

THE WORLD'S OBAIR

In the vast global innovation landscape, "Obair" shines like a brilliant star, leading the wave of technological innovation.

We are not just a company, but also advocates and practitioners of the global upgrade in quality of life.

In the world of Obair, technological innovation is not only a driving force but also the soul.

We firmly believe that "Obair" will resonate in every corner of the world, representing excellence, quality, and dreams.

We cross mountains and seas, connecting the five continents, adding a bright color to the global stage of life, becoming a synonym for beauty in the hearts of people around the world, and together writing a glorious chapter in human civilization.



The above products of Obair have passed the above certification and the specific product certification is detailed in the relevant product certification certificate.

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Note: There may be discrepancies between all product descriptions, data, and actual products in this catalog. Please refer to the actual product. Changes will not be notified separately.



Official WeChat
Public Account

OBAIR

FP |

Fan Coil Unit



OBAIR
Control air conditions

Version NO.: OB-202504A
Haojin Oubo Technology CO., LTD

COMPANY PROFILE

Haojin Oubo Technology Co., Ltd. is a large-scale purification central air conditioning national high-tech enterprise integrating research and development, production, sales, and service.

Obaire has always adhered to technological innovation, participated in the formulation of national and industry standards as a member unit of China's "Cold Standard Committee", and has obtained multiple invention patents and utility model patents. It has established industry-university-research bases with Nanchang University and Jiangxi University of Science and Technology. It is a key demonstration enterprise for deep integration of informatization and industrialization in Jiangxi Province, a demonstration enterprise for service-oriented manufacturing in Jiangxi Province, and the company has successively won honors such as Jiangxi Province Technology Center, Ganzhou City Industrial Design Center, Jiangxi Famous Brand Product, national green factory, and national specialized and innovative "little giant" enterprise.

Obaire currently has two phases in Ganzhou, Jiangxi, using digital park management, with over 120 digital production equipment, achieving an annual production capacity of 100,000 units.

Obaire currently has more than 1000 models of high-quality air conditioning products independently developed, and the products have obtained energy-saving certification, CRAA, EU CE certification, American AHRI certification and other authoritative institutions' testing and certification, widely used in hospitals, dust-free workshops, pharmaceutical factories, electronics, tobacco, painting, photovoltaic, new energy, semiconductor, laboratory and other industries, and has the industry reputation of "King of Cleanliness" and "King of Constant Temperature and Humidity Non-standard".

Obaire strictly implements the ISO9001/ISO14001/ISO45001 management system, always practices the purpose of "willing to explain the price for a while, but not to apologize for the quality for a lifetime", proposes the "6-hour" on-site service concept for all customers and for all customers, and provides the most professional and high-quality technical support and after-sales service.

From the mission, born for purification!
Obair, your regret-free choice!

170,000
cumulative models
of complete machine production since 1992

70+
National Service Contact Points

1000
employees

100,000
Pilot Project Air Conditioning Solutions



HONORARY QUALIFICATIONS



Advanced equipment, professional technology and strict management have created the high quality of "OUBO" brand products.

It has successively won dozens of honors such as national high-tech enterprise, China's well-known brand, specialized and socialized enterprise, cold standard committee enterprise, provincial service-oriented manufacturing demonstration enterprise, provincial enterprise technology center, Jiangxi famous brand product, etc.

"OUBO" products are your reliable choice.



It has obtained more than 10 certifications and more than 100 patents.





Rapid Heating and Cooling

High-efficiency hydrophilic opening fins with a fin width that exceeds industry standards, achieving high thermal efficiency while enhancing corrosion resistance.



Smooth and tranquil

While reducing operational energy consumption, it also minimizes the generation of vortex airflow, ensuring the unit operates smoothly and quietly, allowing you to enjoy a quality life.



Energy-efficient and high-performance

Compliant with the ANSI/AMCA-204 standard electronic balancing machine for two-stage dynamic balance testing, with an internal control precision reaching the G2.5 level, energy-saving and efficient, and operates quietly.



Optional temperature control

Optional mechanical thermostats or LCD touch screen thermostats can be used to control the opening/closing of pipe valve control components such as fan coil pipe valves and other pipeline systems, to connect/interrupt the flow of media like cold and hot water sources in the pipelines, thereby controlling the temperature within the area.

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>> Product Overview

Fan coil units are the terminal devices of large central air conditioning systems, which are air conditioning devices that integrate fans and heat exchangers. They use cold (hot) water supplied by cold or heat sources to send cold or hot air into air-conditioned rooms. They are suitable for horizontal concealed spaces such as hotels, residences, office buildings, villas, radio stations, airports, and subways.

Auburn fan coil units include: horizontal concealed installation, cassette series, with airflow ranges from 340m³/h to 2380m³/h, and there are three-speed options for high, medium, and low airflow. More differentiated options are also available (such as thermostats, three-speed switches, etc.), to more comprehensively meet user needs in terms of performance parameters, air quality, installation and maintenance, and operational maintenance.



>> Product Features

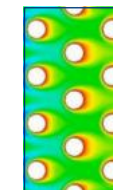
Energy-efficient and high-performance, quiet operation, enjoy a comfortable life

Precision-grade stamped large diameter forward multi-blade wheel, Pittsburgh-style helical gear structure, overcoming the traditional spot welding mode's drawbacks of easy air leakage and rusting. The airflow runs streamlined between the blades, reducing pressure loss and vortex noise caused by turbulence. Tested with ANSI/AMCA-204 standard electronic balancing machines at two levels of dynamic balance, with internal control precision reaching G2.5 grade, energy-saving and efficient, quiet operation, and enjoy a comfortable life.



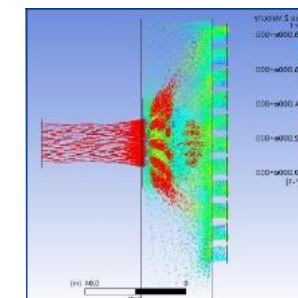
Genuine materials, rapid heating and cooling, enjoy a tech-savvy life

Counterflow cross-circuit design, professional simulation calculation, verified by the national CNAS laboratory, high-efficiency hydrophilic opening fins, fin width exceeding industry peers, achieving high thermal efficiency while enhancing corrosion resistance, genuine materials, rapid heating and cooling, enjoy a tech-savvy life.



Smooth and tranquil, enjoy a quality life

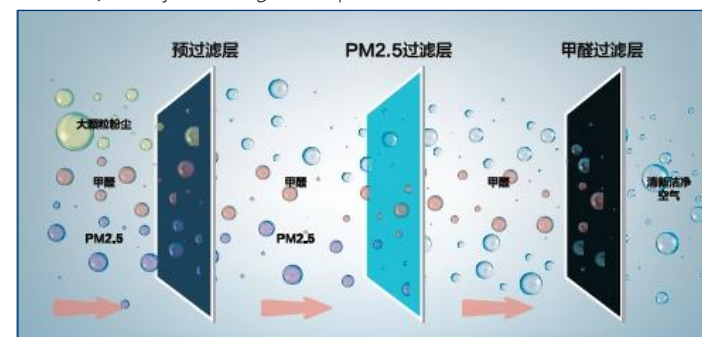
High-quality galvanized steel plate is used to form the water tray by whole stamping, with double-sided spray plastic and an outer layer of seamless B2-grade flame-retardant insulation material. The 8° inclined drainage ensures smooth water flow and prevents condensate from lingering. Professionally optimized ventilation pathways achieve the best aerodynamic performance. While reducing operational energy consumption and minimizing the generation of vortex airflow, the unit operates smoothly and quietly, allowing you to enjoy a quality life.



A variety of choices for an exciting life

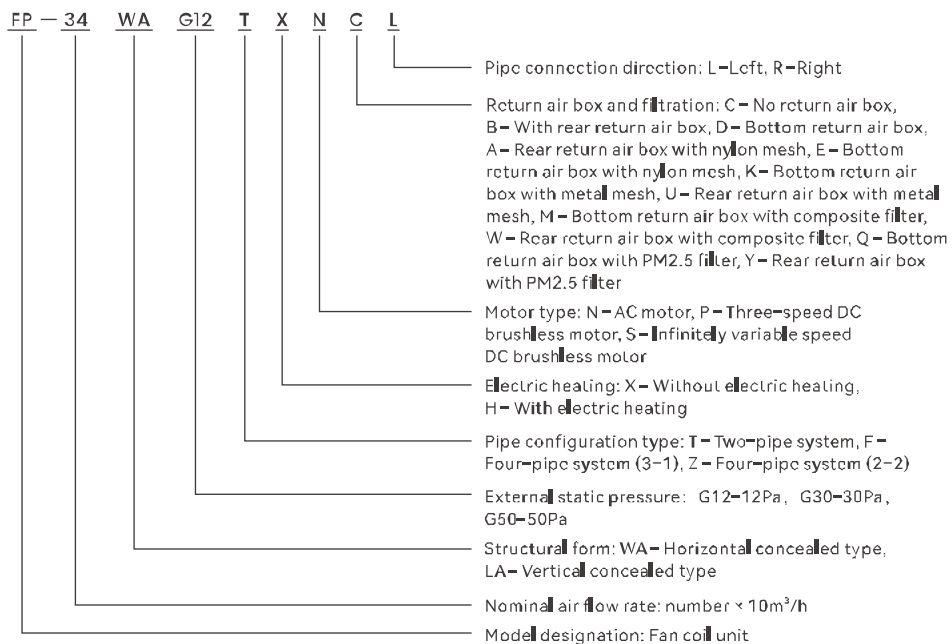
Optional electrostatic dust removal devices and nano photocatalytic air purification devices can effectively reduce indoor PM2.5 levels, creating a fresh and clean indoor environment.

