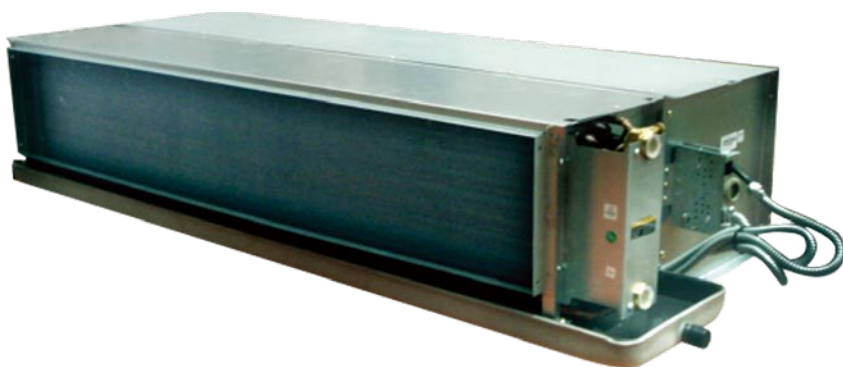


# Ceiling Concealed Chilled Water Fan Coil Unit

Models: MCW200DA MCW900DA  
MCW300DA MCW1000DA  
MCW400DA MCW1200DA  
MCW500DA MCW1400DA  
MCW600DA MCW1600DA  
MCW800DA



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**Note:** Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

**Caution:** Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

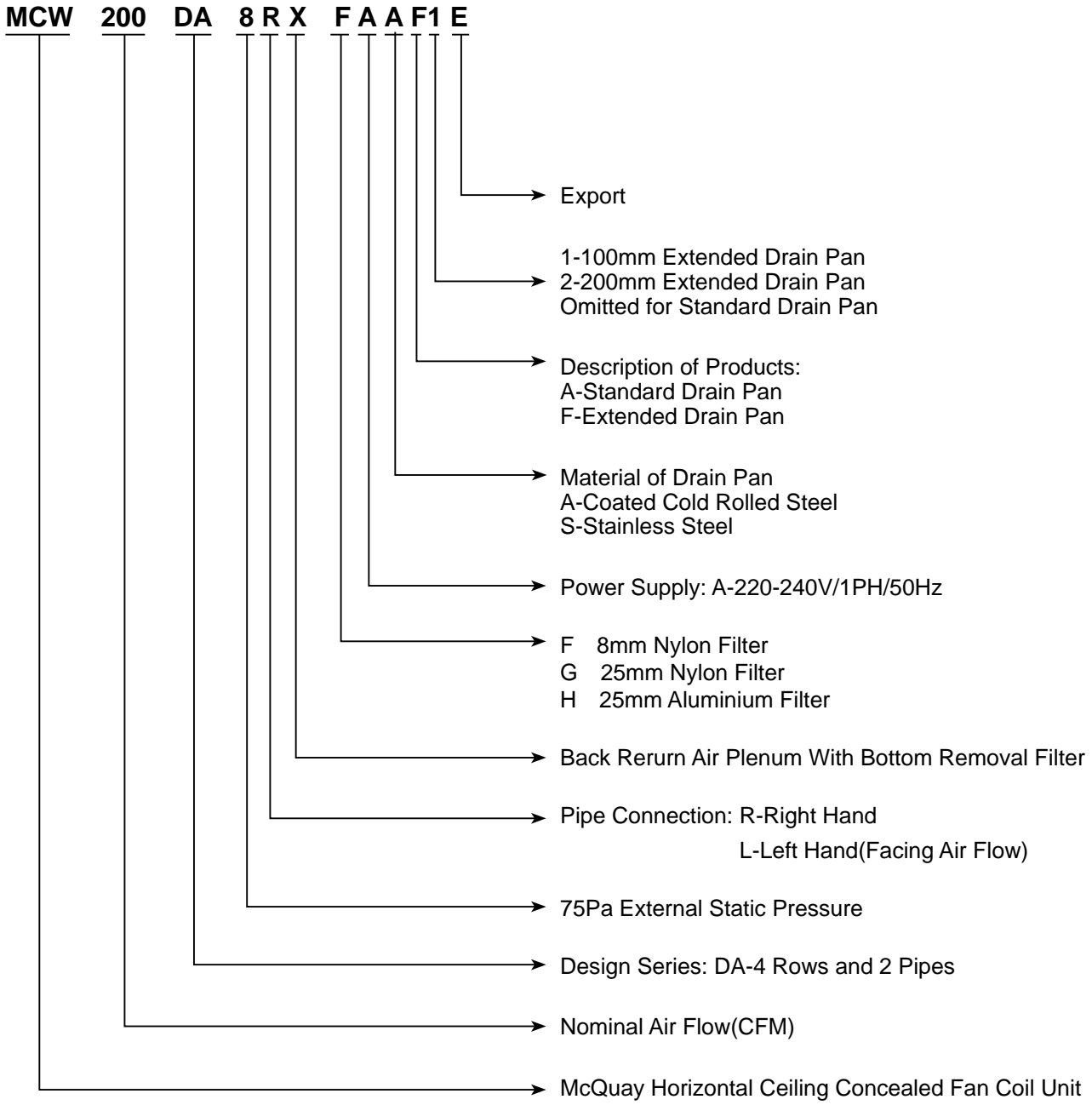
**Warning:** Moving machinery and electrical power hazard may cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

