAV20MVERA AV10+AV10		LAV22MVERA AV10+AV12		
Rated cooling capacity			kW/Btu/h	45	153576	50.6	173000	56	191000	61.5	210000
Rated heating capacity			kW/Btu/h	50	170000	56.5	193000	63	215000	69	235000
Cooling input power			kW	14.06		12.64		14.72		15.94	
Heating input power			kW	12.82		13.76		15.94		17.07	
Cooling current			A	23.2		20.9		24.4		26.4	
Heating current			A	21.2		22.9		26.4		28.3	
Power	Outdoor unit	V/PH/Hz	380/3/50/60		380/3/50/60		380/3/50/60		380/3/50/60		
	Indoor unit		230/1/50/60		230/1/50/60		230/1/50/60		230/1/50/60		
Compressor	Type		Scroll								
	Amount		1		2		2		2		
Refrigerant	Type		R410a								
	Quantity	kg	10		10+10		10+10		10+10		
Outdoor unit fan	Control method		Electrical expansion valve								
	Form		Axial fan		Axial fan		Axial fan		Axial fan		
	Amount		1		2		2		2		
Piping connection	Air flow	m³/h	10000		20000		20000		20000		
	Gas piping	mm	28.58		28.58		28.58		28.58		
	Liquid piping	mm	12.7		15.88		15.88		15.88		
	Oil equalization pipin	mm	9.52		9.52		9.52		9.52		
Noise	Outdoor	dB(A)	60		61		61		61		
	unit										
Dimension (L×W×H)	Net	mm	1350×750×1750		990×750×1750 +990×750×1750		990×750×1750 +990×750×1750		990×750×1750 +1350×750×1750		
Weight	Net weight	kg	300		470		470		510		
	Gross weight		350		500		50		550		
Controls	BMS		Yes		Yes		Yes		Yes		
	Modular number		16		16		16		16		

Performance values reforer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27℃ / WB 19℃ , ambient temperature DB 35℃ / WB 24℃
- Heating capacity is measured under the condition : indoor temperature DB 20℃ / WB 15℃ , ambient temperature DB 7℃ / WB 6℃

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Mini Chiller



50Hz 60Hz



Model	LAD072MLERA	LAD092MLERA	LAD122MLERA	LAD162MLERA	LAD182MLERA	LAD242MLERA	LAD182MMERA	LAD242MMERA
Power	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph
Rated cooling capacity	W/Btu/h	2200/7500	2800/9550	3600/12280	4500/15300	5600/19100	7100/24200	5600/19100
Rated heating capacity	W/Btu/h	2500/8500	3200/10900	4000/13650	5000/17000	6300/21500	8000/27300	6300/21500
Noise level	dB(A)	<30/<35	<30/<35	<30/<35	<31/<36	<31/<36	<35/<39	<35/<43
Air flow	m³/h	400	400	500	850	1250	1250	1200
External static pressure	Pa	20	20	20	20	20	96	96
Indoor net dimension	mm	610x484x220	610x484x220	610x484x220	1105x484x220	1105x484x220	1105x484x220	990x650x300
Indoor packing dimension	mm	650x500x240	650x500x240	650x500x240	1140x500x240	1140x500x240	1140x500x240	1050x690x345



50Hz 60Hz



Model	LAC122MCERA	LAC182MCERA	LAC242MCERA	LAC362MFERA	LAC422MFERA	LAC482MFERA	LAC602MFERA
Power	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph
Rated cooling capacity	W/Btu/h	3500/11942	5000/17060	7100/24200	10000/34120	12000/40944	14000/47768
Rated heating capacity	W/Btu/h	3850/13136	5500/18766	8000/27300	11000/37532	13000/44365	16000/54600
Noise level	dB(A)	<42/<48	<42/<50	<44/<48	<49/<53	<49/<53	<49/<53
Air flow	m³/h	600	800	800	1500	1500	1800
Indoor net dimension	mm	990x655x199	990x655x199	990x655x199	1580x700x240	1580x700x240	1580x700x240
Indoor packing dimension	mm	1035x705x240	1035x705x240	1035x705x240	1610x74x290	1610x74x290	1610x74x290



