Make Air Treatment Healthier and More Energy-Efficient

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HOLTOP

HEAT PUMP HEAT RECOVERY AIR HANDLING UNIT

MAKE AIR TREATMENT HEALTHIER AND MORE ENERGY-EFFICIENT

Everyone needs to breathe 25,000 times per day, fresh and clean air is essential.

The ultimate pursuit of details, strict requirements for quality.

Pragmatism, Responsibility, Collaboration, Innovation.

Holtop keeps working on providing you with fresh air, clean, intelligent control, comfortable, convenience - integrated clean air solutions. Holtop delivers fresh and clean air, just for you healthy breath!

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MAKE AIR TREATMENT HEALTHIER AND MORE ENERGY-EFFICIENT HOLTOP

ABOUT HOLTOP

2002

HOLTOP WAS FOUND

Well-known domestic manufacturer of healthy, comfortable and energy-saving air handling unit.

Annual output of 200,000 units of fresh air, air conditioning and environmental protection equipment.

Won the title of “Zhongguancun and National High-tech Enterprises” and “Specialized, Special, New and Small Giant Enterprises” Accredited for participating in the compilation of many China national standards, with nearly 100 patent.

Obtained ISO9001, ISO14001, ISO45001 management system certification.

Set up sales and service agencies in major cities across the China, and won the five-star service certification.

Holtop products are available in over 100 countries and regions, delivering high-quality user experience to hundreds of millions of customers worldwide.

ISO Certifications

Dozens of National Patents Owner

National Standards Participated

World Leading Manufacturer

Zhongguancun & National High-tech Enterprise

Equipment Supplier for Beijing Olympics and The Shanghai World Expo

MAKE AIR TREATMENT HEALTHIER AND MORE ENERGY-EFFICIENT HOLTOP

MAKE AIR TREATMENT HEALTHIER AND MORE ENERGY-EFFICIENT

To make the air fresh and the sky blue, to ensure every breath is safer, to utilize energy more sustainably and to make air treatment healthier and more energy-efficient, this is the mission to which we have been dedicated.

DEVELOPMENT HISTORY

2002
- On 27th May, Holtop was founded, and Holtop brand products were put into the market.

2003
- During SARS period, Holtop overcame difficulties and won the "Outstanding Contribution Award for Combating SARS" issued by Beijing Municipal Government.

2004
- Holtop 5-metre diameter heat recovery wheel put into engineering application.

2005
- Holtop new 30,000 square metre factory in Haidian District, Beijing, was put into operation;
- Holtop was certified by ISO14001.

2006
- Holtop self-developed heat recovery air handling unit launched and received a good market response.

2007
- Holtop Invited to participate in the compilation of the national standard "Air to Air Energy Recovery Device".

2008
- During the Beijing Olympic Games, 24-hour guarding of the venues Holtop fresh air system, obtained title of "Olympic excellent protection enterprise".

2009
- Holtop was designated supplier of air heat recovery devices for Shanghai World Expo, and supported heat recovery fresh air devices for Shandong National Games venues.

2010
- Holtop overseas sales and service agencies quantity reached 18, sales network covering the whole country; Obtained the
- "National Industrial Products Production Licence".

2011
- Holtop heat recovery device certified by European Eurovent, laying the foundation for the development of overseas markets.

2012
- Holtop Successfully signed a contract with Beijing Benz automobile plant project, realising a major breakthrough of air-conditioning products in the automobile industry.

2013
- Holtop whole series of fresh air ventilators obtained the "Energy-saving Certification for Architectural Engineering".

2014
- Holtop participated in compiling the national standard for "Air-to-air heat exchanger unit for unitary ventilation and air conditioning".

2015
- Holtop Badaling's production base in Yanqing Park of Zhongguancun, Yanqing District was put into operation.

2016
- Holtop acknowledged as "Zhongguancun High-tech Enterprise"; Holtop signed
- the first overseas large-scale project "Geely Belarus Plant".

2017
- Holtop acknowledged as "National High-tech Enterprise";
- Holtop Forest Oxygen Bar home air conditioning products were released.

2018
- Holtop Environmental Protection Company was recognised as "National High-tech Enterprise";
- "Holtop Science and Technology Park" was put into use.

2019
- Holtop Self-developed DX heat recovery purification AHU went on sale.

2020
- Holtop acted against the epidemic by donating fresh air equipment together with Zhong Nanshan Foundation; provided fresh air system for Wuhan Square Cabin Hospital. .....

2021
- Holtop Company and Holtop Environmental Protection Company were both recognized as "Specialized and New Enterprise" and "Small Giant Enterprise".

2022
- Holtop fresh air ventilators and air handling units provide 24-hour service to the Olympic Winter Games.

CRAFTSMANSHIP

ANNUAL OUTPUT OF 200,000 SETS OF AIR HANDLING UNIT

Holtop Badaling manufacturing base is located in Yanqing Park, Zhongguancun.

Has international advanced production lines and modern intelligent manufacturing equipment.

Details determine quality, Holtop strive for perfection in every detail, and produce excellent products that meet the quality of Holtop.

Sheet metal workshop

Assembly line for standard ventilation unit

Assembly line of ceiling type air handling unit

Assembly area of combined air handling unit

Air conditioning Outdoor unit production line

National certified enthalpy laboratory

Manufacturing base assembly workshop

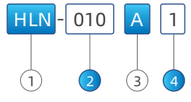
MAKE AIR TREATMENT HEALTHIER AND MORE ENERGY-EFFICIENT HOLTOP

HOLTOP Heat Pump Heat Recovery Air Handling Unit

HOLTOP Heat Pump Heat Recovery AHU represents a novel concept in energy-saving air conditioning. It combines a direct expansion heat recovery system with traditional heat recovery technologies to maximize energy recovery from exhaust air, thereby enhancing energy efficiency and promoting energy conservation.

To cater to various air quality requirements across different applications, HOLTOP offers both integrated and split-type units. These units boast a range of optional features, including easy installation, precise temperature control, rapid response, and reliable operation. The integrated type is suitable for most common scenarios, whereas the split type is ideal for applications demanding a higher standard of air quality.

Model Number Nomenclature



1. HOLTOP HLN series heat pump heat recovery air handling unit
2. Rated airflow: Number * 100 m³/h
3. AHU type: A - Floor mounted type, B - Ceiling type, C - Split type exhaust unit, D - Split type supply unit
4. No. of design version

Integrated type heat pump heat recovery unit

- HLN-*** A/B

Split type heat pump heat recovery unit

- HLN-*** C/D

AHU Features

High energy efficiency DC inverter scroll compressor

High-Pressure Chamber Compressor

The high-pressure chamber DC inverter compressor adopts asymmetric scroll disk structure, which can directly compress gaseous refrigerant after inhaling, reducing the leakage loss in the compressor chamber, and improving the operating efficiency and reliability of the compressor.

