Inquiry Us

Website

LONGWELL®
Turn to Experts - HVAC&R

Ningbo Longwell Electric Technology Co., Ltd

Headquarter: NO.100, South of Xuxiang River, Yuyao, Zhejiang Province, China 315400
Tell: +86 574 6218 9863
Fax: +86 574 6218 9863
Phone: 0086 183 5827 4663
Web: www.longwellfans.com | www.longwell-group.com | www.longwell-media.com
Email: sales@zjlongwell.com

LONGWELL®
Turn to Experts - HVAC&R

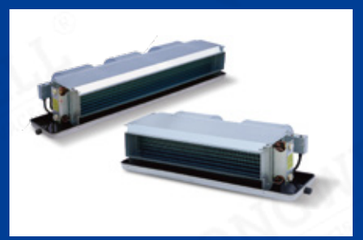


Longwell Technology Ventilation Equipment

Air Handling Unit-Horizontal/Vertical Series

Ningbo Longwell Electric Technology Co., Ltd

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com



Fan Coil Unit



Combined Air Conditioner



Air Source Heat Pump Unit



Screw-Type Air-Cooled Chiller Heat Pump Unit



Precision Constant Temperature and Humidity Unit



Rooftop Air Conditioning Unit



Screw-Type Water-Cooled Chiller Unit



Water and Ground Source Heat Pump Unit



Cabinet Air Handling Unit--Suspended Ceiling



Air Handling Unit-Horizontal



Remote Jet Unit



Air Handling Unit-Vertical

CATALOGUE

01-02	About Longwell	06	Type Code	11-20	Technical Specifications
03-04	Factory Display	07-09	Product Features	21-30	Dimensions
05	Certificate Display	10	Unit Classification	31-36	Installation Instructions

About Longwell

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

The Ventilation and Drive Technology Partner for Mission-Critical Environments

Longwell Technology - Ventilation Equipment Division - primarily engages in the production and sales of central air conditioning equipment. Our products are sold all over the country and exported to more than 50 countries and regions worldwide. LONGWELL central air conditioning series includes a comprehensive range of products, such as air source heat pump units, Air-cooled chillers (heat pump) units, water (ground) source heat pump units, sewage source heat pump units, seawater source heat pump units, water-cooled chiller units, constant temperature and humidity units, heat pump drying units, combined air conditioners, roof air conditioning units, air handling units, remote jet units, fan coil units, etc. These products are widely used in factories, schools, hotels, hospitals, office buildings, shopping malls, residential communities, and other buildings.

We have passed the ISO9001 Quality Management System Certification, ISO45001 Occupational Health and Safety Management System Certification, ISO14001 Environmental Management System Certification, etc. Our company is committed to survival by product quality and development by technological innovation, continually researching and producing green, clean, environmentally friendly and energy-saving innovative products. With full work enthusiasm, swift and decisive actions, higher standards, continuous improvement, and innovation, we will strive to create more value for our customers.



Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Factory Display

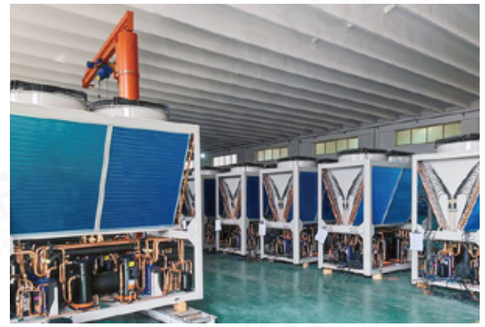
LONGWELL central air conditioning series includes a comprehensive range of products, such as air source heat pump units, Air-cooled chillers (heat pump) units, water (ground) source heat pump units, sewage source heat pump units, seawater source heat pump units, water-cooled chiller units, constant temperature and humidity units, heat pump drying units, combined air conditioners, roof air conditioning units, air handling units, remote jet units, fan coil units, etc. These products are widely used in factories, schools, hotels, hospitals, office buildings, shopping malls, residential communities, and other buildings.















Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Certificate Display

We have passed the ISO9001 Quality Management System Certification, ISO45001 Occupational Health and Safety Management System Certification, ISO14001 Environmental Management System Certification, etc.


Patent


Patent


ISO


ISO


CRAA


CRAA


CRAA


CRAA


Patent


Patent


Patent


Patent

Type Code

LW HAH 020 H1 L R 4 12 B 0

Wet film humidifier
0-None 1-50mm Thick
2-100mm Thick 3-150mm Thick
4-200mm Thick

Fan discharge direction (Standard UF)
T-FT R-UR F-UF B-FB
Note: Horizontal units offer optional discharge direction, Non-standard consultation is required for any changes.

External static pressure: ×10Pa

Cooling coil: Type I Type II
F- Non-standard coil

Unit operating conditions
R-Return air conditions
F-Fresh air conditions

Unit orientation
L-Left type R-Right type

Unit type
H1-Horizontal standard unit 1 H2-Horizontal standard unit 2
H3-Horizontal standard unit 3 H4-Horizontal standard unit 4
H5-Horizontal standard unit 5 H6-Horizontal standard unit 6
V1-Vertical standard unit 1 V2-Vertical standard unit 2
V3-Vertical standard unit 3

Air volume ×100m³/h

Unit series: Air handling unit
HAH-Panel thickness 25mm HBH-Panel thickness 50mm

LW-Longwell

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

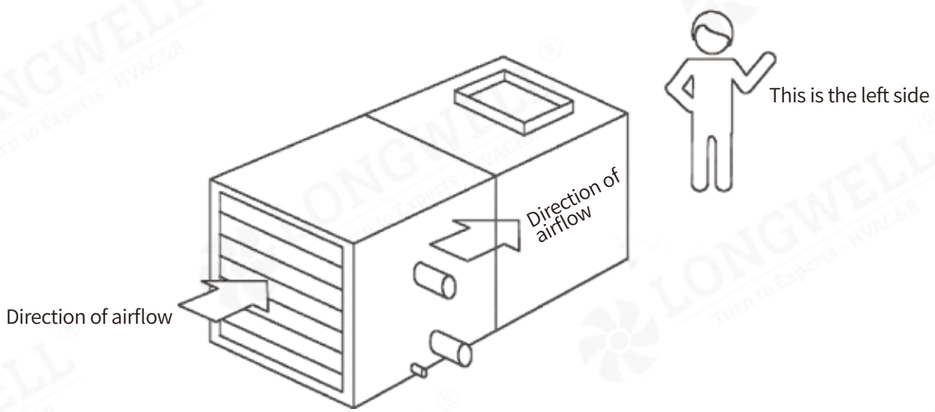
Air Handling Unit-Horizontal/Vertical Series



The air handling unit adopts a stepped box structure,inheriting the characteristics of low air leakage rate,high strength,and no cold bridge of Langwei air conditioning.According to different functional segment combinations and structures,the unit is divided into 9 combination forms,and innovation is made on the original structure to make filter and coil maintenance more convenient.The unit's air volume ranges from 2000 to 60000m^3/h,with multiple static pressure options.The unit has a compact structure and excellent cooling and heating performance.Additionally,it can be equipped with hot water coils and wet film humidifiers according to customer requirements,meeting personalized customization needs.Humanized connection ports,simple operation,and easy installation.Optimized design,national standard testing,quality assurance.

The Left-right Judgment Of The Air Handling Unit

In the face of airflow direction, the inlet and outlet pipes on the left side are classified as left-handed, and vice versa for right-handed.



Innovative Chassis Structural Design,High Strength, And Low Air Leakage Rate

The unit casing is assembled directly from profiled panels with concave-convex grooves and step-type casing panels;low thermal conductivity PE is used for double-layer sealing between each panel,enhancing the sealing performance of the casing and further reducing air leakage rate;high-density environmentally friendly polyurethane foam material is filled inside each panel, providing superior thermal insulation performance;the unit adopts unique integrated aluminum-plastic profile,with the overall air leakage rate <0.1%,performing far better than national standards,leading the industry in advanced technology.

No Cold Bridges,Stronger Rust Resistance

The inner and outer walls of the casing are designed with polyurethane foam and unique aluminum-plastic profile structure,integrally formed, completely isolated from the outside,combining insulation and sealing functions;a high-pressure polyurethane foam insulation layer is used in the middle of the double-layer panels,with a thermal conductivity coefficient less than 0.0237W/m·°C;the four sides of the outer metal panel are clamped in the unique card slot of the aluminum profile,and the edges of the sheet metal parts are completely filled and sealed with polyurethane foam to isolate from air and moisture,avoiding condensation.

High-strength Panel Structure

The panel is harmoniously composed of an outer frame and an embedded metal inner frame,featuring a unique panel structure.The outer frame is securely fastened to the high-strength casing through a concave-convex groove structure and bolt-nut locking mechanism,while the embedded metal inner frame effectively ensures the mechanical strength of the unit.

High-pressure Integral Foam Material

Using environmentally friendly fluorine-free foaming material; integrated high-pressure foaming, density > 50KG/m^3,with good thermal insulation and shock absorption and noise reduction performance;optional 25/50mm polyurethane foam board;B1 fire rating,good flame retardancy.

Customizable to Fit Individual Needs

The product offers 23 standard designs with airflow ranging from 2000 to 60000m^3/h; available in 9 standard configurations, with multiple external static pressures to choose from; offered in two standard thicknesses of 25mm and 50mm; capable of providing cooling, heating, filtering, humidification, and other functions; at the same time, the unit comes with various optional accessories, allowing for flexible function combinations to meet the diverse needs of different customers.

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

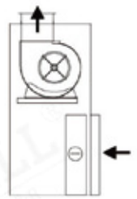
Provide Multiple Purification Solutions

The product can be equipped with panel filters and bag filters of different filtration levels to meet the requirements of various application scenarios.Standard horizontal units three and five can be optionally equipped with high-efficiency bag filters with antibacterial function.Standard horizontal unit six adopts advanced electrostatic sterilization technology,which can address air pollution issues in public places such as subways and airports,creating a healthy and safe public environment.

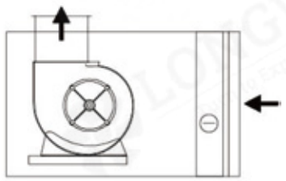
Intelligent Integrated Control

The electromechanical integration control enables integrated control of fan motors and water valves.The control system consists of internationally renowned brands of low-voltage electrical appliances and thermostats.By configuring thermostats with communication functions,it can be integrated into third-party control systems such as building automation for remote networked monitoring of the unit.The control cabinet includes multiple protections such as power phase loss, power phase absence,and current overload,ensuring stable operation of the unit, while also providing abundant external connections(fire dampers,fresh air valves,switch-type water valve control signals,etc.).Integrated control meets the comfort of indoor temperature while achieving energy saving for the main unit.