Optional mechanical thermostats or LCD touch screen thermostats can be used to control the opening and closing of fan coil unit pipeline valve control components to connect or block the flow of media such as cold and hot water sources, thereby controlling the temperature within the area.

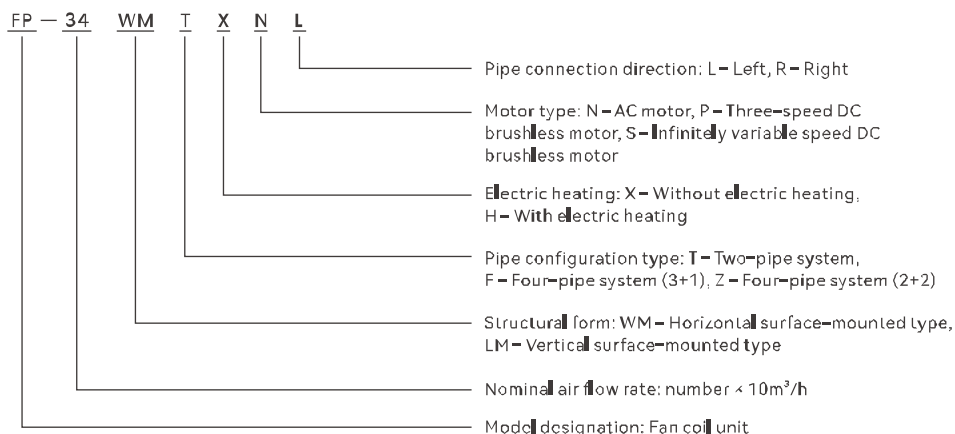


>> Model Description

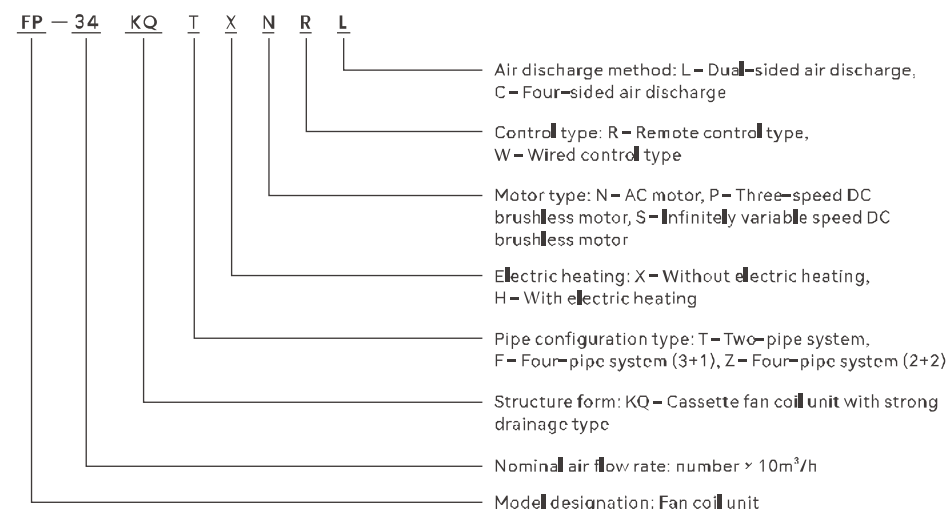
Horizontal concealed installation and vertical concealed installation fan coil units



Horizontal surface-mounted, vertical surface-mounted fan coil units



卡式风机盘管



>> Ordering Instructions

- When placing an order, customers must specify the model, specifications, and quantity, as well as the operating conditions and installation requirements, and also indicate the direction of the water inlet and outlet pipes.
- Pipe direction: Take the fan coil unit's air outlet as the reference, if the pipe is on the left side, it is considered a left machine, and vice versa for a right machine (the image above is a right machine).
- This product is available with a return air box (in two forms: rear return air and bottom return air).
- Our company also offers electric two-way valves and three-speed switches, TC series thermostats, and other temperature control components that can be used with the fan coil units for purchase by customers; simply specify when ordering.
- Our company also offers four-pipe system compatible coils (3 rows for cooling plus 1 row for heating) and direct expansion coils for selection.

Performance Parameters

Model FP-	34	51	68	85	102	136	170	204	238
Rated Airflow m³/h	High Speed	430	680	910	1130	1330	1795	2240	2870
	Medium Speed	340	510	680	850	1020	1360	1700	2040
	Low Speed	270	380	510	640	780	1030	1290	1975
Cooling Capacity W	High Speed	2690	3960	4960	6060	7340	9560	11380	13620
	Medium Speed	2100	3480	4110	4770	5940	7490	9580	11220
	Low Speed	1830	2520	3160	3570	4680	6340	6960	10120
Heating Capacity W	High Speed	3980	5665	7150	8680	10305	13805	16830	22660
Fan	Type	Front-curved Multi-blade Galvanized Steel Plate Centrifugal Double-suction Fan							
	Quantity	1	2	2	2	2	3	4	4
Motor	Type	Single-phase Capacitor Run Motor							
	Insulation Class	B							
	Power Supply	220V/1~50Hz							
	Quantity	1	1	1	1	1	2	2	2
High Speed Input Power W	Low Static Pressure(12Pa)	37	52	62	76	96	134	152	189
	30Pa Static Pressure	44	59	72	87	108	156	174	212
	50Pa Static Pressure	49	66	84	100	118	174	210	300
Heat Exchanger	Structural Form	Copper tubes with high-efficiency flanged aluminum fins, tightly expanded into a single unit							
	Working Pressure Mpa	1.6							
	Water Outlet Pipe Diameter	Rc 3/4(Conical Internal Thread)							
	Water Flow Rate kg/h	462	681	853	1042	1262	1644	1957	2342
	Water Resistance kPa	8	10	12	13	14	16	18	22
Cooling Energy Efficiency Ratio EER	Low Static Pressure(12Pa)	64	66	69	68	65	61	63	56
	30Pa Static Pressure	54	59	60	60	59	53	56	51
	50Pa Static Pressure	49	53	52	53	54	48	47	44
Heating Energy Efficiency Ratio ECCO (60°C inlet water)	Low Static Pressure(12Pa)	95	95	99	98	92	88	93	80
	30Pa Static Pressure	80	84	86	86	82	76	82	73
	50Pa Static Pressure	72	75	74	76	76	69	69	63
High-Speed Noise dB(A)	Low Static Pressure(12Pa)	36	36	40	42	44	44	47	51
	30Pa Static Pressure	39	41	43	45	46	47	49	53
	50Pa Static Pressure	41	43	45	47	48	50	52	54
Condensate Pipe		R 3/4(Conical External Thread)							

Note:

1. Cooling: Supply and return water temperature 7/12°C; Air return conditions: Inlet air dry bulb temperature 27°C; Wet bulb temperature 19.5°C;

