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LONGWELL®
Turn to Experts - HVAC&R

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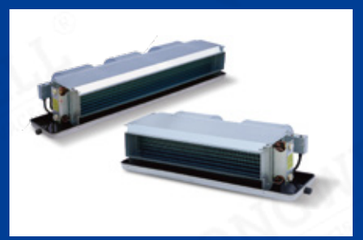


Longwell Technology Ventilation Equipment

—— Rooftop Air Conditioning Unit

Ningbo Longwell Electric Technology Co., Ltd

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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

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About Longwell

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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.



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Factory Display

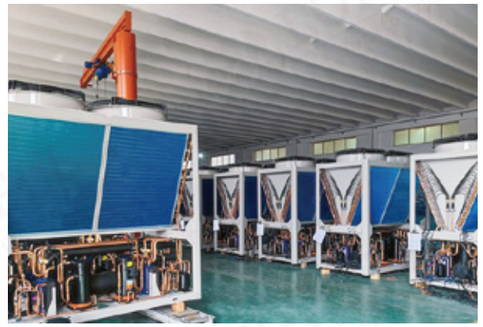
LONGWELL central air conditioning series includes a comprehensive range of products, such as air source heat pump units, Air-cooled chillers (heat pump) units, water (ground) source heat pump units, sewage source heat pump units, seawater source heat pump units, water-cooled chiller units, constant temperature 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.















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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 W F W R -65 A

- A-R407C
  B-R22
  R410a
- Cooling capacity
- R-Heat pump
  Single cold
- W-Fullyenclosed scroll compressor
- F-Air-cooled
- W-Rooftop Air Conditioning Unit
- LW-Longwell

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Rooftop Air Conditioning Unit

Product Features

Rooftop Air Conditioning Unit is centralized air conditioning products that integrate cooling (heating) sources and air treatment. Typically of the air-cooled type, these units combine refrigeration systems, control systems, and various air treatment functions to achieve cooling, heating, dehumidification, humidification, noise reduction, air purification, and fresh air delivery. By utilizing heat exchangers within the refrigeration system, these units enable direct heat and moisture exchange between the refrigerant and air, eliminating energy loss from secondary exchanges with intermediate heat transfer media. They do not require cooling towers, chilled (frozen) water pipes, circulating water pumps, or dedicated machine rooms. These units can be installed as a whole on rooftops, outdoor courtyards, or with separate installations for the compression-condensation and air treatment sections. Roof-mounted air conditioning units are highly suitable for comfort air conditioning systems in venues such as sports arenas, exhibition centers, theaters, conference rooms, malls, airport lounges, and train station waiting areas. They are also widely used in process air conditioning systems in industries including pharmaceuticals, electronics, food, machinery, and textiles.



Unique Adaptable Technology for Harsh Environments

The unit can automatically adjust its operating state when working in harsh environments, ensuring efficient and reliable operation.

Unique Compressor Wear Balancing Technology

Multi-module units are able to automatically balance the running time of compressors, ensuring balanced wear among each compressor and thereby extending the overall lifespan of the unit.

Unique Noise Reduction Technology

Compressors are equipped with specially designed soundproof covers made of multiple composite soundproofing materials, and dedicated shock absorbers are installed between the compressor and the unit base, significantly reducing the transmission of compressor noise and vibration. The motors and fan blades of the condenser fans are subject to strict control for electromagnetic noise, blade vibration noise, and airflow noise through special design.

Top-Quality Components, Outstanding Performance

Key components of the unit such as compressors, expansion valves, heat exchangers, supply fans, controllers, etc., are all selected from reputable brands to ensure stable unit quality, energy-efficient operation, and safety reliability.

Sleek and Elegant Appearance

The joints of the casing corners adopt a rounded arc structure for seamless transitions, showcasing meticulous detail design, resulting in a smoother visual effect for the unit's exterior.

Optimized Modular Design

Utilizing an optimized modular design to meet various technical requirements of different functional segments, the product can be shipped in separate transport units from the factory, enhancing on-site installation quality and speed, and ultimately saving user investments.