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# Nomenclature



# Main Features

## General

The new MCW-DA FCUs are specifically designed to satisfy high cooling capacity application requirement. They represent one of the most cost effective solutions to provide a comfortable environment for both commercial and residential applications. Their quiet operation, compact dimensions and particularly low height, make units ideal for ceiling concealed installation even in buildings with narrow ceiling spaces. Units are standard supplied with soundproofed suction plenum and air filter. Centrifugal fans, with forward-curved blades, are statically and dynamically balanced and driven by single-phase motors with three speeds. They feature elegant design, advanced structure, high efficiency, low noise, convenient installation and low maintenance. They are widely used in houses, shopping malls, hospitals and office etc.

## Higher Cooling Capacity in High Delta T Application

These units are particularly suitable for high External Static Pressure and high Delta T (chilled water temperature difference) applications. They can deliver more cooling capacity in high Delta T conditions with the specially designed fans & motors, coils and excellent combination of them.

## Low Chilled Water Pressure Drop

In order to meet even the most demanding customer requirements, the new FCUs adopt the most reasonable and optimized water circuit design and utilize the National accredited thermal test room to guarantee both the perfect performance and a low chilled water pressure drop.

## Extra High Air Flow Volume at High ESP

These units can supply more air flow at high ESP. 11 models of MCW-DA cover an air flow range from 200 to 1600 CFM at medium speed with ESP of 75Pa.

## High Efficiency and Energy Saving

A boundary layer film of air adhering to the fin surface will insulate the fin surface and severely reduces the heat exchange efficiency. McQuay slit designed and HYDROPHILIC BLUE FIN eliminates this boundary layer of air and creates continuous turbulence for best heat exchange efficiency.

## Flexibility

Units are available with left or right hand water connections, which can be easily switched in the field by changing the positions of the fan-motor assembly and the supply air flange assembly if required.

## Compact Design

The low height design makes this fan coil unit series ideally suited for the tight ceiling concealed installation

## Low Noise Design

Enlarged fan wheels design allows lower fan speed selection for the same external static pressure and airflow requirement. Thereby noise level is significantly reduced.

## Powerful Selection Software

Powerful select software makes various conditions selection precise and cost saving.