50Hz 60Hz



Model	LAB122MCERA	LAB182MCERA	LAB242MCERA	LAB282MCERA	LAB302MCERA	LAB382MCERA	LAB482MCERA
Power	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph
Rated cooling capacity	W/Btu/h	3600/12300	5600/19100	7100/24200	8000/27300	9000/30700	11200/38200
Rated heating capacity	W/Btu/h	4000/13600	6300/21500	8000/27300	9000/30700	10000/31400	12500/42600
Noise level	dB(A)	<29/<32	<30/<34	<31/<35	<31/<37	<31/<37	<31/<37
Air flow	m³/h	700	1020	1020	1020	1920	1920
Indoor net dimension	mm	570x570x260	570x570x260	840x840x240	840x840x240	840x840x295	840x840x295
Indoor packing dimension	mm	675x675x310	675x675x310	855x885x260	855x885x260	855x885x315	855x885x315
Indoor panel dimension	mm	700x700x60	700x700x60	950x950x80	950x950x80	950x950x80	950x950x80
Indoor panel packing dimension	mm	720x720x100	720x720x100	1005x1005x135	1005x1005x135	1005x1005x135	1005x1005x135



50Hz 60Hz



Model	LAS092MVERA	LAS122MVERA	LAS162MVERA	LAS182MVERA
Power	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph	220V/50Hz(60Hz)/1Ph
Rated cooling capacity	W/Btu/h	2800/9500	3600/12300	4500/15400
Rated heating capacity	W/Btu/h	3200/10900	4000/13600	5000/17000
Noise level	dB(A)	≤38	≤39	≤42
Air flow	m³/h	520	550	650
Indoor net dimension	mm	795x265x197	795x265x197	870x305x225
Indoor packing dimension	mm	905x340x243	905x340x243	950x345x275



Features

Structure

Panels and base frame are made from galvanized steel protected with polyester powder painting to against eroding well.

Hermetic compressor

Three phase scroll compressor, with thermal overload cut-out and crankcase heater mounted on rubber vibration isolators.

Axial fan

External rotor type axial fans, equipped with single phase direct drive motors, low noise 6 or 8 poles, protection level IP54, provided with a protective outlet grille.

Evaporator

High efficiency stainless steel brazed plate heat exchanger, factory insulated with flexible close cell material.

Condenser

Coils are consisting of seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins, protected with flexible plastic grille.

Refrigerant circuit

Copper tube connection with charge valve, filter drier, sight glass, gas-liquid separator, thermostatic expansion valve, low pressure switch with automatic reset, high pressure control with manual reset.

The heat pump unit is completed also with 4-way valve, liquid receiver and one way valve.

Hydronic circuit

Built with air vent valve, water drain connection, water circuit safety valve, female-threaded hydronic connectors and inertial water storage tank. Water pump built inside for lower than 35 kW size.

Electric panel

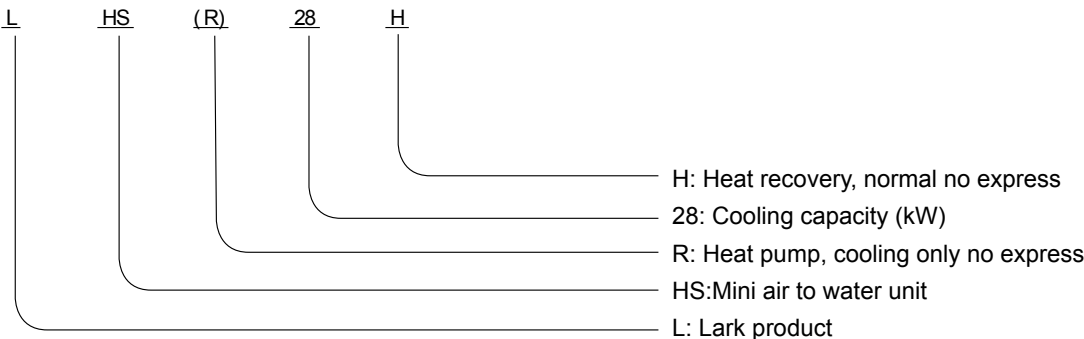
Consists of:

- Compressor contactor;
- Compressor protection breaker;
- Fan motor protection breaker;
- Control circuit protection breaker;
- Phase sequence relay ;
- Programmable microprocessor controller.

Additional

Please declare the kind of refrigerant.