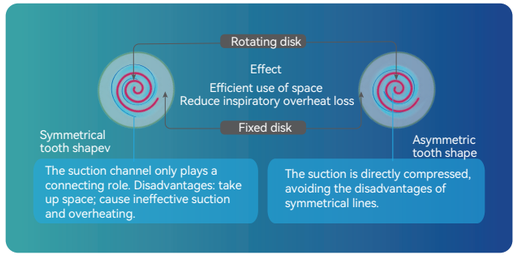
Bigger exhaust chamber design, effectively reduce the vibration during exhausting, vibration and noise reduction effect is outstanding.

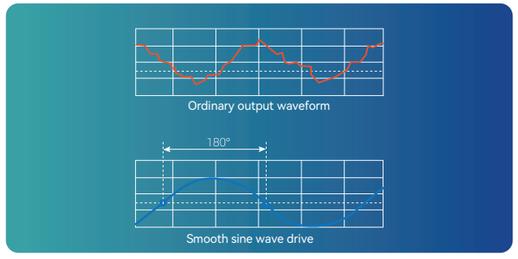
Large-capacity scroll compressor adopts a new driving mechanism, which makes the oil delivery effect of the rotating part of the movable and static scroll disk reach to the best state, and the operating efficiency is enhanced to an upper level.

Asymmetric scroll design with leading 180 vector frequency control technology

The asymmetric scroll design realizes the dynamic and continuous compression of refrigerant, effectively reduces the leakage loss during compression, and improves the efficiency and reliability of compressor operation.

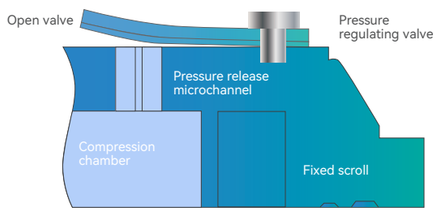
New DC inverter controller, output smooth 180 degree sine wave, so that the compressor stator coil always forms a stable rotating magnetic field, always stably runs from low speed to high speed, effectively reduce the compressor vibration and noise.





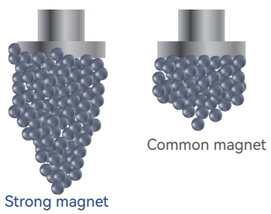
Over-compression protection technology

By such technology, the excessive exhaust pressure is automatically adjusted, which effectively solves the problem of power consumption boost caused by excessive exhaust pressure, compressor operation more energy saving, and effectively increase the stability of the system.

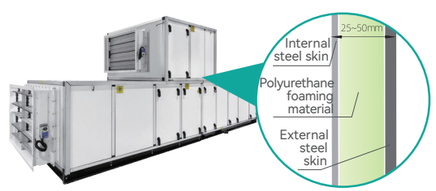


Neodymium rare earth permanent magnet rotor

The motor rotor adopts super-strong neodymium magnet, which can generate a strong permanent magnetic field and greatly enhance the compression torque to ensure the high efficiency of the compressor operation.



Patented casing structure



Double skin panel with high-density PU injection, the thermal transmittance is T2 (En1886-2007).

Unique cold bridge structure, with cold bridge factor TB2 Class (En1886-2007).

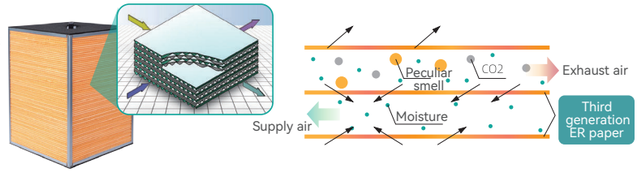
Proprietary frame structure provides casing mechanical strength D1 (En1886-2007) Class (Highest class of EU standard).

AHU Features

Economic energy saving

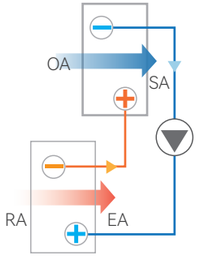
Crossflow total heat exchanger

The Holtop crossflow total heat exchanger is constructed from imported ER paper, which is a thin corrugated paper produced using special technology. This ensures higher heat transmissibility, fire resistance (up to grade B2), and enhanced tire resistance and mold prevention (up to level 0).



According ASTM G 21-2009;GB8624-1997,GB/T8626-2007,ISO11925-2;2002

Liquid Circulation Heat Recovery



Working principle

The principle involves installing liquid coils in both the supply and exhaust units, as well as a pump to circulate the liquid between the two coils. This setup is designed to recover energy from the exhaust air and to pre-cool or pre-heat the incoming fresh air.

Applications

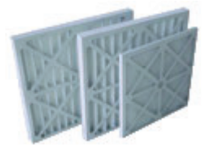
Liquid circulation heat recovery can be an option of 1st step recovery when the cross-flow heat recovery core is not applicable for the case when supply channel and exhaust channel is separated, or when it requires absolutely no contact between supply air and exhaust air.

Glycol Solution Freezing point & Concentration

Freezing point (°C)	-1.4	-3.2	-5.4	-7.8	-10.7	-14.1	-17.9	-22.3
Mass percent (%)	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
Volume percent (%)	4.4	13.6	13.6	18.1	22.9	27.7	32.6	37.5

Various filtration class

By selecting the plate type, bag type, chemical type, electronic purification type and other filters, it can meet the requirements of different filtration level ranging from G3-H13. At the same time, It provides the fresh air and a comfortable breathing environment by filtering, absorbing and decomposing the harmful substances.

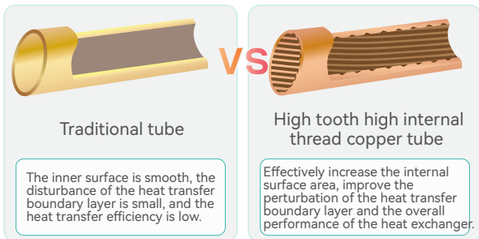


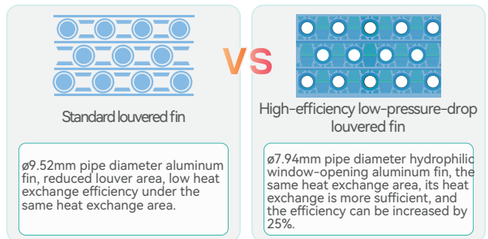
High efficiency heat exchanger

Adopting ø7.94 high-tooth high-threaded copper tube with moderate flow rate, it can achieve the best comprehensive performance of heat exchange and defrosting.

The distance between ø7 copper pipes is small, frost is easy to form, and the frost layer is thicker, which affects the defrosting time and heat exchange efficiency.

The diameter of the ø9.52 copper pipes is large, the disturbance to the heat transfer boundary layer is small, and the heat transfer efficiency is low.