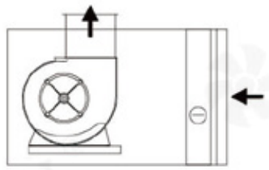
Direction Of Airflow From The Fan



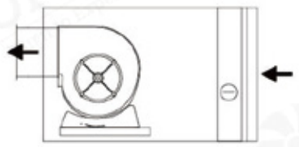
Front top air outlet UF



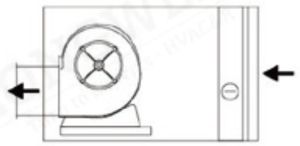
Front top air outlet UF



Rear top air outlet UR

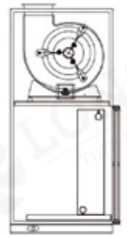


Front upper air outlet FT



Front lower air outlet FB

Unit Classification



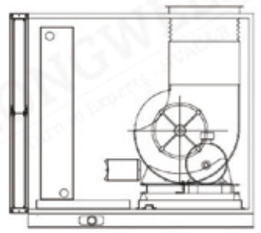
Vertical Standard One
External nylon filter + surface cooling + fan



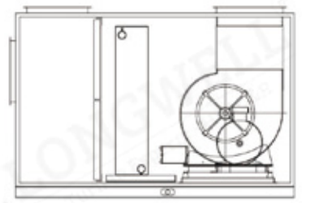
Vertical Standard Two
Return air louver + surface cooling + fan + air outlet grille



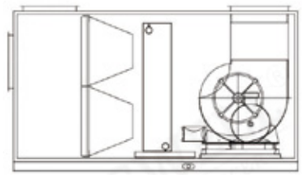
Vertical Standard Three
Return air louver + surface cooling + fan + jet nozzle



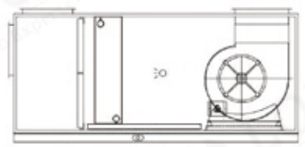
Horizontal Standard One
External nylon filter + surface cooling+ fan



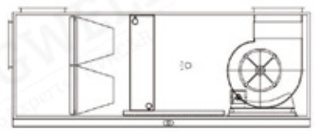
Horizontal Standard Two
Mixing + primary efficiency filtration + surface cooling fan



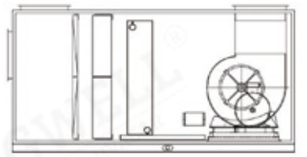
Horizontal Standard Three
Mixing + primary filtration + medium filtration + surface cooling + fan



Horizontal Standard Four
Mixing + primary filtration + surface cooling + dry steam humidifier + fan



Horizontal Standard Five
Mixing + primary filtration + medium filtration + surface cooling + dry steam humidifier + fan



Horizontal Standard Six
Mixing + primary filtration + electrostatic dust removal + surface cooling + fan

Remarks:
1. Vertical Standard One (V1) and Horizontal Standard One (H1) come standard with nylon mesh filters, with the option to replace them with primary plate filters.
2. Optional humidifiers can be added after the surface cooler coil.
3. Optional configurations after the surface cooler coil include hot water coils, steam coils, and drip pans.
4. Standard primary filters come with G3 panel type, and standard medium efficiency filters come with M5 bag type.

Return Air Condition-Type I

Specifications	Air Volume (m^3/h)	Rated Cooling Capacity (kW)	Rated Heating Capacity (kW)	Water Flow Rate (l/s)	Water Resistance(kPa)	Chilled Water Pipe Diameter (DN)	Condensate Water Pipe Diameter (DN)
020V/H	2000	10.8	21.2	1.9	17.4	32	25
030V/H	3000	17.0	34.2	2.9	28.7	32	25
040V/H	4000	23.2	46.8	4.0	45.3	32	25
050V/H	5000	27.8	56.6	4.8	38.9	32	25
060V/H	6000	34.8	68.9	6.0	59.5	40	25
070V/H	7000	40.5	79.4	7.0	72.1	50	25
080V/H	8000	48.0	92.7	8.3	38.5	50	25
090V/H	9000	51.9	101.5	8.9	35.8	50	25
105V/H	10500	59.4	114.8	10.2	50.6	50	25
120V/H	12000	69.8	175.5	12.0	73.4	50	25
135V/H	13500	78.6	157.3	13.5	48.2	65	32
150V/H	15000	89.3	171.9	15.4	49.1	65	32
180V/H	18000	106.2	209.3	18.3	66.4	65	32
210V/H	21000	125.8	246.1	21.6	85.3	65	32
240V/H	24000	146.9	284.2	25.3	39.0	65	32
270V/H	27000	166.3	319.8	28.6	43.0	65	32
300V/H	30000	185.1	355.8	31.8	43.5	65	32
330V/H	33000	203.5	390.8	35.0	58.0	80	32
350V/H	35000	219.2	415.1	37.7	66.5	80	32
400V/H	40000	229.5	448.7	39.5	69.2	80	32
450H	45000	247.3	482.6	42.5	71.5	80	32
500H	50000	274.1	537.2	47.1	79.1	80	32
600H	60000	360.8	670.1	62.1	68.5	80	32

Remarks:

1.Cooling:Inlet air dry bulb temperature 27°C,wet bulb temperature 19.5°C,inlet/outlet water temperature 7°C/12°C;
Heating:Inlet air dry bulb temperature 15°C,hot water inlet temperature 60°C,water flow rate same as cooling water flow rate;

2.When increasing the fresh air volume during actual unit operation,the unit cooling capacity will change accordingly.For details,please consult customer service.

Return Air Condition-Type II

Specifications	Air Volume (m^3/h)	Rated Cooling Capacity (kW)	Rated Heating Capacity (kW)	Water Flow Rate (l/s)	Water Resistance(kPa)	Chilled Water Pipe Diameter (DN)	Condensate Water Pipe Diameter (DN)
020V/H	2000	14.5	27.1	2.5	44.8	32	25
030V/H	3000	22.3	41.2	3.8	71.6	32	25
040V/H	4000	29.2	53.9	5.0	34.8	32	25
050V/H	5000	34.4	63.8	5.9	30.3	32	25
060V/H	6000	41.9	77.2	7.2	40.3	40	25
070V/H	7000	50.2	92.0	8.6	50.0	50	25
080V/H	8000	58.5	106.1	10.1	74.7	50	25
090V/H	9000	64.4	119.2	11.1	75.7	50	25
105V/H	10500	73.2	137.5	12.6	48.8	50	25
120V/H	12000	87.9	163.8	15.1	75.6	50	25
135V/H	13500	103.5	187.1	17.8	39.0	65	32
150V/H	15000	113.8	206.4	19.6	38.1	65	32
180V/H	18000	135.6	246.0	23.3	51.2	65	32
210V/H	21000	156.7	287.9	27.0	62.0	65	32
240V/H	24000	180.8	331.2	31.1	84.0	65	32
270V/H	27000	204.1	370.5	35.1	85.5	65	32
300V/H	30000	224.9	412.0	38.7	39.0	65	32
330V/H	33000	251.6	455.1	43.3	52.0	80	32
350V/H	35000	270.5	484.8	46.5	59.5	80	32
400V/H	40000	298.1	544.6	51.3	52.5	80	32
450H	45000	340.3	616.1	58.5	59.8	80	32
500H	50000	377.9	683.9	65.0	65.9	80	32
600H	60000	450.4	706.8	77.5	52.5	80	32

Remarks:

1.Cooling:Inlet air dry bulb temperature 27°C,wet bulb temperature 19.5°C,inlet/outlet water temperature 7°C/12°C;
Heating:Inlet air dry bulb temperature 15°C,hot water inlet temperature 60°C,water flow rate same as cooling water flow rate;

2.When increasing the fresh air volume during actual unit operation,the unit cooling capacity will change accordingly.For details,please consult customer service.

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Fresh Air Condition-Type I

Specifications	Air Volume (m^3/h)	Rated Cooling Capacity (kW)	Rated Heating Capacity (kW)	Water Flow Rate (l/s)	Water Resistance(kPa)	Chilled Water Pipe Diameter (DN)	Condensate Water Pipe Diameter (DN)
020V/H	2000	26.8	30.1	4.6	31.8	40	25
030V/H	3000	38.9	43.1	6.7	44.0	40	25
040V/H	4000	53.6	57.5	9.2	62.5	50	25
050V/H	5000	67.3	72.7	11.6	64.3	50	25
060V/H	6000	80.2	84.2	13.8	78.3	50	25
070V/H	7000	87.9	94.0	15.1	40.5	65	25
080V/H	8000	101.0	107.5	17.4	57.7	65	25
090V/H	9000	115.2	122.3	19.8	58.5	65	25
105V/H	10500	131.5	153.6	22.6	78.6	65	25
120V/H	12000	156.1	174.1	26.8	82.7	65	25
135V/H	13500	170.9	193.5	29.4	27.2	80	32
150V/H	15000	192.0	219.8	33.0	27.8	80	32
180V/H	18000	228.6	256.1	39.3	37.5	80	32
210V/H	21000	275.3	302.4	47.4	51.5	80	32
240V/H	24000	318.5	347.3	54.8	73.2	80	32
270V/H	27000	358.1	388.7	61.6	76.5	80	32
300V/H	30000	383.2	419.8	65.9	70.0	80	32
330V/H	33000	443.8	481.0	76.3	87.5	80	32
350V/H	35000	453.2	489.0	78.0	76.5	80	32
400V/H	40000	475.8	521.2	81.8	40.3	80	32
450H	45000	534.7	593.3	92.0	45.3	80	32
500H	50000	603.8	662.1	103.9	51.6	80	32
600H	60000	818.7	826.9	140.8	55.5	80	32

Remarks:

1. Cooling:Inlet air dry bulb temperature 35°C,wet bulb temperature 28°C,inlet/outlet water temperature 7°C/12°C;
   Heating:Inlet air dry bulb temperature 7°C,hot water inlet temperature 60°C,water flow rate same as cooling water flow rate;
2. "*" indicates that in order to control the pressure drop of the refrigerant water piping, ,the temperature difference between inlet and return water is greater than 5°C.