Instruction of model



Mini Chiller



Product type		LHS(R)8		LHS(R)10		LHS(R)12.5		LHS(R)14		LHS(R)16		
Rated cooling capacity		kW/Btu/h	8.4	28669	10.3	35154	12.6	43004	14	47782	16	54608
Rated heating capacity		kW/Btu/h	10	34130	12	40956	15.3	52219	16.6	56656	18.05	61605
Compressor	Cooling input power	kW	2.9		3.31		4.05		4.23		4.88	
	Heating input power	kW	2.85		3.3		4.03		4.21		4.89	
	Type						Scroll					
Amount			1		1		1		1		1	
Power supply		V/PH/Hz			220/1/50/60						380/3/50/60	
Refrigerant	Type						R22/R407c					
	Quantity	kg	2.5		2.8		3.3		4		4.5	
	Control method						Thermal expansion valve					
Condenser	Type						Fin heat exchanger					
Axial fan	Air flow	m³/h	3800		4400		5550		6020		7310	
	Motor power	kW	0.15		0.165		0.165		0.22		0.37	
	Water flow	m³/h	1.4		1.72		2.2		2.4		2.9	
Evaporator	Type						Plate heat exchanger					
	Pressure drop	kPa	33		33		33		36		38	
	Type						Horizontal multistage centrifugal pump					
Water pump	Input power	kW	0.27		0.42		0.42		0.43		0.55	
	Head	m	12		16		16		15		19	
	Noise	dB(A)	56		56		58		62		62	
Dimension (L×W×H)		mm	1180×530×980		1180×530×980		1180×530×1145		1180×530×1145		1180×530×1145	
Weight		kg	145		150		160		180		200	

Product type		LHS(R)8		LHS(R)10		LHS(R)12.5		LHS(R)14		LHS(R)17		
Rated cooling capacity		kW/Btu/h	8	27304	10	34130	12.3	41980	14.3	48806	16.8	57338
Rated heating capacity		kW/Btu/h	10.3	35154	12	39250	14.9	50854	17.4	59386	20.4	69625
Compressor	Cooling input power	kW	3.38		3.43		4.32		5.21		6.11	
	Heating input power	kW	3.35		3.42		4.34		5.23		6.14	
	Type	Scroll										
Amount												
Power supply		V/PH/Hz	1		1		1		1		1	
		220/1/50/60										
		380/3/50/60										
Refrigerant	Type	R410a										
	Quantity	kg	2.1		2.6		3.2		3.7		4.5	
Control method		Thermal expansion valve										
Condenser	Type	Fin heat exchanger										
	Air flow	m³/h	3200		4100		4920		5720		6720	
Axial fan	Motor power	kW	0.15		0.165		0.165		0.22		0.37	
	Water flow	m³/h	1.4		1.72		2.2		2.4		2.9	
Evaporator	Type	Plate heat exchanger										
	Pressure drop	kPa	33		33		33		36		38	
Water pump	Type	Horizontal multistage centrifugal pump										
	Input power	kW	0.27		0.42		0.42		0.43		0.55	
	Head	m	12		16		16		15		19	
Noise	dB(A)	56		56		58		62		62		
Dimension (L×W×H)		mm	1180×530×980		1180×530×980		1180×530×1145		1180×530×1145		1180×530×1145	
Weight		kg	145		150		160		180		200	

Performance values refer to the following conditions:

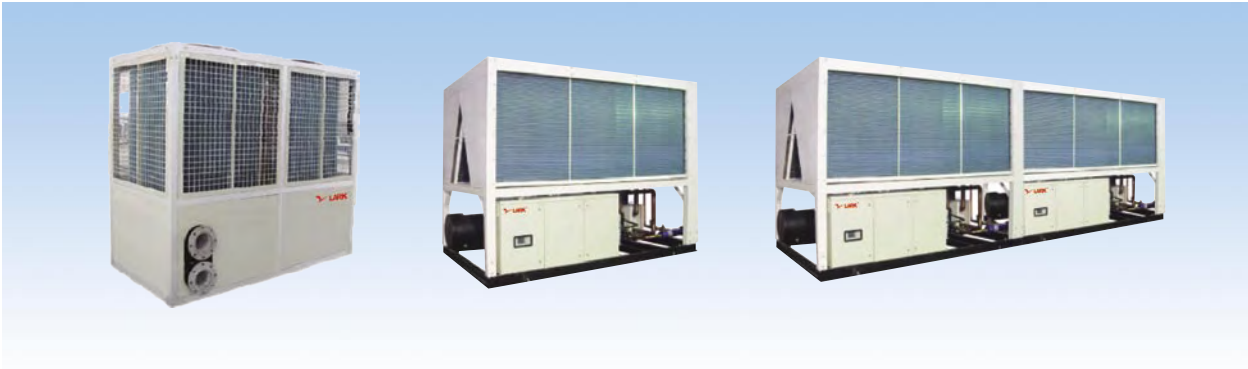
- Cooling capacity is measured under the condition : Ambient temperature DB 35°C / WB 24°C ,user side water inlet/outlet temperature 12°C / 7°C ;
- Heating capacity is measured under the condition : Ambient temperature DB 7°C / WB 6°C ,user side water inlet/outlet temperature 40°C / 45°C .