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Integrated Water Tray

The unit's water receiving tray adopts an inclined design, with a smooth and flat interior surface, excellent insulation performance, ensuring smooth drainage of condensate water.

Meeting Air Purification Standards

The unit fully considers the requirements of air purification systems for air handling units in aspects such as material selection for casing design, fan selection, evaporator design, arrangement of filters, design of self-control systems, and cleaning maintenance. The product meets the requirements of air purification standards in terms of air leakage rate, cleanliness, corrosion resistance, and other indicators, making it an ideal choice for air purification.

Stable and Efficient Operation

The unit achieves microcomputer fully automatic control for operation, energy regulation, and self-protection, with displays available in both Chinese and English. This ensures the unit operates at its optimum state, guaranteeing safety, reliability, and high energy efficiency.

Comprehensive Unit Control Features

The unit employs industrial-grade microcomputer control with robust computing capabilities, enabling real-time monitoring and analysis of various operating parameters to maintain optimal performance. Equipped with RS-485 and RS-232 physical interfaces, it supports networking and group control of multiple units, as well as communication with a variety of smart devices using publicly available communication protocols. Additionally, it offers remote communication capabilities.

Meeting Special User Requirements

The unit can be customized to include features such as year-round cooling operation according to user needs. It can also be provided with environmentally friendly refrigerants.

Performance Parameter Table

Model		LWWFWR-10	LWWFWR-14	LWWFWR-18
Cooling Capacity(KW)		10.55	14.07	17.29
Input Power(KW)		3.05	4.79	5.64
EER		3.45	2.93	3.06
Heating Capacity(KW)		10.99	15.09	18.32
Input Power(KW)		3.00	4.56	5.21
COP		3.66	3.30	3.51
Indoor Air Flow(m^3/h)		2550	3150	3450
External Static Pressure(Pa)		50	50	50
Maximum Input Power(KW)		4.25	6.05	7.05
Maximum Operating Current(A)		6.4	8.8	10.9
Compressor	Quantity	1		
	Type	Hermetic scroll		
Indoor Fan	Type	Centrifugal		
Outdoor Fan	Type	High efficiency axial flow fan		
Noise(dBA)		64.9	67.7	68.8
Ambient Temperature		21°C~ 43°C	21°C~ 43°C	21°C~ 43°C
Refrigerant		R410a		
Dimensions	Length (mm)	1116	1116	1116
	Width (mm)	744	744	744
	Height (mm)	830	830	830
Unit Weight(kg)		139/142	146/149	159/162

Remarks:
1. Cooling condition: Outdoor ambient temperature: 35°C, indoor dry/wet bulb temperature: 26.7/19.4°C;
2. Heating condition: Outdoor dry/wet bulb temperature: 7/6°C; indoor dry/wet bulb temperature: 20/15°C;
3. Noise level: Measured in a semi-anechoic chamber, with measurement points located 1 meter in front of the equipment and above the floor (at a height of 1 meter + equipment height)/2;
4. The above information may be subject to change due to product updates or other reasons.

Performance Parameter Table

Model		LWWFWR-23	LWWFWR-27	LWWFWR-30
Cooling capacity 1(KW)		22.0	26.0	30.0
Input Power(KW)		7.7	9.2	10.4
EER		2.85	2.82	2.88
Cooling capacity 2(KW)		18.4	21.8	25.1
Input Power(KW)		8.6	9.9	11.4
EER		2.13	2.20	2.20
Heating capacity(KW)		26.0	30.0	35.0
Input power(KW)		7.6	8.8	10.1
COP		3.42	3.40	2.97
Indoor air flow rate(m^3/h)		4400	5100	6150
External static pressure(Pa)		60	60	75
Maximum input power(KW)		10.4	12.0	13.6
Maximum operating current(A)		21.0	25.6	27.5
Compressor	Quantity	1		
	Type	Scroll compressor		
Indoor Fan	Type	Centrifugal type		
Outdoor Fan	Type	High-efficiency axial-flow fan		
Noise(dBA)		74.7	75.1	76.8
Ambient Temperature		-5°C~52°C	-5°C~52°C	-5°C~52°C
Refrigerant		R410a		
Dimensions	Length (mm)	1630	1630	2165
	Width (mm)	1065	1065	1335
	Height (mm)	1068	1068	1002
Unit Weight(kg)		320/340	320/340	450/463