# Specification

## General Data

MODEL			200DA	300DA	400DA	500DA	600DA	800DA	900DA	1000DA	1200DA	1400DA	1600DA
NOMINAL AIR FLOW	H	m <sup>3</sup> /h	348	446	665	831	923	1369	1564	1683	2375	2386	3163
		cfm	205	262	391	489	543	805	920	990	1397	1404	1861
	M	m <sup>3</sup> /h	304	399	611	794	868	1296	1514	1631	2208	2381	2974
		cfm	179	235	359	467	511	762	891	959	1299	1401	1749
	L	m <sup>3</sup> /h	200	270	446	631	694	1089	1294	1376	1668	1931	2312
		cfm	118	159	262	371	408	641	761	809	981	1136	1360
COOLING CAPACITY	TOTAL	W	1660	2300	3280	3750	4300	6570	7150	7910	9980	10490	12920
		Btu/h	5664	7848	11191	12795	14672	22417	24396	26989	34052	35792	44083
	SENSIBLE	W	980	1400	2040	2580	2850	4490	4870	5480	7360	7880	9960
		Btu/h	3344	4777	6960	8803	9724	15320	16616	18698	25112	26887	33984
RATED POWER INPUT	H	W	84	101	116	148	165	297	299	309	507	603	665
	M	W	78	92	108	133	154	273	277	290	475	523	607
	L	W	58	69	92	110	133	225	232	250	407	428	529
RATED CURRENT INPUT	H	A	0.40	0.48	0.54	0.67	0.81	1.44	1.53	1.58	2.37	2.78	3.10
	M	A	0.36	0.42	0.49	0.62	0.71	1.25	1.28	1.34	2.17	2.46	2.78
	L	A	0.28	0.32	0.43	0.54	0.61	1.02	1.06	1.14	1.85	2.04	2.42
WATER FLOW RATE	m <sup>3</sup> /h	0.16	0.22	0.31	0.36	0.41	0.63	0.68	0.75	0.95	1.00	1.23	
	GPM	0.70	0.97	1.36	1.58	1.80	2.77	2.99	3.30	4.18	4.40	5.41	
WATER PRESSURE DROP	KPa	3	6	13	6	8	10	13	11	14	16	20	
	PSI	0.46	0.87	1.89	0.88	1.16	1.45	1.92	1.60	2.03	2.28	2.90	
EXTERNAL STATIC PRESSURE	Pa	75	75	75	75	75	75	75	75	75	75	75	
	in.wg	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
SOUND PRESSURE LEVEL	dB(A)	42.6	45.6	45.3	46.7	49.2	48.7	48.2	50.3	50.9	50.9	52.9	
CONDENSATE DRAIN PIPE			Rc3/4										
UNIT DIMENSION	LENGTH	mm	677	827	927	997	1097	1427	1537	1727	1427	1527	1827
	WIDTH	mm	530	530	530	530	530	530	530	530	600	600	600
	HEIGHT	mm	243	243	243	243	243	243	243	243	297	297	297
PACKING DIMENSION	LENGTH	mm	689	839	939	1009	1109	1439	1549	1739	1439	1539	1839
	WIDTH	mm	542	542	542	542	542	542	542	542	612	612	612
	HEIGHT	mm	255	255	255	255	255	255	255	255	309	309	309
NET WEIGHT	kg	16	21	22	24	28	39	44	48	51	52	62	
	lb	36	45	49	54	61	85	96	106	111	115	136	
GROSS WEIGHT	kg	19	24	25	28	31	43	48	53	55	58	68	
	lb	41	52	56	61	69	95	106	117	122	127	149	
OPERATING WEIGHT	kg	17	22	24	26	30	41	47	50	54	54	66	

### NOTES:

- 1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
- 2) THE PERFORMANCE DATA ARE BASED ON THE FOLLOWING CONDITIONS:
  - A) COOLING: 24°C DB/18°C WB INDOOR AND WATER INLET 5.5°C OUTLET 14.5°C.
  - B) MEDIUM SPEED, 75PA ESP.
  - C) 220V/1PH/50HZ.
- 3) ALL THE DIMENSIONS ARE FOR THE UNITS WITH STANDARD DRAIN PAN. TO GET DIMENSIONS FOR UNITS WITH EXTENDED DRAIN PAN, PLEASE INCREASE THE ABOVE LENGTH VALUES ACCORDINGLY.
- 4) WHEN THE WATER CONNECT DIRECTION IS CHANGED IN FIELD, THE CAPACITY SHOULD BE REDUCED BY 6%.