2. Heating: Water supply temperature 60°C; Air return conditions: Inlet air dry bulb temperature 21°C;

3. The airflow in the table is measured under dry operation conditions; at a dry bulb temperature of 20°C;

4. The noise in the table is measured inside a semi-anechoic chamber with a background noise level of 11.5dB(A);

5. Specifications and parameters are subject to change without notice due to product improvements.

Refrigeration Performance Variation Table

Model FP-	Water Flow Rate kg/h	Water Resistance Pa	Inlet Air Temperature DB24°C WB17°C															
			Inlet Water Temperature (°C)															
			5			6			7			8			9			
			Total Cooling W	Sensible Cooling W	PLH Water Temperature °C	Total Cooling W	Sensible Cooling W	PLH Water Temperature °C	Total Cooling W	Sensible Cooling W	PLH Water Temperature °C	Total Cooling W	Sensible Cooling W	PLH Water Temperature °C	Total Cooling W	Sensible Cooling W	PLH Water Temperature °C	
34	131	2	1000	953	11.6	982	982	12.4	941	941	13.2	898	898	13.9	806	806	14.3	
	267	5	1652	1471	10.3	1559	1403	11.0	1438	1309	11.6	1286	1184	12.1	1234	1160	13.0	
	391	10	2007	1546	9.5	1826	1425	10.1	1701	1344	10.8	1523	1219	11.4	1478	1226	12.3	
	527	16	2193	1601	8.6	1950	1463	9.2	1864	1403	10.0	1654	1290	10.7	1538	1231	11.5	
51	184	4	1492	1492	12.0	1476	1776	12.9	1391	1391	13.5	1349	1349	14.3	1255	1255	14.9	
	367	13	2546	2266	10.9	2366	2129	11.5	2153	1959	12.0	1980	1821	12.6	177	1664	13.1	
	576	25	2970	2287	9.7	2767	2158	10.4	2584	2041	11.1	2321	1857	11.6	2139	1775	12.4	
	729	40	3281	2400	8.9	3022	2266	9.6	2774	2108	10.3	2516	1963	11.0	2251	1801	11.6	
68	231	4	1869	1869	11.9	1819	1819	12.7	1741	1741	13.4	1687	1687	14.2	1602	1602	14.9	
	463	11	3143	2791	10.8	2916	2625	11.4	2704	2461	12.0	2426	2232	12.5	2262	2126	13.2	
	716	18	3723	2867	9.6	3479	2714	10.3	3139	2480	10.9	2901	2321	11.6	2647	2197	12.3	
	925	30	4005	2923	8.7	3754	2815	9.5	3449	2621	10.2	3110	2426	10.9	2780	2224	11.6	
85	283	4	2259	2259	11.8	2198	2198	12.7	2099	2099	13.4	2035	2035	14.2	1942	1942	14.9	
	566	11	3799	3381	10.8	3549	3194	11.4	3283	2987	12.0	2966	2728	12.5	2757	2591	13.2	
	853	21	4535	3492	9.6	4230	3299	10.3	3851	3042	10.9	3552	2842	11.6	3137	2604	12.2	
	1126	33	4908	3583	8.7	4647	3485	9.5	4251	3230	10.2	3850	3003	10.9	3575	2860	11.7	
102	331	4	2491	2491	11.4	2422	2422	12.3	2296	2296	12.9	2203	2203	13.7	2087	2087	14.4	
	668	13	4115	3663	10.3	3822	3440	10.9	3536	3218	11.5	3251	2991	12.2	2938	2762	12.8	
	1069	30	4943	3717	9.2	4600	3578	9.9	4441	3627	10.8	3858	3260	11.3	3454	3096	12.0	
	1336	38	5249	3832	8.4	4831	3624	9.1	4389	3335	9.8	4074	3178	10.6	3661	2929	11.3	
136	700	5	5550	5550	11.8	5462	5462	12.7	5184	5184	13.3	4962	4962	14.1	4799	4799	14.8	
	929	16	6294	5602	10.8	5861	5281	11.4	5311	4833	11.9	4894	4503	12.5	4441	4180	13.1	
	1375	30	7330	5644	9.5	6850	5343	10.2	6345	5012	10.9	5701	4561	11.5	5039	4183	12.1	
	1858	41	8032	5863	8.7	7393	5544	9.4	6956	5287	10.2	6288	4905	10.9	5672	4538	11.6	
170	535	7	4066	4066	11.5	3979	3979	12.4	3864	3864	13.2	3664	3664	13.9	3428	3428	14.5	
	1069	23	6820	6070	10.5	6339	5705	11.1	5880	5351	11.7	5288	4865	12.2	4943	4646	13.0	
	1657	39	7806	5924	9.2	7251	5677	9.9	6942	5626	10.7	6047	5173	11.3	5430	4926	11.9	
	2128	61	8836	6450	8.6	8057	6039	9.7	7354	5589	10.0	6698	5381	10.8	6211	4969	11.5	
204	678	5	5232	5232	11.6	5154	5154	12.5	4927	4927	13.2	4691	4691	13.9	4451	4451	14.6	
	1356	14	8768	7804	10.5	8143	7379	11.1	7531	6853	11.8	6894	6347	12.4	6237	5863	12.9	
	1983	28	9731	7363	9.1	9007	7050	9.8	8271	6736	10.5	8055	6866	11.4	6758	7244	11.9	
	2701	44	11294	8245	8.6	10323	7742	9.3	9430	7167	10.0	8471	6607	10.7	7816	6253	11.5	
238	145	9	5975	5975	11.9	5789	5789	12.7	5550	5550	13.4	5243	5243	14.0	5014	5014	14.8	
	1490	25	9964	8868	10.7	9226	8303	11.3	8526	7759	11.9	7670	7057	12.4	7137	6709	13.1	
	2303	49	11715	9021	9.5	10958	8547	10.2	9953	7863	10.8	9142	7313	11.5	8085	6711	12.1	
	2980	70	12544	9157	8.6	11921	8941	9.4	10840	8239	10.1	9812	7653	10.8	8769	7015	11.5	

Refrigeration Performance Variation Table

Model FP-	Water Flow Rate kg/h	Water Resistance kPa	Inlet Air Temperature D325°C WB18°C											
			Inlet Water Temperature (°C)											
			5			6			7			8		
			Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C
34	131	2	1057	1014	11.9	1055	1031	12.9	995	995	13.5	954	954	14.3
	267	5	1856	1614	11.0	1767	1555	11.7	1615	1437	12.2	1465	1319	12.7
	391	10	2185	1661	9.9	2055	1582	10.6	1875	1463	11.2	1740	1375	11.9
	527	16	2368	1075	8.9	2251	1463	9.7	2008	1486	10.3	1828	1389	11.0
51	184	4	1577	1577	12.4	1550	1550	13.2	1492	1492	14.0	1430	1430	14.7
	367	13	2172	2412	11.5	2568	2260	12.0	2396	2133	12.6	2232	2009	13.2
	576	25	3286	2498	10.2	3027	2331	10.8	2831	2209	11.5	2644	2089	12.2
	729	40	3545	2557	9.2	3384	2470	10.0	3116	2306	10.7	2855	2170	11.4
68	231	4	1983	1983	12.3	1923	1923	13.1	1868	1868	13.9	1783	1783	14.6
	463	11	3470	3019	11.4	3249	2859	12.0	2976	2648	12.5	2755	2480	13.1
	716	18	4040	3071	10.0	3787	2916	10.7	3545	2765	11.4	3219	2543	12.0
	925	30	4476	3187	9.1	4097	2987	9.8	3774	2793	10.5	3548	2696	11.3
85	283	4	2392	2392	12.3	2318	2318	13.0	2253	2253	13.8	2165	2165	14.6
	566	11	4193	3648	11.4	3934	3462	12.0	3606	3209	12.5	3335	3002	13.1
	853	21	4921	3740	10.0	4615	3553	10.7	4317	3367	11.4	3932	3106	12.0
	1126	33	5391	3881	9.1	4998	3648	9.8	4601	3405	10.5	4342	3300	11.3
102	331	4	2623	2623	11.8	2545	2545	12.6	2435	2435	13.3	2337	2337	14.0
	668	13	4553	3961	10.8	4266	3754	11.5	3954	3519	12.1	3606	3245	12.6
	1069	30	5426	3846	9.7	5101	3719	10.4	5029	3867	11.3	4318	3405	11.7
	1336	38	5833	4200	8.7	5375	3924	9.4	4963	3673	10.2	4515	3430	10.9
136	700	5	5847	5847	12.2	5769	5769	13.1	5505	5505	13.7	5272	5272	14.5
	929	16	6840	5951	11.3	6387	5621	11.9	5958	5302	12.5	5516	4965	13.1
	1375	30	8122	6173	10.0	7472	5753	10.6	7003	5462	11.3	6481	5120	12.0
	1858	41	8853	6374	9.1	8228	6006	9.8	7583	5611	10.5	6936	5271	11.2
170	535	7	4313	4313	11.9	4252	4252	12.8	4082	4082	13.5	3892	3892	14.2
	1069	23	7538	6558	11.0	7066	6216	11.7	6484	5771	12.2	6009	5408	12.8
	1657	39	8588	6140	9.6	7991	5883	10.3	7724	5852	11.2	6819	5399	11.7
	2128	61	9725	7002	8.9	9016	6581	9.6	8289	6134	10.3	7582	5762	11.1
204	678	5	5526	5526	12.0	5450	5450	12.9	5198	5198	13.6	4969	4969	14.3
	1356	14	9675	8417	11.1	9040	7956	11.7	8419	7493	12.3	7617	6855	12.8
	1983	28	10704	7623	9.5	9990	7352	10.2	9244	7006	10.9	7617	7028	11.8
	2701	44	12195	8781	8.9	11555	8436	9.7	10602	7846	10.4	9687	7362	11.1
238	745	9	6223	6223	12.2	6138	6138	13.1	5860	5860	13.7	5590	5590	14.4
	1490	25	10928	9507	11.3	10280	9047	11.9	9543	8493	12.5	8713	7842	13.0
	2303	49	12721	9668	9.9	11999	9239	10.6	11164	8708	11.3	10105	8019	11.9
	2980	70	14001	1008	9.0	13284	9698	9.8	12251	9066	10.5	11135	8463	11.2