Remarks:
1. Cooling condition 1: Outdoor ambient temperature: 35°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
2. Cooling condition 2: Outdoor ambient temperature: 46.1°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
3. Heating condition: Outdoor dry/wet bulb temperature: 7/6°C; Indoor dry/wet bulb temperature: 20/15°C.
4. Noise level: Measured in a semi-anechoic chamber, at a point 1 meter in front of the equipment and above the floor (at a height of 1 meter + equipment height)/2.
5. The above information may vary due to product updates or other reasons.

Performance Parameter Table

Model		LWWFWR-36	LWWFWR-45	LWWFWR-55
Cooling capacity 1(KW)		35.0	43.0	53.0
Input Power(KW)		11.8	15.3	18.6
EER		2.96	2.81	2.84
Cooling capacity 2(KW)		29.3	34.2	46.7
Input Power(KW)		13.1	16.8	21.3
EER		2.23	2.03	2.19
Heating capacity(KW)		37.0	49.0	56.0
Input power(KW)		10.9	14.2	17.5
COP		3.39	3.45	3.2
Indoor air flow rate(m^3/h)		6450	9500	11200
External static pressure(Pa)		75	90	90
Maximum input power(KW)		16.0	21.0	27.0
Maximum operating current(A)		31.0	41.8	54.7
Compressor	Quantity	1	2	2
	Type	Scroll compressor		
Indoor Fan	Type	Centrifugal type		
Outdoor Fan	Type	High-efficiency axial-flow fan		
Noise(dBA)		77.2	77.1	77.4
Ambient Temperature		-5°C~52°C	-5°C~52°C	-5°C~52°C
Refrigerant		R410a		
Dimensions	Length (mm)	2165	2229	2229
	Width (mm)	1335	1400	1825
	Height (mm)	1002	1245	1245
Unit Weight(kg)		450/463	550/565	730/750

Remarks:
1. Cooling condition 1: Outdoor ambient temperature: 35°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
2. Cooling condition 2: Outdoor ambient temperature: 46.1°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
3. Heating condition: Outdoor dry/wet bulb temperature: 7/6°C; Indoor dry/wet bulb temperature: 20/15°C.
4. Noise level: Measured in a semi-anechoic chamber, at a point 1 meter in front of the equipment and above the floor (at a height of 1 meter + equipment height)/2.
5. The above information may vary due to product updates or other reasons.

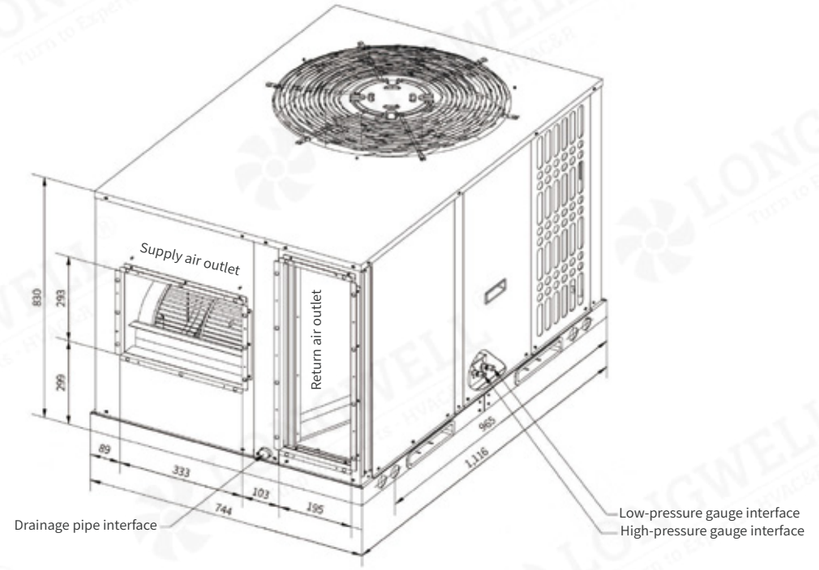
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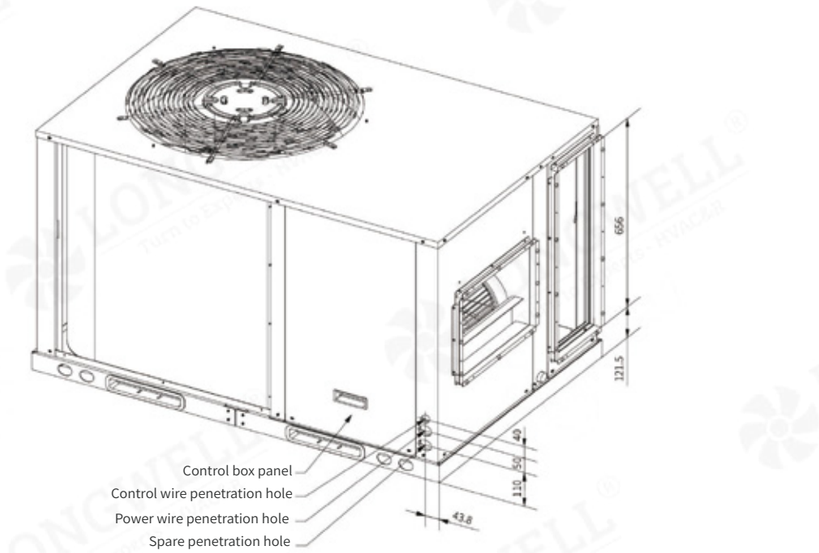
Performance Parameter Table

