

TECO AIRCON

Comfort, Energy Saving, Health, Earth Friendly.



Driving and Connecting Globally

Fan Coil Units



Technology-Rooted, Service-Oriented
LIVING BRAND IN TAIWAN

Driving and Connecting Globally

Since its founding in June of 1956, TECO Electric & Machinery Co., Ltd. has never rested on the laurels of its own success. Not satisfied with producing motors or limited to heavy machinery, the TECO Group has extended its scope of operations into the household appliances, air conditioner information, communication, semiconductor, optronics, network, software infrastructure, financial investment, food services, and distribution industries, becoming a globalized, high-tech enterprise group. TECO is forever dedicated to long-term development, creating new competitive advantages, enhancing services quality, developing top-flight personnel, and creating outstanding products.

Air conditioning - TECO's excellent core business

The air-conditioning business is one of the core industries in the TECO Group. Manufacturing air conditioners for 34 years, TECO has achieved remarkable successes with Annual Award for Quality Excellence, Gold Medal for Design, Award for Best Technology, etc. In Taiwan, TECO takes 40% market share of commercial air conditioners, while its home air conditioner market share reaches 20%.

No matter residence, factories, office buildings, shopping malls, or the general air-conditioning projects, building hydroelectric projects, hospital special air-conditioning projects, precise factory special air-conditioning projects and hi-tech semiconductor dustless laboratory projects, TECO's air conditioning always gain a good reputation.

Relying on its advantages of strong brand and excellent quality, TECO Air Conditioners has been building up its worldwide marketing and service network, which swiftly covered Taiwan, China, South East Asia, Japan, South Africa, Australia & Europe.



Head quarters in Taiwan



PRW factory in Taiwan



PI PAC factory in China



Fan Coil Unit



Room
air conditioner

Commercial
Dehumidifier

Air Curtain

Water-cooled chiller

Mini Chiller

Air-cooled ducted
type air conditioner

Fan coil unit

Air-cooled packaged
type air conditioner

Air-cooled Chiller

Water-cooled packaged
type air conditioner

Thermostatic & humidistatic
air conditioner

Air handling unit



Products Features

■ Complete Range of Product Types

Terminal Series comprise standard and high static-pressure structural types, ranging from optional single/double tube type, optional auxiliary electric heater, surface mounting and flush mounting, etc.

The unit offers 340m³/h-3090m³/h of airflow and 1900W-15880W of cooling capacity.

■ Design Characteristics

Compact, less occupancy, lighter weight and stronger strength. Besides, it is designed in diversified configuration types for easier mounting at any location.

■ High Efficiency

The Coil is consisted of superior-quality seamless copper and aluminum shutter-type radiating fins for which, the mechanical expansion tube is installed to ensure tight-bonding contact between fins and copper tubes to exhibit the optimal heat transmission effect. Before delivery, all products are subjected to strict inspection and pressurizing leakage test (leakage testing pressure) in the hope that failure could be minimized to assure the product quality and performance.

■ Easier for operation and Convenient for Adjustment

Based on varied requirements, the Fan coil is available for two types, namely, High Static Pressure Type and Ordinary Static Pressure Type (standard type) for which, three kinds of speeds are designed for mounting at any appropriate location inside the room.

Simply with one push, the fan will offer the desired airflow. In addition, the user can also select the temperature control switch and the unit will carry out ON/OFF operation automatically according to the programmed room temperature to offer a clean, quieter and comfortable working and living environment.

■ Convenient for Installation and Easier for Maintenance

To cope with the site construction requirements, standard lifting hole has been reserved on the body to facilitate the installation, which saves labor and costs for easier use. Before delivery, all products are subjected to strict testing and inspection. Further, the unit is also provided with a condensing water receiving tray and drainage device for the convenience of maintenance.

■ Selective Structure. Aesthetic Configuration.

The superior-quality galvanized steel plates are selected for using as the structural members, supported with specially selected sound-absorbing/thermo-keeping materials. Further, it has also been equipped with forward-curving blade-type fan, aluminum shutter-type fin coil, fire prevention/thermo keeping materials, and receiving tray, etc.

■ Power saving, lower noise and longer life.

Up-to-date technologies are employed to develop dedicated fan motor of which, the property-conditioned shaft has been specially treated with the hard-chrome process to protect the bearing from deformation and rusting. The copper-based oil-impregnated bearing can be lubricated by itself in achieving noise-free running and lower input power. Further, the galvanized Fan passing the dynamic balance adjustment is also mounted to present aesthetic appearance, better blowing effect and lower noise features in providing over 10 years of service life.

■ Less Head Loss

The Collecting Head is forged by bronze to evenly and smoothly distribute the water current. The knob-type Exhaust Valve is mounted at the outlet to discharge the air out of the machine easily.

Model Number Nomenclature

PHWA-D 34YNLAE38

P H W A - D 34 Y N L A E38

R&D Serial NO.

A : Horizontal type hidden installation ; **B** : Horizontal type exposed

L : Vertical type exposed installation ; **M** : Vertical type hidden installation ; **K** : Cassette type

L : Left pipe connection ; **R** : Right pipe connection

N : Low pressure type ($\leq 30\text{Pa}$) ; **M** : Medium pressure type ($\leq 100\text{Pa}$) ;

P : High pressure type ($> 100\text{Pa}$)

Y : Power Supply 1 ϕ , 220V , 50HZ

34 : Rated air flow , 34 X 10 CMH=340 CMH

D : Manufacturing factory China mainland Dongguan factory

A : Cold/Hot water coil units

W : R718(H₂O)