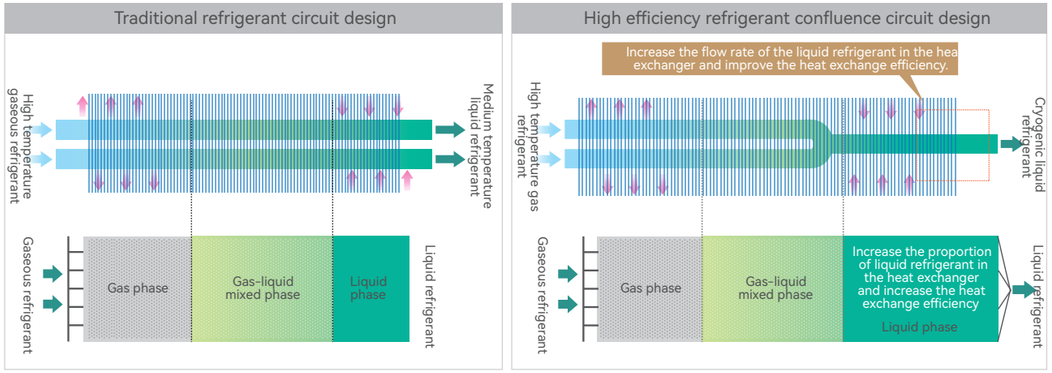




AHU Features

High-efficiency refrigerant heat exchange flow path

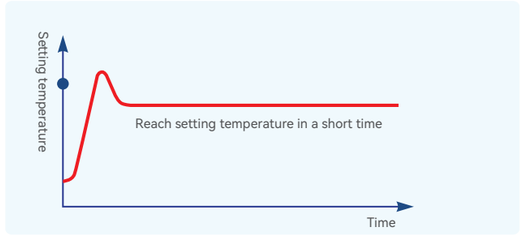
The high-efficiency 2in1 refrigerant confluence technology reduces the space occupied by the liquid-phase refrigerant on the heat transfer pipeline, and at the same time increases the degree of subcooling, making the long connecting pipe more efficient.

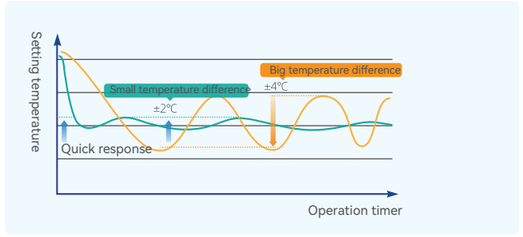


High precision control

As soon as the AHU is on, the compressor runs in the form of full capacity according to the setting temperature and the detected environment temperature, so that the supply air temperature will reach the setting value shortly, to meet the user's cooling and heating needs.

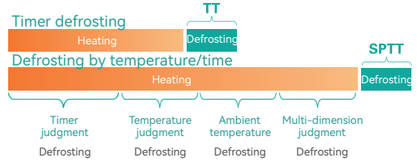
It is equipped with complete set of temperature and pressure sensors, providing continuous, steady step-less capacity regulation to meet the indoor load demand. Unique dynamic load prediction, uninterrupted tracking technology, electronic expansion valve precise regulation, rapid reaction, uniform air distribution, temperature control accuracy of up to +2°C, are all aiming at a comfort environment.

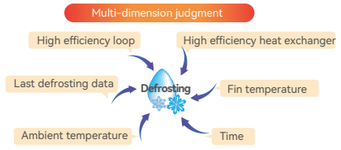




Multi-point detection, intelligent defrosting

With the self-developed high efficiency, low pressure heat exchanger and low-noise large-impeller fan, it can improve the heat exchange efficiency of outdoor unit, which can postpone the frosting process, and reduce defrosting time effectively. The defrosting logic will judge the device defrosting condition according to multiple aspects, like fin temperature, environmental temperature and running time, etc., precisely get the right timing to enter or exit defrosting process, reduce defrosting frequency and time, to ensure the indoor comfort.

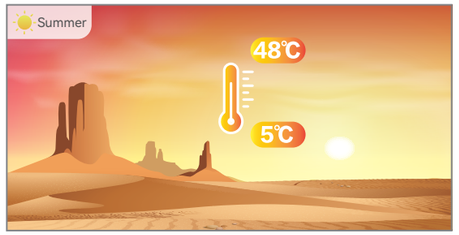


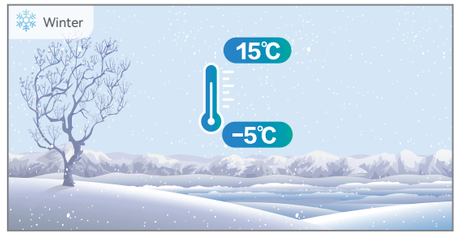


AHU Features

Wide operating range

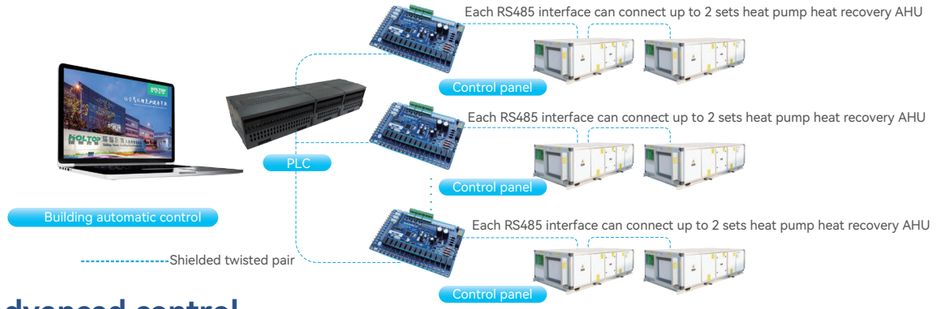
The condenser in the exhaust air channel enables energy recovery from exhaust air (under summer operating conditions), significantly increasing the equipment COP value while dramatically improving system reliability, allowing stable operation across a wider range of ambient conditions.





Smart group control

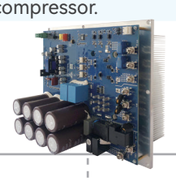
The reserved RS485 interface inside the controller can connect to upper PLC for group control. Each PLC can control 16 groups of controllers, and each group of controllers can control 2 sets of AHU. That is, one PLC can control up to 32 pcs independent heat pump heat recovery AHU. The control system can realize group control like mode switching, temperature adjustment, on/off control, etc., with extensive functions and flexible application.

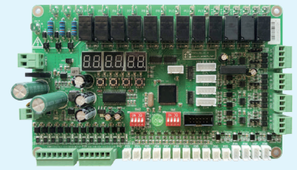


Advanced control

The unit not only detects its operating condition through the temperature sensor, but also detects the operating condition of the system quickly, comprehensively and accurately through the high pressure and low pressure sensors to ensure that the unit operates more stably and efficiently.

Large capacity air-cooled frequency converter, to ensure reliable operation of compressor.





Self-customized multi-functional PCB board, brings more stable operation, efficient and comfortable.