Product type		LHS(R)20		LHS(R)25		LHS(R)30		LHS(R)35		LHS(R)40		LHS(R)45		LHS(R)50	
Rated cooling capacity		kW/Btu/h	20.8 70990	26 88738	30.0 102390	35.2 120138	40.2 137203	44.7 152561	51 174063						
Rated heating capacity		kW/Btu/h	24.58 83892	29.9 102049	34 117066	38.4 131059	42.3 144370	47.2 161094	56.7 193517						
Compressor	Cooling input power	kW	6.96	8.2	8.72	11.19	12.77	14.95	17.03						
	Heating input power	kW	6.88	8.2	8.73	11.98	15.15	16.14	19.21						
	Type		Scroll												
Power supply	Amount		1	1	1	2	2	2	2						
		V/PH/Hz	380/3/50/60												
Refrigerant	Type		R22/R407c												
	Quantity	kg	5.7	6.4	7.7	9	10.3	11.6	12.9						
Condenser	Control method		Thermal expansion valve												
	Type		Fin heat exchanger												
Axial fan	Air flow	m³/h	8500	10000	12000	14000	16000	18000	20000						
	Motor power	kW	0.37	0.55	0.55	0.74	1.1	1.1	1.1						
Evaporator	Water flow	m³/h	3.6	4.3	5.2	6.02	6.88	7.74	8.6						
	Type		Plate heat exchanger												
	Pressure drop	kPa	38	39	39	42	48	50	52						
Water pump	Type		Horizontal multistage centrifugal pump												
	Input power	kW	0.75	0.75	0.75	/	/	/	/						
	Head	m	18	18	16	/	/	/	/						
Noise		dB(A)	64	66	66	68	68	70	72						
Dimension (L×W×H)		mm	1280×960×1150	1280×960×1150	1280×960×1150	1970×1150×1150	1970×1150×1150	1970×1150×1150	1970×1150×1150						
Weight		kg	220	250	270	290	310	330	350						

50Hz 60Hz R410a															
Product type		LHS(R)20		LHS(R)25		LHS(R)30		LHS(R)35		LHS(R)40		LHS(R)45		LHS(R)52	
Rated cooling capacity		kW/Btu/h	19.8 67577	26.3 89762	29.2 99660	34 116042	39.6 135155	46 156998	52.6 179524						
Rated heating capacity		kW/Btu/h	24 81912	31 105803	35 119455	41 139933	46 156998	54 184302	63 215019						
Compressor	Cooling input power	kW	6.7	8.9	9.8	12.2	13.4	15.6	17.8						
	Heating input power	kW	6.7	8.96	9.87	12.28	13.4	15.6	17.8						
	Type	Scroll													
Amount			1	1	1	2	2	2	2						
Power supply		V/PH/Hz	380/3/50/60												
Refrigerant	Type	R410a													
	Quantity	kg	5.1	6.8	7.5	4.5×2	5.1×2	5.9×2	6.8×2						
	Control method	Thermal expansion valve													
Condenser	Type	Fin heat exchanger													
	Air flow	m³/h	7920	10520	11600	13600	15840	18400	21040						
Axial fan	Motor power	kW	0.37	0.55	0.55	0.74	1.1	1.1	1.1						
	Water flow	m³/h	3.6	4.3	5.2	6.02	6.88	7.74	8.6						
Evaporator	Type	Plate heat exchanger													
	Pressure drop	kPa	38	39	39	42	48	50	52						
	Type	Horizontal multistage centrifugal pump													
Water pump	Input power	kW	0.75	0.75	0.75	/	/	/	/						
	Head	m	18	18	16	/	/	/	/						
Noise		dB(A)	64	66	66	68	68	70	72						
Dimension (L×W×H)		mm	1280×960×1150	1280×960×1150	1280×960×1150	1970×1150×1150	1970×1150×1150	1970×1150×1150	1970×1150×1150						
Weight		kg	220	250	270	290	310	330	350						

Modular Chiller



Features

Structure

The master module can work independently or together with up to 7 slave modules, cooling capacity from 50 to 760kW.

Hermetic compressor

3-phase scroll or screw type compressor, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

Axial fan

External rotor type axial fans, equipped with three phase direct drive motors, low noise 8 poles, protection level IP54, provided with a protective outlet grille.