H : Cold water coil type air supplier

P : TECO Air Conditioning Series Products

Technical Parameters

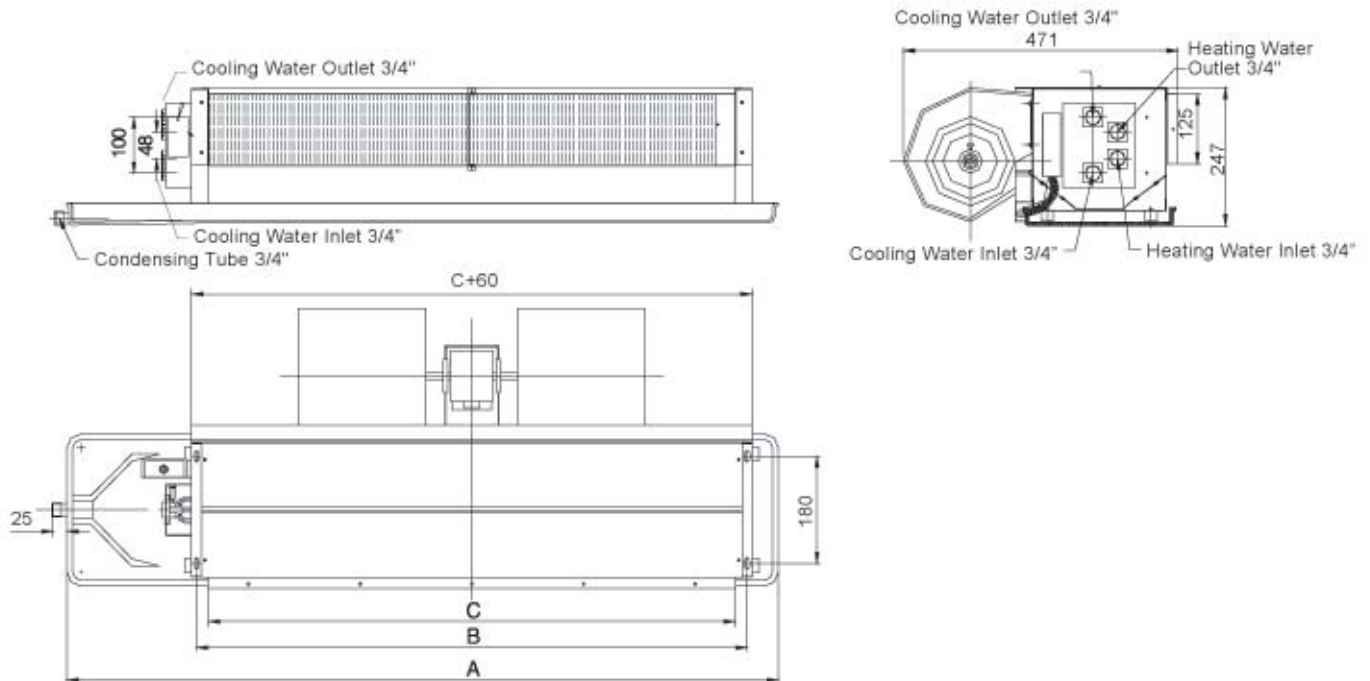
Item			Model	PHWA-D34	PHWA-D51	PHWA-D68	PHWA-D85	PHWA-D102	PHWA-D136	PHWA-D170	PHWA-D204	PHWA-D238	
Air Flow	H	m³/h		340	510	680	850	1020	1360	1700	2040	2380	
	M	m³/h		270	400	530	660	765	1020	1290	1530	1800	
	L	m³/h		180	265	350	440	510	680	860	1020	1200	
Cooling Capacity	H	W		1800	2700	3600	4500	5400	7200	9000	10800	12670	
	M	W		1476	2214	2952	3690	4428	5904	7380	8856	10389	
	L	W		1116	1674	2232	2790	3348	4464	5580	6696	7855	
Heating Capacity	H	W		2700	4050	5400	6750	8100	10800	13500	16200	18900	
	M	W		2160	3240	4320	5400	6480	8640	10800	12960	15120	
	L	W		1620	2430	3240	4050	4860	6480	8100	9720	11340	
PTC Heater (optional)	Power	kW		1.5	2.0	2.5	3.0	3.0	4.5	4.5	6.0	6.0	
	Current	A		6.8	9.1	11.4	13.7	13.7	20.5	20.5	27.3	27.3	
Power Supply				1 ∅ 220V 50Hz									
Motor	Quantity			1	1	1	1	1	1	2	2	2	
	Type			Single-phase three-speed Capacitor Motor (oil-impregnated high-precision bearing, Class-B insulation).									
	Power Supply			1 ∅ 220V 50Hz									
	Input Power	Esp	12Pa	W	36	46	62	76	90	110	150	180	210
			30Pa	W	44	54	70	85	105	145	170	212	230
			50Pa	W	49	66	84	100	118	174	210	240	250
Fan	Quantity			1	1	2	2	2	2	3	4	4	
	Type			Double - suction sirocco fan									
Noise Value	Esp	12Pa	DB(A)	≤ 37	≤ 39	≤ 41	≤ 43	≤ 45	≤ 46	≤ 48	≤ 50	≤ 52	
		30Pa	DB(A)	≤ 40	≤ 42	≤ 44	≤ 46	≤ 47	≤ 48	≤ 50	≤ 52	≤ 54	
		50Pa	DB(A)	≤ 42	≤ 44	≤ 46	≤ 47	≤ 49	≤ 50	≤ 52	≤ 54	≤ 56	
Water Flow		m³/h		0.34	0.5	0.66	0.81	0.96	1.28	1.61	1.92	2.18	
Head Loss		kPa		6.0	7.2	14.0	24.0	32.0	16.0	18.8	23.0	28.0	
External Static Pressure			Pa	12	12	12	12	12	12	12	12	12	
			Pa	30	30	30	30	30	30	30	30	30	
			Pa	50	50	50	50	50	50	50	50	50	
Max. Working Pressure		MPa		1.6MPa									
Coil Type				High-purity copper tube (∅ 9.52x0.35t) and aluminum radiating fin. Test pressure: 2.5MPa									
Condensed Water Tray				Plate molded by one-process punching injection (other materials are optional).									
Piping Type				Inlet: 3/4" inner thread; Outlet: 3/4" inner thread; Condenser 3/4": External thread.									
Piping Direction				(Facing toward the air outlet) Left pipe – leftward mounting; otherwise, rightward mounting.									
Control Switch				Thermostatic 3-speed Switch. Electric Valve (optional).									
Filter				Nylon (optional)									

Notes:

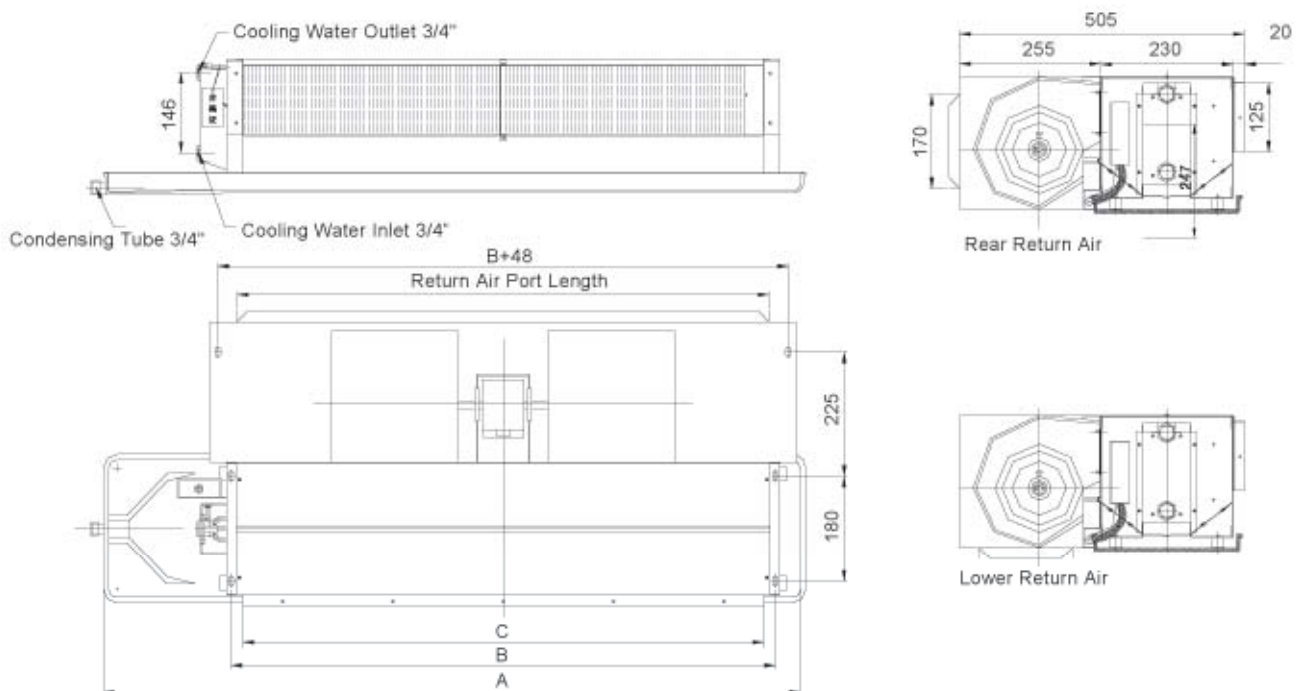
- The cooling capacity is measured under the conditions when the indoor return air temperature is 27°C DB, 19.5°C WB; and when the Cooling Water inlet temperature is 7°C and the inlet/outlet water temperature difference is 5°C.
- The heating capacity is measured under the conditions when the indoor return air temperature is 21°C DB; and when the hot water inlet air temperature is 60°C (up to 80°C and should have the same water flow as that of cooling).
- The weight and dimensions in the above-said Specification Table are the figures for typical horizontal flush mounting, plus the dimensions and the weight of PTC and Return Air Box, which shall vary according to actual situation.
- It should be noted that the power indicated on the nameplate refers to the motor output power; whereas, the power shown in the above-said table is the motor input power.
- The content in the above-said table will be subject to change without prior notice.