Refrigeration Performance Variation Table

Model FP-	Water Flow Rate kg/h	Water Resistance kPa	Inlet Air Temperature DB26°C WB19°C											
			Inlet Water Temperature (°C)											
			5			6			7			8		
			Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C	Total Cooling W	Sensible Cooling W	Coil Water Temperature °C
34	131	2	1145	1113	12.5	1100	1065	13.2	1056	1022	13.9	1026	1008	14.7
	267	5	2031	1665	11.5	1918	1592	12.2	1766	1483	12.7	1650	1403	13.3
	391	10	2369	1729	10.3	2235	1069	11.0	2098	1531	11.7	1914	1416	12.2
	527	16	2547	1783	9.1	2480	1761	10.0	2312	1665	10.8	2070	1511	11.4
51	184	4	1697	1697	12.9	1635	1635	13.6	1574	1574	14.4	1515	1515	15.1
	367	13	2989	2451	12.0	2817	2338	12.6	2652	2228	13.2	2448	2081	13.7
	576	25	3594	2624	10.7	3346	2409	11.3	3148	2298	11.9	2899	2145	12.6
	729	40	3893	2725	9.6	3630	2577	10.3	346	2492	11.1	3203	2338	11.8
68	231	4	2109	2109	12.8	2054	2054	13.6	1980	1980	14.3	1901	1901	15.0
	463	11	3726	3055	11.9	3513	2916	12.5	3289	2763	13.1	3082	2619	13.7
	716	18	4467	3261	10.5	4206	3029	11.2	3867	2823	11.8	3623	2681	12.5
	925	30	4865	3405	9.5	4547	3228	10.2	4205	3207	10.9	3865	2822	11.6
85	283	4	2545	2545	12.7	2480	2480	13.5	2381	2381	14.2	2293	2293	14.9
	566	11	4504	3693	11.8	4254	3531	12.4	3990	3357	13.0	3736	3176	13.7
	853	21	5474	3952	10.5	5098	3671	11.2	4700	3431	11.8	4409	3263	12.5
	1126	33	5945	4162	9.5	5542	3935	10.2	5125	3690	10.9	4747	3465	11.6
102	331	4	2806	2806	12.3	2725	2725	13.1	2624	2624	13.8	2510	2510	14.5
	668	13	4989	4091	11.4	4689	3892	12.0	4317	3626	12.5	4038	3433	13.2
	1069	30	5961	3993	10.1	5610	3853	10.8	5544	3907	11.8	4858	3541	12.7
	1336	38	6415	4490	9.1	5959	4231	9.8	5532	3983	10.5	5112	3732	11.3
136	700	5	6330	6330	12.8	6092	6092	13.5	5821	5821	14.1	5584	5584	14.8
	929	16	7460	6117	11.9	7055	5855	12.5	6587	5533	13.1	6081	5169	13.6
	1375	30	8933	6527	10.5	8270	5954	11.1	7808	5700	11.8	7144	5787	12.4
	1858	41	9517	6662	9.7	9101	6462	10.2	8426	6067	10.9	7777	5677	11.6
170	535	7	4606	4606	12.4	4477	4477	13.2	4308	4308	13.9	4145	4145	14.6
	1069	23	8150	6683	11.5	7676	6371	12.2	7173	6026	12.7	6693	5689	13.4
	1657	39	9410	6366	10.1	8824	6109	10.7	8423	6119	11.5	7621	5615	12.1
	2128	61	10650	7455	9.3	9948	7063	10.0	9280	6681	10.7	8526	6224	11.4
204	678	5	5967	5967	12.5	5739	5739	13.3	5531	5531	14.0	5295	5295	14.7
	1356	14	10574	8671	11.7	9969	8274	12.3	9366	7867	12.9	8554	7271	13.4
	1983	28	11699	7893	10.0	10996	7590	10.7	10272	7266	11.4	9615	7460	12.3
	2701	44	13400	9380	9.3	12463	8849	10.0	11861	8540	10.8	10904	7960	11.5
238	745	9	6755	6755	12.8	6475	6475	13.5	6224	6224	14.2	6025	6025	14.9
	1490	25	12009	9847	11.9	11296	9376	12.5	10450	8778	13.0	9735	8275	13.6
	2303	49	14027	10240	10.4	13283	9564	11.0	12227	8925	11.7	11430	8458	12.4
	2980	70	15394	10776	9.4	14313	10162	10.1	13636	9818	10.9	12565	9772	11.6

Refrigeration Performance Variation Table

Model	Water Flow Rate kg/h	Water Resistance Pa	Inlet Air Temperature DB27°C WB19.5°C														
			Inlet Water Temperature (°C)														
			5			6			7			8			9		
			Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C
34	131	2	1198	1163	12.9	1159	1148	13.6	1116	1096	14.3	1081	1055	15.1	1058	1035	15.9
	267	5	2130	1693	11.8	1975	1600	12.3	1853	1538	13.0	1736	1458	13.6	1618	1375	14.2
	391	10	2495	1721	10.5	2308	1662	11.2	2260	1620	12.0	2090	1526	12.6	1921	1441	13.3
	527	16	2782	1864	9.5	2535	1724	10.1	2450	1643	10.8	2241	1591	11.6	2067	1488	12.4
51	184	4	1775	1722	13.3	1716	1699	14.0	1695	1659	14.7	1592	154	15.4	1536	1536	16.2
	367	13	3151	2505	12.4	2947	2387	12.9	2780	2307	13.5	2613	2195	14.1	2393	2034	14.6
	516	25	3745	2584	10.9	3541	2497	11.6	3330	2285	12.0	3086	2253	12.9	2837	2128	13.5
	729	40	4075	2730	9.8	3801	2585	10.5	3650	2526	11.3	3365	2389	12.0	3116	2244	12.7
68	231	4	2220	2153	13.2	2164	2142	14.0	2088	2088	14.7	2004	2004	15.4	1918	1918	16.1
	463	11	3951	3171	12.3	3672	2974	12.8	3462	2874	13.4	3248	2728	14.0	2974	2528	14.5
	716	18	4606	3178	10.7	4368	3080	11.4	4160	2920	12.0	3792	2768	12.7	3556	2667	13.4
	925	30	5087	3408	9.7	4755	3233	10.4	4610	3069	11.1	4094	2907	11.8	3864	2782	12.6
85	283	4	2675	2595	13.1	2613	2587	13.9	2510	2510	14.6	2424	2424	15.3	2328	2328	16.1
	566	11	4772	3794	12.7	4460	3613	12.8	4198	3484	13.4	3914	3288	13.9	3607	3066	14.5
	853	21	5608	3870	10.7	5295	3733	11.4	5100	3535	12.0	4604	3361	12.7	4320	3240	13.4
	1126	33	6176	4138	9.7	5794	3940	10.4	5521	3740	11.1	4996	3547	11.8	4612	3320	12.5
102	331	4	2945	2856	12.6	2872	2843	13.4	2761	2761	14.1	2651	2651	14.9	2548	2548	15.6
	668	13	5277	4143	11.7	4928	3992	12.3	4610	3826	12.9	4262	3580	13.5	3969	3374	14.1
	1069	30	6231	4193	10.3	5888	4057	11.1	6180	4190	12.0	5123	3740	12.4	4752	3586	13.1
	1336	38	6718	4501	9.3	6265	4260	10.0	6698	4053	10.7	5376	3817	11.4	4959	3570	12.2
136	700	5	6645	6445	13.1	6399	6335	13.8	6164	6164	14.5	5905	5905	15.2	5759	5759	16.1
	929	16	7818	6215	12.2	7358	5960	12.8	6935	5756	13.4	6386	5364	13.9	5957	5063	15.5
	1375	30	9247	6377	10.7	8744	6165	11.4	8050	5840	12.0	7619	5567	12.7	6972	5229	13.3
	1858	41	9948	6665	9.6	9555	6498	10.4	8850	6182	11.1	8222	5838	11.8	7558	5442	12.5
170	535	7	4830	4685	12.7	4735	4688	13.6	4559	4559	14.3	4373	4373	15.0	4205	4205	15.7
	1069	23	8649	6876	11.9	8048	6519	12.4	7532	6251	13.0	7090	5956	13.7	6480	5508	14.2
	1657	39	9827	6675	10.3	9256	6428	11.0	8580	6695	12.0	8022	5924	12.3	7415	5687	13.0
	2128	61	1116	7478	9.5	10727	7088	10.2	10450	6774	10.9	9040	6719	11.6	8314	5986	12.3
204	678	5	6274	6086	12.9	6058	5998	13.7	5831	5831	14.4	5609	5609	15.1	5452	5452	15.9
	1356	14	11072	8802	12.0	10434	8462	12.6	9798	8132	13.2	9053	7605	13.7	8403	7143	14.3
	1983	28	12263	8304	10.2	11569	7979	10.9	11460	8480	12.0	11807	8501	13.0	9234	7060	12.9
	2701	44	14020	9393	9.4	13106	8917	10.2	12560	8675	11.0	11553	8073	11.7	10584	7620	12.4
238	745	9	7104	6891	13.2	6819	6750	13.8	6569	6569	14.6	6393	6393	15.4	6134	6134	16.1
	1490	25	12545	9973	12.2	11844	9594	12.8	11332	9074	13.3	10233	8596	13.9	9371	7965	14.4
	2303	49	14821	10227	10.7	13799	9728	11.3	13310	9360	12.0	11965	8734	12.6	11196	8397	13.3
	2980	70	16060	10760	9.6	15033	10222	10.3	14450	9916	11.1	13224	9389	11.8	12196	8781	12.5