High precision electronic expansion valve, can quickly adjust the refrigerant flow, adapt to the changing load. With such accurate refrigerant control, the unit runs more efficiently and comfortably.

PRODUCT OVERVIEW

Integrated Type Heat Pump Heat Recovery Unit

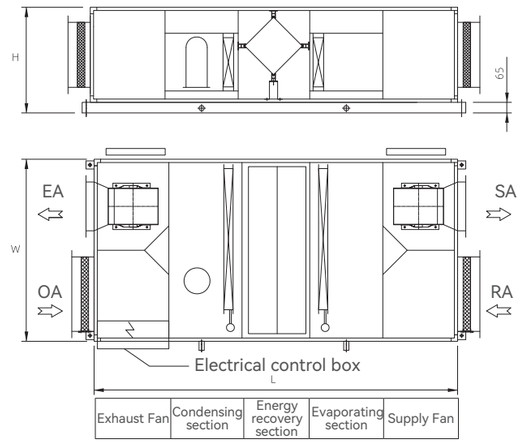
HOLTOP Integrated Type Heat Pump Heat Recovery Unit adopts the cross-flow plate-fin total heat recovery core as the 1st step recovery system, and the direct expansion system to be the 2nd step recovery system. Because the compressor and the condensing coil is set in the exhaust channel, it increases the efficiency of the compressor and recovers the energy from exhaust air to the maximum extent. In other word, it reduce the energy for fresh air handling as much as possible.

The design of the integrated type is with the features of compact body, precise control and rapid response, easy installation, reliable operation. It is widely used in common applications like mall, office complex, hotel, gym, workshop, etc.

Integrated Type Heat Pump Heat Recovery Unit-Ceiling Mounted Type

Unit Specification

Model		HLN-006B1	HLN-010B1-DC	HLN-020B1-DC	HLN-030B1-DC	HLN-040B1-DC	HLN-050B1-DC
Rated Cooling Capacity (kw)		5.2	8.8	17.3	25.6	36.5	44.5
Rated Heating Capacity (kw)		5.4	9.1	17.9	26.8	37.8	46.0
Voltage		380V/3PH/50Hz					
Fresh Air	Airflow (m3/h)	600	1000	2000	3000	4000	5000
	E.S.P (Pa)	120	140	200	220	300	300
	Motor Power (kw)	0.18	0.45	0.55	0.75	1.5	2.2
Exhaust Air	Airflow (m3/h)	600	1000	2000	3000	4000	5000
	E.S.P (Pa)	110	120	180	200	280	280
	Motor Power (kw)	0.18	0.45	0.55	0.75	1.5	2.2
Safety Protection		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc					
Heat Exchange Efficiency		> 92%					
Compressor	Type	Fixed frequency	DC Inverter (optional fixed frequency compressor)				
	Power (Kw)	0.64	1.0	2.1	2.8	3.8	4.9
Refrigerant		R410A					
Fresh Air Filter		G2					
Drain Pipe		DN25 x 2	DN25 x 2	DN25 x 2	DN25 x 2	DN25 x 2	DN25 x 2
Weight (kg)		190	235	305	380	430	450



Unit Outline Dimensions

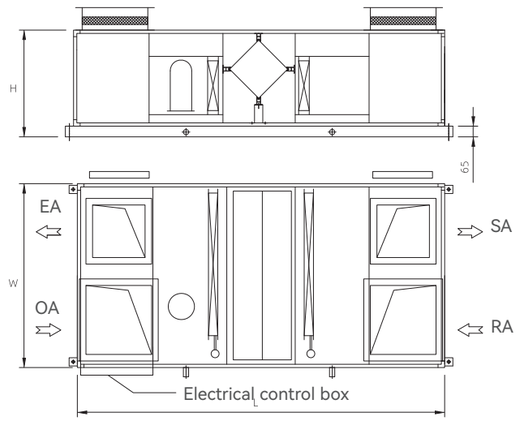
unit: mm

Model	L	W	H	Fresh Air Inlet	Supply Air Outlet	Return Air Inlet	Exhaust Air Outlet
HLN-006B1	1790	950	550	360 x 321	356 x 321	306 x 321	356 x 321
HLN-010B1-DC	2210	1120	650	418 x 423	300 x 300	418 x 423	300 x 300
HLN-020B1-DC	2420	1280	700	498 x 473	350 x 300	498 x 473	350 x 300
HLN-030B1-DC	2590	1400	850	558 x 623	350 x 300	558 x 623	350 x 300
HLN-040B1-DC	2940	1530	900	623 x 673	400 x 300	623 x 673	400 x 300
HLN-050B1-DC	3010	1610	950	663 x 723	400 x 300	663 x 723	400 x 300

Integrated Type Heat Pump Heat Recovery Unit-Floor Mounted Type

Unit Specification

Model		HLN-030A1-DC	HLN-040A1-DC	HLN-050A1-DC
Rated Cooling Capacity (kw)		25.6	36.5	44.5
Rated Heating Capacity (kw)		26.8	37.8	46.0
Voltage		380V/3PH/50Hz		
Fresh Air	Airflow (m3/h)	3000	4000	5000
	E.S.P (Pa)	220	300	300
	Motor Power (kw)	0.75	1.5	2.2
Exhaust Air	Airflow (m3/h)	3000	4000	5000
	E.S.P (Pa)	200	280	280
	Motor Power (kw)	0.75	1.5	2.2
Safety Protection		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		> 92%		
Compressor	Type	DC Inverter (optional fixed frequency compressor)		
	Power (Kw)	2.8	3.8	4.9
Refrigerant		R410A		
Fresh Air Filtering		G2		
Drain Pipe		DN25 x 2	DN25 x 2	DN25 x 2
Weight (kg)		410	473	492



Exhaust Fan	Condensing section	Energy recovery section	Evaporating section	Supply Fan

Unit Outline Dimensions

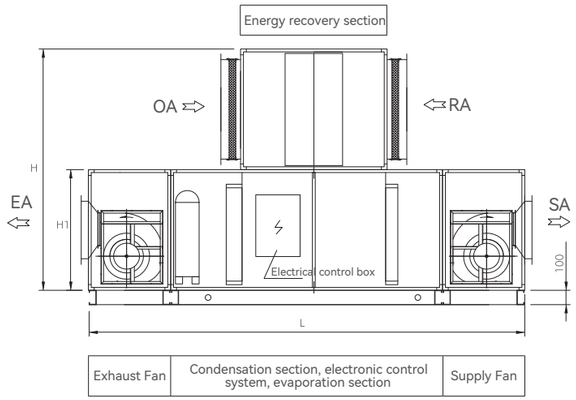
unit: mm

Model	L	W	H	Fresh Air Inlet	Supply Air Outlet	Return Air Inlet	Exhaust Air Outlet
HLN-030A1-DC	3060	1400	850	558 x 623	350 x 300	558 x 623	350 x 300
HLN-040A1-DC	3370	1530	900	623 x 673	400 x 300	623 x 673	400 x 300
HLN-050A1-DC	3540	1610	950	663 x 723	400 x 300	663 x 723	400 x 300