# Components Data

MODEL		200DA	300DA	400DA	500DA	600DA	800DA	900DA	1000DA	1200DA	1400DA	1600DA		
FAN	TYPE	Centrifugal (Blade: Forward-curved)												
	QUANTITY	1	2	2	2	2	3	4	4	3	3	4		
	MATERIAL	Galvanized Steel												
	DRIVE	Direct Drive												
	DIAMETER	mm	160	160	160	160	160	160	160	160	200	200	200	
		in	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	7.87	7.88	7.88	
	LENGTH	mm	200	160	200	200	200	200	160	200	190	190	190	
in		7.87	6.30	7.87	7.87	7.87	7.87	6.30	7.87	7.48	7.48	7.48		
MOTOR	TYPE	Split-capacitor Motor With Ball Bearing												
	NUMBER OF MOTORS	1					2							
	POWER SUPPLY	220-240V/1ph/50Hz												
	IP/INSULATION CLASS	IP20/Class B												
	POLES	4												
COIL	TYPE	Seamless Copper Tube Mechanically Bonded To Corrugated Aluminum Fin												
	TESTING PRESSURE	Pressure Test:3.3mpa For 1 Minute; Leakage Test:1.6mpa For 5 Minutes												
	TUBE	MATERIAL	Copper											
		DIAMETER	mm	9.52										
			in	3/8										
		THICKNESS	mm	0.3										
	in		0.012											
	FIN	MATERIAL	Hydrophilic Aluminum											
		THICKNESS	mm	0.11										
			in	0.0043										
		FACE AREA	m <sup>2</sup>	0.09	0.12	0.14	0.16	0.18	0.24	0.26	0.30	0.30	0.33	0.41
ft <sup>2</sup>			141	185	217	242	273	377	409	472	472	511	629	
ROW	4													
FIN PER INCH	10													
INSULATION	COIL TOP PANEL	MATERIAL	Fibre Glass											
		THICKNESS	mm	8										
	OTHER PANELS	MATERIAL	PE Foam											
		THICKNESS	mm	5	5	5	5	5	5	5	5	5	5	5
	DRAIN PAN	MATERIAL	PE Foam											
THICKNESS		mm	7	7	7	7	7	7	7	7	7	7	7	
AIR FILTER	MATERIAL	Aluminium Frame Nylon Filter												
	NUMBER	1	1	2	2	3	3	3	3	3	3	3		
	SIZE	LENGTH	mm	485	665	765	805	905	1235	1375	1535	1252	1337	1637
		WIDTH	mm	236	236	236	236	236	236	236	236	292	292	292
THICKNESS		mm	8	8	8	8	8	8	8	8	8	8	8	

**NOTE:**

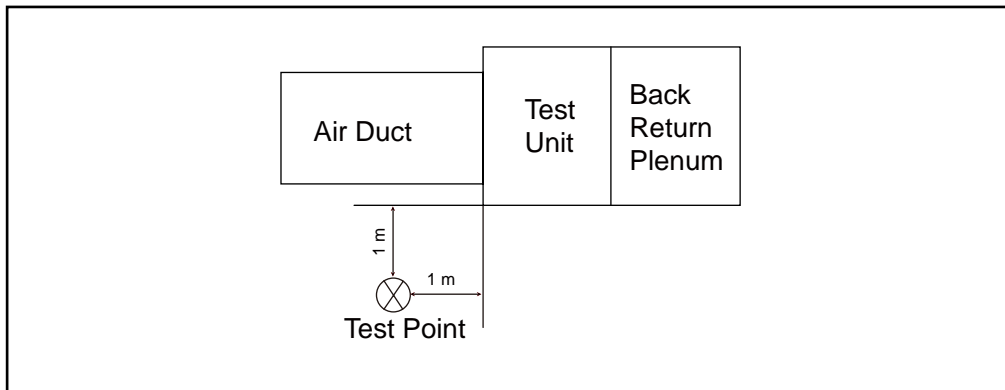
ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