Model		LWWFWR-63	LWWFWR-73	LWWFWR-110
Cooling capacity 1(KW)		60.0	70.0	105.0
Input Power(KW)		20.0	23.6	35.8
EER		3.00	2.96	2.93
Cooling capacity 2(KW)		52.9	62.4	96.0
Input Power(KW)		23.5	27.7	43.8
EER		2.25	2.25	2.19
Heating capacity(KW)		67.0	75.0	105.0
Input power(KW)		19.8	23.4	34.3
COP		3.38	3.20	3.06
Indoor air flow rate(m^3/h)		12400	14200	20400
External static pressure(Pa)		90	100	250
Maximum input power(KW)		29.0	36.0	49.0
Maximum operating current(A)		58.2	69.2	93.1
Compressor	Quantity	2	2	2
	Type	Scroll compressor		
Indoor Fan	Type	Centrifugal type		
Outdoor Fan	Type	High-efficiency axial-flow fan		
Noise(dBA)		77.2	77.1	77.4
Ambient Temperature		-5°C~52°C	-5°C~52°C	-5°C~52°C
Refrigerant		R410a		
Dimensions	Length (mm)	2229	2753	2753
	Width (mm)	1825	2157	2157
	Height (mm)	1245	1245	1674
Unit Weight(kg)		590/620	670/700	910/940

Remarks:
1. Cooling condition 1: Outdoor ambient temperature: 35°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
2. Cooling condition 2: Outdoor ambient temperature: 46.1°C, Indoor dry/wet bulb temperature: 26.7/19.4°C.
3. Heating condition: Outdoor dry/wet bulb temperature: 7/6°C; Indoor dry/wet bulb temperature: 20/15°C.
4. Noise level: Measured in a semi-anechoic chamber, at a point 1 meter in front of the equipment and above the floor (at a height of 1 meter + equipment height)/2.
5. The above information may vary due to product updates or other reasons.