Refrigeration Performance Variation Table

Model FP-	Water Flow Rate kg/h	Water Resistance Pa	Inlet Air Temperature D327°C WB20°C														
			Inlet Water Temperature (°C)														
			5			6			7			8			9		
			Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C	Total Cooling W	Sensible Cooling W	Outlet Water Temperature °C
34	131	2	1218	1157	13.0	1169	1123	13.7	1145	1111	14.5	1128	1099	15.4	1084	1054	16.1
	267	5	2213	1726	12.1	2077	1657	12.7	1946	1576	13.3	1860	1544	14.0	1737	1459	14.6
	397	10	2593	1763	10.8	2456	1707	11.5	2315	1632	12.1	2231	1657	13.0	2006	1525	13.5
	527	16	2903	1916	9.7	2654	1792	10.3	2490	1718	11.1	2428	1724	12.0	2241	1613	12.6
51	184	4	1802	1711	13.4	1715	1646	14.0	1653	1603	14.7	1591	1597	15.4	1529	1529	16.1
	367	13	3290	2566	12.7	3087	2465	13.2	2896	2347	12.8	2696	2238	14.3	2520	2117	14.9
	516	25	3866	2629	11.1	3677	2551	11.8	3475	2450	12.5	3277	2388	13.1	2968	2255	13.7
	729	40	4241	2799	10.0	3975	2683	10.7	3731	2575	11.4	3554	2523	12.2	3297	2374	12.9
68	231	4	2303	2188	13.5	2198	2110	14.1	2109	2045	14.8	2030	2030	15.5	1950	1950	16.2
	463	11	4131	3222	12.7	3908	3126	13.2	3692	2990	13.8	3458	2870	14.4	3189	2678	14.9
	716	18	4940	3359	11.1	4608	3202	11.7	4367	3079	12.4	4114	3045	13.1	3800	2888	13.7
	925	30	5432	3585	10.0	5080	3429	10.7	4747	3275	11.4	4436	3149	12.1	4095	2949	12.8
85	283	4	2739	2602	13.3	2605	2500	13.9	2522	2447	14.6	2418	2418	15.3	2321	2321	16.0
	566	11	4901	3823	12.4	4653	3722	13.1	4388	3554	13.6	4122	3421	14.2	3797	3190	14.8
	853	21	5891	4006	11.1	5495	3819	11.6	5189	3658	12.3	4921	3647	13.0	4528	3441	13.6
	1126	33	6465	4267	9.9	6077	4102	10.6	5677	3917	11.3	5264	3737	12.0	4888	3519	12.7
102	331	4	3014	2863	12.8	2880	2765	13.5	2759	2676	14.1	2653	2653	14.9	2547	2547	15.6
	668	13	5418	4226	12.0	5124	4099	12.6	4768	3862	13.1	4488	3725	13.8	4177	3458	14.3
	1069	30	6493	4723	10.6	6161	3992	11.3	6200	4041	12.2	5368	3672	12.6	4986	3521	13.3
	1336	38	6994	4616	9.5	6574	4438	10.2	6850	4226	10.9	5689	4039	11.7	5245	3777	12.4
136	700	5	6717	6381	13.2	6421	6164	13.9	6158	5973	14.5	5930	5930	15.3	5739	5739	16.0
	929	16	8097	6316	12.5	7705	6164	13.1	7140	5784	13.6	6711	5570	14.2	6268	5265	14.8
	1375	30	9600	6578	10.9	9105	6328	11.6	8596	6067	12.3	7944	5878	12.9	7329	5570	13.5
	1858	41	10375	6848	9.8	9964	6725	10.6	9289	6409	11.3	8666	6153	12.0	8028	5780	12.7
170	535	7	4956	4708	12.9	4716	4527	13.6	4557	4420	14.3	4368	4368	15.0	4190	4190	15.7
	1069	23	8861	6911	12.1	8403	6723	12.7	7888	6389	13.3	7413	6153	13.9	6826	5734	14.5
	1657	39	9238	6561	10.5	8667	6315	11.2	8060	6387	12.1	8444	5821	12.5	7796	5574	13.2
	2128	61	11628	7675	9.7	10899	7357	10.4	11550	7023	11.1	9477	6729	11.8	8776	6319	12.5
204	678	5	6340	6023	13.0	6045	5804	13.6	5830	5655	14.4	5677	5677	15.2	5448	5448	15.9
	1356	14	11528	8992	12.3	10904	8723	12.9	10133	8207	13.4	9507	7891	14.0	8879	7458	14.6
	1983	28	1279	8174	10.4	12099	7871	11.1	11670	7547	11.8	10347	7514	12.4	9753	6941	13.1
	2707	44	14657	9674	9.7	13694	9244	10.3	13135	9063	11.2	12156	8630	11.9	11203	8066	12.6
238	145	9	7179	6820	13.3	6826	6553	13.9	6550	6354	14.5	6385	6385	15.3	6111	6111	16.0
	2490	25	13007	10145	12.5	12268	9735	13.0	11466	9287	13.6	10809	8971	14.2	9975	8329	14.7
	2303	49	15358	10443	10.9	14594	10143	11.6	13548	9551	12.2	1278	9458	12.9	11698	8890	13.5
	2980	70	16728	11040	9.8	15659	10570	10.5	14631	10096	11.2	13931	9891	12.0	12906	9293	12.7

Refrigeration Performance Variation Table

Model	Water Flow Rate kg/h	Water Resistance Pa	Inlet Air Temperature D328°C WB21°C														
			Inlet Water Temperature (°C)														
			5			6			7			8			9		
			Total Cooling W	Sensible Cooling W	PLV Temperature °C	Total Cooling W	Sensible Cooling W	PLV Temperature °C	Total Cooling W	Sensible Cooling W	PLV Temperature °C	Total Cooling W	Sensible Cooling W	PLV Temperature °C	Total Cooling W	Sensible Cooling W	PLV Temperature °C
34	131	2	1333	1239	13.7	1271	1194	14.3	1204	1144	14.9	1173	1126	15.7	1131	1086	16.4
	267	5	2397	1821	12.7	2279	1778	13.3	2124	1678	13.8	2030	1634	14.5	1858	1533	15.0
	391	10	2814	1885	11.2	2672	1844	11.9	2498	1749	12.5	2366	1703	13.3	2279	1686	14.1
	527	16	3076	2000	10.0	2895	1954	10.7	2723	1865	11.4	2537	1776	12.1	2421	1731	12.9
51	184	4	1962	1825	14.7	1881	1768	14.8	1776	1687	15.3	1699	1631	15.9	1611	1547	16.5
	367	13	3535	2686	13.3	3377	2634	13.9	3151	2490	14.4	2985	2403	15.0	2778	2292	15.5
	516	25	4179	2800	11.6	3990	2753	12.3	3726	2608	12.9	3538	2548	13.6	3342	2473	14.3
	729	40	4597	2988	10.4	4334	2925	11.1	4149	2824	11.9	3899	2729	12.6	3643	2605	13.3
68	231	4	2484	2301	14.2	2388	2245	14.8	2276	2163	15.4	2137	2052	15.9	2056	1974	16.6
	463	11	4496	3417	13.3	4286	3343	13.9	4000	3160	14.4	3801	3060	15.0	3510	2896	15.5
	716	18	5353	3587	11.6	5033	3473	12.2	4788	3352	12.9	4445	3200	13.5	4218	3122	14.2
	925	30	5880	3822	10.4	5524	3728	11.1	5190	3555	11.8	4871	3410	12.5	4538	3245	13.2
85	283	4	2967	2759	14.0	2842	2672	14.6	2713	2577	15.2	2545	2443	15.7	2448	2350	16.4
	566	11	5360	4074	13.1	5094	3973	13.7	4772	3770	14.2	4509	3630	14.8	4192	3458	15.4
	853	21	6384	4277	11.5	6001	4141	12.1	5704	3993	12.8	5290	3809	13.4	5006	3705	14.1
	1126	33	6973	4532	10.3	6590	4449	11.0	6180	4233	11.7	5796	4057	12.4	5394	3857	13.1
102	331	4	3272	3043	13.5	3117	2930	14.1	2978	2829	14.7	2808	2696	15.3	2687	2579	16.0
	668	13	5855	4450	12.5	5586	4357	13.2	5286	4176	13.8	4919	3960	14.3	4629	3819	14.9
	1069	30	7056	4255	11.1	6703	4123	11.7	6328	4271	12.6	5934	3809	13.1	5624	3656	13.8
	1336	38	7575	4924	9.9	7151	4827	10.6	6725	4578	11.3	6268	4388	12.0	5836	4173	12.7
136	700	5	7301	6970	13.9	6951	6634	14.5	6633	6302	15.1	6336	6082	15.8	6071	5834	16.4
	929	16	8786	6677	13.1	8337	6503	13.7	7892	6234	14.3	7379	5940	14.8	6942	5727	15.4
	1375	30	10373	6950	11.4	9931	6857	12.1	9253	6477	12.7	8749	6299	13.4	8106	5999	14.0
	1858	41	11510	7481	10.3	10852	7352	11.0	10168	6965	11.7	9536	6675	12.4	8900	6363	13.1
170	535	7	5372	4996	13.6	5129	4821	14.2	4913	4667	14.9	4613	4429	15.4	4425	4248	16.1
	1069	23	9707	7377	12.8	9215	7188	13.4	8653	6836	13.9	8150	6560	14.5	7540	6220	15.0
	1657	39	11138	6767	11.0	1052	6510	11.7	10130	6500	12.4	9328	5831	13.0	8680	5790	13.7
	2128	61	12615	8200	10.1	11907	8036	10.8	11169	7651	11.5	10450	7315	12.2	9758	6977	12.9
204	678	5	6985	6496	13.8	6666	6266	14.4	6291	5977	15.0	5986	5746	15.6	5754	5524	16.3
	1356	14	12492	9494	12.9	11857	9248	13.5	11195	8844	14.1	10457	8418	14.6	9836	8115	15.2
	1983	28	13850	8412	10.9	13137	8109	11.6	12434	7817	12.3	12218	7925	13.2	10812	7190	13.6
	2701	44	1588	10323	10.0	15272	10309	10.8	14356	9834	11.6	13386	9370	12.7	12502	8939	13.0
238	745	9	7799	7253	14.0	7462	7014	14.6	7072	6719	15.1	6732	6462	15.7	6460	6201	16.4
	1490	25	14075	10697	13.1	13376	10433	13.7	12542	9908	14.2	11858	9546	14.8	10973	9053	15.3
	2303	49	16615	11132	11.4	15876	10954	12.1	14834	10384	12.7	14069	10130	13.4	12992	9614	14.0
	2980	70	18094	11761	10.2	17051	1509	10.9	16444	11264	11.7	15394	10776	12.4	14289	10216	13.1