# Sound Pressure Level

ESP		50 Pa								75 Pa									
Unit	Speed	1/1 Octave Sound pressure level [dB(A),ref 20 uPa]								Total dB(A)	1/1 Octave Sound pressure level [dB(A),ref 20 uPa]								Total dB(A)
		125	250	500	1k	2k	4k	8k	125		250	500	1k	2k	4k	8k			
200DA	H	26.1	34.3	37.6	40.4	33.1	22.8	14.1	43.4	24.9	33.9	37.4	40.2	33.6	24.4	15.0	43.3		
	M	27.0	33.4	36.9	39.6	32.1	21.6	13.7	42.7	26.2	33.8	36.4	39.5	32.9	23.5	14.6	42.6		
	L	27.8	29.2	33.5	35.9	28.1	18.1	13.0	39.2	26.6	30.6	34.2	37.2	30.0	20.8	13.7	40.2		
300DA	H	27.7	35.0	36.5	44.3	36.4	25.4	16.1	46.0	29.2	35.5	37.0	44.7	37.1	26.9	17.5	46.5		
	M	28.3	34.3	35.4	43.1	35.6	24.6	15.5	45.0	29.7	34.5	36.2	43.8	36.1	25.9	16.7	45.6		
	L	27.9	31.2	32.8	40.1	32.2	20.9	14.3	42.0	25.0	32.6	34.2	41.5	34.0	23.6	15.4	43.4		
400DA	H	26.9	36.7	38.8	42.6	37.8	25.7	14.6	45.7	28.7	36.5	39.2	42.8	38.3	26.2	15.2	46.0		
	M	27.9	35.3	38.2	41.8	36.8	24.6	13.7	44.9	28.2	36.5	38.3	42.1	37.5	25.9	15.0	45.3		
	L	27.3	32.3	35.8	38.4	33.8	20.8	11.4	41.9	27.4	34.3	37.0	40.3	36.3	24.3	14.0	43.7		
500DA	H	29.7	39.1	40.4	43.9	38.1	29.0	18.3	47.1	30.3	39.3	40.4	43.7	38.3	29.2	18.1	47.1		
	M	28.9	38.7	39.7	43.6	37.9	28.3	17.6	46.8	29.7	38.7	39.9	43.3	37.7	28.7	17.5	46.7		
	L	27.3	36.7	37.8	41.3	35.6	26.2	15.8	44.6	27.3	36.5	38.0	41.5	36.3	27.1	16.2	44.8		
600DA	H	30.5	40.9	41.8	46.6	42.7	29.8	18.5	49.7	33.2	40.7	42.3	45.8	43.4	29.9	20.5	49.6		
	M	30.8	40.0	41.6	46.1	42.1	29.2	18.3	49.2	30.2	40.5	41.7	46.0	42.1	29.0	17.5	49.2		
	L	31.5	37.5	39.3	43.5	38.8	25.4	15.1	46.6	29.9	38.1	39.8	44.2	40.3	26.9	15.6	47.4		
800DA	H	34.7	41.1	42.2	45.9	39.8	29.1	19.7	49.1	33.2	40.7	42.3	46.0	40.2	29.9	20.5	49.2		
	M	33.6	40.5	41.9	45.4	39.5	28.8	19.3	48.6	33.4	40.5	41.9	45.5	39.6	29.6	20.0	48.7		
	L	31.7	38.5	40.3	43.9	37.5	26.6	16.8	47.0	32.5	39.0	40.7	44.3	38.3	27.6	18.0	47.5		
900DA	H	34.1	40.9	42.3	45.7	40.3	29.9	20.6	49.1	35.1	40.9	41.2	45.4	40.0	30.1	20.8	48.7		
	M	34.6	39.8	41.3	45.3	39.8	29.5	20.1	48.5	34.5	40.2	40.9	44.8	39.5	30.0	20.5	48.2		
	L	33.2	38.7	39.9	43.8	38.0	27.7	18.3	47.0	33.4	38.4	39.8	43.8	38.3	28.4	18.9	47.0		
1000DA	H	33.8	42.5	44.3	47.5	41.2	30.7	20.5	50.7	35.2	41.9	44.4	47.4	41.4	31.1	21.1	50.7		
	M	33.2	41.7	43.9	46.9	40.7	30.0	19.8	50.1	34.0	40.8	44.0	47.3	41.0	31.0	21.3	50.3		
	L	33.2	40.1	42.1	45.3	38.8	28.0	17.3	48.5	33.2	40.1	42.8	45.7	39.6	29.5	19.3	49.0		
1200DA	H	37.2	44.7	44.1	47.7	42.6	34.0	26.2	51.5	37.4	44.8	44.4	47.9	42.2	33.7	25.6	51.6		
	M	36.1	43.0	43.1	47.2	41.1	32.5	24.6	50.5	37.0	43.7	43.8	47.3	41.5	32.8	24.6	50.9		
	L	34.3	39.9	40.8	43.3	37.2	28.0	19.2	47.1	35.1	41.7	42.0	44.5	38.7	29.6	20.3	48.5		
1400DA	H	39.2	45.0	43.6	47.7	41.8	33.2	26.5	51.5	39.3	45.5	43.8	47.5	41.6	33.3	26.4	51.5		
	M	37.7	44.7	43.2	47.3	40.9	32.4	25.6	51.0	38.4	44.9	43.1	46.9	41.0	32.6	25.5	50.9		
	L	35.5	41.3	40.2	43.7	37.4	28.4	21.1	47.6	36.4	42.1	40.4	43.7	37.5	28.6	20.9	47.9		
1600DA	H	41.3	46.1	46.4	51.2	44.1	34.6	27.9	54.1	45.3	45.8	46.0	50.4	43.6	33.7	27.0	54.0		
	M	40.5	45.1	45.7	50.2	42.7	33.2	26.2	53.1	41.6	44.7	45.4	49.8	42.5	32.4	25.5	52.9		
	L	38.2	40.3	42.2	46.0	37.8	27.6	19.8	49.0	43.6	41.2	42.4	46.2	38.4	27.9	20.4	50.1		