Fresh Air Condition-Type II

Specifications	Air Volume (m^3/h)	Rated Cooling Capacity (kW)	Rated Heating Capacity (kW)	Water Flow Rate (l/s)	Water Resistance(kPa)	Chilled Water Pipe Diameter (DN)	Condensate Water Pipe Diameter (DN)
020V/H	2000	32.4	33.1	5.6	66.5	40	25
030V/H	3000	46.2	48.1	7.9	89.6	40	25
040V/H	4000	62.9	66.5	10.8	55.8	50	25
050V/H	5000	79.0	83.1	13.6	53.5	50	25
060V/H	6000	96.5	99.8	16.6	74.9	50	25
070V/H	7000	114.8	115.2	19.7	31.4	65	25
080V/H	8000	127.0	133.5	21.8	42.8	65	25
090V/H	9000	139.2	145.1	23.9	40.7	65	25
105V/H	10500	160.9	166.0	27.7	60.0	65	25
120V/H	12000	192.1	195.3	33.0	89.0	65	25
135V/H	13500	220.4	222.5	37.9	61.5	80	32
150V/H	15000	250.8	251.5	43.1	62.8	80	32
180V/H	18000	292.1	295.0	50.2	74.4	80	32
210V/H	21000	330.1	335.4	56.8	83.2	80	32
240V/H	24000	364.5	379.1	62.7	80.0	80	32
270V/H	27000	408.7	427.0	70.3	82.0	80	32
300V/H	30000	443.9	472.5	76.4	80.0	80	32
330V/H	33000	501.2	521.7	86.2	84.0	80	32
350V/H	35000	551.6	576.9	94.9	83.9	80	32
400V/H	40000	588.0	621.2	101.1	*83.5	80	32
450H	45000	645.8	677.9	111.1	*79.8	80	32
500H	50000	725.5	772.3	124.8	*89.9	80	32
600H	60000	988.4	881.6	170.0	106.0	80	32

Remarks:

1. Cooling:Inlet air dry bulb temperature 35°C,wet bulb temperature 28°C,inlet/outlet water temperature 7°C/12°C;
   Heating:Inlet air dry bulb temperature 7°C,hot water inlet temperature 60°C,water flow rate same as cooling water flow rate;
2. "*" indicates that in order to control the pressure drop of the refrigerant water piping, ,the temperature difference between inlet and return water is greater than 5°C.

Wind Pressure and Motor Power Comparison Table (Vertical Standard Unit)

Model	Surface Cooler	Motor Power (KW) Corresponding to External Static Pressure (Pa)										
		120	170	220	270	320	370	420	470	520	570	620
020V	Type I	0.55	0.55	0.55	0.55	0.55						
	Type II	0.55	0.55	0.55	0.55	0.75						
030V	Type I	0.55	0.75	0.75	0.75	1.1						
	Type II	0.75	0.75	0.75	1.1	1.1						
040V	Type I	1.1	1.1	1.1	1.1	1.1	1.5					
	Type II	1.1	1.1	1.1	1.1	1.5	1.5					
050V	Type I	1.1	1.1	1.1	1.5	1.5	1.5					
	Type II	1.1	1.1	1.5	1.5	1.5	1.5					
060V	Type I	1.5	1.5	1.5	2.2	2.2	2.2					
	Type II	1.5	1.5	2.2	2.2	2.2	2.2					
070V	Type I	1.5	1.5	1.5	2.2	2.2	2.2	2.2				
	Type II	1.5	1.5	2.2	2.2	2.2	2.2	2.2				
080V	Type I	2.2	2.2	2.2	2.2	2.2	3	3				
	Type II	2.2	2.2	2.2	2.2	3	3	3				
090V	Type I	2.2	2.2	2.2	2.2	3	3	3				
	Type II	2.2	2.2	2.2	3	3	3	3				
105V	Type I	2.2	3	3	3	3	3	4				
	Type II	3	3	3	3	3	4	4				
120V	Type I	2.2	3	3	3	3	4	4	4	4		
	Type II	3	3	3	3	4	4	4	4	5.5		
135V	Type I	3	3	3	4	4	4	4	5.5	5.5		
	Type II	3	3	4	4	4	4	5.5	5.5	5.5		
150V	Type I	3	4	4	4	5.5	5.5	5.5	5.5	5.5		
	Type II	4	4	4	5.5	5.5	5.5	5.5	5.5	7.5		
180V	Type I			5.5	5.5	5.5	5.5	7.5	7.5	7.5		
	Type II			5.5	5.5	5.5	7.5	7.5	7.5	7.5		
210V	Type I			5.5	7.5	7.5	7.5	7.5	11	11		
	Type II			7.5	7.5	7.5	7.5	11	11	11		
240V	Type I			5.5	7.5	7.5	7.5	7.5	11	11	11	
	Type II			7.5	7.5	7.5	7.5	11	11	11	11	
270V	Type I			7.5	7.5	11	11	11	11	11	11	11
	Type II			7.5	11	11	11	11	11	11	15	15
300V	Type I			11	11	11	11	11	15	15	15	15
	Type II			11	11	11	11	15	15	15	15	
330V	Type I			11	11	11	11	15	15	15	15	15
	Type II			11	11	11	15	15	15	15	15	15
350V	Type I	11	11	11	11	11	15	15	15	15		
	Type II	11	11	11	11	15	15	15	15	15		
400V	Type I		11	15	15	15	15	15	18.5	18.5		
	Type II		15	15	15	15	15	18.5	18..5	18.5		

Remarks:

1.The above parameters represent the power corresponding to the external static pressure of “Vertical Standard Unit 1”.

2.The power of “Vertical Standard Unit 2” corresponds to an external static pressure of 120Pa.

3.The power of “Vertical Standard Unit 3” corresponds to an external static pressure of 170Pa.

Wind Pressure and Motor Power Comparison Table (Horizontal Standard Unit 1)

Model	Air Volume	Surface Cooler	Motor Power (KW) Corresponding to External Static Pressure (Pa)								
			170	220	270	320	370	420	470	520	570
020H	2000	Type I	0.55	0.55	0.55	0.55	0.55				
		Type II	0.55	0.55	0.55	0.75	0.75				
030H	3000	Type I	0.75	0.75	0.75	1.1	1.1				
		Type II	0.75	0.75	1.1	1.1	1.1				
040H	4000	Type I	1.1	1.1	1.1	1.1	1.5				
		Type II	1.1	1.1	1.1	1.5	1.5				
050H	5000	Type I	1.1	1.5	1.5	1.5	1.5	2.2			
		Type II	1.5	1.5	1.5	1.5	2.2	2.2			
060H	6000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3			
070H	7000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3			
080H	8000	Type I	2.2	2.2	2.2	3	3	3			
		Type II	2.2	2.2	3	3	3	3			
090H	9000	Type I	2.2	2.2	3	3	3	3			
		Type II	2.2	3	3	3	3	4			
105H	10000	Type I	3	3	3	3	4	4			
		Type II	3	3	3	4	4	4			
120H	12000	Type I	3	3	3	4	4	4			
		Type II	3	3	4	4	4	4			
135H	13500	Type I	3	4	4	4	4	5.5			
		Type II	4	4	4	4	5.5	5.5			
150H	15000	Type I	4	4	5.5	5.5	5.5	5.5	5.5		
		Type II	4	5.5	5.5	5.5	5.5	5.5	7.5		
180H	18000	Type I	5.5	5.5	5.5	5.5	7.5	7.5	7.5		
		Type II	5.5	5.5	5.5	7.5	7.5	7.5	7.5		
210H	21000	Type I	5.5	7.5	7.5	7.5	7.5	11	11		
		Type II	7.5	7.5	7.5	7.5	11	11	11		

240H	24000	Type I	5.5	7.5	7.5	7.5	11	11	11	
		Type II	7.5	7.5	7.5	11	11	11	11	
270H	27000	Type I	7.5	7.5	11	11	11	11	11	11
		Type II	7.5	11	11	11	11	11	11	15
300H	30000	Type I	11	11	11	11	11	15	15	15
		Type II	11	11	11	11	15	15	15	15
330H	33000	Type I			11	11	15	15	15	
		Type II			11	15	15	15	15	
350H	35000	Type I			11	11	11	15	15	
		Type II			11	11	15	15	15	
400H	40000	Type I			15	15	15	15	15	
		Type II			15	15	15	15	18..5	
450H	45000	Type I			15	15	18.5	18.5	18..5	
		Type II			15	18.5	18..5	18..5	18.5	
500H	50000	Type I			18.5	18.5	22	22	22	
		Type II			18.5	22	22	22		
600H	60000	Type I				18.5	18.5	18.5	22	22
		Type II				18.5	18..5	22	22	

Wind Pressure and Motor Power Comparison Table (Horizontal Standard Units Two and Four)

Model	Air Volume	Surface Cooler	Motor Power (KW) Corresponding to External Static Pressure (Pa)							
			170	220	270	320	370	420	470	520	570
020H	2000	Type I	0.55	0.55	0.75	0.75	0.75				
		Type II	0.55	0.75	0.75	0.75	0.75				
030H	3000	Type I	0.75	0.75	1.1	1.1	1.1				
		Type II	0.75	0.75	1.1	1.1	1.1				
040H	4000	Type I	1.1	1.1	1.1	1.5	1.5				
		Type II	1.1	1.1	1.5	1.5	1.5				
050H	5000	Type I	1.1	1.5	1.5	1.5	1.5				
		Type II	1.5	1.5	1.5	1.5	2.2				
060H	6000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3.0			
070H	7000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3.0			
080H	8000	Type I		2.2	2.2	3.0	3.0	3.0	3.0		
		Type II		2.2	3.0	3.0	3.0	3.0	3.0		
090H	9000	Type I		2.2	3.0	3.0	3.0	3.0	4.0		
		Type II		3.0	3.0	3.0	3.0	4.0	4.0		
105H	10500	Type I		3.0	3.0	4.0	4.0	4.0	4.0		
		Type II		3.0	4.0	4.0	4.0	4.0	4.0		

120H	12000	Type I	3.0	3.0	4.0	4.0	4.0	5.5		
		Type II	3.0	4.0	4.0	4.0	5.5	5.5		
135H	13500	Type I	4.0	4.0	4.0	4.0	5.5	5.5		
		Type II	4.0	4.0	4.0	5.5	5.5	5.5		
150H	15000	Type I		5.5	5.5	5.5	5.5	5.5	7.5	
		Type II		5.5	5.5	5.5	5.5	7.5	7.5	
180H	18000	Type I		5.5	5.5	7.5	7.5	7.5	7.5	
		Type II		5.5	7.5	7.5	7.5	7.5	7.5	
210H	21000	Type I		7.5	7.5	7.5	11.0	11.0	11.0	
		Type II		7.5	7.5	11.0	11.0	11.0	11.0	
240H	24000	Type I			7.5	11.0	11.0	11.0	11.0	
		Type II			11.0	11.0	11.0	11.0	11.0	
270H	27000	Type I			11.0	11.0	11.0	11.0	11.0	
		Type II			11.0	11.0	11.0	11.0	15.0	
300H	30000	Type I			11.0	11.0	15.0	15.0	15.0	
		Type II			11.0	15.0	15.0	15.0	15.0	
330H	33000	Type I			11.0	15.0	15.0	15.0	15.0	15.0
		Type II			15.0	15.0	15.0	15.0	15.0	15.0
350H	35000	Type I			11.0	15.0	15.0	15.0	15.0	15.0
		Type II			15.0	15.0	15.0	15.0	15.0	15.0
400H	40000	Type I			15.0	15.0	15.0	18.5	18.5	
		Type II			15.0	15.0	18.5	18.5	18.5	
450H	45000	Type I			18.5	18.5	18.5	18.5	22.0	
		Type II			18.5	18.5	18.5	22.0	22.0	
500H	50000	Type I			22.0	22.0	22.0			
		Type II			22.0	22.0				
600H	60000	Type I			18.5	18.5	22.0	22.0	30.0	
		Type II			18.5	22.0	22.0	30.0		