Evaporator

Evaporator built with high efficiency tube in tube type or shell and tube heat exchanger, factory insulated with flexible close cell material.

Condenser

Condenser built with seamless internal screw thread copper tubes mechanically expanded into blue wave hydrophilic aluminum fins.

Refrigerant circuit

Refrigerant circuit complete with charge valves, filter drier, sight glass, gas-liquid separator, thermostatic expansion valve, high & low pressure switch. The heat pump unit is completed also with 4-way valve, liquid receiver and one way valve.

Hydronic circuit

Hydronic circuit built with galvanized pipe, complete with water discharge connection for tube in tube heat exchanger and flange type hydronic connectors in two directions easy for connections from both sides of the units.

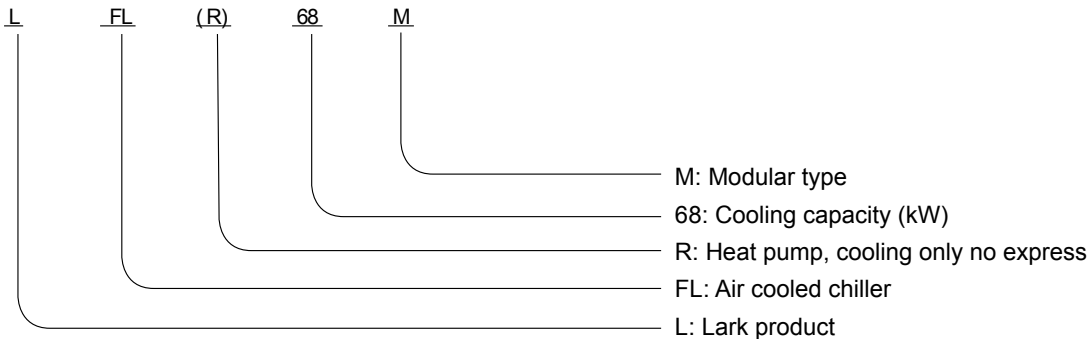
Electric panel

Electric panel consist of: Compressor contactor, fan motor contactor, compressor protection breaker, fan protection breaker, phase sequence relay and microprocessor with function display (display only for master/packaged unit)
Automatic operation dramatically reducing maintenance cost thanks to reliable microprocessor system.

Optional

Paddle flow switch;
Metallic filter for hydronic circuit;
Water pump;
Rubber anti-vibration mounting.

Instruction of model



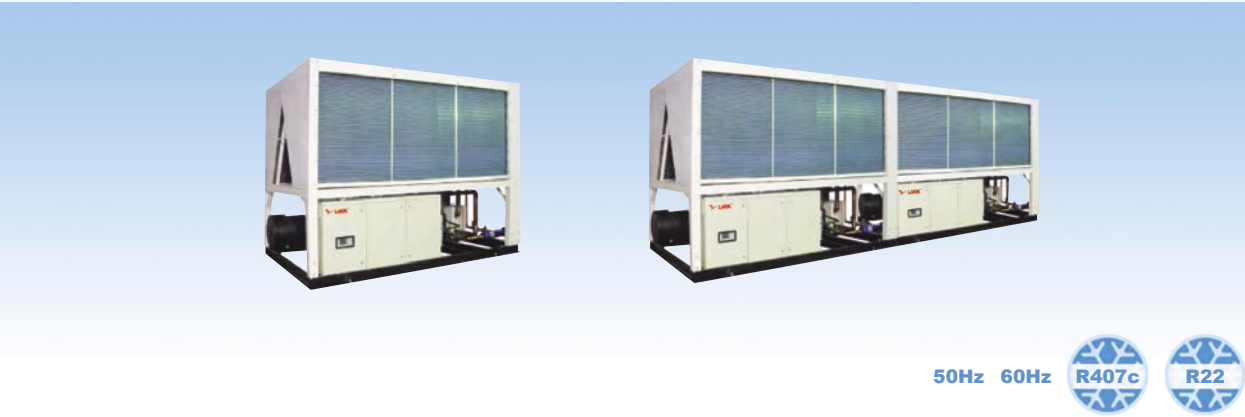
Product type		LFL(R)50M		LFL(R)65M		LFL(R)68M		LFL(R)88M		LFL(R)108M	
Rated cooling capacity	kW/Btu/h	50	170650	65	221845	68	232084	88	300344	108	368604
Rated heating capacity	kW/Btu/h	56.0	191128	72.8	248466	76.2	260071	98.5	336181	121	412973
Compressor	Input power	kW		4×4.1		4×4.9		2×10.2		2×12.3	
	Type							Scroll			
	Amount			4		4		2		2	
Power supply		V/PH/Hz									
	Type							R22/R407c			
Refrigerant	Quantity	kg		4×4		4×4.5		2×9.7		2×12.6	
	Control method							Thermal expansion valve			
Condenser	Type							Fin heat exchanger			
	Amount			2		2		2		2	
Axial fan	Air flow	m³/h		24000		28000		29200		42000	
	Motor power	kW		0.55		0.55		0.55		1.1	
Evaporator	Water flow	m³/h		8.6		10.3		11.7		15.1	
	Type							Shell and tube /tube and tube heat exchanger			
Evaporator	Pressure drop	kPa		43		43		43		42	
	Noise	dB(A)		68		70		70		71	
Dimension (L×W×H)	mm	1980×1100×1800		1980×1100×1800		2110×1100×1900		2160×1280×2110		2160×1560×2110	
Weight	kg	635		760		800		1020		1290	

