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LONGWELL®
Turn to Experts - HVAC&R

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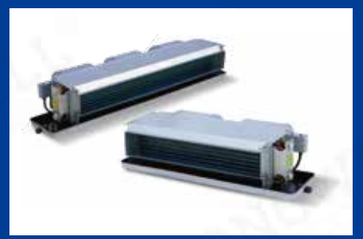


Longwell Technology Ventilation Equipment

—— Fan Coil 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

CATALOGUE

01-02 About Longwell
03-04 Factory Display
05 Certificate Display
06 Type Code
07-08 Product Features
09 Technical Specifications
10 Dimensions
11-12 Installation Instructions

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

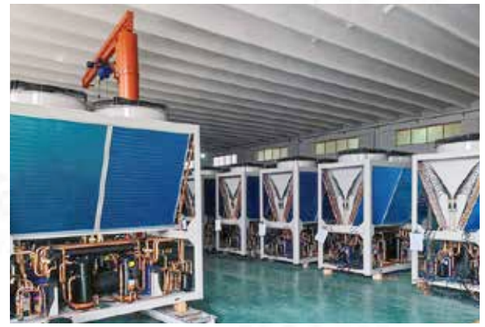
LONGWELL central air conditioning series includes a comprehensive range of products, such as air source heat pump units, Air-cooled chillers (heat pump) units, water (ground) source heat pump units, sewage source heat pump units, seawater source heat pump units, water-cooled chiller units, constant temperature 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 FP - 34 W A D G30

High static pressure type
G30/G50

Return air box type
without return air box
D-bottom return air box
H-rear return air box

Installation method
A-Concealed installation
M-Exposed installation

Structural form
W-Horizontal L-Vertical

Air volume ×10m³/h

FP-Fan Coil Unit

LW-Longwell

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Fan Coil Unit

Product Features

- The lines are clear, elegant, and versatile, suitable for various occasions.
- The structure is reasonable, simple, and compact, saving building space and facilitating installation.
- The materials are exquisite, durable, and energy-efficient.
- High-efficiency, low-noise fans with single-phase asynchronous capacitor motors.
- Humanized connection ports, simple operation, and easy installation.
- Optimized design, national standard testing, quality assurance.



Performance Testing Center



Maintenance and User Instructions

- Before the initial operation, please check for any foreign objects in the water tray, fan volute, and around the coils, inspect the water pipes and equipment connections to ensure they are correct and free from errors.
- During the initial operation, the exhaust valve on the return water pipe should be opened to release air from the coils and piping. Once air has been purged, close the valve.
- During the off-season when the ambient temperature is above 0°C, it is necessary to keep the coils filled with water to reduce corrosion. When the ambient temperature is below 0°C, drain the water from the coils or use compressed air to purge the system.
- The unit should be cleaned regularly every 2-3 years. Chemical methods should be used to remove scale from the heat exchanger. If there are filters, they should also be cleaned regularly to ensure smooth airflow.



Left-handed or right-handed configuration of the fan coil unit

- When facing the unit's air outlet, if the heat exchanger water pipes are on the left side, it is considered left-handed; otherwise, it is considered right-handed.

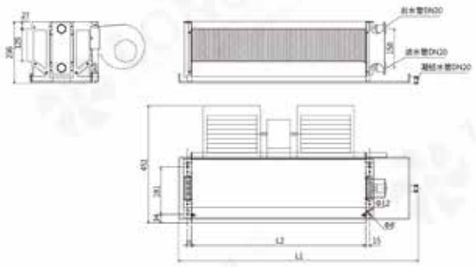
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Fan Coil Performance Parameter Table