Wind Pressure and Motor Power Comparison Table (Horizontal Standard Units Three and Five)

Model	Air Volume	Surface Cooler	Motor Power (KW) Corresponding to External Static Pressure (Pa)								
			120	170	220	270	320	370	420	470	520
020H	2000	Type I	0.55	0.75	0.75	0.75	0.75	1.1	1.1	1.1	
		Type II	0.75	0.75	0.75	0.75	1.1	1.1	1.1	1.1	
030H	3000	Type I	0.75	1.1	1.1	1.1	1.1	1.1	1.5	1.5	
		Type II	1.1	1.1	1.1	1.1	1.1	1.5	1.5		
040H	4000	Type I	1.1	1.1	1.5	1.5	1.5	2.2	2.2	2.2	
		Type II	1.1	1.5	1.5	1.5	2.2	2.2	2.2	2.2	
050H	5000	Type I	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	
		Type II	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	

060H	6000	Type I	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0
		Type II	2.2	2.2	2.2	2.2	3.0	3.0	3.0	
070H	7000	Type I		2.2	2.2	2.2	2.2	3.0	3.0	3.0
		Type II		2.2	2.2	2.2	3.0	3.0	3.0	3.0
080H	8000	Type I		2.2	3.0	3.0	3.0	3.0	3.0	4.0
		Type II		3.0	3.0	3.0	3.0	3.0	4.0	4.0
090H	9000	Type I				3.0	3.0	4.0	4.0	4.0
		Type II				3.0	4.0	4.0	4.0	4.0
105H	10500	Type I				4.0	4.0	4.0	4.0	5.5
		Type II				4.0	4.0	4.0	5.5	5.5
120H	12000	Type I				4.0	4.0	5.5	5.5	5.5
		Type II				4.0	5.5	5.5	5.5	5.5
135H	13500	Type I				4.0	5.5	5.5	5.5	5.5
		Type II				5.5	5.5	5.5	5.5	7.5
150H	15000	Type I				5.5	5.5	5.5	7.5	7.5
		Type II				5.5	5.5	7.5	7.5	7.5
180H	18000	Type I				7.5	7.5	7.5	7.5	7.5
		Type II				7.5	7.5	7.5	7.5	11.0
210H	21000	Type I				7.5	11.0	11.0	11.0	11.0
		Type II				11.0	11.0	11.0	11.0	11.0
240H	24000	Type I				11.0	11.0	11.0	11.0	11.0
		Type II				11.0	11.0	11.0	11.0	
270H	27000	Type I				11.0	11.0	11.0	11.0	15.0
		Type II				11.0	11.0	11.0	15.0	15.0
300H	30000	Type I				11.0	15.0	15.0	15.0	15.0
		Type II				15.0	15.0	15.0	15.0	
330H	33000	Type I				15.0	15.0	15.0	15.0	15.0	15.0
		Type II				15.0	15.0	15.0	15.0	15.0	18.5
350H	35000	Type I				15.0	15.0	15.0	15.0	15.0	15.0
		Type II				15.0	15.0	15.0	15.0	15.0	18.5
400H	40000	Type I				15.0	15.0	15.0	18.5	18.5	18.5
		Type II				15.0	15.0	18.5	18.5	18.5	18.5
450H	45000	Type I				18.5	18.5	18.5	18.5	22.0	22.0
		Type II				18.5	18.5	18.5	22.0	22.0	
500H	50000	Type I				22.0	22.0	22.0			
		Type II				22.0	22.0				
600H	60000	Type I				18.5	18.5	22.0	22.0	30.0	30.0
		Type II				18.5	22.0	22.0	30.0	30.0	

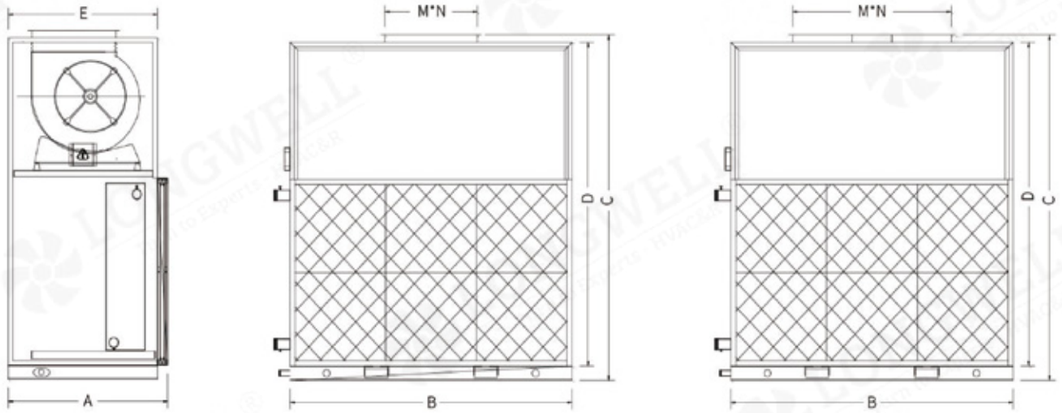
Wind Pressure and Motor Power Comparison Table (Horizontal Standard Unit Six)

Model	Air Volume	Surface Cooler	Motor Power (KW) Corresponding to External Static Pressure (Pa)								
			140	190	240	290	340	390	440	490	540
020H	2000	Type I	0.55	0.55	0.75	0.75	0.75				
		Type II	0.55	0.75	0.75	0.75	0.75				
030H	3000	Type I	0.75	0.75	1.1	1.1	1.1				
		Type II	0.75	1.1	1.1	1.1	1.1				
040H	4000	Type I	1.1	1.1	1.1	1.5	1.5				
		Type II	1.1	1.1	1.5	1.5	1.5				
050H	5000	Type I	1.1	1.5	1.5	1.5	1.5				
		Type II	1.5	1.5	1.5	1.5	2.2				
060H	6000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3.0			
070H	7000	Type I	1.5	2.2	2.2	2.2	2.2	2.2			
		Type II	2.2	2.2	2.2	2.2	2.2	3.0			
080H	8000	Type I		2.2	2.2	3.0	3.0	3.0	3.0		
		Type II		2.2	3.0	3.0	3.0	3.0	3.0		
090H	9000	Type I	2.2	3.0	3.0	3.0	3.0	4.0			
		Type II	3.0	3.0	3.0	3.0	4.0	4.0			
105H	10500	Type I	3.0	3.0	4.0	4.0	4.0	4.0			
		Type II	3.0	4.0	4.0	4.0	4.0	4.0			
120H	12000	Type I	3.0	3.0	4.0	4.0	4.0	5.5			
		Type II	3.0	4.0	4.0	4.0	5.5	5.5			
135H	13500	Type I	4.0	4.0	4.0	4.0	5.5	5.5			
		Type II	4.0	4.0	4.0	5.5	5.5	5.5			
150H	15000	Type I		5.5	5.5	5.5	5.5	5.5	7.5		
		Type II		5.5	5.5	5.5	5.5	7.5	7.5		
180H	18000	Type I		5.5	5.5	7.5	7.5	7.5	7.5		
		Type II		5.5	7.5	7.5	7.5	7.5	7.5		
210H	21000	Type I		7.5	7.5	7.5	11.0	11.0	11.0		
		Type II		7.5	7.5	11.0	11.0	11.0	11.0		
240H	24000	Type I			7.5	11.0	11.0	11.0	11.0		
		Type II			11.0	11.0	11.0	11.0	11.0		
270H	27000	Type I			11.0	11.0	11.0	11.0	11.0		
		Type II			11.0	11.0	11.0	11.0	15.0		
300H	30000	Type I			11.0	11.0	15.0	15.0	15.0		
		Type II			11.0	15.0	15.0	15.0	15.0		
330H	33000	Type I			11.0	15.0	15.0	15.0	15.0	15.0	
		Type II			15.0	15.0	15.0	15.0	15.0	15.0	

350H	35000	Type I	11.0	15.0	15.0	15.0	15.0	15.0
		Type II	15.0	15.0	15.0	15.0	15.0	15.0
400H	40000	Type I		15.0	15.0	15.0	18.5	18.5
		Type II		15.0	15.0	18.5	18.5	18.5
450H	45000	Type I		18.5	18.5	18.5	18.5	22.0
		Type II		18.5	18.5	18.5	22.0	22.0
500H	50000	Type I		22.0	22.0	22.0		
		Type II		22.0	22.0			

Vertical Standard Unit One

External nylon filter + Surface cooling + Fan



Model	Air Volume	A	B	C	D	E	M	N	Weight(kg) Type I	Weight(kg) Type II
020V	2000	670	900	1130	1000	580	232	262	137	143
030V	3000	670	1000	1230	1100	580	298	262	153	160
040V	4000	670	1100	1330	1200	580	331	289	175	183
050V	5000	750	1100	1530	1400	660	309	341	206	216
060V	6000	750	1200	1630	1500	660	395	341	231	244
070V	7000	830	1200	1730	1600	740	373	404	257	272
080V	8000	830	1400	1730	1600	740	373	404	272	289
090V	9000	960	1400	1930	1800	870	430	478	326	344
105V	10000	960	1600	1930	1800	870	430	478	360	376
120V	12000	960	1700	1930	1800	870	557	478	367	394
135V	13500	960	2000	1930	1800	870	1040	404	481	518
150V	15000	960	2000	2030	1900	870	1040	404	491	160

180V	18000	990	2200	2130	2000	900	1203	478	570	611
210V	21000	990	2500	2130	2000	900	1203	478	631	673
240V	24000	990	2800	2230	2100	900	1572	478	682	730
270V	27000	990	2800	2330	2200	900	1572	478	735	789
300V	30000	990	2800	2430	2300	900	1572	478	786	845
330V	33000	1090	3100	2430	2300	1000	1588	569	952	1018
350V	35000	1190	3200	2530	2400	1100	1776	638	1020	1089
400V	40000	1190	3400	2630	2500	1100	1776	638	1067	1181

Remarks:

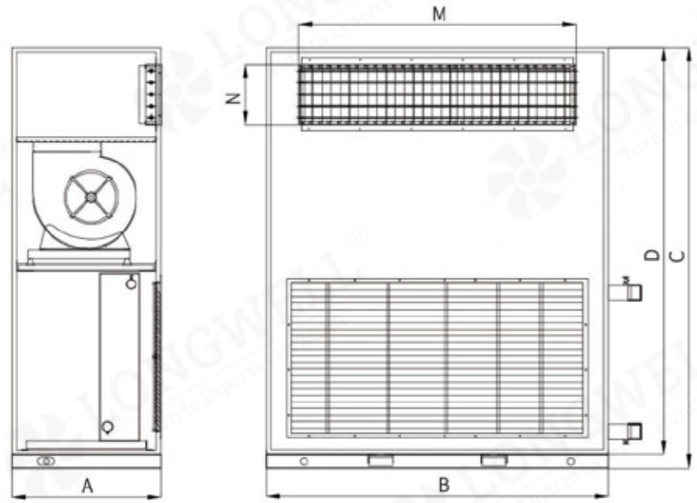
1.With the optional 50/100mm wet film humidifier, the unit's overall dimensions remain unchanged.