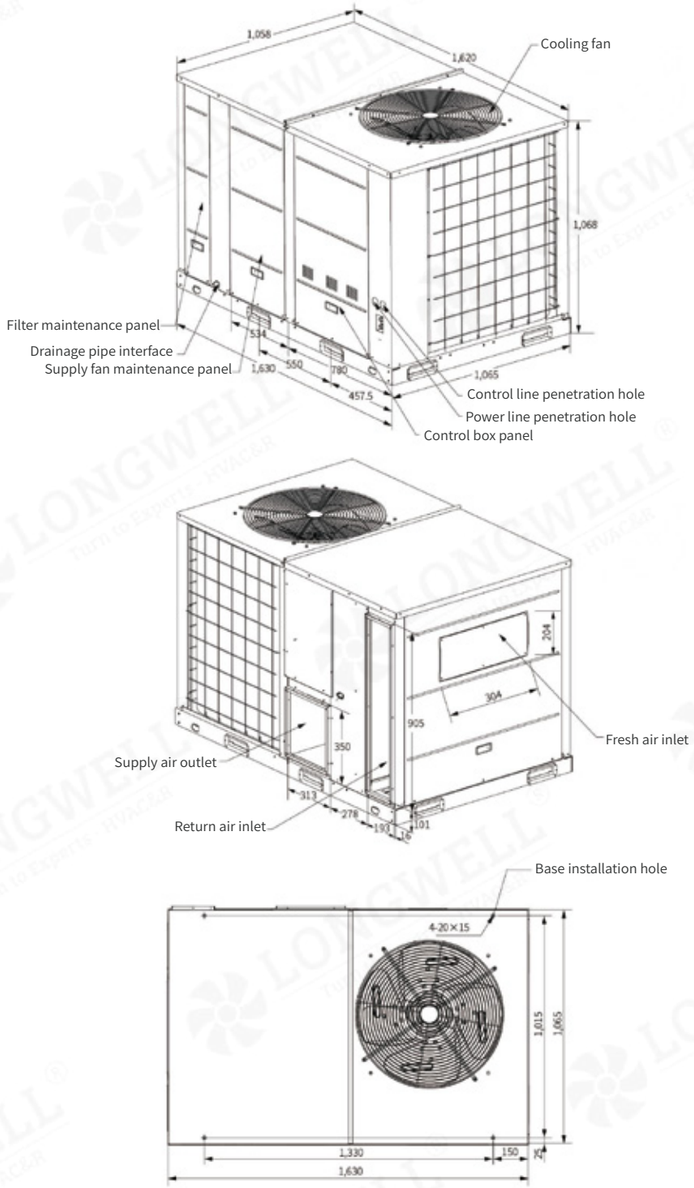
LWWFWR-10/14/18 External Dimension Diagram