Outline Dimensions

(a) Horizontal Flush Mount Standard (WA) Type



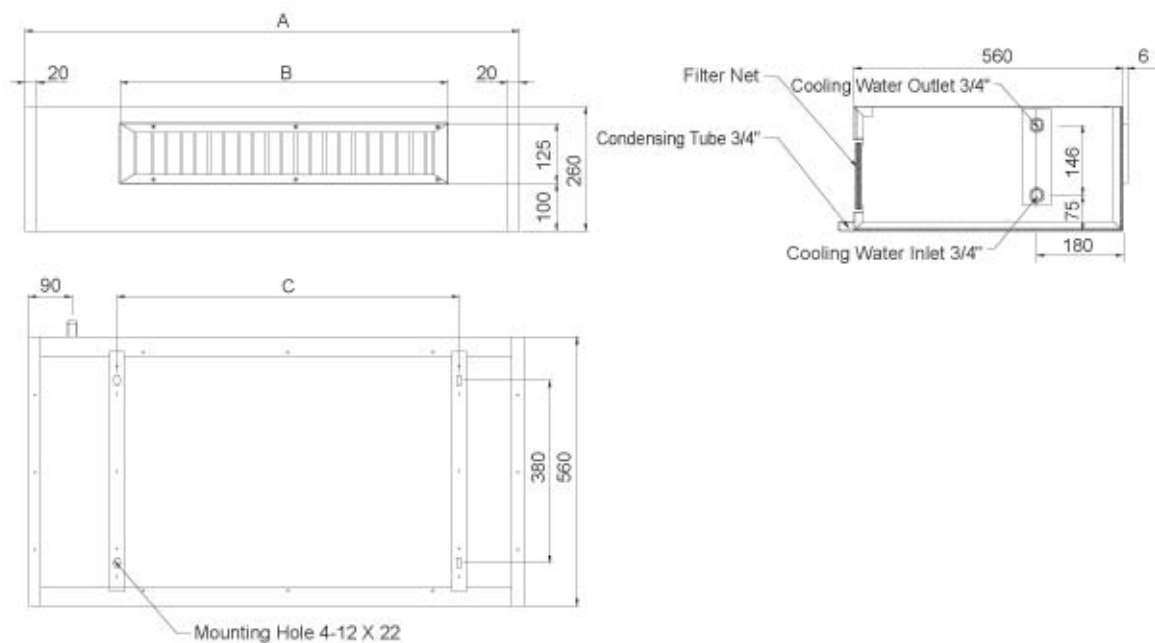
(b) Horizontal Flush Mounting, withy Return Air Box



Outline Dimensions

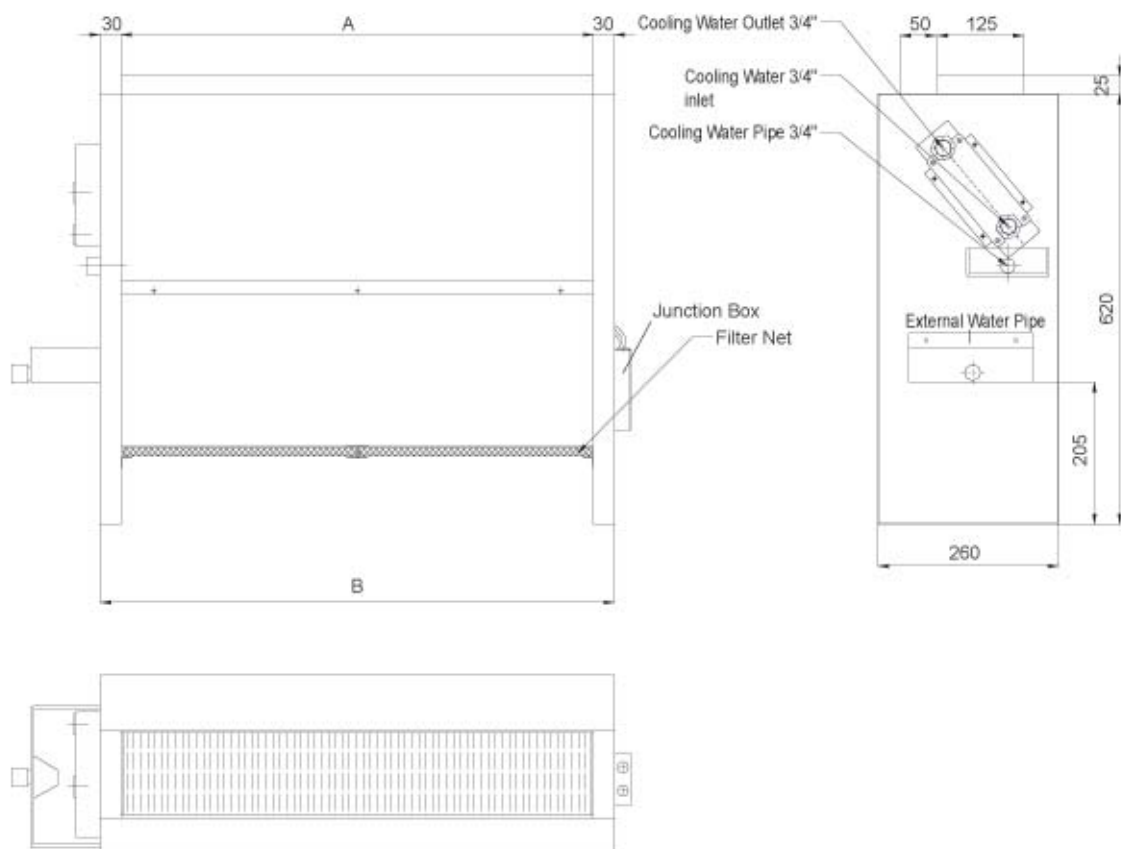
Model	Dimension			Net Weight	
	A	B	C	Standard Type (kg)	With Return Air Box (kg)
PHWA-D34 YN(L/R)AE38	758	504	460	15	17
PHWA-D51 YN(L/R)AE38	798	544	500	16	19
PHWA-D68 YN(L/R)AE38	1008	754	710	23	27
PHWA-D85 YN(L/R)AE38	1048	794	750	24	29
PHWA-D102 YN(L/R)AE38	1188	934	890	26	31
PHWA-D136 YN(L/R)AE38	1438	1184	1140	30	36
PHWA-D170 YN(L/R)AE38	1658	1404	1360	37	45
PHWA-D204 YN(L/R)AE38	1868	1614	1570	42	51
PHWA-D238 YN(L/R)AE38	2058	1804	1760	46	56