Note: The cooling capacity in the above table is for high-speed airflow; for medium and low-speed airflow, the cooling capacity is the parameter in the table multiplied by the correction factor (see page 12 for the medium and low-speed cooling capacity correction factor table).

Medium and low-grade cooling capacity correction factor

Model FP-		34	51	68	85	102	136	170	204	238
Medium Speed	Total Heat	0.89	0.87	0.86	0.84	0.87	0.85	0.88	0.87	0.9
	Sensible Heat	0.87	0.84	0.83	0.82	0.85	0.83	0.86	0.84	0.85
Low Speed	Total Heat	0.73	0.72	0.7	0.66	0.73	0.71	0.68	0.67	0.66
	Sensible Heat	0.65	0.68	0.67	0.62	0.69	0.67	0.64	0.62	0.61

Medium Speed Heating Capacity Correction Factor

Model FP-		34	51	68	85	102	136	170	204	238
Medium Speed	Total Heat	0.84	0.83	0.8	0.79	0.83	0.81	0.83	0.82	0.85
	Sensible Heat	0.66	0.66	0.6	0.57	0.64	0.61	0.59	0.58	0.62

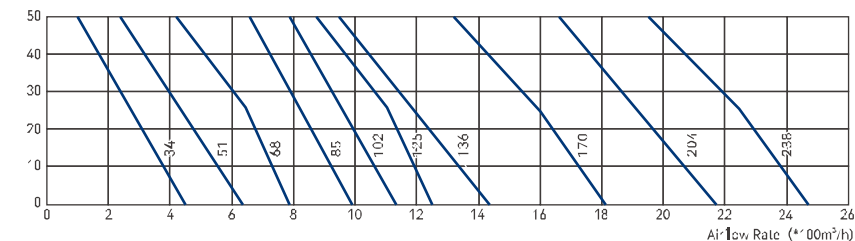
» Heating Performance Variation Table

Model	Water Flow Rate kg/h	Water Resistance Pa	Inlet Water Temperature °C																	
			40		45		50		55		60		65		70		75		80	
			Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C	Heat Quantity W	Outlet Water Temp. °C
34	131	2	1142	32.5	1477	35.3	1772	38.4	2160	40.8	2548	43.3	2935	45.7	3254	48.6	3613	50.9	3921	54.2
	267	5	1338	35.7	2117	38.2	2773	41.1	3084	45.1	3452	48.9	3735	53	4046	57	4273	61.3	4793	64.6
	391	10	1576	36.5	2297	39.9	2908	43.5	3076	48.2	3805	51.5	4383	55.3	4447	60.1	4814	64.3	5344	68.1
	527	16	1782	37.1	2704	40.6	3184	44.8	3743	48.9	4246	53.1	4413	57.8	4643	62.4	5140	66.6	5914	70.4
51	184	4	1799	31.6	2377	33.9	2965	36.2	3417	39	3888	41.8	4379	44.5	5090	46.2	5712	48.3	6237	50.9
	367	13	2549	34	3040	37.9	3763	41.2	4208	45.2	4613	49.2	5018	53.3	5965	56.1	7006	58.6	7767	61.9
	576	25	3033	35.2	4069	38.6	4580	42.8	5348	46.5	6127	55.4	6490	59.8	7041	63.9	7899	63.9	7899	67.6
	729	40	3494	35.9	4335	39.9	4992	44.1	5657	48.3	6156	52.8	6323	57.6	6822	62	7404	66.3	8560	69.9
68	231	4	2344	31.3	2915	34.2	3599	36.7	4185	38.4	5085	41.2	5632	44.1	6623	45.5	7067	48.8	7920	50.7
	463	11	3134	34.2	3455	38.6	4285	42.1	5661	44.5	6031	48.8	6613	52.7	7512	56.1	8412	59.4	9840	61.8
	716	18	3487	35.7	4291	39.7	5241	43.5	5956	47.6	7010	51.4	7623	55.6	7862	60.3	9211	63.6	10449	67.1
	925	30	4244	36.1	4534	40.8	5648	44.8	6287	49.2	7459	53.1	8098	57.5	8844	61.8	10017	65.7	11386	69.5
85	283	4	2839	31.4	3860	33.3	4460	36.5	5010	39.8	5773	42.5	6384	45.6	7545	47.1	8370	49.6	8976	52.8
	566	11	4083	33.8	4619	38.0	5060	42.3	6497	45.2	6997	49.4	7622	53.4	9121	56.2	10308	59.4	11497	62.6
	853	21	4386	35.5	5016	39.9	5975	43.9	7003	47.9	8323	51.5	8776	56.1	10107	59.7	11484	63.3	12286	67.5
	1126	33	4935	36.2	5254	41	6443	45.1	7807	49.1	8922	53.2	9665	57.6	10780	61.8	12143	65.8	12995	70.1
102	331	4	3104	32	4289	33.9	4952	37.2	5635	40.4	6454	43.3	7820	44.8	8469	48.1	9357	50.8	10271	53.4
	668	13	4420	34.3	5064	38.5	5654	42.7	7329	45.6	7958	49.8	8935	53.5	10610	56.4	11378	60.4	12846	63.5
	1069	30	5041	35.7	6177	39.7	6898	44.1	8413	47.8	9616	51.7	9824	56.6	10975	60.6	12116	64.6	13257	68.6
	1336	38	5521	36.5	5765	41.3	7207	45.4	8455	49.6	10118	53.5	10395	58.3	11920	62.3	13731	66.2	14536	70.7
136	700	5	6825	31.6	8489	34.6	11088	36.4	13290	38.7	14429	42.3	16859	44.3	19571	46	21639	48.5	23066	51.7
	929	16	5699	34.7	7480	38.1	9334	41.4	9943	45.8	11464	49.4	14305	51.8	15175	56	16993	59.3	18469	63
	1375	30	6314	36.1	8439	39.8	9892	43.9	11262	48.1	13131	51.9	14153	56.3	15842	60.2	18029	63.9	20176	67.6
	1858	41	6839	36.8	8889	40.9	10754	45	12378	49.3	13595	53.7	15015	58.1	17431	62	19065	66.2	20075	70.7
170	535	7	5086	31.8	6176	35.1	8079	37	9407	39.9	10956	42.4	12395	45.1	14092	47.4	15371	50.4	16478	53.6
	1069	23	6194	35	8109	38.5	9771	42.2	11568	45.7	12803	49.7	14600	53.3	16685	56.6	18581	60.1	19112	64.7
	1657	39	6529	36.5	8369	40.5	10015	44.6	11825	48.6	15390	51.8	15424	56.7	17110	60.8	18920	64.8	20668	68.9
	2128	61	8178	36.7	8940	41.4	11121	45.5	12678	49.9	15720	54.1	16682	58.3	18658	62.5	20217	66.9	22446	71
204	678	5	6704	31.5	8384	34.4	9812	37.6	12162	39.6	13682	42.7	15340	45.6	18157	47	19618	50.2	20578	54
	1356	14	8318	34.1	10751	38.2	12071	42.4	15301	45.3	17113	49	18256	53.5	22282	55.9	24381	59.6	25564	63.8
	1983	28	8189	36.5	10149	40.7	12279	44.8	14464	48.9	18262	52.3	18251	57.3	20353	61.4	22486	65.5	24599	69.6
	2701	44	1209	36.4	11974	41.2	14352	45.4	16885	49.6	19136	53.9	21669	58.1	23890	62.4	26441	66.6	29791	70.5
238	745	9	7197	31.7	9200	34.4	11229	37.1	13270	39.7	15324	42.4	17360	45	19512	47.6	21551	50.2	23611	52.8
	1490	25	8968	34.8	11385	38.5	13815	42.1	16260	45.6	18711	49.2	21186	52.8	23643	56.4	26132	60	28620	63.5
	2303	49	9622	36.3	12169	40.3	14773	44.3	17345	48.3	21240	52.3	22604	56.3	25169	60.3	27861	64.3	30521	68.3
	2980	70	12611	36.4	12611	41.4	15278	45.6	17945	49.8	21788	54.1	23347	58.3	26059	62.5	28777	66.7	31537	70.9