Product type		LFL(R)60M		LFL(R)68M		LFL(R)80M		LFL(R)100M	
Rated cooling capacity	kW/Btu/h	57.6	196589	67	228261	78.2	266897	98	334474
Rated heating capacity	kW/Btu/h	67.8	231401	78.9	269286	93.34	318569	115.8	395362
Compressor	Input power	kW		4×4.65		2×11.3		2×13.9	
	Type					Scroll			
	Amount			4		2		2	
Power supply		V/PH/Hz							
	Type					R134a			
Refrigerant	Quantity	kg		4×4		2×9		2×10	
	Control method					Expansion valve			
Condenser	Type					Fin heat exchanger			
	Amount			2		2		2	
Axial fan	Air flow	m³/h		24108		28140		32844	
	Motor power	kW		0.55		0.55		0.55	
Evaporator	Water flow	m³/h		9.9		11.7		13.5	
	Type					Shell and tube /tube and tube heat exchanger			
Evaporator	Pressure drop	kPa		43		43		43	
	Noise	dB(A)		68		70		70	
Dimension (L×W×H)	mm	1980×1100×1800		2110×1100×1900		2160×1280×2110		2160×1560×2110	
Weight	kg	760		800		1020		1290	

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : Ambient temperature DB 35℃ / WB 24℃ ,user side water inlet/outlet temperature 12℃ / 7℃ ;
- Heating capacity is measured under the condition : Ambient temperature DB 7℃ / WB 6℃ ,user side water inlet/outlet temperature 40℃ /45℃ .

Modular Chiller



Product type			LFL(R)158M		LFL(R)188M		LFL(R)250M		LFL(R)320M		LFL(R)380M	
Rated cooling capacity		kW/Btu/h	158	539254	188	641644	250	853250	320	1092160	376.2	1283971
Rated heating capacity		kW/Btu/h	174.4	595227	211.6	722191	277.6	947449	361.5	1233800	428.3	1461788
Compressor	Input power	kW	46.3		56.7		74.9		98.2		115.7	
	Type		Semi-hermetic screw compressor									
	Amount		1		1		1		1		1	
Power supply		V/PH/Hz	380/3/50/60									
Refrigerant	Type		R22/R407c									
	Quantity	kg	43.5		53.5		70.2		90.9		108.4	
	Control method		Thermal expansion valve									
Condenser	Type		Fin heat exchanger									
	Amount		4		4		6		6		8	
Axial fan	Air flow	m³/h	68000		96000		144000		144000		192000	
	Motor power	kW	1.3		1.3		1.3		1.3		1.3	
	Water flow	m³/h	27.2		32.3		43		55		64.7	
Evaporator	Type		Shell and tube /tube and tube heat exchanger									
	Pressure drop	kPa	41		41		42		42		42	
	Noise	dB(A)	73		73		75		75		75	
Dimension (L×W×H)		mm	2500×2160×2360		2500×2160×2360		3290×2160×2360		5800×2160×2360		6590×2160×2360	
Weight		kg	1950		2150		2500		4450		4950	