Horizontal Surface (WM) Type



Model	Dimension			Net Weight
	A	B	C	KG
PHWA-D51 YN(L/R)BE38	830	470	500	25
PHWA-D68 YN(L/R)BE38	1040	680	710	33
PHWA-D85 YN(L/R)BE38	1080	720	750	35
PHWA-D102 YN(L/R)BE38	1220	860	890	38
PHWA-D136 YN(L/R)BE38	1450	1090	1120	42
PHWA-D170 YN(L/R)BE38	1670	1310	1340	48
PHWA-D204 YN(L/R)BE38	1880	1520	1550	52
PHWA-D238 YN(L/R)BE38	2070	1710	1740	56

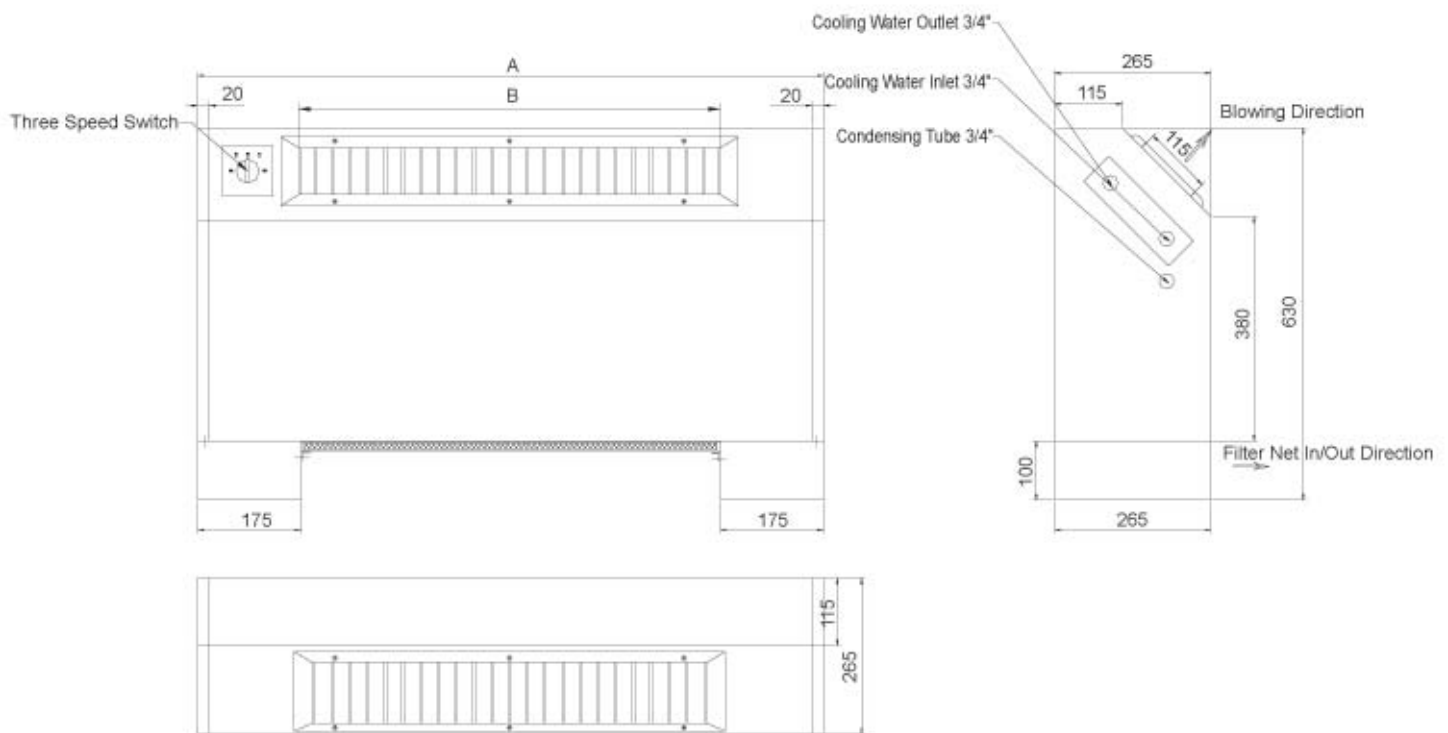
Vertical Flush Mounting (LA) Type



Model	Dimension		Net Weight
	A	B	
PHWA-D51 YN(L/R)LE38	520	580	16
PHWA-D68 YN(L/R)LE38	730	790	18
PHWA-D85 YN(L/R)LE38	770	830	20
PHWA-D102 YN(L/R)LE38	910	970	22
PHWA-D136 YN(L/R)LE38	1140	1200	25
PHWA-D170 YN(L/R)LE38	1360	1420	27
PHWA-D240 YN(L/R)LE38	1570	1630	33