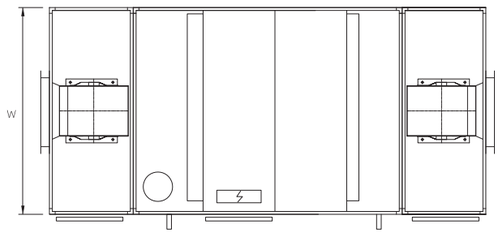
Integrated Type Heat Pump Heat Recovery Unit-Ceiling Mounted Type

Unit Specification

Model		HLN-060A1-DC	HLN-070A1-DC	HLN-080A1-DC
Nominal Cooling Capacity (kW)		54.8	65.0	73.0
Nominal Heating Capacity (kW)		56.5	67.5	76.0
Voltage		380V/3PH/50Hz		
Fresh Air System	Airflow (m3/h)	6000	7000	8000
	E.S.P (Pa)	200	400	400
	Motor Power (kW)	2.20	3.00	4.00
Exhaust Air System	Airflow (m3/h)	6000	7000	8000
	E.S.P (Pa)	180	380	380
	Motor Power (kW)	2.20	3.00	4.00
Safety Protection		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		> 92%		
Compressor	Type	DC Inverter (optional fixed frequency compressor)		
	Power (kW)	6.70	7.60	8.05
Refrigerant		R410A		
Fresh Air Filter		G2		
Drain Pipe		DN32×2	DN32×2	DN32×2
Weight (kg)		780	870	920



Exhaust Fan	Condensation section, electronic control system, evaporation section	Supply Fan



Unit Outline Dimensions

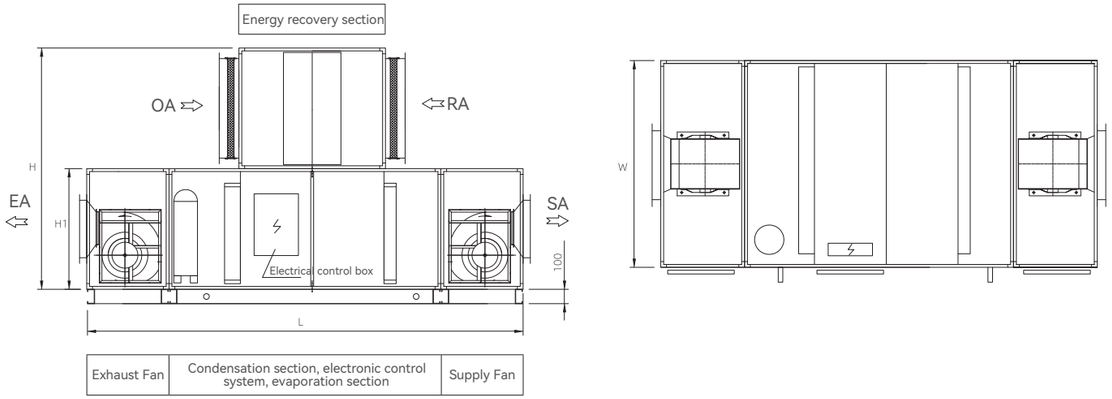
unit: mm

Model	L	W	H	H1	Fresh Air Inlet	Supply Air Outlet	Return Air Inlet	Exhaust Air Outlet
HLN-060A1-DC	3720	1240	2380	1040	475 × 875	450 × 320	475 × 875	450 × 320
HLN-070A1-DC	3720	1240	2380	1040	475 × 875	500 × 400	475 × 875	500 × 400
HLN-080A1-DC	4220	1240	2980	1340	475 × 1075	600 × 400	475 × 1075	600 × 400

Integrated Type Heat Pump Heat Recovery Unit-Floor Mounted Type

Unit Specification

Model		HLN-100A1-DC	HLN-120A1-DC	HLN-150A1-DC
Nominal Cooling Capacity (kW)		89.0	110.0	134.0
Nominal Heating Capacity (kW)		93.0	114.0	140.0
Voltage		380V/3PH/50Hz		
Fresh Air System	Airflow (m3/h)	10000	12000	15000
	E.S.P (Pa)	400	400	400
	Motor Power (kW)	4.00	5.50	7.50
Exhaust air system	Airflow (m3/h)	10000	12000	15000
	E.S.P (Pa)	380	380	380
	Motor Power (kW)	4.00	5.50	7.50
Safety Protection		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		> 92%		
Compressor	Type	DC Inverter (optional fixed frequency compressor)		
	Power (kW)	10.30	13.40	15.20
Refrigerant		R410A		
Fresh Air Filter		G2		
Drain Pipe		DN32×2	DN32×2	DN32×2
Weight (kg)		980	1150	1300



Unit Outline Dimensions

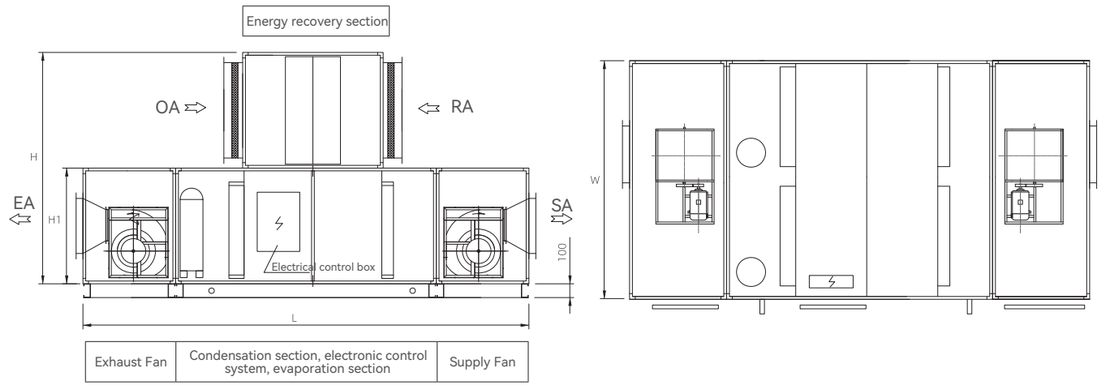
unit: mm

Model	L	W	H	H1	Fresh Air Inlet	Supply Air Outlet	Return Air Inlet	Exhaust Air Outlet
HLN-100A1-DC	4220	1240	2980	1340	475 × 1175	600 × 450	475 × 1175	600 × 450
HLN-120A1-DC	4420	1540	3380	1540	575 × 1375	650 × 450	575 × 1375	650 × 450
HLN-150A1-DC	4820	1540	3380	1540	575 × 1375	800 × 450	575 × 1375	800 × 450