3.The standard unit is equipped with front top air outlet (UF).

3.The above parameters are for HAH unit sizes, with HBH unit sizes A, B, C, D, E each increasing by 50mm on this basis.

Vertical Standard Unit Two

Return air louver + Surface cooling + Fan + Air outlet grille

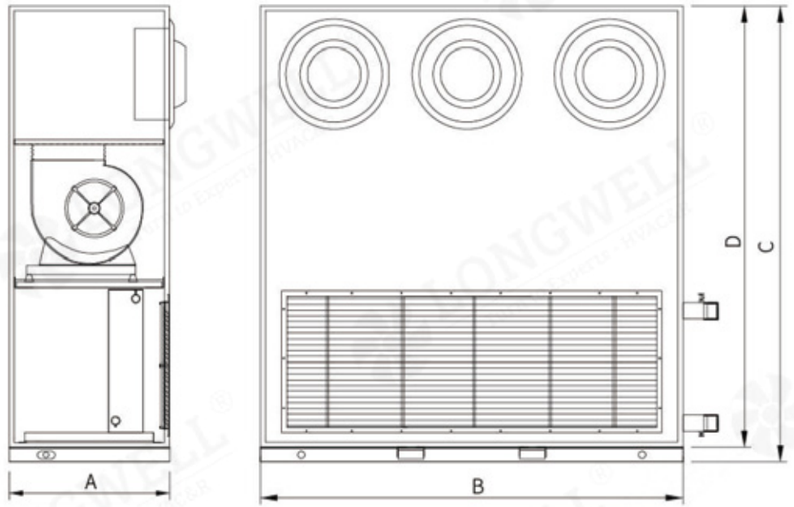


Model	Air Volume	A	B	C	D	M	N
020V	2000	580	900	1370	1300	700	150
030V	3000	580	1000	1470	1400	700	150
040V	4000	580	1100	1670	1600	700	250
050V	5000	660	1100	1870	1800	700	250
060V	6000	660	1200	1970	1900	900	250
070V	7000	740	1200	2170	2100	900	350

Model	Air Volume	A	B	C	D	M	N
080V	8000	740	1400	2170	2100	900	350
090V	9000	870	1400	2370	2300	900	350
105V	10000	870	1600	2370	2300	1250	350
120V	12000	870	1700	2370	2300	1250	350
135V	13500	870	2000	2370	2300	1550	350
150V	15000	870	2000	2450	2380	1550	350

Vertical Standard Unit Three

Return air louver + Surface cooling + Fan + Jet nozzle

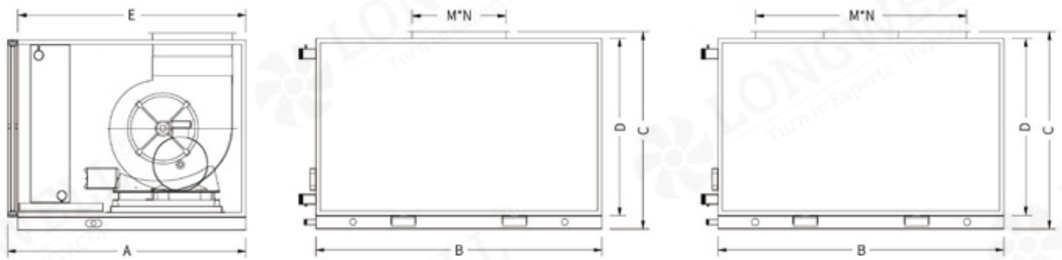


Model	Air Volume	A	B	C	D	Number of Nozzles	Nozzle Specifications
020V	2000	580	900	1620	1550	1	400
030V	3000	580	1000	1620	1550	2	315
040V	4000	580	1100	1820	1750	2	400
050V	5000	660	1100	2020	1950	2	400
060V	6000	660	1400	2270	2200	2	500
070V	7000	740	1400	2370	2300	2	500

Model	Air Volume	A	B	C	D	Number of Nozzles	Nozzle Specifications
080V	8000	740	1400	2370	2300	2	500
090V	9000	870	1700	2420	2350	3	400
105V	10000	870	2100	2570	2500	3	500
120V	12000	870	2100	2570	2500	3	500
135V	13500	870	2800	2570	2500	4	500
150V	15000	870	2800	2670	2600	4	500

Horizontal Standard Unit One

RExternal nylon filter + Surface cooling + Fan



Model	Air Volume	A	B	C	D	E	M	N	Weight(kg) Type I	Weight(kg) Type II
020H	2000	1090	850	700	570	1000	232	262	129	138
030H	3000	1190	950	730	600	1100	298	262	148	155
040H	4000	1190	1050	800	670	1100	331	289	167	175
050H	5000	1190	1050	930	800	1100	309	341	186	197
060H	6000	1190	1150	1000	870	1100	395	341	211	223
070H	7000	1290	1200	1080	950	1200	373	404	242	257
080H	8000	1290	1350	1080	950	1200	373	404	256	282
090H	9000	1440	1350	1180	1050	1350	430	478	299	318
105H	10000	1440	1550	1180	1050	1350	430	478	325	342
120H	12000	1490	1700	1180	1050	1400	557	478	350	376
135H	13500	1390	1950	1180	1050	1300	1040	404	442	459
150H	15000	1390	1950	1280	1150	1300	1040	404	447	470
180H	18000	1540	2150	1330	1200	1450	1203	478	539	580
210H	21000	1540	2350	1380	1250	1450	1203	478	584	626
240H	24000	1540	2650	1380	1250	1450	1572	478	644	692
270H	27000	1540	2650	1510	1380	1450	1572	478	728	781
300H	30000	1590	2650	1630	1500	1500	1572	478	761	813
330H	33000	1640	2900	1630	1500	1550	1588	569	882	947
350H	35000	1740	3050	1630	1500	1650	1776	638	953	1022
400H	40000	1790	3050	1880	1750	1700	1776	638	986	1099
450H	45000	1790	3050	2010	1880	1700	1776	638	1070	1187
500H	50000	1790	3150	2140	2010	1700	1776	638	1097	1231
600H	60000	2690	3150	2480	2350	2600	1130	1080	1316	1477

Remarks:

1.When selecting the 50/100mm wet film humidifier,the external dimensions of the unit remain unchanged.When selecting the 150/200mm wet film humidifier,the dimensions of units A and E increase by 200mm.

2.Units 500~600H feature dual surface cooling.

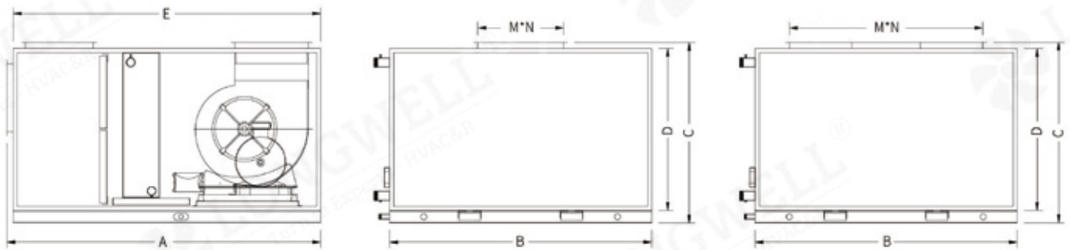
3.If the unit has horizontal air discharge,dimension C in the table needs to be reduced by 60mm.

4.The parameters above are for HAH unit sizes,For HBH units,dimensions A,B,C,D,and E increase by 50mm each based on this.

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Horizontal Standard Unit Two

Mixing + Primary efficiency filtration + Surface cooling + Fan



Model	Air Volume	A	B	C	D	E	M	N	Weight(kg)	
									Type I	Type II
020H	2000	1560	850	700	570	1500	232	262	158	164
030H	3000	1660	950	730	600	1600	298	262	177	188
040H	4000	1660	1050	800	670	1600	331	289	201	208
050H	5000	1660	1050	930	800	1600	309	341	230	240
060H	6000	1660	1150	1000	870	1600	395	341	261	274
070H	7000	1760	1200	1080	950	1700	373	404	288	303
080H	8000	1760	1350	1080	950	1700	373	404	319	335
090H	9000	2010	1350	1180	1050	1950	430	478	343	362
105H	10000	2010	1550	1180	1050	1950	430	478	392	408
120H	12000	2060	1700	1180	1050	2000	557	478	426	452
135H	13500	1960	1950	1180	1050	1900	1040	404	525	554
150H	15000	1960	1950	1280	1150	1900	1040	404	569	597
180H	18000	2110	2150	1330	1200	2050	1203	478	652	693
210H	21000	2110	2350	1380	1250	2050	1203	478	707	750
240H	24000	2110	2650	1380	1250	2050	1572	478	780	829
270H	27000	2310	2650	1510	1380	2250	1572	478	912	965
300H	30000	2360	2650	1630	1500	2300	1572	478	958	1017
330H	33000	2410	2900	1630	1500	2350	1588	569	1084	1149
350H	35000	2510	3050	1630	1500	2450	1776	638	1170	1239
400H	40000	2560	3050	1880	1750	2500	1776	638	1202	1315
450H	45000	2560	3050	2010	1880	2500	1776	638	1285	1403
500H	50000	2660	3150	2140	2010	2600	1776	638	1324	1459
600H	60000	3660	3150	2480	2350	3600	1130	1080	1588	1751

Remarks:

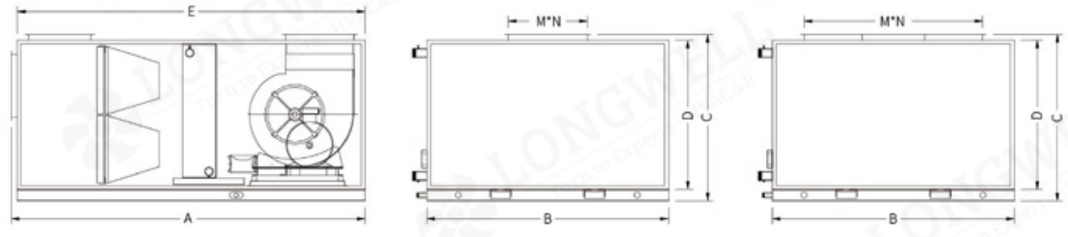
1.After selecting the optional 50/100mm wet film humidifier,the external dimensions of the unit remain unchanged.After selecting the 150/200mm wet film humidifier,the A and H dimensions of the unit increase by 200mm;

2.The 500~600H unit is a dual surface cooling unit;

3.The above parameters are for HAH unit dimensions, the A,B,C,D and H dimensions of the HBH unit each increase by 50mm based on this.