NOTES: TEST POINTS ARE AS BELOW:

1) TEST POINTS ARE AS BELOW:



2) THE SOUND LEVEL IS TESTED UNDER 11.5DBA BACKGROUND NOISE IN A BAFFLE CHAMBER WITH ESP OF 50PA AND 75PA.

# Performance Data

## Cooling Capacity (The tables below are two examples)

Model	ESP	Entering air Temperature(°C)		Chilled water Temperature(°C)		Cooling Capacity (kw)		Water flow	Water Pressure Drop
	Pa	DB	WB	In	Out	Total	Sensible	m³/h	kPa
MCW200DA	75	24	18	5.5	14.5	1.65	0.98	0.16	3
MCW300DA	75	24	18	5.5	14.5	2.30	1.41	0.22	6
MCW400DA	75	24	18	5.5	14.5	3.30	2.04	0.31	13
MCW500DA	75	24	18	5.5	14.5	3.75	2.58	0.36	6
MCW600DA	75	24	18	5.5	14.5	4.30	2.86	0.41	8
MCW800DA	75	24	18	5.5	14.5	6.59	4.50	0.63	10
MCW900DA	75	24	18	5.5	14.5	7.17	4.88	0.68	13
MCW1000DA	75	24	18	5.5	14.5	7.91	5.48	0.75	11
MCW1200DA	75	24	18	5.5	14.5	9.96	6.77	0.83	11
MCW1400DA	75	24	18	5.5	14.5	10.43	7.84	0.98	15
MCW1600DA	75	24	18	5.5	14.5	13.00	9.97	1.23	20