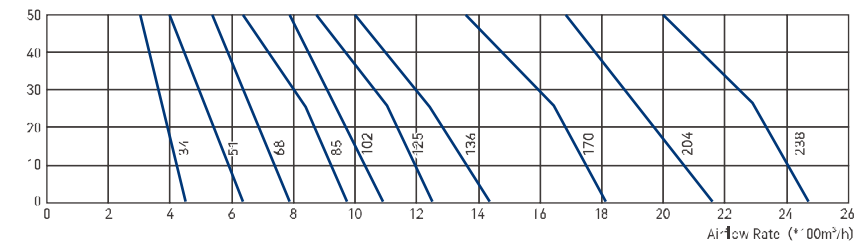
Note: The heating capacity in the above table is for high-speed air flow; for medium and low-speed air flow, the heating capacity is the parameter in the table multiplied by the correction factor (see page 12 for the medium and low-speed heating capacity correction factor table).

» Performance Curve Chart

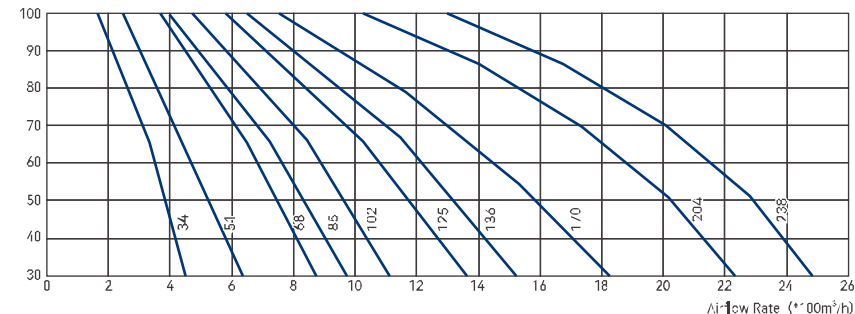
12Pa Unit Static Pressure and Airflow Characteristics



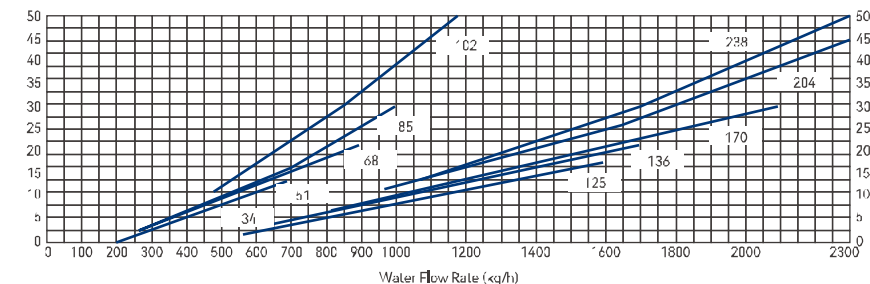
30Pa Unit Static Pressure and Airflow Characteristics



50Pa Unit Static Pressure and Airflow Characteristics



Water Flow Rate vs. Water Resistance Curve



» Cassette Fan Coil Unit Parameters Table

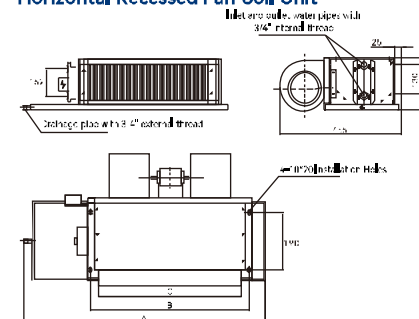
Model FP=		34KQ	51KQ	68KQ	85KQ	102KQ	136KQ	170KQ	204KQ	238KQ
Rated Air Flow m ³ /h	High	340	510	680	850	1020	1360	1700	2040	2380
	Medium	280	390	520	640	790	1030	1290	1500	1800
	Low	180	260	350	430	520	690	860	1030	1200
Cooling Capacity W	High	2160	3220	3970	5380	6030	7780	10690	11660	13610
	Medium	1650	2279	2814	3750	4322	5534	7512	8088	9681
	Low	1068	1519	1984	2519	2854	3500	5008	5554	6454
Heating Capacity W	High	3000	4070	5450	6800	8160	10800	13700	16200	18900
	Medium	2474	3520	4210	5121	6315	8179	10200	12353	14521
	Low	1590	2150	2790	3200	4140	5479	6535	8482	9681
Fan	Quantity	1	1	1	1	1	1	1	1	1
Motor	Power Supply	220V/1~50Hz								
	Input Power W	34	50	58	72	92	126	128	152	198
Heat Exchanger	Configuration	Copper tubes with high-efficiency flanged aluminum fins, mechanically expanded and tightened								
	Working Pressure MPa	1.6								
	Inlet/Outlet Water Pipe Diameter	Rc3/4 (Tapered pipe internal threads)								
	Water Flow Rate kg/h	371	553	683	924	1036	1337	1838	2005	2340
	Water Resistance kPa	14	14	16	18	22	25	39	43	46
Cooling Energy Efficiency Ratio ECCER Limit Value (W/W)		60	61	64	69	60	56	69	63	57
Heating Energy Efficiency Coefficient ECCO Limit Value (W/W)		84	77	88	87	81	78	89	88	79
Noise dB(A)	High	37	39	41	43	45	46	47	49	52
	Medium	36	37	39	40	43	44	45	46	48
	Low	34	35	37	39	40	41	41	43	44
Condensate Drain Pipe		φ26								

Note:

1. Cooling: Supply and return water temperature 7/12°C; return air condition: entering air dry bulb temperature 27°C, wet bulb temperature 19.5°C;
2. Heating: Supply water temperature 60°C; return air condition: entering air dry bulb temperature 21°C;
3. The air volume in the table is measured when the unit is operating in a dry state, at a dry bulb temperature of 20°C;
4. The noise in the table is measured inside a semi-anechoic chamber with a background noise of 11.5dB(A);
5. Specifications and parameters are subject to change without notice due to product improvements; please refer to the nameplate on the unit for the most accurate information.

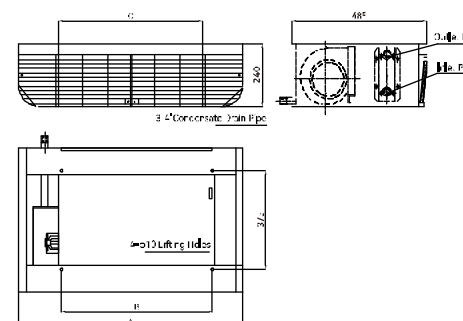
» Structure and Main Dimensions

Horizontal Recessed Fan Coil Unit



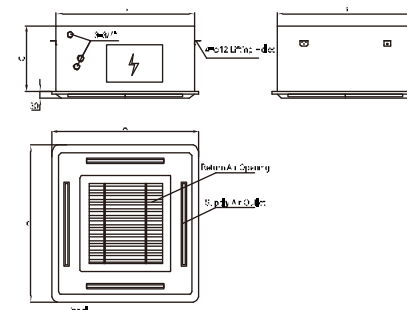
Model	External Dimensions (mm)			Quantity		Net Weight kg
	A	B	C	Fan	Motor	
FP-34	760	485	460	1	1	11
FP-51	860	605	580	2	1	14
FP-68	960	675	650	2	1	15
FP-85	1060	805	780	2	1	16
FP-102	1160	925	900	2	1	18
FP-136	1360	1125	1100	3	2	23
FP-170	1660	1385	1360	4	2	27
FP-204	1860	1585	1560	4	2	30
FP-238	2060	1785	1760	4	2	32

Horizontal Surface-mounted Fan Coil Unit



Model	External Dimensions (mm)		
	A	B	C
FP-34WM	790	490	470
FP-51WM	940	610	620
FP-68WM	980	680	660
FP-85WM	1100	810	780
FP-102WM	1250	930	930
FP-136WM	1410	1130	1090
FP-170WM	1640	1390	1320
FP-204WM	1840	1590	1520
FP-238WM	1920	1790	1600