Integrated Type Heat Pump Heat Recovery Unit-Floor Mounted Type

Unit Specification

Model		HLN-180A1-DC	HLN-210A1-DC	HLN-250A1-DC	HLN-300A1-DC
Nominal Cooling Capacity (kW)		160.0	178.0	220.0	268.0
Nominal Heating Capacity (kW)		165.0	185.0	227.0	277.0
Voltage		380V/3PH/50Hz			
Fresh Air System	Airflow (m3/h)	18000	21000	25000	30000
	E.S.P (Pa)	400	400	340	400
	Motor Power (kW)	11.0	11.0	15.0	15.0
Exhaust Air System	Airflow (m3/h)	18000	21000	25000	30000
	E.S.P (Pa)	380	380	320	380
	Motor Power (kW)	11.0	11.0	15.0	15.0
Safety Protection		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.			
Heat Exchange Efficiency		> 92%			
Compressor	Type	DC Inverter (optional fixed frequency compressor)			
	Power (kW)	17.0	20.6	26.8	30.4
Refrigerant		R410A			
Fresh Air Filter		G2			
Drain Pipe		DN32x2	DN32x2	DN32x2	DN32x2
Weight (kg)		1550	1700	2100	2300



Unit Outline Dimensions

unit: mm

Model	L	W	H	H1	Fresh Air Inlet	Supply Air Outlet	Return Air Inlet	Exhaust Air Outlet
HLN-180A1-DC	4620	2440	2980	1340	1675 x 1075	700 x 700	1675 x 1075	700 x 700
HLN-210A1-DC	4820	2440	2980	1340	1760 x 1175	700 x 700	1760 x 1175	700 x 700
HLN-250A1-DC	5020	2940	3380	1540	1760 x 1375	800 x 800	1760 x 1375	800 x 800
HLN-300A1-DC	5420	2940	3380	1540	2060 x 1475	900 x 900	2060 x 1475	900 x 900

PRODUCT OVERVIEW

Split Type Heat Pump Heat Recovery Unit

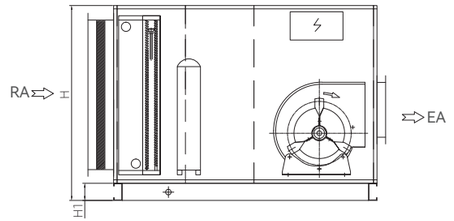
HOLTOP Split Type Heat Pump Heat Recovery Unit is developed for the applications where the supply unit and exhaust unit is separated with each other to achieve a high air quality standard. It adopts the liquid circulation heat recovery as the 1st step recovery system, and the direct expansion system to be the 2nd step recovery system. So both liquid coil and DX coil will be equipped in the supply unit and exhaust unit. For the same, the compressor and the condensing coil is set in the exhaust channel.

Thanks to the separation of fresh air and exhaust air, the split type heat pump heat recovery unit is especially suitable for applications like hospital, pharmacy workshop, electronics factory, and those in need of strict control of indoor air quality.

Split Type Heat Pump Heat Recovery Unit - Exhaust Unit

Unit Specifications

Model		HLN-010C1	HLN-020C1	HLN-030C1
Rade Cooling Capacity (kw)		8.8	17.3	25.6
Rade Heating Capacity (kw)		9.1	17.9	26.8
Airflow (m3/h)		1000	2000	3000
E.S.P (Pa)		150	220	260
Motor Power (kw)		0.45	0.55	0.75
Voltage		380V/3PH ~ 50Hz		
Safety Protections		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		≥92%		
Compressor	Type	Fixed frequency compressor (DC inverter type optional)		
	Power (kw)	1.00	2.10	2.80
Refrigerant		R410A		
Filter		G2		
Liquid Pipe Dia. (ø mm)		9.25		
Gas pipe dia. (ø mm)		12.7	15.88	
Drain Pipe (ø mm)		DN25×1		DN32×1
Weight (kg)		180	210	240



Unit Outline Dimensions

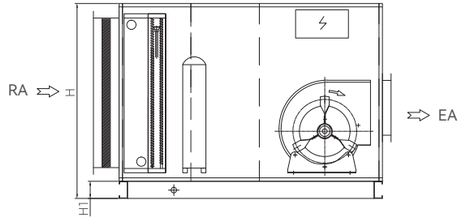
unit: mm

Model	L	W	H	H1	RA inlet	EA outlet
HLN-010C1	1340	740	605	65	575 × 375	350 × 300
HLN-020C1	1340	940	605	65	775 × 375	350 × 300
HLN-030C1	1340	1040	705	65	875 × 475	350 × 300

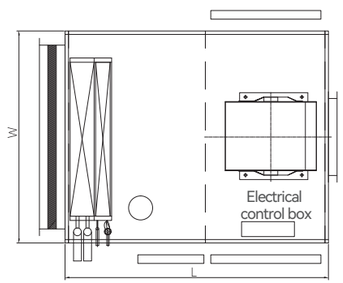
Split Type Heat Pump Heat Recovery Unit - Exhaust Unit

Unit Specifications

Model		HLN-040C1	HLN-050C1	HLN-060C1
Rade Cooling Capacity (kw)		36.5	44.5	54.8
Rade Heating Capacity (kw)		37.8	46.0	56.5
Airflow (m3/h)		4000	5000	6000
E.S.P (Pa)		300		
Motor Power (kw)		1.50	2.20	2.20
Voltage		380V/3PH ~ 50Hz		
Safety Protections		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		≥92%		
Compressor	Type	Fixed frequency compressor (DC inverter type optional)		
	Power (kw)	3.80	4.90	6.70
Refrigerant		R410A		
Filter		G2		
Liquid Pipe Dia. (ømm)		9.52		
Gas pipe dia. (ømm)		15.88		
Drain Pipe (ømm)		DN32×1		
Weight (kg)		280	320	380



G2	Liquid coil+DX coil	Exhaust fan



Unit Outline Dimensions

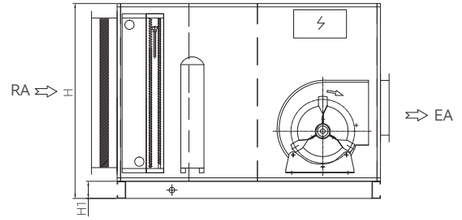
unit: mm

Model	L	W	H	H1	RA inlet	EA outlet
HLN-040C1	1540	1340	805	65	1175 × 575	400 × 300
HLN-050C1	1540	1340	805	65	1175 × 575	400 × 300
HLN-060C1	1640	1240	1140	100	1075 × 875	450 × 320

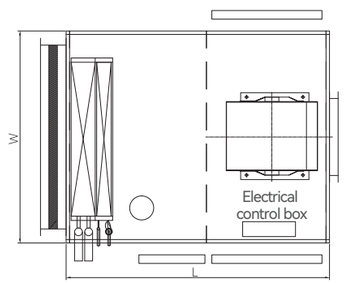
Split Type Heat Pump Heat Recovery Unit - Exhaust Unit