Horizontal Standard Unit Three

Mixing + Primary filtration + Medium filtration +Surface cooling + Fan



Model	Air Volume	A	B	C	D	E	M	N	Weight(kg)	
									Type I	Type II
020H	2000	2010	850	700	570	1950	232	262	176	181
030H	3000	2060	950	730	600	2000	298	262	197	201
040H	4000	2110	1050	800	670	2050	331	289	224	232
050H	5000	2110	1050	930	800	2050	309	341	249	259
060H	6000	2110	1150	1000	870	2050	395	341	282	295
070H	7000	2210	1200	1080	950	2150	373	404	310	324
080H	8000	2210	1350	1080	950	2150	373	404	345	362
090H	9000	2460	1350	1180	1050	2400	430	478	394	412
105H	10000	2460	1550	1180	1050	2400	430	478	433	450
120H	12000	2510	1700	1180	1050	2450	557	478	471	494
135H	13500	2410	1950	1180	1050	2350	1040	404	574	598
150H	15000	2410	1950	1280	1150	2350	1040	404	622	645
180H	18000	2560	2150	1330	1200	2500	1203	478	727	759
210H	21000	2560	2350	1380	1250	2500	1203	478	809	842
240H	24000	2560	2650	1380	1250	2500	1572	478	885	922
270H	27000	2760	2650	1510	1380	2700	1572	478	978	1022
300H	30000	2810	2650	1630	1500	2750	1572	478	1033	1092
330H	33000	2860	2900	1630	1500	2800	1588	569	1185	1250
350H	35000	2960	3050	1630	1500	2900	1776	638	1246	1316
400H	40000	2960	3050	1880	1750	2900	1776	638	1306	1400
450H	45000	2960	3050	2010	1880	2900	1776	638	1421	1539
500H	50000	3060	3150	2140	2010	3000	1776	638	1462	1597
600H	60000	4060	3150	2480	2350	4000	1130	1080	1754	1916

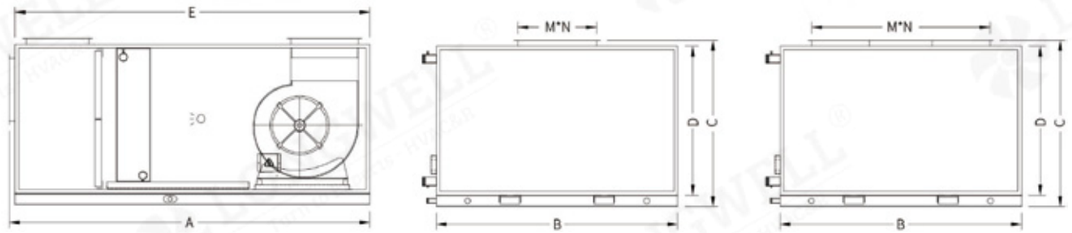
Remarks:

1.After selecting the optional 50/100mm wet film humidifier,the external dimensions of the unit remain unchanged.After selecting the 150/200mm wet film humidifier,the A and H dimensions of the unit increase by 200m;2.The 500~600H unit is a dual surface cooling unit;

3.The above parameters are for the HAH unit dimensions,the A,B,C,D,and H dimensions of the HBH unit each increase by 50mm on this basis;4.The standard plate-type primary filter is G3,the bag-type medium filter is M5,G4 can be optionally appointed for the primary,and M6,F7 or antibacterial high-medium bag-type filter can be chosen for the medium.

Horizontal Standard Unit Four

Mixing + Primary filtration + Surface cooling + Dry steam humidifier + Fan



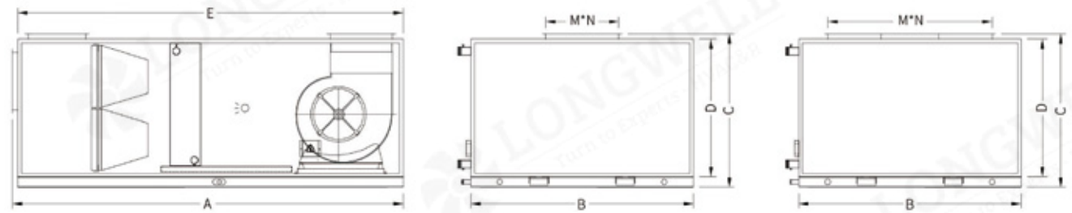
Model	Air Volume	A	B	C	D	E	G	H
020H	2000	2060	850	700	570	2000	232	262
030H	3000	2160	950	730	600	2100	298	262
040H	4000	2160	1050	800	670	2100	331	289
050H	5000	2160	1050	930	800	2100	309	341
060H	6000	2160	1150	1000	870	2100	395	341
070H	7000	2260	1200	1080	950	2200	373	404
080H	8000	2260	1350	1080	950	2200	373	404
090H	9000	2510	1350	1180	1050	2450	430	478
105H	10500	2510	1550	1180	1050	2450	430	478
120H	12000	2560	1700	1180	1050	2500	557	478
135H	13500	2460	1950	1180	1050	2400	1040	404
150H	15000	2460	1950	1280	1150	2400	1040	404
180H	18000	2610	2150	1330	1200	2550	1203	478
210H	21000	2610	2350	1380	1250	2550	1203	478
240H	24000	2610	2650	1380	1250	2550	1572	478
270H	27000	2810	2650	1510	1380	2750	1572	478
300H	30000	2860	2650	1630	1500	2800	1572	478
330H	33000	2910	2900	1630	1500	2850	1588	569
350H	35000	3010	3050	1630	1500	2950	1776	638
400H	40000	3060	3050	1880	1750	3000	1776	638
450H	45000	3060	3050	2010	1880	3000	1776	638
500H	50000	3160	3150	2140	2010	3100	1776	638

Remarks:

1.The above parameters are the dimensions of the HAH unit,the A,B,C,D,H dimensions of the HBH unit are each increased by 50mm on this basis.

Horizontal Standard Unit Five

Mixing + Primary filtration + Medium filtration + Surface cooling + Dry steam humidifier + Fan



Model	Air Volume	A	B	C	D	E	G	H
020H	2000	2510	850	700	570	2450	232	262
030H	3000	2560	950	730	600	2500	298	262
040H	4000	2610	1050	800	670	2550	331	289
050H	5000	2610	1050	930	800	2550	309	341
060H	6000	2610	1150	1000	870	2550	395	341
070H	7000	2710	1200	1080	950	2650	373	404
080H	8000	2710	1350	1080	950	2650	373	404
090H	9000	2960	1350	1180	1050	2900	430	478
105H	10500	2960	1550	1180	1050	2900	430	478
120H	12000	3010	1700	1180	1050	2950	557	478
135H	13500	2910	1950	1180	1050	2850	1040	404
150H	15000	2910	1950	1280	1150	2850	1040	404
180H	18000	3060	2150	1330	1200	3000	1203	478
210H	21000	3060	2350	1380	1250	3000	1203	478
240H	24000	3060	2650	1380	1250	3000	1572	478
270H	27000	3260	2650	1510	1380	3200	1572	478
300H	30000	3310	2650	1630	1500	3250	1572	478
330H	33000	3360	2900	1630	1500	3300	1588	569
350H	35000	3460	3050	1630	1500	3400	1776	638
400H	40000	3460	3050	1880	1750	3400	1776	638
450H	45000	3460	3050	2010	1880	3400	1776	638
500H	50000	3560	3150	2140	2010	3500	1776	638

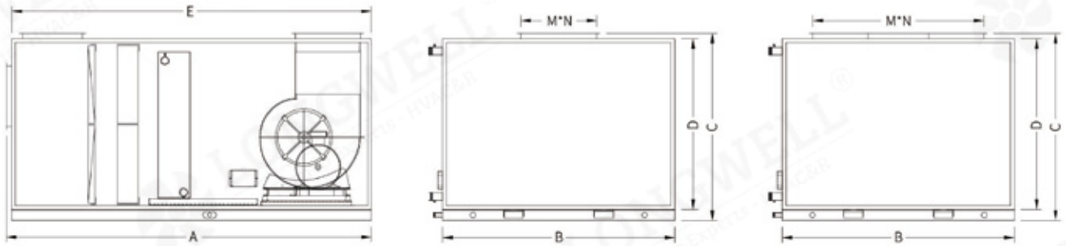
Remarks:

1.The above parameters are the dimensions of the HAH unit,the A,B,C,D,H dimensions of the HBH unit are each increased by 50mm on this basis;

2.The standard plate initial filter is G3,the bag medium filter is M5,the initial can be optionally equipped with G4,and the medium can be optionally equipped with M6,F7 or antibacterial high-medium bag filters.

Horizontal Standard Unit Six

Mixing + Primary filtration + Electrostatic dust removal + Surface cooling + Fan



Model	Air Volume	A	B	C	D	E	M	N	Weight(kg)	
									Type I	Type II
020H	2000	2010	850	700	570	1950	232	262	116	120
030H	3000	2060	950	730	600	2000	298	262	141	145
040H	4000	2110	1050	800	670	2050	331	289	159	163
050H	5000	2110	1050	930	800	2050	309	341	175	181
060H	6000	2110	1150	1000	870	2050	395	341	199	205
070H	7000	2210	1200	1080	950	2150	373	404	227	235
080H	8000	2210	1350	1080	950	2150	373	404	240	248
090H	9000	2460	1350	1180	1050	2400	430	478	280	290
105H	10000	2460	1550	1180	1050	2400	430	478	308	317
120H	12000	2510	1700	1180	1050	2450	557	478	324	337
135H	13500	2410	1950	1180	1050	2350	1040	404	425	434
150H	15000	2410	1950	1280	1150	2350	1040	404	424	436
180H	18000	2560	2150	1330	1200	2500	1203	478	498	519
210H	21000	2560	2350	1380	1250	2500	1203	478	542	563
240H	24000	2560	2650	1380	1250	2500	1572	478	596	620
270H	27000	2760	2650	1510	1380	2700	1572	478	675	702
300H	30000	2810	2650	1630	1500	2750	1572	478	709	735
330H	33000	2860	2900	1630	1500	2800	1588	569	709	735
350H	35000	2960	3050	1630	1500	2900	1776	638	709	735
400H	40000	2960	3050	1880	1750	2900	1776	638	709	735
450H	45000	2960	3050	2010	1880	2900	1776	638	709	735
500H	50000	3060	3150	2140	2010	3000	1776	638	709	735

Remarks:

1.The above parameters are the dimensions of the HAH unit,the A,B,C,D,E dimensions of the HBH unit are each increased by 50mm on this basis.