Cassette Fan Coil Unit

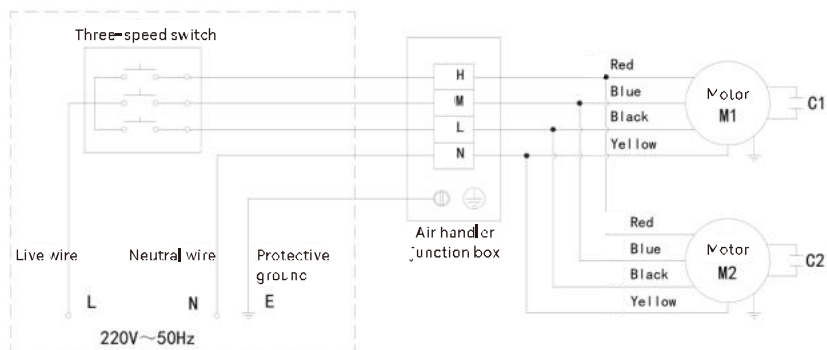


Strong Drainage Unit Size Table
(Two-pipe System with Four Air Outlets)

Model	External Dimensions (mm)			Net Weight (kg)
	A	B	C	
FP-34KQ	650	620	290	18
FP-51KQ	650	620	290	19
FP-68KQ	650	620	290	20
FP-85KQ	800	760	290	26
FP-102KQ	800	760	290	27
FP-136KQ	800	760	290	28
FP-170KQ	950	890	290	33
FP-204KQ	950	890	290	34
FP-238KQ	950	890	290	35

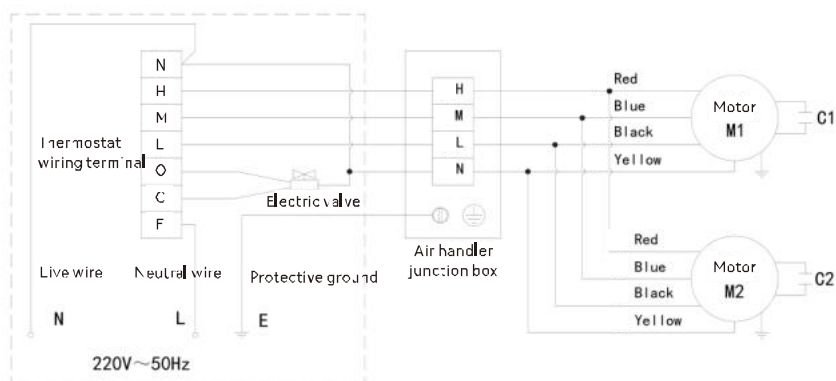
» Wiring Schematic Diagram (Concealed units)

Equipped with a three-speed switch



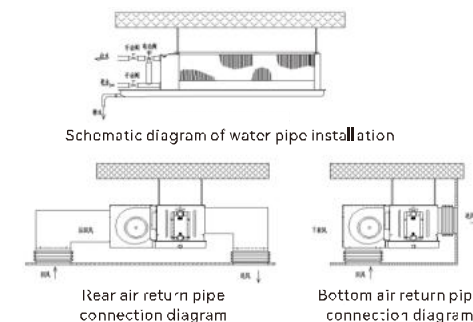
Note: The dashed box indicates customer wiring. If a three-speed switch or thermostat is required, please specify when placing the order.

Equipped with an LCD thermostat



Note: The dashed box indicates customer wiring. If a three-speed switch or thermostat is required, please specify when placing the order.

» Unit Installation and Maintenance



To ensure smooth installation and operation of the unit, please pay attention to the following matters during installation:

- Check if there is sufficient space for installation and maintenance of the unit.
 - Inspect the lifting structure; the lifting points of the unit should be secure and have enough strength to withstand the weight of the unit and vibrations during operation.
 - Confirm the positions of the water supply and return, condenser water pipes, and electrical connections.
 - Ensure the unit is installed level; otherwise, it may cause condensate water to overflow.
 - Prevent debris from entering the fan wheel, motor, and heat exchanger during installation, and ensure that the drainage end is at least 3-5mm lower than the other end to ensure condensate water is drained.
 - Check if the length of the duct connected to the unit matches the external static pressure of the machine to avoid excessive noise due to excessive airflow or performance degradation due to insufficient airflow.
 - A filter should be installed in the water system pipes to prevent equipment coil blockage.
 - The unit uses 220V~50Hz power supply with power fluctuations $\pm 10\%$. Wiring should be done according to the circuit diagram, and it is strictly prohibited to connect any of the high, medium, or low taps to the neutral wire. The unit's junction box has a grounding nut for connection to the grounding system during installation. Note: It is strictly forbidden to use one thermostat to control multiple fan coil units to prevent motor burnout.
 - Before the initial operation, please remove any foreign objects from the water pan, fan casing, and around the coil, check the water pipes and electrical connections, and ensure they are correct. Use a three-speed switch to adjust, preferably starting from the high speed and then selecting other speeds.
 - Before the initial operation, close the unit's water supply and return valves, clean the chilled water pipe system, and then open the unit's water supply and return valves.
 - Before the initial operation, open the air vent on the return water pipe to expel all the air from the coil and pipes.
01. The unit's water supply requirements are chilled water $>3^{\circ}\text{C}$, hot water $<65^{\circ}\text{C}$, and the water quality should be clean and softened.
 02. The unit should be handled with care during transportation, and it is strictly forbidden to carry the unit by holding the fan wheel or casing. If serious damage, fan casing deformation, condensate water pan deformation, or motor and fan detachment are found before installation, please contact service personnel for handling.
 03. Keep the unit level during installation for smooth drainage from the built-in water pan; when lifting the unit, it should only bear its own weight and not bear the force of ducts, pipes, or other objects. Please reserve enough space for maintenance during installation.
 04. Please add a filter net at the return air opening to prevent dust from clogging the heat exchanger fins and ensure the cold and hot effects of the coil.
 05. The unit's water pipes are bottom in and top out, and flexible connectors should be used for water supply and return pipes. Be careful not to twist the connectors too tightly to avoid damaging the heat exchanger. The water supply and return pipes should be insulated, and thread connections should be sealed with PTFE tape. The drainage pipe should maintain a sufficient slope to drain condensate water.
 06. The unit's outlet pipe is equipped with a manual air vent valve. Each time water is passed through, the vent valve should be opened to expel all the air from the coil and pipes before closing it. Failure to do so will affect the unit's cold and hot effects.

07. The heat exchanger should be regularly cleaned to maintain good heat transfer performance; the filter mesh should be regularly washed to ensure smooth airflow, and it is strictly forbidden to operate the unit for long periods without the filter mesh.

08. When the unit is to be out of service for a long time, the coil should be filled with water to reduce corrosion of the pipes.

09. To prevent condensation on the surface of the unit when it is stopped, an electric valve interlocked with a thermostat should be used in the design, or a cold water bypass should be adopted; otherwise, only the manual closing of the water inlet valve can be used to solve the problem.

10. The unit should be maintained and repaired by professionals who are familiar with the product.

11. The duct should be connected to the unit with canvas flexible hoses to effectively isolate vibrations and noise.

When the unit is pressure tested for leaks or out of service in winter with environmental temperatures below 0°C, anti-freezing measures should be taken to prevent the coil and supply and return water pipes from freezing and cracking.

Routine Maintenance and Care

Air conditioning is a specialized piece of equipment, and it is recommended that users keep records of the daily operating data and perform regular maintenance and care.

1. Before the equipment is put into use for the first time, it is necessary to check whether the terminal equipment and other components of the water system are functioning normally.

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

Unit Maintenance Content	Standard Maintenance Cycle			Notes
	Month	Quarter	Half-year	
1. Inspect the power supply cable (from the distribution cabinet to the unit) for any looseness or damage.			★	
2. Check if the condensate drainage is functioning properly.		★	★	Whether it is installed as required, whether there is any blockage due to dirt, whether the drainage is smooth, and whether there is any overflow.
3. Check if there are any abnormal noises during the unit's operation.	★	★	★	Such as sharp unit friction sounds, whistling, obvious impact noises, or resonance, significant electromagnetic noise (which can cause discomfort to people), and other abnormal noises.

Note:

① ★—Items that must be maintained or replaced; ☆—Items for which maintenance is decided based on actual conditions.

② Daily and monthly inspection items should be executed and recorded by the customer.

③ The replacement of consumable parts and materials is determined by the unit's service life or operating time. For units used year-round or for process purposes, operating time is considered; for normal use or comfort purposes, service life is considered.

④ It is recommended that a comprehensive maintenance and care should be conducted every 1 year of use or after approximately 1000 hours of operation.

3. For equipment that will not be used for a long period, we recommend the following maintenance and care methods:

When the unit is not operating for a long time or not running in winter, it is necessary to drain all the water from the system and then turn off the power supply. Before restarting the unit, check for any looseness or damage to the power supply cable (from the distribution cabinet to the unit), and conduct a comprehensive inspection of the unit. Only after confirming everything is normal should you start the unit. If necessary, you can follow the maintenance and care methods before the equipment is put into use.



For specific operations on unit installation, use, and maintenance, please refer to the included "Installation and Use Manual" and "Electrical Operation Manual".

Note: As OBAIR products are continuously improved and innovated, changes to product models, specifications, and parameters shown in this material will not be notified separately. Your understanding is appreciated.