Vertical Surface Mounting (LM) Type

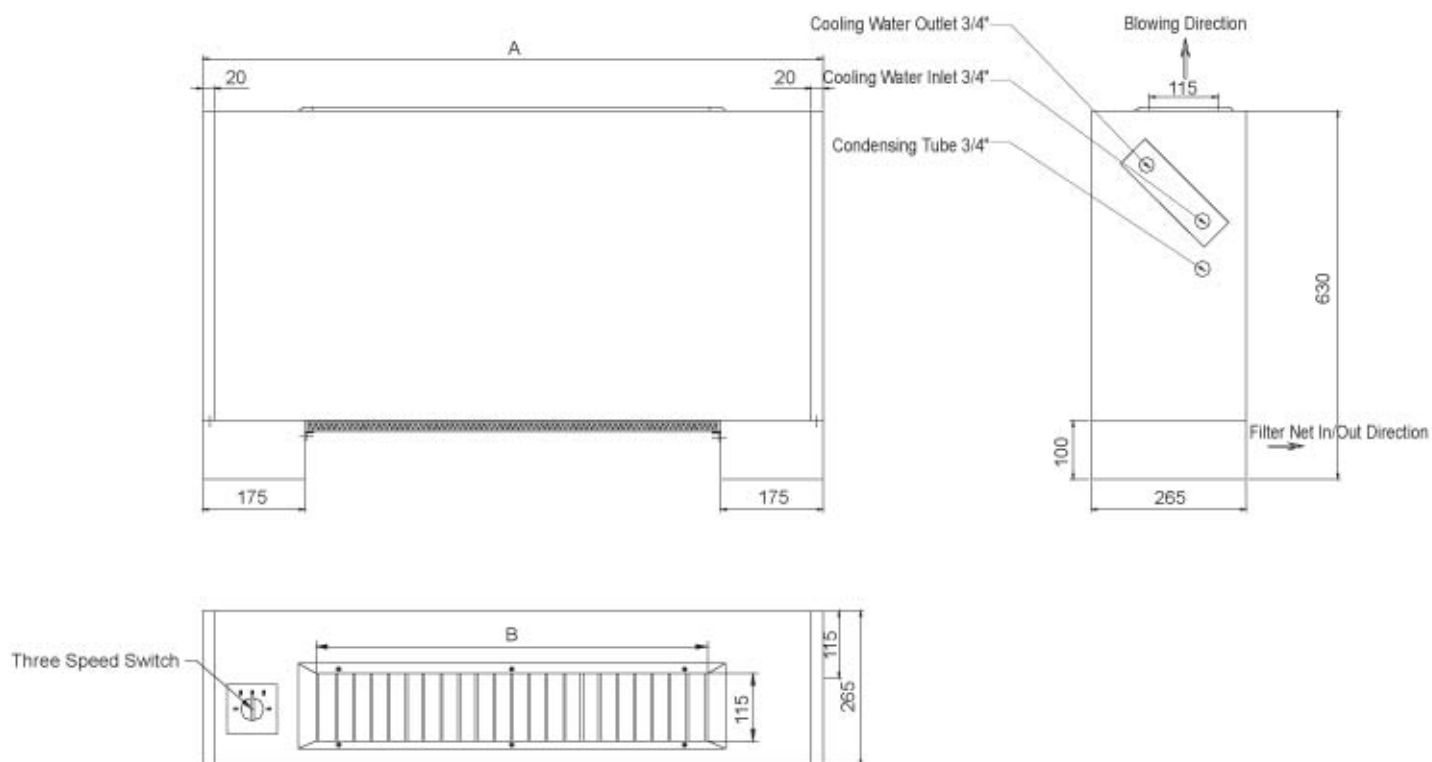
(A) Side Wind Type



Model	Dimension		Net Weight
	A	B	KG
PHWA-D34 YN(L/R)ME38	825	430	22
PHWA-D51 YN(L/R)ME38	865	470	25
PHWA-D68 YN(L/R)ME38	1075	680	28
PHWA-D85 YN(L/R)ME38	1115	720	32
PHWA-D102 YN(L/R)ME38	1255	860	37
PHWA-D136 YN(L/R)ME38	1505	1090	43
PHWA-D170 YN(L/R)ME38	1725	1310	47
PHWA-D204 YN(L/R)ME38	1935	1520	53
PHWA-D238 YN(L/R)ME38	2125	1710	58

Vertical Flush Mounting (LM) Type

(B) Upper Wind Type



Model	Dimension		Net Weight
	A	B	KG
PHWA-D34 YN(L/R)ME38	825	430	22
PHWA-D51 YN(L/R)ME38	865	470	25
PHWA-D68 YN(L/R)ME38	1075	680	28
PHWA-D85 YN(L/R)ME38	1115	720	32
PHWA-D102 YN(L/R)ME38	1255	860	37
PHWA-D136 YN(L/R)ME38	1505	1090	43
PHWA-D170 YN(L/R)ME38	1725	1310	47
PHWA-D204 YN(L/R)ME38	1935	1520	53
PHWA-D238 YN(L/R)ME38	2125	1710	58

Cooling Performance

Unit : W

Model	Inlet Temperature °C	Water Flow Rate (l/min)	Water Resistance kPa	Inlet Air Temperature °C											
				DB24.0		DB26.0		DB27.0		DB28.0		DB29.0		DB30.0	
				WB17.0		WB18.0		WB19.5.0		WB20.0		WB21.0		WB22.0	
				Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot
PHWA-D34	6	4	6	1400	1210	1550	1310	1780	1290	1840	1340	1980	1340	2110	1340
		6.1	10	1720	1380	1860	1480	2080	1450	2160	1500	2310	1500	2470	1520
		7.5	14	1900	1400	2040	1570	2290	1540	2360	1610	2550	1630	2710	1620
		9	20	2000	1500	2180	1640	2440	1630	2540	1680	2720	1700	2880	1710
	7	4	6	1290	1150	1430	1270	1650	1240	1700	1290	1840	1290	1960	1280
		6.1	10	1580	1310	1700	1400	1800	1490	2010	1430	2180	1450	2300	1440
		7.5	14	1720	1380	1870	1490	2210	1510	2220	1530	2360	1550	2550	1560
		9	20	1820	1420	1990	1550	2290	1530	2350	1570	2530	1610	2710	1630
	8	4	6	1180	1100	1290	1220	1500	1180	1570	1230	1710	1240	1820	1220
		6.1	10	1410	1220	1550	1340	1790	1310	1850	1370	2060	1390	2160	1390
		7.5	14	1540	1270	1700	1400	1940	1380	2020	1440	2220	1460	2360	1480
		9	20	1650	1320	1850	1450	2090	1440	2190	1520	2360	1530	2520	1550
PHWA-D51	9	4	6	1010	980	1190	1090	1370	1140	1440	1200	1580	1200	1700	1200
		6.1	10	1250	1140	1390	1260	1630	1220	1700	1300	1850	1310	2010	1320
		7.5	14	1350	1170	1550	1310	1790	1310	1880	1370	2020	1380	2280	1450
		9	20	1450	1210	1630	1330	1900	1360	2010	1420	2180	1450	2360	1460
	6	6	12	2180	1820	2380	1990	2680	1920	2770	1990	2970	2000	3160	2000
		8.6	18	2460	1960	2680	2140	3010	2080	3150	2180	3360	2160	3580	2180
		10	27	2640	2040	2890	2230	3230	2180	3350	2260	3600	2280	3850	2300
		12	37	2780	2090	3040	2290	3400	2250	3530	2350	3780	2360	4040	2930
	7	6	12	1980	1730	2180	1900	2510	1880	2580	1930	2780	1930	2980	1940
		8.6	18	2240	1860	2450	2020	2700	2120	2920	2080	3140	2090	3360	2100
		10	27	2400	1900	2630	2100	3100	2180	3120	2150	3380	2700	3600	2200
		12	37	2520	1950	2780	2150	3190	2230	3270	2210	3530	2250	3750	2280
PHWA-D68	8	6	12	1780	1650	1980	1830	2290	1780	2370	1840	2560	1860	2770	1860
		8.6	18	2020	1750	2240	1930	2560	1880	2680	1980	2920	1990	3140	2010
		10	27	2150	1780	2400	1970	2770	1970	2880	2050	3100	2050	3360	2090
		12	37	2270	1820	2520	2020	2900	2000	3030	2110	3260	2121	3540	2150
	9	6	12	1580	1480	1780	1760	2060	1700	2180	1770	2380	1790	2580	1790
		8.6	18	1790	1640	2020	2900	2350	1790	2460	1880	2670	1900	2920	1930
		10	27	1950	1690	2140	1870	2500	1840	2630	1920	2880	1970	3120	1980
		12	37	2090	1710	2280	1880	2650	1880	2780	1980	3030	2000	3270	2050
	6	8	14	1620	2480	3180	2690	3580	2610	3720	2700	3980	2710	4230	2700
		11.2	21	3280	2710	2690	2950	4140	2880	4300	2990	4610	3010	4920	3020
		14	24	3680	2840	4010	3110	4540	3060	4700	3170	5040	3210	5370	3220
		17	32	3910	2950	4280	3230	4810	3190	4990	3310	5350	3350	5700	3370
PHWA-D68	7	8	14	2650	2370	2910	2580	3320	2520	3450	2610	3720	2600	3890	2620
		11.2	21	3070	2560	3370	2800	3600	2750	3990	2860	4300	2870	4660	2950
		14	24	3360	2670	3680	2930	4200	2910	4360	3020	4700	3060	5040	3080
		17	32	3560	2770	3910	3030	4450	3020	4630	3140	4980	3160	5350	3210
	8	8	14	2370	2270	2650	2500	3060	2420	3190	2510	3450	2520	3720	2520
		11.2	21	2780	2420	3070	2660	3540	2620	3690	2720	3980	2740	4300	2770
		14	24	3020	2510	3360	2780	3860	2740	4020	2870	4360	2910	4700	2930
		17	32	3210	2570	3560	2850	4080	2840	4280	2970	4630	3010	4990	3050
	9	8	14	2130	2030	2380	2380	2790	2330	2920	2430	3190	2420	3450	2430
		11.2	21	2460	2270	2790	2520	3220	2480	3370	2590	3690	2620	3990	2640
		14	24	2690	2340	3020	2610	3520	2590	3690	2710	4010	2760	4360	2780
		17	32	2850	2370	3210	2660	3740	2660	3920	2790	4280	2840	4630	2880

Note: The values shown in the table is the cooling capacity measured under high speed;whereas, those under the medium/low speed will be resolved by multiplying the said values with the correction factor. The correction factor can be obtained from the cooling capacity/cooling capacity correction curve.

