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WESTON-AI-FC-WC Fan Coil Unit

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WESTON-AI-FC-WC
Horizontal Concealed Fan Coil Unit

FP-WA Horizontal Concealed Fan Coil Unit

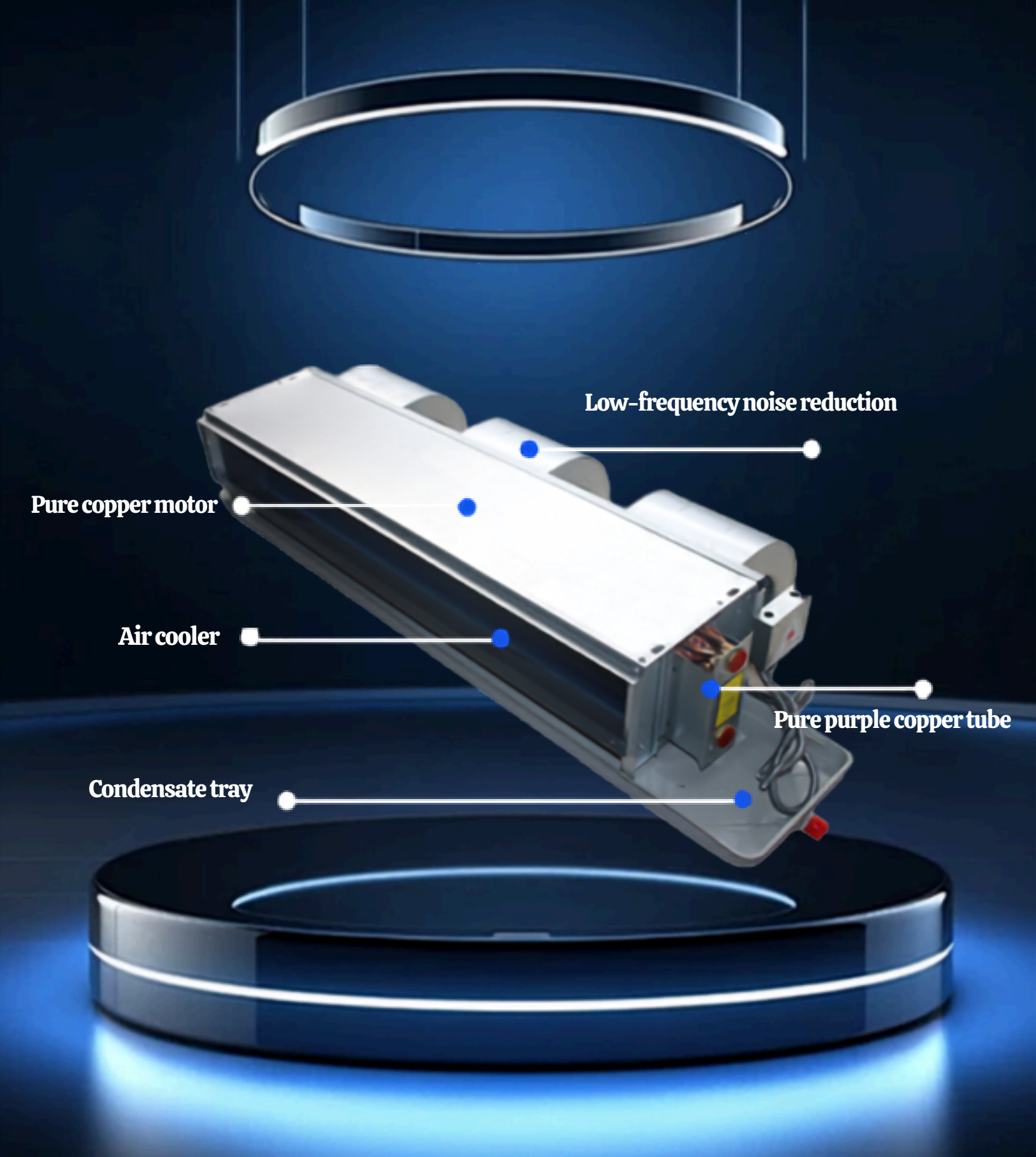
•High-strength body: The body is made of high-quality environmentally friendly steel plate with integrated stamping and reinforcing ribs;

•Superior performance: Professional flow channel/heat exchange design ensures that the energy efficiency ratio for cooling/heating exceeds industry standards;

•Low water resistance: The entire series uses copper tube heat exchange, which has high heat exchange efficiency and low water resistance;