Product type		LFL(R)430M		LFL(R)500M		LFL(R)570M		LFL(R)640M		LFL(R)700M		LFL(R)760M		
Rated cooling capacity		kW/Btu/h	432.5	1476123	495.6	1691483	563.2	1922202	631.2	2154286	691.8	2361113	752.4	2567941
Rated heating capacity		kW/Btu/h	489.2	1669640	555.2	1894898	639.1	2181248	723	2467599	789.8	2695587	856.6	2923576
Compressor	Input power	kW	56.7+74.9		2×74.9		74.9+98.2		2×98.2		98.2+115.7		2×115.7	
	Type		Semi-hermetic screw compressor											
	Amount		2		2		2		2		2		2	
Power supply		V/PH/Hz	380/3/50/60											
Refrigerant	Type		R22/R407c											
	Quantity	kg	53.5+70.2		2×70.2		70.2+90.9		2×90.9		90.9+108.4		2×108.4	
	Control method		Thermal expansion valve											
Condenser	Type		Fin heat exchanger											
	Amount		10		12		12		12		14		16	
Axial fan	Air flow	m³/h	240000		288000		288000		288000		333600		384000	
	Motor power	kW	1.3		1.3		1.3		1.3		1.3		1.3	
	Water flow	m³/h	74.4		85.2		96.9		108.6		119		129.4	
Evaporator	Type		Shell and tube /tube and tube heat exchanger											
	Pressure drop	kPa	42		43		43		44		45		45	
Noise		dB(A)	80		81		81		81		82		83	
Dimension (L×W×H)		mm	5800×2160×2360		6590×2160×2360		6890×2160×2360		7190×2160×2360		8280×2160×2360		9370×2160×2360	
Weight		kg	4450		4950		5450		5750		6650		7250	

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : Ambient temperature DB 35℃ / WB 24℃ ,user side water inlet/outlet temperature 12℃ / 7℃ ;
- Heating capacity is measured under the condition : Ambient temperature DB 7℃ / WB 6℃ ,user side water inlet/outlet temperature 40℃ /45℃ .

50Hz

60Hz



Product type		LFL(R)150M		LFL(R)188M		LFL(R)250M		LFL(R)320M		LFL(R)380M	
Rated cooling capacity	kW/Btu/h	149.7	510926	188	641644	247.7	845400	321.1	1095914	378.9	1293186
Rated heating capacity	kW/Btu/h	174.0	593862	211.6	722191	277	945401	361.5	1233800	429.0	1464177
Compressor	Input power	kW	49.4	60.7		77.4		98.4		114.5	
	Type		Semi-hermetic screw compressor								
	Amount		1	1		1		1		1	
Power supply	V/PH/Hz	380/3/50/60									
Refrigerant	Type	R134a									
	Quantity	kg	38.6	48.3		63.69		82.3		100	
	Control method		Expansion valve						Thermal expansion valve		
Condenser	Type	Fin heat exchanger									
Axial fan	Amount		4	4		4		6		6	
	Air flow	m³/h	63000	84600		112500		144000		171000	
	Motor power	kW	1.3	1.3		1.3		1.3		1.3	
Evaporator	Water flow	m³/h	25.7	32.3		42.6		42		42	
	Type		Shell and tube /tube and tube heat exchanger								
	Pressure drop	kPa	41	41		42		42		42	
Noise	dB(A)	73	73		75		78		78		
Dimension (L×W×H)	mm	2500×2160×2360	2500×2160×2360		3290×2160×2360		3590×2160×2360		4680×2160×2360		
Weight	kg	1950	2150		2500		2900		3650		

Product type		LFL(R)450M		LFL(R)500M		LFL(R)640M		LFL(R)700M		LFL(R)760M		
Rated cooling capacity		kW/Btu/h	450.1	1536191	495.6	1691483	642.2	2191829	692.8	2364526	757.8	2586371
Rated heating capacity		kW/Btu/h	508.6	1735896	559.8	1910597	725.7	2476766	782.9	2671915	856.3	2922600
Compressor	Input power	kW	135.2		2×77.4		2×98.4		2×105.1		2×114.5	
	Type		Semi-hermetic screw compressor									
	Amount		1		2		2		2		2	
Power supply		V/PH/Hz	380/3/50/60									
Refrigerant	Type		R134a									
	Quantity	kg	128.6		2×70.2		2×82.3		2×92		2×100	
	Control method		Thermal expansion valve									
Condenser	Type		Fin heat exchanger									
	Amount		10		12		12		12		12	
	Air flow	m³/h	21000		250000		288000		288000		288000	
Axial fan	Motor power	kW	1.3		1.3		1.3		1.3		1.3	
	Water flow	m³/h	77.4		85.2		108.6		119		129.4	
	Type		Shell and tube /tube and tube heat exchanger									
Evaporator	Pressure drop	kPa	42		43		44		45		45	
	Noise	dB(A)	80		81		81		82		83	
Dimension (L×W×H)		mm	5800×2160×2360		6590×2160×2360		7190×2160×2360		8280×2160×2360		9370×2160×2360	
Weight		kg	4450		4950		4950		6650		7250	

Performance values refer to the following conditions:

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Water Source Heat Pump



Features

Structure

Panels and frame are made from galvanized steel protected with polyester powder painting to against eroding well.