Cooling Performance

Unit : W

Model	Inlet Temperature °C	Water Flow Rate (l/min)	Water Resistance kPa	Inlet Air Temperature °C											
				DB24.0		DB26.0		DB27.0		DB28.0		DB29.0		DB30.0	
				WB17.0		WB18.0		WB19.5		WB20.0		WB21.0		WB22.0	
				Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot
PHWA-D85	6	10	18	3310	2830	4080	2900	4210	3000	4410	3000	4710	3160	5020	3140
		14.1	23	3860	3520	4580	3130	4760	3270	4950	3250	5310	3420	5650	3430
		16	28	4130	3180	4900	3270	5110	3410	5290	3410	5700	3590	6100	3610
		20	51	4360	3280	5180	3400	5380	3550	5590	3550	6000	3710	6410	3810
	7	10	18	3100	2720	3770	2780	3630	2920	4100	2900	4400	3010	4750	3050
		14.1	23	3500	2880	4220	2970	4500	3510	4850	3110	4940	3260	5310	3280
		16	28	3710	3000	4530	3100	5020	4360	4920	3250	5310	3420	5700	3450
		20	51	3950	3060	4770	3200	5170	3950	5180	3360	5590	3530	6000	3580
	8	10	18	2750	2600	3410	2610	3610	2790	3760	2760	4100	2920	4420	2920
		14.1	23	3150	2740	3850	2840	4040	2950	4230	2950	4580	3110	4940	3150
		16	28	3380	2800	4100	2900	4340	3060	4540	3080	4930	3250	5310	3280
		20	51	3540	2840	4360	3000	4570	3150	4780	3160	5190	3250	5590	3380
PHWA-D102	6	10	18	2450	2410	3100	2540	3190	2670	3410	2650	3770	2800	4100	2820
		14.1	23	2780	2550	3490	2650	3670	2790	4010	2800	4220	2950	4580	2990
		16	28	2910	2580	3750	2740	3900	2870	4200	2890	4530	3070	4920	3110
		20	51	3140	2620	3950	2800	4150	2930	4360	2970	4770	3150	5180	3200
	7	12	19	4240	3510	4630	3840	5210	3720	5400	3870	5790	3870	6180	3880
		16.1	29	4610	3680	5120	4110	5690	3980	5870	4690	6290	4120	6750	4150
		18	38	4870	3790	5310	4140	5980	4060	6200	4220	6640	4260	7090	4280
		21	59	5080	3870	5500	4200	6200	4160	6470	4340	6910	4360	7380	4410
	8	12	19	3860	3370	4240	3680	4830	3580	5010	3720	5400	3730	5780	3740
		16.1	29	4190	3490	4690	3880	5400	3990	5490	4000	5870	3930	6290	3950
		18	38	4430	3570	4860	3900	5640	4010	5760	4020	6200	4060	6640	4080
		21	59	4620	3640	5080	3980	5780	4100	6000	4120	6460	4160	6920	4200
	9	12	19	3490	3220	3860	3540	4430	3430	4620	3570	5010	3590	5400	3590
		16.1	29	3780	3280	4190	3630	4850	3580	5020	3750	5440	3740	5870	3780
		18	38	3980	3350	4430	3700	5090	3660	5310	3810	5760	3860	6200	3900
		21	59	4140	3380	4620	3750	5310	3720	5510	3990	6000	3940	6400	3980
PHWA-D136	6	12	19	3080	3070	3480	3400	4050	3280	4240	3430	4620	3430	5010	3450
		16.1	29	3350	3110	3770	3440	4510	3420	4610	3540	5090	3590	5490	3630
		18	38	3550	3120	3990	3500	4650	3450	4870	3620	5300	3860	5760	3710
		21	59	3700	3140	4150	3510	4850	3500	5080	3680	5530	3710	6000	3780
	7	16	21	6050	5010	6590	5470	7420	5300	7700	5500	8250	5520	8790	5540
		20.2	38	6700	5260	7290	5710	8190	5610	8550	5870	9200	5930	9730	5890
		28	55	7210	5490	7870	6000	8810	5880	9190	6150	9840	6200	10500	6250
		34	82	7530	5600	8220	6140	9240	6060	9590	6320	10280	6380	10970	6430
	8	16	21	5500	4790	6040	5240	6860	5080	7140	5290	7700	5310	8250	5330
		20.2	38	6020	4970	6710	5460	7200	4950	7880	5600	8510	5670	9120	5660
		28	55	6560	5750	7200	5650	8180	5590	8520	5840	9190	5910	9840	5950
		34	82	6840	5240	7540	5770	8560	5730	8910	5980	9590	6060	10280	6120
	9	16	21	4940	4570	5500	5020	6320	4880	6590	5080	7140	5110	7700	5120
		20.2	38	5500	4700	6040	5180	6560	5070	7260	5310	7910	5370	8490	5360
		28	55	5900	4780	6560	5330	7550	5290	7870	5520	8510	5600	9190	5660
		34	82	6160	4860	6850	5400	7890	5400	8220	5630	8910	5710	9590	5800
PHWA-D136	9	16	21	4400	4350	4940	4810	5770	4980	6050	4870	6590	4900	7140	4920
		20.2	38	4870	4390	5500	4900	6350	4860	6710	5060	7210	5080	7890	5120
		28	55	5250	4450	5900	4970	6870	4980	7200	5200	7870	5290	8520	5370
		34	82	5480	4480	6160	5020	7200	5050	7530	5280	8220	5400	8910	5490

Note: The values shown in the table is the cooling capacity measured under high speed;whereas, those under the medium/low speed will be resolved by multiplying the said values with the correction factor. The correction factor can be obtained from the cooling capacity/cooling capacity correction curve.