Humidification Performance and Parameter Table

Wet Film Humidifier

Wet film humidifier is a hygroscopic material that can evenly distribute the water absorbed in it on the surface of the material, forming a vaporization layer of water. When the air flows over the surface of the material, the water in the vaporization layer evaporates and is absorbed into the air. Based on this principle, a vaporization type humidifier is created. The thickness of the wet film is selected based on the need for humidification, and the water supply is three times the amount of humidification.

Usage Conditions

Environmental Temperature and Humidity:Humidifier body: 5-80℃;Below 90% RH	**Water Supply Condition:**0.05-0.4MPa,5-40℃
Critical Wind Speed: Less than 3.75m/s	**Water Supply Quality:**Tap water,purified water
Power Supply: AC220V/50HZ	**Water Supply Amount:**2-3 times the humidification amount,external water source interface size DN15 G1/2

Performance Parameter Table for the Humidifier Unit with Wet Membrane

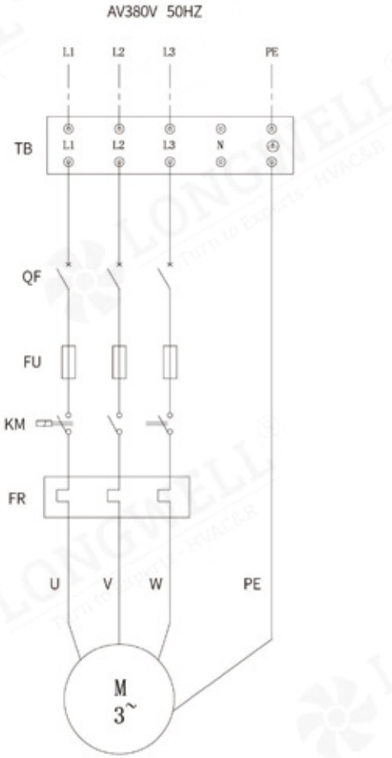
Model	Air Volume (m^3/h)	Front Size of Wet Membrane		Maximum Humidification Amount (kg/h)			
		Height(mm)	Width(mm)	50mm	100mm	150mm	200mm
020	2000	401	680	5	11	14	15
030	3000	492	780	8	15	19	21
040	4000	543	870	9	19	24	26
050	5000	695	870	12	24	30	33
060	6000	756	970	15	29	37	40
070	7000	807	1010	16	33	41	45
080	8000	807	1160	19	37	47	51
090	9000	909	1160	21	42	53	58
105	10500	909	1360	25	49	62	68
120	12000	909	1510	27	55	69	75
135	13500	909	1750	32	64	80	87
150	15000	1010	1750	35	71	88	97
180	18000	1061	1950	41	83	103	114
210	21000	1112	2140	48	95	119	131
240	24000	1112	2440	54	109	136	149
270	27000	1213	2440	59	118	148	163
300	30000	1359	2440	66	133	166	182
330	33000	1359	2690	73	146	183	201
350	35000	1359	2840	77	154	193	212
400	40000	1572	2657	84	167	209	230
450	45000	1699	2757	94	187	234	258
500	50000	1874	2857	107	214	268	294
600	60000	2192	2957	130	259	324	356

Remarks:

When the unit is equipped with a wet membrane humidifier, the internal resistance of the unit should correspondingly increase: 50mm-20Pa; 100mm-30Pa; 150mm-45Pa; 200mm-60Pa.

Ningbo Longwell Electric Technology Co., Ltd
https://www.longwellfans.com Email:sales@zjlongwell.com

Recommended Electrical Wiring Diagram



Direct start

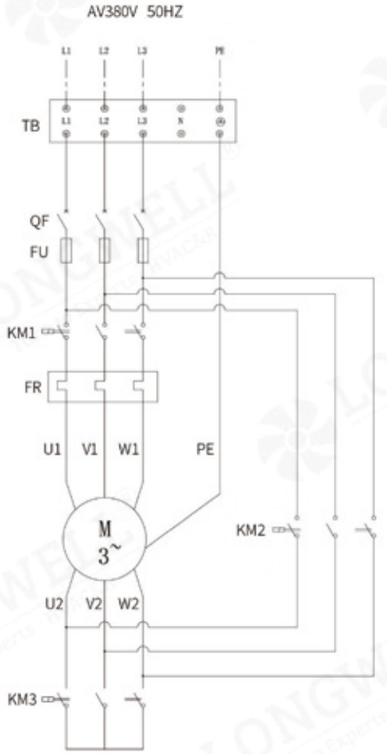
TB: Terminal strip

QF: Circuit breaker

KM: AC contactor

FR: Thermal overload relay

FU: Fuse



Star-delta start

TB: Terminal strip

QF: Circuit breaker

KM: AC contactor

FR: Thermal overload relay

FU: Fuse

Wiring instructions:

1.For frequency-fixed motors of 7.5kW and below,t is recommended to start directly;for motors of 11KW and above,it is recommended to start with star-delta voltage reduction;

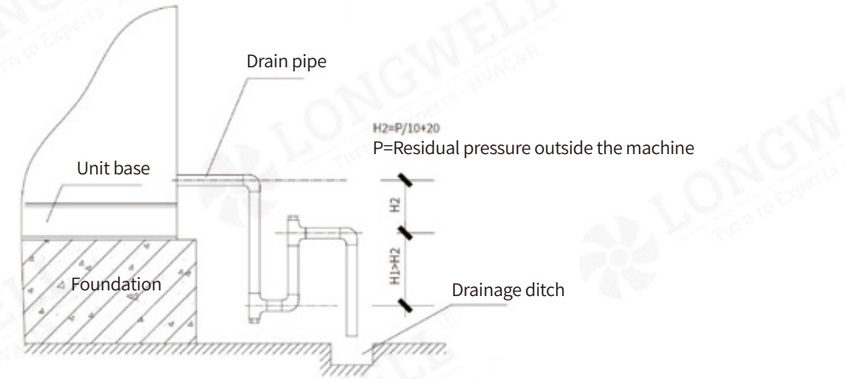
2.The user is responsible for the on-site installation and wiring expenses.The standard unit does not have this configuration.All wires must be tightened by the user to ensure a firm and safe connection;

3.The wiring terminal is located in the unit junction box.All wires must be tightened by the user to ensure a firm and safe connection;

4.If the user needs to configure the control cabinet,non-standard orders are required.

Installation Foundation

1. The unit installation must be level.Both horizontal and vertical units must be installed on a level,solid foundation;the inlet water pipe must be equipped with a valve to adjust the water volume and cut off water source when servicing;a water-trap must be set up at the outlet of the condensate pipe to ensure smooth condensate discharge.Please refer to the diagram below for setting up the water-trap:

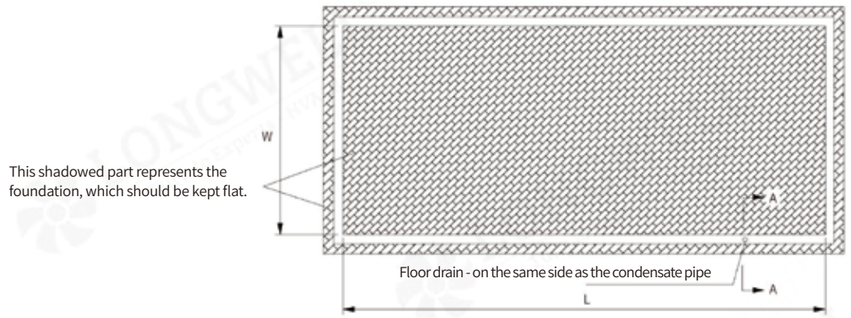


2. The foundation is made of concrete,with a recommended height of no less than 200mm.The actual height should be determined based on the water-trap and site conditions.

3. There should be ample space around the unit,especially on the side with the unit piping,wiring, maintenance door,and return air vent,for installation, maintenance,and use of the unit.

4. The unit cannot bear the weight of the external air duct and water pipe.A soft connector should be installed between the unit and the externally connected air duct and water pipe to prevent vibration transmission.

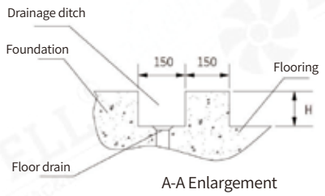
5. In cold regions,install an air volume control valve at the fresh air inlet of the unit and insulate the air duct.installation,maintenance,and use of the unit.



L = Unit length + 200

W = Unit width + 200

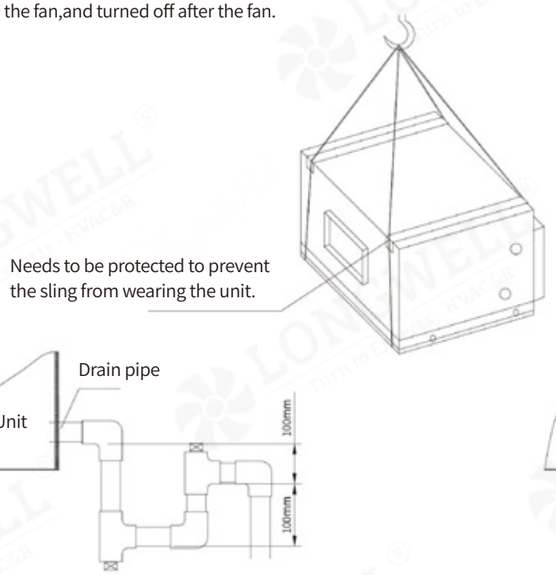
H = Unit foundation height (H > 150, must also meet the height requirement for the unit condensate pipe installation)



A-A Enlargement

Unit Installation

1. Before installing the unit,thoroughly check if the unit has any damage.If any of the following conditions are found,please contact the seller for repair or replacement:the unit shows signs of bumps or serious deformation,the unit panels or casing have visible scratches that affect the appearance,the fan or motor are loose.
2. For safety reasons,the unit must be securely lifted during hoisting.The unit must be lifted in the way shown below,or be moved by a forklift.The lifting point should be sturdy enough to bear the unit's weight and ensure it's level.
3. Before wiring,check if the power supply's voltage,frequency,and phase amplitude match those of the unit.The power supply voltage deviation should not exceed ±10% of the rated voltage.Before starting the fan,carefully check if there is any metal friction noise in the fan impeller.If any abnormality is found,it should be removed.After the power supply is turned on and the fan is started, check whether the rotation direction of the impeller is correctly.If the direction of rotation is found to be incorrect,just switch the phase sequence of the power supply.
4. It's recommended to set up a static pressure box at the air inlet and outlet of the unit,to set up an air volume control valve on the ventilation duct,and to set up a fire valve as per fire protection requirements.When installing an electric air volume control valve,the valve actuator should be turned on before the fan,and turned off after the fan.