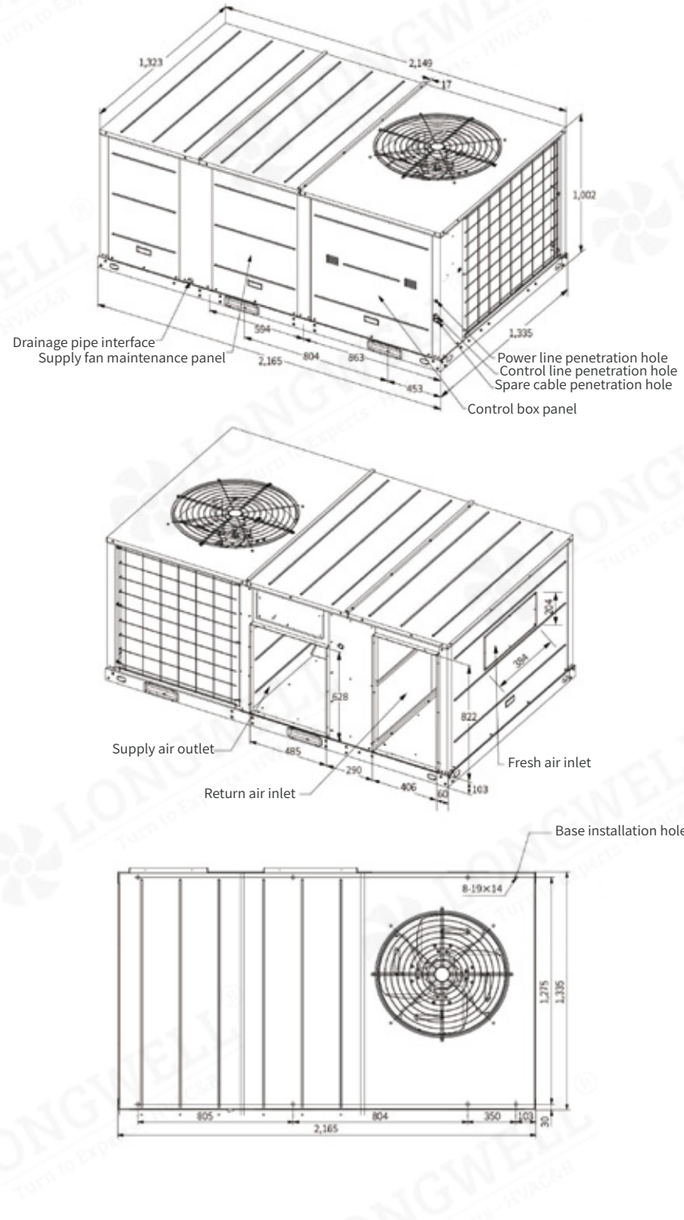


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LWWFWR-23/27 External Dimension Diagram

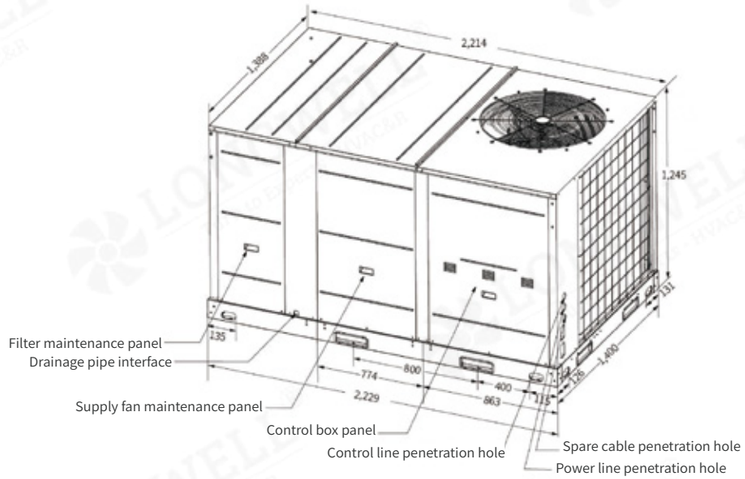


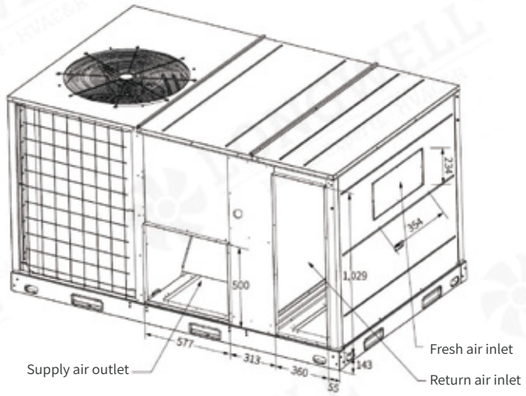
LWWFWR-30/36 External Dimension Diagram

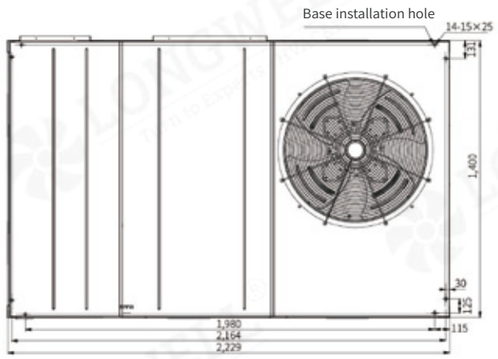


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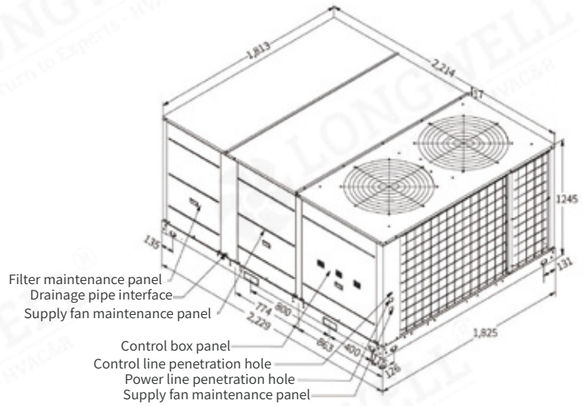
LWWFWR-45 External Dimension Diagram