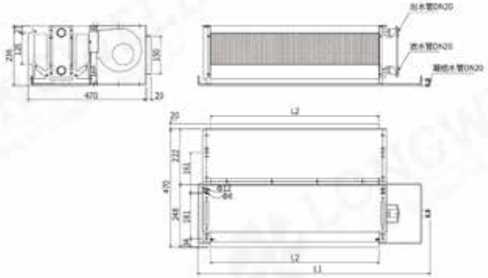
Model	LWFP-	34WA	51WA	68WA	85WA	102WA	119WA	136WA	170WA	204WA	238WA
Air volume (m^3/h)	H	340	510	680	850	1020	1190	1360	1700	2040	2380
	M	255	383	510	638	765	895	1020	1275	1530	1785
	L	170	255	340	425	510	605	680	850	1020	1190
Cooling capacity (KW)	H	1.90	2.85	3.80	4.75	5.68	6.52	7.35	9.20	10.92	12.74
	M	1.62	2.42	3.23	4.03	4.83	5.53	6.25	7.82	9.28	10.83
	L	1.24	1.85	2.47	3.08	3.69	4.23	4.78	5.98	7.10	8.28
Heating capacity (KW)	H	2.85	4.27	5.69	7.11	8.53	9.77	11.03	13.78	16.53	19.09
	M	2.42	3.63	4.84	6.04	7.25	8.31	9.37	11.71	14.05	16.23
	L	1.85	2.78	3.70	4.62	5.54	6.35	7.17	8.96	10.75	12.41
Water flow rate(m^3/h)		0.35	0.52	0.67	0.83	1.00	1.14	1.29	1.61	1.92	2.23
Water resistance(Kpa)		9.3	12.3	18.4	21.6	32.5	39.5	39.5	28.5	38.0	44.5
Input power (W)	12Pa H	36	50	60	74	93	112	130	147	183	221
	30Pa H	43	57	70	84	105	121	151	169	206	245
	50Pa H	48	64	81	97	114	131	169	204	243	291
Number of fans		1	2	2	2	2	2	3	3	4	4
Power supply		220V/50Hz									
Noise (dBA)	12Pa H	37	39	41	43	45	46	46	48	50	52
	30Pa H	40	42	44	46	47	48	48	50	52	54
	50Pa H	42	44	46	47	49	50	50	52	54	56
Net weight of unit(kg)	Without return air box	11.0	13.5	15.0	16.0	17.0	21.0	24.7	26.5	31.0	33.0
	Includes return air box	17.0	17.0	19.0	21.0	22.0	27.0	31.0	33.0	39.0	42.0
Inlet and outlet nozzle		Internal DN20									
Condensate pipe		External DN20									

Remarks:
1. Under the same air volume at static pressures of 12Pa, 30Pa, and 50Pa, the cooling and heating capacities of the fan coil unit are the same.
2. Cooling capacity operating conditions: Inlet air dry bulb temperature 27°C, wet bulb temperature 19.5°C, inlet water temperature 7°C, water temperature difference 5°C.
3. Heating capacity operating conditions: Inlet air dry bulb temperature 21°C, inlet water temperature 60°C, hot water flow rate is the same as cooling supply conditions.
4. The unit has undergone a 2.0MPa pressure test, with a maximum working pressure allowed of 1.6MPa.
5. Specifications are subject to change without prior notice due to product improvements.

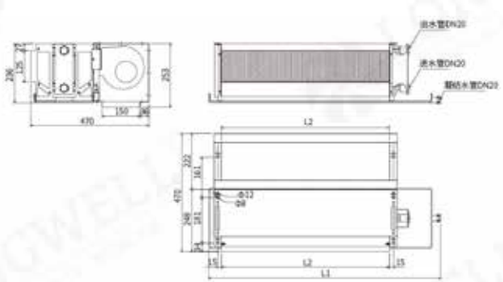
Fan Coil Unit Outline Diagram



Horizontal concealed installation
(without return air box)



Horizontal concealed installation
(with rear return air box)

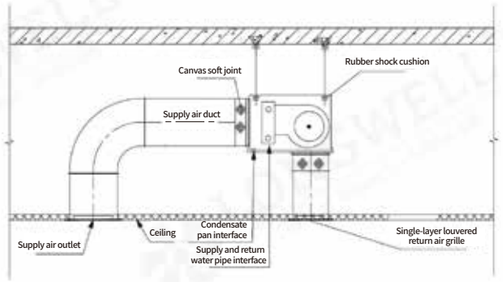


Horizontal concealed installation
(with bottom return air box)

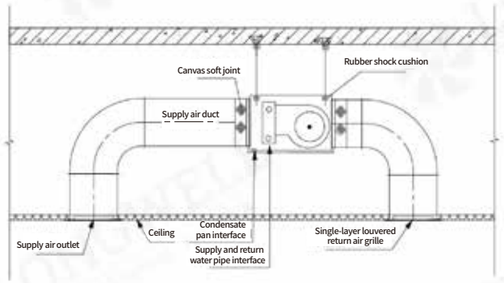
Model	L1	L2
LWFP-34	670	420
LWFP-51	870	570
LWFP-68	880	670
LWFP-85	970	730
LWFP-102	1070	830
LWFP-119	1170	980
LWFP-136	1370	1200
LWFP-170	1470	1350
LWFP-204	1770	1540
LWFP-238	1970	1750

Remarks:
1. This drawing is based on the FP-68WA model.
2. The drawing represents the right-hand connection; when the left-hand connection is required, please use the opposite direction of this drawing as symmetrical.
3. Please specify the power supply and connection direction when placing an order.