Cooling Performance

Unit : W

Model	Inlet Temperature °C	Water Flow Rate (l/min)	Water Resistance kPa	Inlet Air Temperature °C											
				DB24.0		DB26.0		DB27.0		DB28.0		DB29.0		DB30.0	
				WB17.0		WB18.0		WB19.5		WB20.0		WB21.0		WB22.0	
				Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot	Dry Hot	Wet Hot
PHWA-D170	6	19	28	7180	5940	7820	6480	8810	6290	9140	6540	9790	6550	8790	5540
		26.1	47	7690	6030	8380	6590	9420	6460	9770	6720	10480	6750	9850	5990
		31	68	7970	6070	8690	6630	9790	6540	10150	6800	10870	6850	10500	6250
		37	90	8200	6100	8930	6670	10050	6600	10420	6870	11180	6930	10970	6430
	7	19	28	6520	5680	7170	6220	8150	6030	8470	6290	9130	6290	8250	5330
		26.1	47	6960	5680	7690	6260	9000	6390	9160	6410	9750	6440	9250	5720
		31	68	7240	5750	7960	6300	9160	6430	9410	6450	10150	6520	9840	5950
		37	90	7420	5790	8180	6400	9290	6210	9660	6480	10400	6570	10280	6120
	8	19	28	5860	5420	6520	5940	7500	5790	7820	6020	8470	6060	7700	5120
		26.1	47	6170	5380	6970	5980	8070	5840	8380	6080	9070	6140	8600	5460
		31	68	6530	5480	7240	5990	8350	5850	8710	6100	9410	6180	9190	5660
		37	90	6700	5500	7450	6020	8580	5870	8930	6130	9680	6220	9590	5800
PHWA-D204	6	19	28	4750	4710	5350	5210	6250	5390	6550	5260	7140	5310	7140	4920
		26.1	47	5590	5030	6280	5590	7320	5520	7680	5770	8370	5840	7990	5200
		31	68	5800	5040	6530	5600	7610	5550	7970	5790	8700	5850	8250	5370
		37	90	5950	5040	6700	5620	7830	5570	8200	5800	8940	5870	8900	5480
	7	24	14	8680	7060	9470	7700	10640	7500	11040	7790	11830	7830	12620	7840
		31.6	24	9240	7250	10060	7880	11300	7750	11770	8090	12570	8100	13420	8150
		36	35	9580	7360	10470	8020	11770	7920	12210	8220	13070	8280	13960	8340
		42	46	9870	7420	10770	8120	12110	8010	12560	8340	13470	8420	14360	8490
	8	24	14	7890	6710	8680	7360	9850	7170	10250	7470	11040	7500	11830	7540
		31.6	24	8370	6840	9250	7550	10800	7740	10890	7680	11750	7750	12560	7780
		36	35	8710	6890	9590	7570	11500	7820	11340	7800	12210	7890	13080	7950
		42	46	8980	6950	9870	7650	11750	7890	11680	7900	12570	8000	13470	8080
PHWA-D238	6	24	14	7090	6370	7890	7020	9070	6850	9470	7140	10260	7190	11040	7200
		31.6	24	7550	6430	8370	7100	9690	6990	10050	7300	10890	7370	11720	7430
		36	35	7850	6460	8720	7140	10030	7080	10470	7400	11330	7560	12570	7680
		42	46	8080	6480	8980	7180	10330	7150	10770	7480	11680	7570	13570	7720
	7	24	14	6300	5980	7090	6690	8280	6550	8680	6820	9470	6870	10260	6920
		31.6	24	6710	5990	7500	6760	8790	6630	9220	6920	10060	7010	10890	7070
		36	35	6960	6000	7850	6790	9150	6660	9590	6980	10470	7090	11340	7190
		42	46	7190	6040	8080	6830	9430	6700	9870	7010	10770	7150	11680	7260
	8	27	19	9750	7900	10640	8650	11960	8430	12400	8750	13290	8800	14180	8810
		38.7	29	10300	8100	11120	8710	13520	8610	13590	8690	13780	8870	14800	9030
		41	40	10480	7990	11410	8790	13810	8690	13890	8710	14250	8990	15110	9050
		45	53	10570	8000	11530	8870	13980	8710	14010	8730	14420	9010	15370	9090
PHWA-D238	6	27	19	8860	7350	9760	8100	11090	8070	11100	8100	12410	8430	13360	8480
		38.7	29	9430	7510	10270	8250	12600	9500	13570	9520	13670	9590	13800	8550
		41	40	9520	7570	10410	8290	13590	9530	13610	9540	13780	9640	14160	8600
		45	53	9620	7580	10570	8340	13600	9540	13690	9590	13820	9610	14430	8650
	7	27	19	7970	6810	8870	7580	10200	7570	10650	7930	11520	8020	12410	8100
		38.7	29	8340	6890	9340	7690	11690	7690	11760	7960	11970	8050	12880	8170
		41	40	8590	6970	9480	7700	11770	7760	11810	8010	12270	8080	13200	8200
		45	53	8650	6920	9610	7780	11790	7780	11890	8110	12500	8100	13450	8220
	8	27	19	7080	6300	7970	7060	9130	7100	9360	7420	10650	7560	11530	7700
		38.7	29	7480	6390	8340	7180	9870	7230	10130	7460	11050	7600	11980	7740
		41	40	7590	6420	8570	7230	10060	7270	10380	7480	11340	7640	12280	7760
		45	53	7700	6490	8650	7290	10180	7290	10570	7510	11530	7660	12510	7770

Note: The values shown in the table is the cooling capacity measured under high speed;whereas, those under the medium/low speed will be resolved by multiplying the said values with the correction factor. The correction factor can be obtained from the cooling capacity/cooling capacity correction curve.



Heat Performance

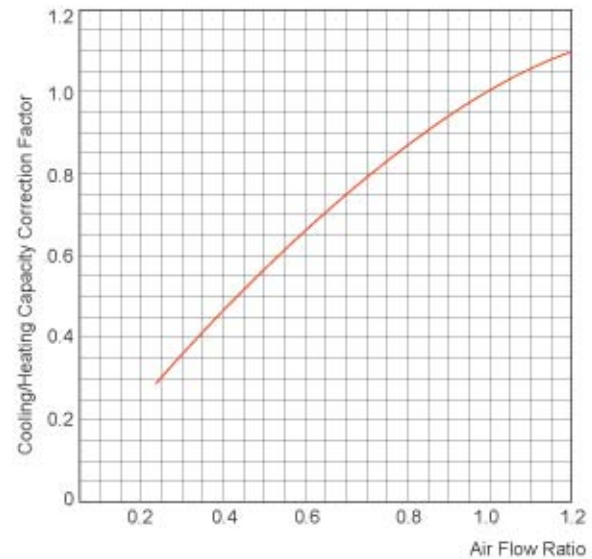
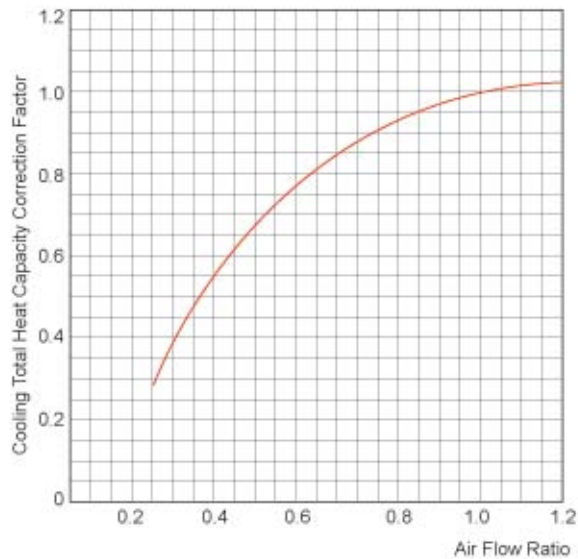
Unit : W