Model	ESP	Entering air Temperature(°C)		Water Temperature(°C)		Cooling Capacity (kw)		Water flow	Water Pressure Drop
	Pa	DB	WB	In	Out	Total	Sensible	m³/h	kPa
MCW200DA	50	26.7	19.4	7.2	15.6	2.33	1.47	0.24	6
MCW300DA	50	26.7	19.4	7.2	15.6	3.16	2.08	0.32	12
MCW400DA	50	26.7	19.4	7.2	15.6	4.20	2.81	0.43	23
MCW500DA	50	26.7	19.4	7.2	15.6	4.64	3.40	0.47	10
MCW600DA	50	26.7	19.4	7.2	15.6	5.38	3.83	0.55	14
MCW800DA	50	26.7	19.4	7.2	15.6	8.10	5.89	0.83	17
MCW900DA	50	26.7	19.4	7.2	15.6	8.76	6.34	0.89	20
MCW1000DA	50	26.7	19.4	7.2	15.6	9.51	7.03	0.97	16
MCW1200DA	50	26.7	19.4	7.2	15.6	10.39	8.53	1.06	17
MCW1400DA	50	26.7	19.4	7.2	15.6	11.84	9.36	1.21	22
MCW1600DA	50	26.7	19.4	7.2	15.6	15.18	12.36	1.55	30

**NOTES:**

- 1) THE FIRST TABLE IS UNDER MEDIUM SPEED, BUT THE SECOND TABLE IS BASED ON THE ARI STANDARD 440-2005 IN HIGH SPEED.
- 2) CAPACITY UNDER DIFFERENT CONDITIONS CAN BE DERIVED BY SELECTION SOFTWARE.



# Air Flow vs ESP Table

Model	fan speed	Air flow(m <sup>3</sup> /h) at ESP(Pa)							
		40	50	60	70	75	80	90	100
200DA	H	468	436	402	367	349	330	292	253
	M	437	400	362	324	304	285	245	205
	L	316	285	253	218	201	182	145	105
300DA	H	624	578	529	475	446	417	355	289
	M	581	535	484	429	400	370	306	239
	L	434	388	342	295	271	247	198	148
400DA	H	858	809	755	696	665	633	566	494
	M	794	748	697	642	612	581	515	445
	L	595	558	516	470	446	421	367	309
500DA	H	1018	970	918	861	831	800	734	664
	M	977	931	880	824	795	764	700	631
	L	774	742	703	657	632	605	546	480
600DA	H	1167	1106	1038	963	923	882	794	699
	M	1104	1044	978	906	869	830	748	660
	L	865	828	782	726	694	660	585	501
800DA	H	1662	1587	1506	1417	1369	1320	1216	1104
	M	1592	1516	1433	1344	1296	1247	1144	1033
	L	1318	1263	1200	1129	1090	1049	961	865
900DA	H	1916	1830	1733	1623	1564	1502	1369	1223
	M	1863	1778	1681	1573	1515	1453	1321	1178
	L	1611	1534	1447	1348	1294	1238	1118	986
1000DA	H	2047	1952	1850	1740	1683	1623	1498	1366
	M	1995	1902	1800	1690	1631	1571	1443	1307
	L	1677	1604	1520	1427	1376	1322	1207	1082
1200DA	H	2577	2522	2465	2406	2376	2345	2281	2215
	M	2379	2334	2286	2235	2209	2182	2126	2066
	L	1738	1723	1704	1681	1668	1655	1624	1590
1400DA	H	2637	2562	2490	2421	2387	2353	2288	2226
	M	2594	2536	2475	2413	2381	2349	2284	2216
	L	2059	2027	1992	1953	1932	1910	1863	1813
1600DA	H	3464	3384	3299	3210	3164	3116	3018	2916
	M	3229	3162	3091	3014	2975	2934	2848	2758
	L	2430	2407	2376	2336	2313	2288	2232	2168