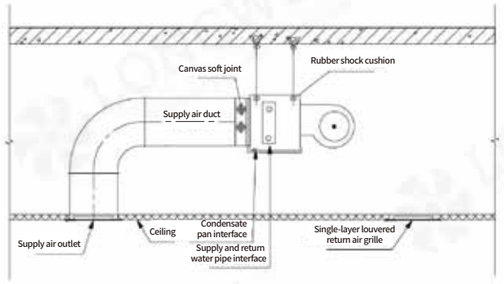
Air Duct Installation Schematic Diagram



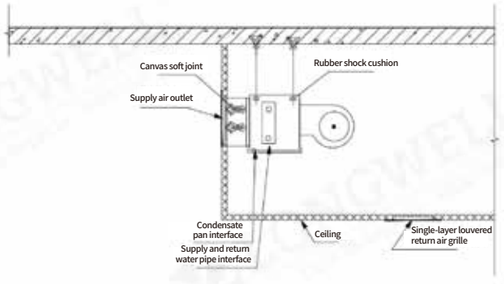
Fan coil unit installation schematic diagram
(with bottom return air box)



Fan coil unit installation schematic diagram
(with rear return air box)



Fan coil unit installation schematic diagram
(without return air box)



Fan coil unit installation schematic diagram
(without return air box)

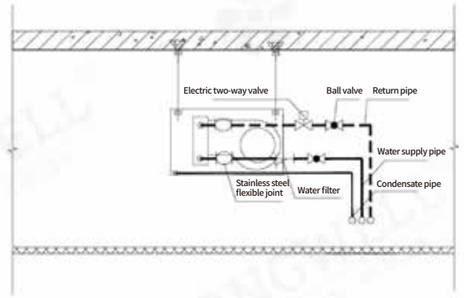
Remarks:
1. Soft ducts should be used to connect the unit's inlet and outlet air openings to the air ducts. The weight of the ducts and water pipes connected to the unit must not be borne by the unit.
2. There should be a maintenance space of at least 0.8m around the unit.

Installation Instructions

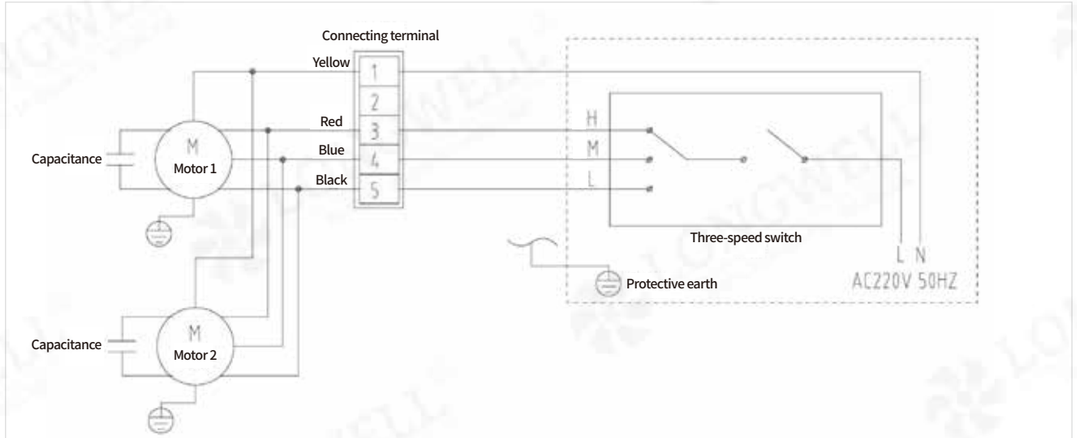
The unit must be kept level or with the drain end 3-5mm lower than the other end.
Horizontal concealed installation models require installation of the piping system.
Adequate maintenance space must be reserved.
Carefully handle the unit during transportation, strictly prohibit carrying the unit by hand holding the impeller or volute.
When connecting pipes, no deformation or distortion should occur at the interface of the inlet and outlet water pipes.

Schematic diagram of fan coil unit water pipe installation

1. The unit's outlet must be equipped with an electric two-way valve, which can be controlled by a three-speed adjustment controller.
2. When the unit uses water as the heat exchange medium, the lower pipe is the inlet pipe, and the upper pipe is the outlet pipe.
3. The use of steam and hot water above 70°C is prohibited.



Fan coil unit control circuit diagram



Remarks:
1. Please follow this wiring diagram for correct connections.
2. The dashed line box indicates the on-site wiring section.