Unit Specifications

Model		HLN-070C1	HLN-080C1	HLN-100C1
Rade Cooling Capacity (kw)		65.0	73.0	89.0
Rade Heating Capacity (kw)		67.5	76.0	93.0
Airflow (m3/h)		7000	8000	10000
E.S.P (Pa)		400	400	350
Motor Power (kw)		3.00	4.00	4.00
Voltage		380V/3PH ~ 50Hz		
Safety Protections		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.		
Heat Exchange Efficiency		≥92%		
Compressor	Type	Fixed frequency compressor (DC inverter type optional)		
	Power (kw)	7.60	8.50	10.30
Refrigerant		R410A		
Filter		G2		
Liquid Pipe Dia. (ømm)		9.52	15.88	
Gas pipe dia. (ømm)		15.88	28.58	
Drain Pipe (ømm)		DN32×1		
Weight (kg)		400	500	530



G2	Liquid coil+DX coil	Exhaust fan



Unit Outline Dimensions

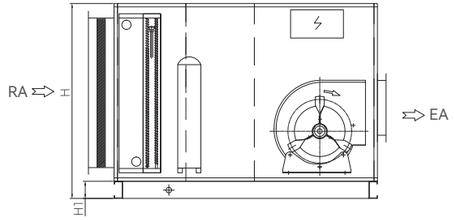
unit: mm

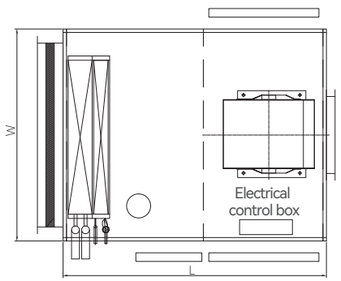
Model	L	W	H	H1	RA inlet	EA outlet
HLN-070C1	1640	1240	1140	100	1075 × 875	500 × 400
HLN-080C1	1840	1240	1440	100	1075 × 1175	600 × 400
HLN-100C1	1840	1240	1440	100	1075 × 1175	600 × 400

Split Type Heat Pump Heat Recovery Unit - Exhaust Unit

Unit Specifications

Model		HLN-120C1	HLN-150C1
Rade Cooling Capacity (kw)		110	134
Rade Heating Capacity (kw)		114	140
Airflow (m3/h)		12000	15000
E.S.P (Pa)		350	450
Motor Power (kw)		5.5	7.5
Voltage		380V/3PH～50Hz	
Safety Protections		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.	
Heat Exchange Efficiency		≥92%	
Compressor	Type	Fixed frequency compressor (DC inverter type optional)	
	Power (kw)	13.4	15.2
Refrigerant		R410A	
Filter		G2	
Liquid Pipe Dia. (ømm)		15.88	
Gas pipe dia. (ømm)		28.58	
Drain Pipe (ømm)		DN32×1	
Weight (kg)		680	710





Unit Outline Dimensions

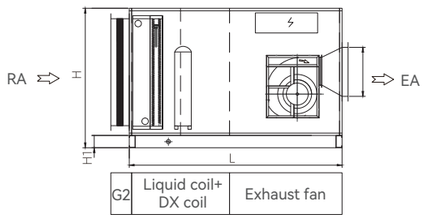
unit: mm

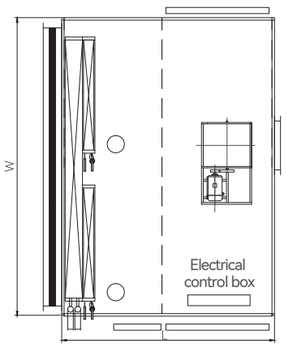
Model	L	W	H	H1	RA inlet	EA outlet
HLN-120C1	1840	1540	1640	100	1375 × 1375	650 × 450
HLN-150C1	1940	1540	1640	100	1375 × 1375	800 × 450

Split Type Heat Pump Heat Recovery Unit - Exhaust Unit

Unit Specifications

Model		HLN-180C1	HLN-210C1	HLN-250C1	HLN-300C1
Rade Cooling Capacity (kw)		160	178	220	268
Rade Heating Capacity (kw)		165	185	227	277
Airflow (m3/h)		18000	21000	25000	30000
E.S.P (Pa)		500	450	550	450
Motor Power (kw)		11.0	11.0	15.0	15.0
Voltage		380V/3PH～50Hz			
Safety Protections		High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.			
Heat Exchange Efficiency		≥92%			
Compressor	Type	Fixed frequency compressor (DC inverter type optional)			
	Power (kw)	17.0	20.6	26.8	30.4
Refrigerant		R410A			
Filter		G2			
Liquid Pipe Dia. (ømm)		15.88×2			
Gas pipe dia. (ømm)		28.58×2			
Drain Pipe (ømm)		DN32×1			
Weight (kg)		940	970	1080	1120





Unit Outline Dimensions

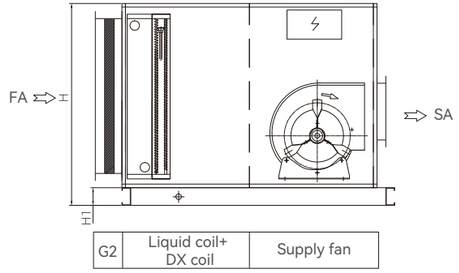
unit: mm

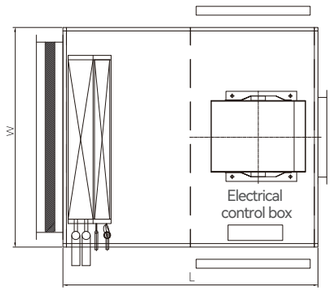
Model	L	W	H	H1	RA inlet	EA outlet
HLN-180C1	2040	2440	1440	100	2275 × 1175	700 × 700
HLN-210C1	2040	2440	1440	100	2275 × 1175	700 × 700
HLN-250C1	2140	2940	1640	100	2775 × 1375	800 × 800
HLN-300C1	2240	2940	1640	100	2775 × 1375	900 × 900

Split Type Heat Pump Heat Recovery Unit - Supply Unit

Unit Specifications

Model	HLN-010D1	HLN-020D1	HLN-030D1	HLN-040D1	HLN-050D1
Rade Cooling Capacity (kw)	8.8	17.3	25.6	36.5	44.5
Rade Heating Capacity (kw)	9.1	17.9	26.8	37.8	46.0
Airflow (m3/h)	1000	2000	3000	4000	5000
E.S.P (Pa)	150	220	260	300	300
Motor Power (kw)	0.45	0.55	0.75	1.50	2.20
Voltage	380V/3PH ~ 50Hz				
Safety Protections	High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.				
Heat Exchange Efficiency	≥92%				
Refrigerant	R410A				
Filter	G2				
Liquid Pipe Dia. (ømm)	9.52				
Gas pipe dia. (ømm)	12.7	15.88			
Drain Pipe (ømm)	DN25×1			DN32×1	
Weight (kg)	160	190	210	260	280