Hermetic compressor

Single phase and 3-phase scroll type compressors, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

Evaporator

Coils are consisting of seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins.

Condenser

High efficiency tube in tube heat exchanger , factory insulated with flexible close cell material.

Refrigerant circuit

Copper tube connection with charge valves, filter drier, thermostatic expansion valve, gas-liquid separator, high pressure switch and low pressure switch.

The heat pump units are complete also with 4-way valve .

Hydronic circuit

Built with water source side inlet/outlet connectors, water discharge connectors, air vent valve

Electric panel

Consists of:

Compressor contactor

Compressor protection breaker

Water source side water pump contactor

Touch screen display

Microprocessor with function display

Optional

Pressure gauge witch must be installed in factory,

Source side flow switch,

Source side water pump,

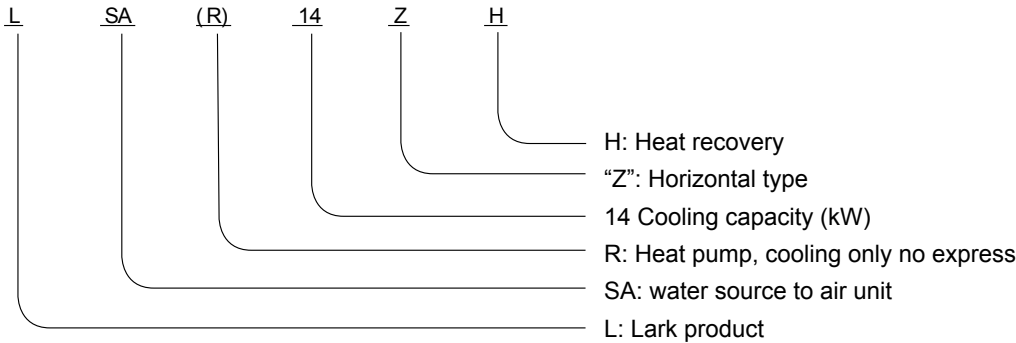
Anti-vibration rubber,

BMS management with Modbus communication protocol

Additional

Please declare the kind of refrigerant.

Instruction of model



Product type		LSA(R)2.5Z		LSA(R)3.5Z		LSAR)5Z		LSA(R)7Z		LSA(R)10Z	
Rated cooling capacity		kW/Btu/h	2.6 8800	3.7 12600	5.0 17000	7.4 25250	9.2 31400				
Rated heating capacity		kW/Btu/h	3.0 10200	3.9 13300	5.4 18400	7.8 26600	10.5 36000				
Compressor	Cooling input power	kW	0.63		0.84		1.45		1.63		2.5
	Heating input power	kW	0.62		0.72		1.34		1.58		2.47
	Power supply	V/PH/Hz	230/1/50/60		230/1/50/60		230/1/50/60		230/1/50/60		230/1/50/60
	Type		Rotary								
Refrigerant	Amount		1		1		1		1		1
	Type		R22/R410a								
	Quantity	kg	0.5		0.84		0.9		1.15		1.5
	Control method		Thermal expansion valve								
Condensation side											
Condenser	Type		Co-axial heat exchanger								
	Circuit Amount		1		1		1		1		1
	Water flow	m³/h	0.4		0.77		1.2		1.6		2.2
	Pressure drop	Kpa	8		8		10		14		16
Evaporation side											
Centrifugal fan	Power supply	V/PH/Hz	230/1/50		230/150		230/1/50		230/1/50		230/1/50
	Amount		1		1		1		1		1
	Air flow	m³/h	650		700		1000		1300		2000
	Motor power	kW	0.1		0.15		0.30		0.30		0.5
Drive type			Direct								
	External static pressure	Pa	60		60		80		100		10
Noise	dB(A)		40		42		43		44		46
Dimension (L×W×H)	mm		1050×740×400		1200×740×400		1250×785×500		1250×865×500		1360×865×500
Weight	kg		50		57		75		90		100

Performance values refer to the following conditions:

- Cooling capacity is measured under the condition : indoor temperature DB 27°C / WB 19°C ,water inlet/outlet temperature DB 30°C / WB 35°C;
- Heating capacity is measured under the condition : indoor temperature DB 20°C / WB 15°C ,water inlet/outlet temperature DB 20°C / --.