Model	Water Flow l/min	Water Resistance kPa	Inlet Air Temperature (°C)								
			Inlet Water Temperature (°C)								
			40	45	50	55	60	65	70	75	80
34	4	6	1500	1890	2290	2670	3070	3460	3860	4240	4640
	6.2	10	1590	2010	2430	2850	3270	3690	4100	4520	4940
	7.5	14	1660	2090	2430	2960	3410	3840	4270	4710	5140
	9	20	1710	2160	2600	3060	3500	3950	4390	4850	5290
51	6	12	2160	2730	3290	3860	4430	5000	5560	6130	6690
	8.9	18	2280	2870	3460	4070	4660	5260	5860	6450	7050
	10	27	2360	2980	3590	4210	4820	5440	6070	6690	7300
	12	37	2420	3060	3670	4320	4950	5590	6220	6850	7490
68	8	14	2930	3700	4480	5240	6010	6780	7550	8310	9090
	12.0	21	3130	3940	4770	5580	6410	7230	8050	8870	9690
	14	24	3250	4120	4980	5830	6690	7530	8400	9240	10100
	17	32	3360	4240	5130	6010	6880	7770	8650	9530	10420
85	10	18	3400	4320	5250	6165	7095	8015	8935	9855	10780
	14.5	23	3580	4550	5525	6485	7460	8430	9400	10365	11340
	16	28	3705	4715	5725	6725	7730	8725	9735	10730	11745
	20	51	3915	4840	5880	6905	7930	8960	9995	11020	12055
102	12	19	4090	5160	6240	7310	8400	9470	10540	11620	12690
	16.5	29	4250	5380	6500	7610	8730	9850	10970	12080	12440
	18	38	4380	5530	6690	7840	8990	10140	11290	12440	13610
	21	59	4490	5660	6850	8020	9200	10670	11560	12730	13910
136	16	21	5910	7460	9010	10570	12120	13680	15220	16780	18330
	23	38	6240	7880	9160	11160	12800	14440	16080	17720	19360
	28	55	6460	8170	9870	11570	13270	14970	16670	18370	20070
	34	82	6640	8380	10120	11870	13620	15360	17110	18850	20600
170	19	28	7010	8850	10090	12550	14390	16240	18070	19920	21760
	27	47	7080	8950	10400	12680	14540	16400	18270	20130	21990
	31	68	7150	9040	10920	12800	14690	16570	18460	20330	22210
	37	90	7220	9110	11010	12910	14810	16710	18610	20510	22410
204	24	14	5230	10400	12560	14720	16870	19040	21200	23360	25530
	32	24	8510	10740	12980	15220	17460	19690	21930	24170	26400
	36	35	8720	11010	13300	15590	17890	20180	22470	24770	27060
	42	46	8880	11220	13560	15900	18230	20570	22900	25270	27570
238	27	19	9250	11690	14120	16550	18970	21410	23840	26270	28720
	35.5	28	9360	11810	14270	16740	19220	21650	24120	26580	29030
	41	40	9440	11920	14400	16880	19380	21860	24340	26830	29310
	45	53	9610	12150	14680	17220	19470	22280	24800	27370	29860

Notes:

1. The values shown in the table is the heating capacity measured under high speed; whereas, those under the medium/low speed will be resolved by multiplying the said values with the correction factor. The correction factor can be obtained from the cooling capacity/cooling capacity correction curve.

Cooling Capacity/Heating Capacity Correction Curve



Air Flow Correction Table

High Static Pressure Type (Standard 3-row Tube)

Unit : m³/h

Model	External Static Pressure						
	0	10	20	30	40	50	60
PHWA - D34	450	420	390	360	330	300	270
PHWA - D51	620	590	560	530	500	460	420
PHWA - D68	830	790	740	700	660	610	570
PHWA - D85	1000	960	920	880	840	790	740
PHWA - D102	1200	1140	1080	1020	870	920	860
PHWA - D136	1520	1460	1410	1360	1290	1210	1130
PHWA - D170	1980	1880	1800	1720	1640	1560	1460
PHWA - D204	2400	2320	2260	2180	2100	2040	1940
PHWA - D238	2780	2700	2630	2550	2480	2400	2280

Installation & Operation Instructions

1. Unit Installation

- During installation, it is prohibited to hold the fan impeller and the housing with hands for moving the machine.
- Care should be used to keep the external part of the machine intact and damage-free; besides, it is also required to prevent the internal parts from hitting each other so as not to affect the machine operation. Further, one end of the Condensing Tube must be kept lower than the other one for 15-20mm to ensure smooth draining of condensing water.
- During lifting, the machine should be fixed securely. The lifting point must be tightly fastened and have sufficient strength to sustain the machine weight and the vibration during operation.

2. Water Pipe Connection

- The diameter of inlet and outlet pipes should be designed in 3/4" inner thread type. When connecting the inlet/outlet pipes, it is recommended to use a soft connection and then sealed with raw material belt. The operating torque should not be over 205.6N.m (21kgf.m) to avoid over-twisted cracking as to cause water leakage.
- The thermo-keeping device should be installed for the inlet/outlet pipes, with the valve mounted accordingly.

3. Electrical Wiring

- The wiring diagram is tagged on the Junction Box cover, and the user must connect the wires according to the diagram properly and correctly to avoid burning the motor. The wiring board is provided with an earthing bolt for ground protection during installation.
- Before wiring, check if the voltage and the frequency of power source are identical with that specified for the machine. It is preferable that the difference of power source voltage should be less than 10% of the rated value.

4. Machine Operation

- Before initial running, be sure to remove the foreign matters remained in the tray and the fan housing as well as around the coil. Further, it is also necessary to check if the water pipes and electrical wires are properly connected.
- Before initial running, be sure to close the Inlet/Outlet Valve door of the equipment. After cleaning the refrigerating water channel, open the said Inlet/Outlet Valve door once again.
- Before running the machine, open the Exhaust Valve mounted on the pipeline to purge the air completely from the coil. After purging, open the Exhaust Valve once again.

5. Changing the Air Outlet Direction (Pipe Connection Direction)

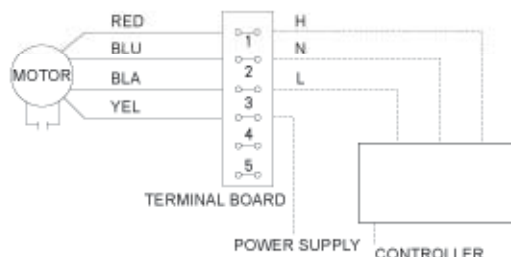
Remove the edge strap under the Air Outlet and the fan-mounted rear cover plate to exchange the position, and then mount them into position.

6. Caring and Maintenance

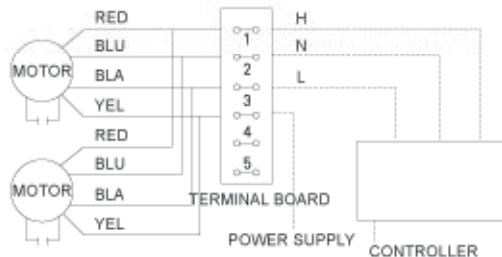
- The user needs to take relevant measures to ensure the cleanliness of water quality so as to prevent contaminant from clogging the fins. During winter, the water supply temperature should be less than 65°C.
- The Return Air Port should be provided with a filter, which should be cleaned regularly to prevent dust from clogging the fins for maintaining the heat-exchange effect of the coil.
- When storing the coil in a place lower than freezing during winter, the user must take necessary anti-freezing measures for protection. During longer period of downtime, be sure to drain the water in the system in advance to prevent the coil from frozen bursting.
- The condensing port of the Water Tray must be checked regularly. If clogging is found, it should be removed to ensure smooth discharging of the condensing water.

Fan Coil Wiring Diagram

PHWA - 34 ~ 136



PHWA - 170 ~ 238



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