Unit Outline Dimensions

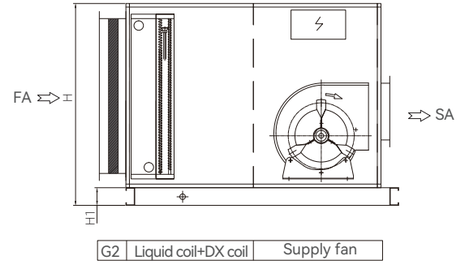
unit: mm

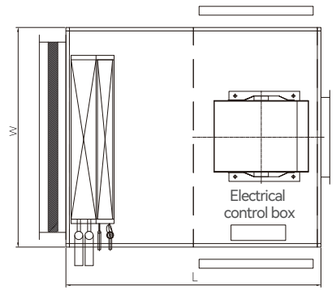
Model	L	W	H	H1	RA inlet	EA outlet
HLN-010D1	1040	740	605	65	575 × 375	350 × 300
HLN-020D1	1040	940	605	65	775 × 375	350 × 300
HLN-030D1	1040	1040	705	65	875 × 475	350 × 300
HLN-040D1	1240	1340	805	65	1175 × 575	400 × 300
HLN-050D1	1240	1340	805	65	1175 × 575	400 × 300

Split Type Heat Pump Heat Recovery Unit - Supply Unit

Unit Specifications

Model	HLN-060D1	HLN-070D1	HLN-080D1	HLN-100D1
Rade Cooling Capacity (kw)	54.8	65.0	73.0	89.0
Rade Heating Capacity (kw)	56.5	67.5	76.0	93.0
Airflow (m3/h)	6000	7000	8000	10000
E.S.P (Pa)	300	400	400	350
Motor Power (kw)	2.20	3.00	4.00	4.00
Voltage	380V/3PH ~ 50Hz			
Safety Protections	High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.			
Heat Exchange Efficiency	≥92%			
Refrigerant	R410A			
Filter	G2			
Liquid Pipe Dia. (ømm)	9.52		15.88	
Gas pipe dia. (ømm)	15.88		28.58	
Drain Pipe (ømm)	DN32×1			
Weight (kg)	330	350	420	450





Unit Outline Dimensions

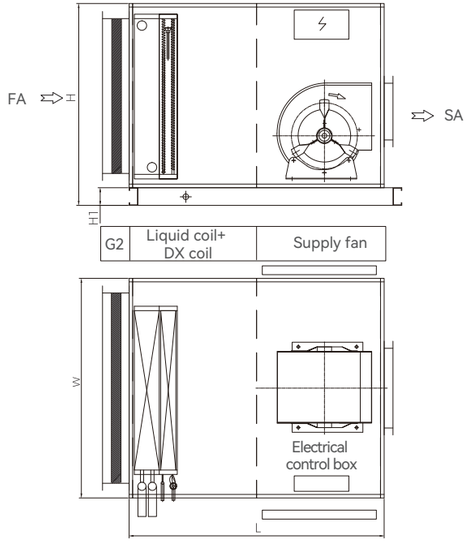
unit: mm

Model	L	W	H	H1	RA inlet	EA outlet
HLN-060D1	1440	1240	1140	100	1075 × 875	450 × 320
HLN-070D1	1440	1240	1140	100	1075 × 875	500 × 400
HLN-080D1	1540	1240	1440	100	1075 × 1175	600 × 400
HLN-100D1	1540	1240	1440	100	1075 × 1175	600 × 400

Split Type Heat Pump Heat Recovery Unit - Supply Unit

Unit Specifications

Model	HLN-120D1	HLN-150D1
Rade Cooling Capacity (kw)	110	134
Rade Heating Capacity (kw)	114	140
Airflow (m3/h)	12000	15000
E.S.P (Pa)	350	450
Motor Power (kw)	5.5	7.5
Voltage	380V/3PH ~ 50Hz	
Safety Protections	High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.	
Heat Exchange Efficiency	≥92%	
Refrigerant	R410A	
Filter	G2	
Liquid Pipe Dia. (ømm)	15.88	15.88
Gas pipe dia. (ømm)	28.58	28.58
Drain Pipe (ømm)	DN32×1	
Weight (kg)	570	600



Unit Outline Dimensions

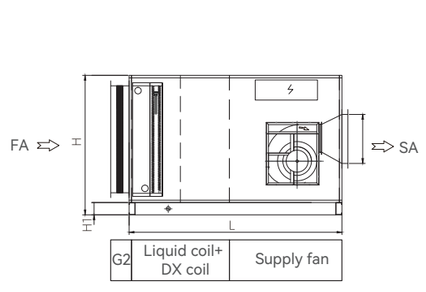
unit: mm

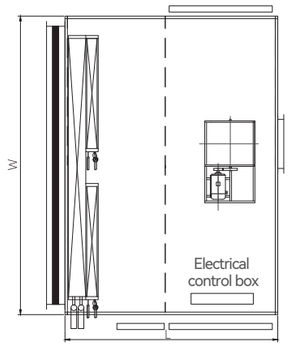
Model	L	W	H	H1	RA inlet	EA outlet
HLN-120D1	1540	1540	1640	100	1375 × 1375	650 × 450
HLN-150D1	1640	1540	1640	100	1375 × 1375	650 × 450

Split Type Heat Pump Heat Recovery Unit - Supply Unit

Unit Specifications

Model	HLN-180D1	HLN-210D1	HLN-250D1	HLN-300D1
Rade Cooling Capacity (kw)	160	178	220	268
Rade Heating Capacity (kw)	165	185	227	277
Airflow (m3/h)	18000	21000	28000	30000
E.S.P (Pa)	500	450	550	450
Motor Power (kw)	11.0	11.0	15.0	15.0
Voltage	380V/3PH ~ 50Hz			
Safety Protections	High/low pressure protection, compressor overcurrent protection, overheat protection, phase sequence protection, exhaust overheat protection, fan motor overcurrent protection, etc.			
Heat Exchange Efficiency	≥92%			
Refrigerant	R410A			
Filter	G2			
Liquid Pipe Dia. (ømm)	15.88×2		15.88×2	
Gas pipe dia. (ømm)	28.58×2		28.58×2	
Drain Pipe (ømm)	DN32×1			
Weight (kg)	780	810	920	950





Unit Outline Dimensions

unit: mm

Model	L	W	H	H1	RA inlet	EA outlet
HLN-180D1	1740	2440	1440	100	2275 × 1175	700 × 700
HLN-210D1	1740	2440	1440	100	2275 × 1175	700 × 700
HLN-250D1	1840	2940	1640	100	2775 × 1375	800 × 800
HLN-300D1	1940	2940	1640	100	2775 × 1375	900 × 900