U-shaped water seal installation diagram

Spherical water seal installation diagram

5. Before connecting the water pipe,it is necessary to clean the pipe.Cold (hot) water in and out direction should be connected according to the unit sign.The water inlet pipe of the unit must be equipped with a valve and filter device for flow adjustment.During maintenance,cut off the cold (hot) water source,and prevent impurities from entering the heat exchanger and cause blockage,the inlet and outlet water pipes must be insulated with insulation pipes.
6. When connecting the inlet and outlet water pipes,use a pipe wrench to fix the inlet and outlet water pipes to avoid twisting forces during operation.It is recommended to use raw tape for sealing to avoid water leakage.The condensate water produced in the unit must have a certain water seal height connection and be drained to the sewer with a drain pipe,as shown above.
7. The weight of the air duct and water pipe connected to the unit should not be borne by the unit.
8. The unit must have a reliable grounding,and check whether the electrical circuit is good and meets the safety requirements for electricity use.
9. The unit must be installed by professionals who are familiar with this product and understand local related regulations.Collisions, presses,and scratches are strictly prohibited during installation.

Installation and Usage Precautions

1. When the unit is not operating for a long time or during winter,the power source must be shut off.
2. To avoid risks of electric shock,fire,or other potential damages,please remember and strictly adhere to the following rules:

1) Users should not attempt to install or modify the air conditioning unit themselves as improper handling could lead to water leakage,electrical shock or fire.
2) Do not connect the grounding wire of the air conditioner to a gas pipe,water pipe,or lightning rod.
3) Please use accessories specified by our company and request installation and technical services from the manufacturer or authorized dealers.
4) The data line of the unit controller should be isolated from the power supply line to prevent interference.
5) Do not damage the power cord,and do not unplug or plug in the power plug to turn the air conditioning unit on or off.
6) Do not rinse the air conditioning unit directly with water,as it may cause an electric shock or other accidents.
7) Users should not attempt to repair it themselves as improper repairs can cause operational malfunction or burnout of the unit.If repairs are needed,please contact our company or an authorized service center.
8) The air conditioning unit is not allowed to operate in corrosive gas environments such as acids,alkalis,and salt fog.This may cause damage to the unit casing,pipework,or electrical components.
9) The area around the unit should be kept clean and dry,with good ventilation.If the air-side heat exchanger is cleaned regularly (every 1~2 months),it can maintain its good heat exchange effect and save energy.
10) Regularly check the firmness of the unit's power supply and electrical system wiring,and whether there are any abnormality in the operation of the electrical components.If abnormality is found,maintenance and replacement should be done promptly;regular checks should be made to ensure reliable grounding of the unit.
11) The drain pipe must be installed according to the requirements of this manual to ensure smooth drainage and good thermal insulation to prevent condensation.The drain pipe should be checked before the unit runs.If it is blocked,remove the obstructions to ensure smooth drainage of condensation.
12) The minimum starting voltage of the unit must be maintained at more than 90% of the rated voltage,and the operating voltage should be within ±10% of the rated voltage.The voltage difference between each phase should be within ±2%.Over-high or low voltage has adverse effects on the unit.It is necessary to ensure a stable power supply.If the voltage is not stable,the current will be excessive at the moment the unit starts running,which may cause damage to the motor.
13) Only when the unit is turned off and the power is disconnected can the unit be serviced or repaired.
14) After the unit fails,the cause of the failure should be found out and eliminated before the unit can be restarted.Do not force the unit to restart if the fault has not been removed.
15) Do not short circuit the wiring of the unit's protective device,otherwise it could cause a unit failure.
16) Protect the internal cables of the unit to prevent the insulation layer from being ruined by sharp objects.
17)Wires and cables should be kept away from heat sources,moved less,and should not be bent or twisted severely.

3. Air filter:

Regularly (recommended twice a month) check the dust accumulation on the unit's filter net.For users equipped with a pressure difference detection device,when the end resistance reaches a specified value,you should clean or replace the filter in a timely manner. It is suggested that the end resistance value is:

Filtering Efficiency Standards	Recommended End Resistance (Pa)
G3 (Primary)	100-200
G4 (Primary)	150-250
M5-M6 (Medium)	250-300

4. Heat Exchanger:

Ensure that the evaporator coil fins,copper tubes,etc.,are free from scratches and dents.Keep the coil clean by brushing the evaporator fins with a nylon brush.Must clean up with a vacuum cleaner before brushing.If compressed air is available,the coil can be cleaned with a high-pressure air tube or nozzle. After cleaning,the outer surface of the coil should be dust-free and the heat transfer effect on the inner surface should be restored to its initial heat transfer capacity.

5. One week after the unit begins to operate,the belt tension should be readjusted.Subsequently,routine checks should be performed every three months of operation.

6. After the unit has been running for a while,the wire terminals may become loose.They should be checked and tightened three days after the unit is first started up.

7. Fan and motor bearings should be inspected regularly (recommended three times a month).Check the seal ring of the motor shaft (e.g. V-type seal ring),and replace it promptly if necessary;check for any loosening in the installation connection.Monitor bearing operation by listening for abnormal noise,through vibration detection,monitoring oil consumption or bearing vibration measuring elements.If any abnormality occurs,immediately shut down the unit,check for the cause and eliminate the problem promptly.Installation and replacement of bearings should be done using heating or special tools,avoid hammering or prying bearings.

8. Maintenance of fan bearings:

Fans equipped with an oil nozzle need regular lubrication with L-AN32 lithium grease;if a particular type of grease has been specified by the user,the same type should be continued for lubrication.The effective period of the grease depends on the type of grease,bearing speed,shaft diameter,and work environment.Under normal circumstances,the grease needs to be replaced every 1500 running hours,if the fan runs continuously for 24 hours it should be replaced every 500-700 operation hours.

Method for adding grease:Add grease while keeping the shaft rotating.Stop once you see a layer of fresh grease coming out of the dust cover and spin the fan wheel quickly by hand to discharge the extra grease.

9. Regularly (recommended once a month) check the inspection door's seals and the flexible connectors of the air ducts,and replace them promptly if there is any air leakage.

10. Other matters to note:

1) Only clean the air conditioner after it has been turned off and power is disconnected, otherwise, there is a risk of electrical shock or injury.

2) Please do not conduct maintenance while the unit is operating.

3) Do not use steel or copper wire in place of fuses. Use the correct specification of fuses;otherwise,it may damage the unit.

4) If any abnormalities (such as a burnt smell) are detected,turn off the power and seek guidance from the seller.Continuing to use the air conditioner under such circumstances could cause damage and potentially result in electrical shocks or fire incidents.Maintenance can only be done by professional service personnel,and all power must be cut off before accessing the wiring device.

5) For further details,please refer to the Installation and Operation Manual.

Note: For various parts of the unit,such as humidifiers,rotary wheel heat recovery systems,burners,sprays,etc.,if there are specific operation maintenance manuals or user manuals,and these documents contain specific operational repair and maintenance details,these operations,repairs,and maintenance should be carried out according to the companion manual or user manual for the respective component.



Daily Maintenance and Care

We suggest that users record daily operational data for the device and carry out regular maintenance and care:

1. Before first use,it is necessary to check whether the terminal equipment and other components of the water system are functioning correctly.

2. During use of the device,we recommend that users adopt the following maintenance and care methods:

Inspection Items			Monthly	Quarterly	Annually	Points of Focus
Terminal Box	Inlet Stage	Check whether the filter net is dirty and blocked	★	★	★	The final resistance of the unit reaches the stipulated (alarm values see the technical manual)
		Electronic Dust Removal Filter	☆	☆	★	Is there any clogging or dirt
	Coil section	Evaporative coil	☆	☆	★	Is the surface covered with dust, oil stains, debris, etc.
		Steam coil	☆	☆	★	Check if the supply air pressure steam gauge pressure is between 0.02~0.4Mpa, and whether the steam trap is free of dirt and blockages.
		Condensate receiver plate and drainpipe	☆	☆	☆	Is there any blockage or dirt, and is the drainage smooth
		Wet film humidifier	☆	☆	☆	Refer to the technical instruction manual for each type of humidifier
		Dry steam humidifier	☆	☆	☆	Refer to the technical instruction manual for each type of humidifier
	Fan section	Check the tension of the belt	☆	☆	☆	Check if there are any signs of cracking during the inspection
		SInspect the bearings of the fan and motor	★	★	★	Under normal circumstances,the lubricating grease should be replaced every 1500 hours of fan operation;when the fan runs continuously for 24 hours, the lubricant should be replaced every 500~700 hours
Electrical Control	Electric Control Cabinet	Insurance	☆	☆	☆	Disconnect
		Contactor	☆	☆	☆	Check for serious contact corrosion or noise during operation
		Sensor	☆	☆	☆	The corrected detection value still deviates from the actual value
		High voltage switch	☆	☆	☆	Controller false alarm
		Check if the connection point is loose	★	★	★	Move the connecting wire, the contact is loose or can rotate freely
		Power supply inspection	★	★	★	Rated voltage plus or minus 10%, inter-phase imbalance <2%
		Phase sequence inspection	☆	☆	☆	No missing phase or wrong phase

Remarks:

①★-Must be maintained or replaced; ☆-Decide whether to implement maintenance according to actual conditions;

②Daily and monthly inspection items should be carried out and recorded by the customer;

③The replacement of consumable parts and materials is determined based on the years of use or running time of the unit.For those in long-term use or process use,it depends on the running time,while for normal use or comfort use,it based on the years of use;

④It is recommended that the unit be undergo comprehensive maintenance every year or about every 1000 hours of operation.For clean-type units with purification requirements,the maintenance interval should be shortened according to the user's cleanliness requirements.Units used in harsh environment conditions should be maintained monthly according to the inspection situation.

3.If the equipment is not used for a long time,we recommend the following maintenance methods:When the unit is not running for a long time and in winter,the power supply must be turned off and the water in the unit water system and steam coil must be drained. If necessary,you can follow the maintenance methods before the equipment is put into use.