•Energy-saving and efficient: Advanced tube expansion technology ensures close contact between the copper tubes and aluminum foil in the heat exchanger, improving performance;

Low noise: Reasonable fan and airflow structure design, high-quality sound-absorbing and heat-insulating materials, extremely quiet operation;



- High air volume: 340-2380m^3/h
- Dual-purpose for both cold and warm conditions
- Low-frequency noise reduction

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WESTON-AI-FC-WC Horizontal Concealed Fan Coil Unit Technical Parameter Table

Unit Model			FC-WC-340	FC-WC-510	FC-WC-680	FC-WC-850	FC-WC-1020	FC-WC-1360	FC-WC-1700	FC-WC-2040	FC-WC-2380
Rated air volume (m³/h)		H	340	510	680	850	1020	1360	1700	2040	2380
		M	260	390	510	640	770	1020	1280	1530	1790
		L	170	260	340	430	510	680	850	1020	1190
Rated cooling capacity	W	H	1920	2810	3720	4660	5558	7282	9093	10980	12860
Rated heat	W	H	3135	4550	5982	7360	8720	11381	14218	16750	19430
Output power (W)	12Pa	H	37	52	62	76	96	134	152	189	228
	30Pa	H	44	59	72	87	108	156	174	212	253
	50Pa	H	49	66	84	100	118	174	210	250	253
Noise dB (A)	12Pa	H	37	39	41	43	45	46	48	50	52
	30Pa	H	40	42	44	46	47	48	50	52	54
	50Pa	H	42	44	46	47	49	50	52	54	56
Water volume kg/h			319	478	638	797	956	1275	1594	1913	2232
Water pressure loss kPa			≤30	≤30	≤30	≤30	≤40	≤40	≤40	≤40	≤50
Number of coil rows			3	3	3	3	3	3	3	3	3
Coil operating pressure (MPa)			1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Inlet/outletwater/ condensate water connection pipe diameter			3/4 (internal thread of tapered pipe); 3/4 (external thread of tapered pipe)								
Fan/Motor Type/ Operating Voltage			Front-curved multi-blade galvanized steel centrifugal double-suction fan / single-phase capacitor-driven motor / AC220V-50Hz								
Net weight (kg)	Conventional		12	15	16	18	19	25	29	33	36
	Bring back the bellows		14	17	19	21	23	30	34	38	42
Coil length (mm)			460	460	460	460	460	460	460	460	460
Length of the rear return air coil (mm)			515	515	515	515	515	515	515	515	515
Length of the lower return air coil (mm)			495	495	495	495	495	495	495	495	495
Coil width * height (mm)			740*230	840*230	940*230	1040*230	1140*230	1340*230	1640*230	1840*230	2040*230
Air outlet length * width (mm)			460*130	620*130	650*130	780*130	900*130	1100*130	1360*130	1560*130	1700*130
Return air box inlet length * width (mm)			460*175	620*175	650*175	780*175	900*175	1100*175	1360*175	1560*175	1700*175

Remark:

1. The above unit performance parameters are obtained from tests conducted without a return air box.
2. Cooling capacity test conditions: Inlet air dry bulb temperature 27℃, wet bulb temperature 19.5℃, inlet water temperature 7℃, water temperature difference 5℃.
3. Heating supply test conditions: Inlet air dry bulb temperature 21℃, inlet water temperature 60℃.
4. The performance parameters of the unit may be adjusted due to product improvements without prior notice. Please refer to the nameplate for specific parameters.

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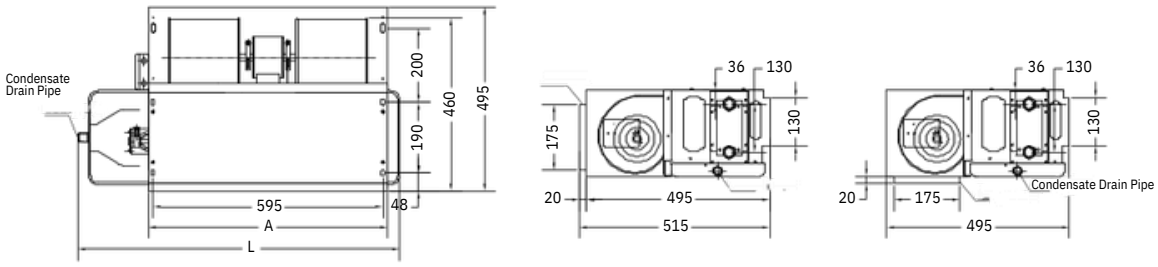
Horizontal Concealed Fan Coil Unit Dimension Drawing