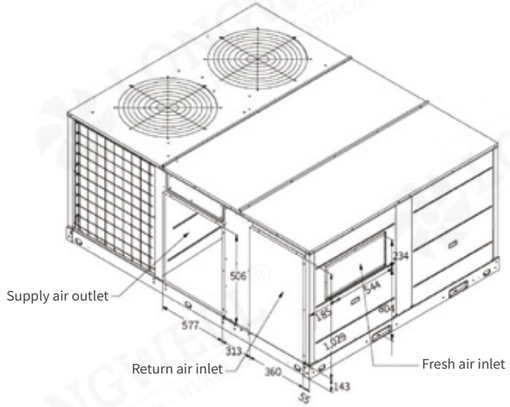


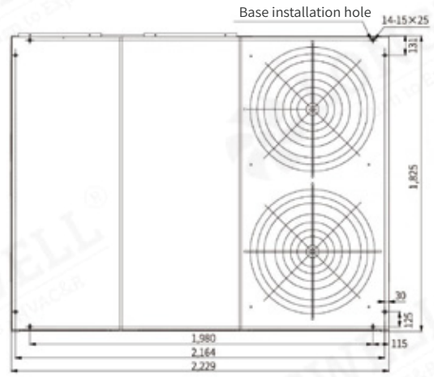




LWWFWR-55/63 External Dimension Diagram

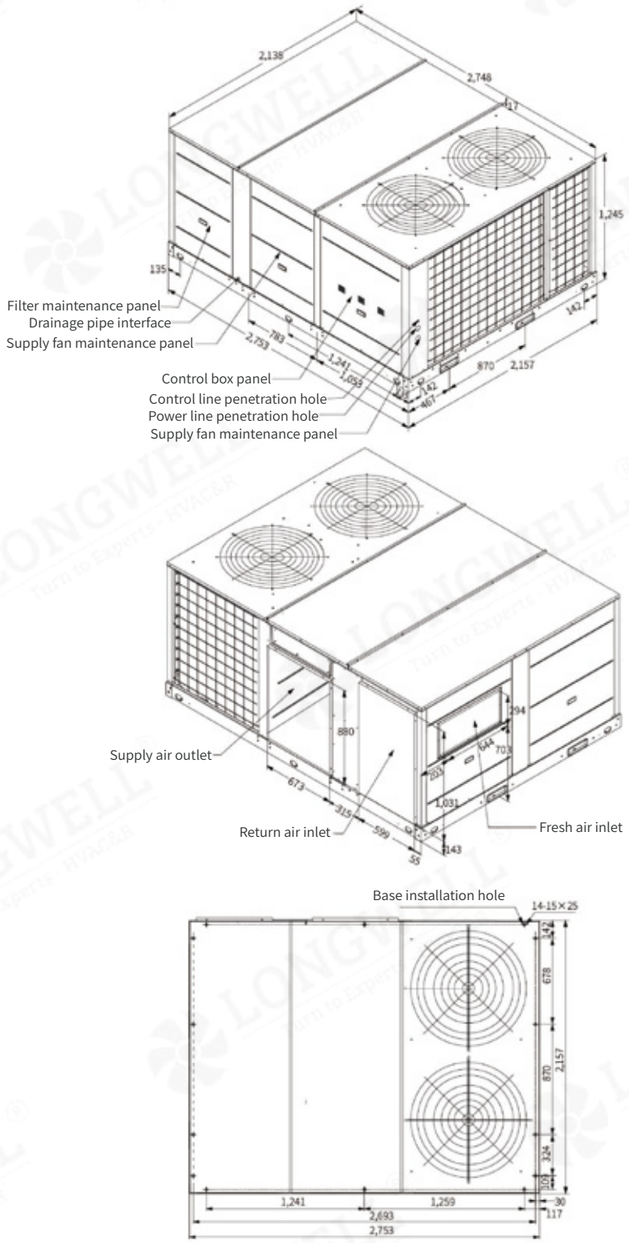






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LWWFWR-73 External Dimension Diagram



LWWFWR-110 External Dimension Diagram