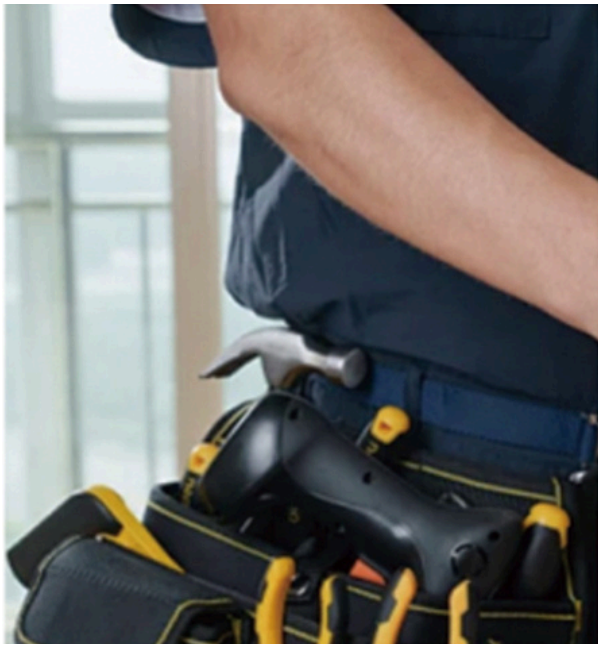
Model	WC-340	WC-510	WC-680	WC-850	WC-1020	WC-1360	WC-1700	WC-2040	WC-2380
L (mm)	740	840	940	1040	1140	1340	1640	1840	2040
A (mm)	460	620	650	780	900	1100	1360	1560	1700

Unit Installation And Commissioning

1. Handle the unit with care during transport. Do not move the unit by holding the impeller or volute. If serious damage, deformation of the fan volute, deformation of the condensate pan, or loosening of the motor or fan is found before installation, please contact the dealer for repair or replacement.

2. When installing the unit, it should be kept horizontal or the drain end should be 3-5mm lower than the other end to ensure unobstructed drainage of the condensate pan. The unit should only bear its own weight and should not bear external forces from air ducts, water pipes or other objects. Sufficient low maintenance space should be left at the installation location.

3. A filter screen should be installed at the return air vent to prevent dust from clogging the heat exchanger fins and ensure its heat transfer capacity.



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Unit Installation And Commissioning

4. The water pipes should be connected with the bottom inlet and the top outlet. Flexible pipes are recommended for both inlet and outlet. When connecting the pipes, the torque should not be too high to avoid damaging the heat exchanger. The inlet and outlet pipes should be insulated. Threaded connections are recommended to be sealed with PTFE raw rubber tape. The drain pipe should have a sufficiently low slope.

5. The unit's outlet water pipe is equipped with a manual air vent valve. Before initial operation and before switching between hot and cold water, the air vent valve must be opened and closed only after all air has been expelled from the coils and pipes; otherwise, the heat exchange effect will be affected. The unit's summer cooling water temperature should not be lower than 6℃, and the winter hot water temperature should not exceed 65℃. Clean and softened water is required.

6. The unit uses a single-phase 220V power supply. Power fluctuations must not exceed ±10%. When wiring, please refer to the circuit diagram. It is strictly forbidden to connect any two of the high, medium, or low speed settings to the same wire; incorrect wiring may burn out the motor. The unit casing has a grounding nut for connecting to the protective grounding system during installation. Different models of low-speed units must not share a single three-speed switch; otherwise, the motor may also burn out.

7. When the unit is to be shut down for a long period of time, the coil should be filled with water to reduce the corrosion of the pipeline. However, antifreeze measures should be taken during the winter installation and commissioning process and during long-term shutdown to prevent the coil and water supply pipeline from freezing and cracking.

8. The heat exchanger should be purged regularly to keep it clean and maintain good heat transfer performance. The filter screen should be cleaned regularly to ensure unobstructed return air. It is strictly forbidden to operate the unit for a long time without a filter screen.

Note: If the equipment is not used for an extended period, we recommend the following maintenance and upkeep methods: Before restarting the unit, especially during long periods of inactivity or winter, all water in the system must be drained, and then the power supply should be turned off. Before restarting, check the power cord (from the distribution cabinet to the unit) for looseness or damage. After a comprehensive inspection of the unit confirms that everything is normal, it can be started up.

If necessary, the maintenance and upkeep methods used before the equipment is put into use can be followed.

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