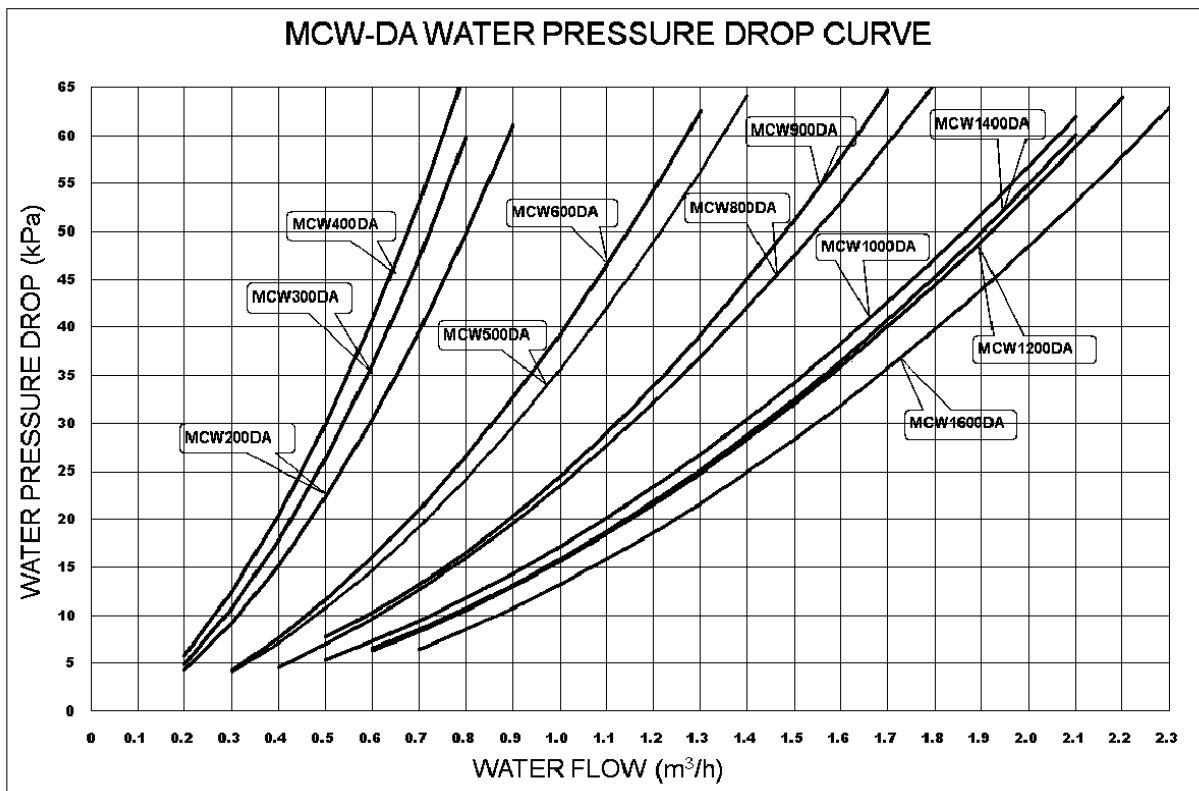
**NOTES:**

- 1) AIR FLOW IS IN DRY COIL CONDITIONS.
- 2) ESP OUT OF THE RANGE 40-100PA APPLICATION IS NOT RECOMMENDED.
- 3) FOR MORE AIR FLOW UNDER DIFFERENT CONDITION,PLEASE REFER TO THE SELECTION PROGRAM.

# Operating Limit

OPERATING LIMITS	
Maximum water side pressure	16 Bars
Minimum entering water temperature	3 °C
Maximum entering water temperature	95 °C
Minimum air inlet temperature	5 °C
Maximum air inlet temperature	43 °C
Power supply	220-240V/1Ph/50Hz

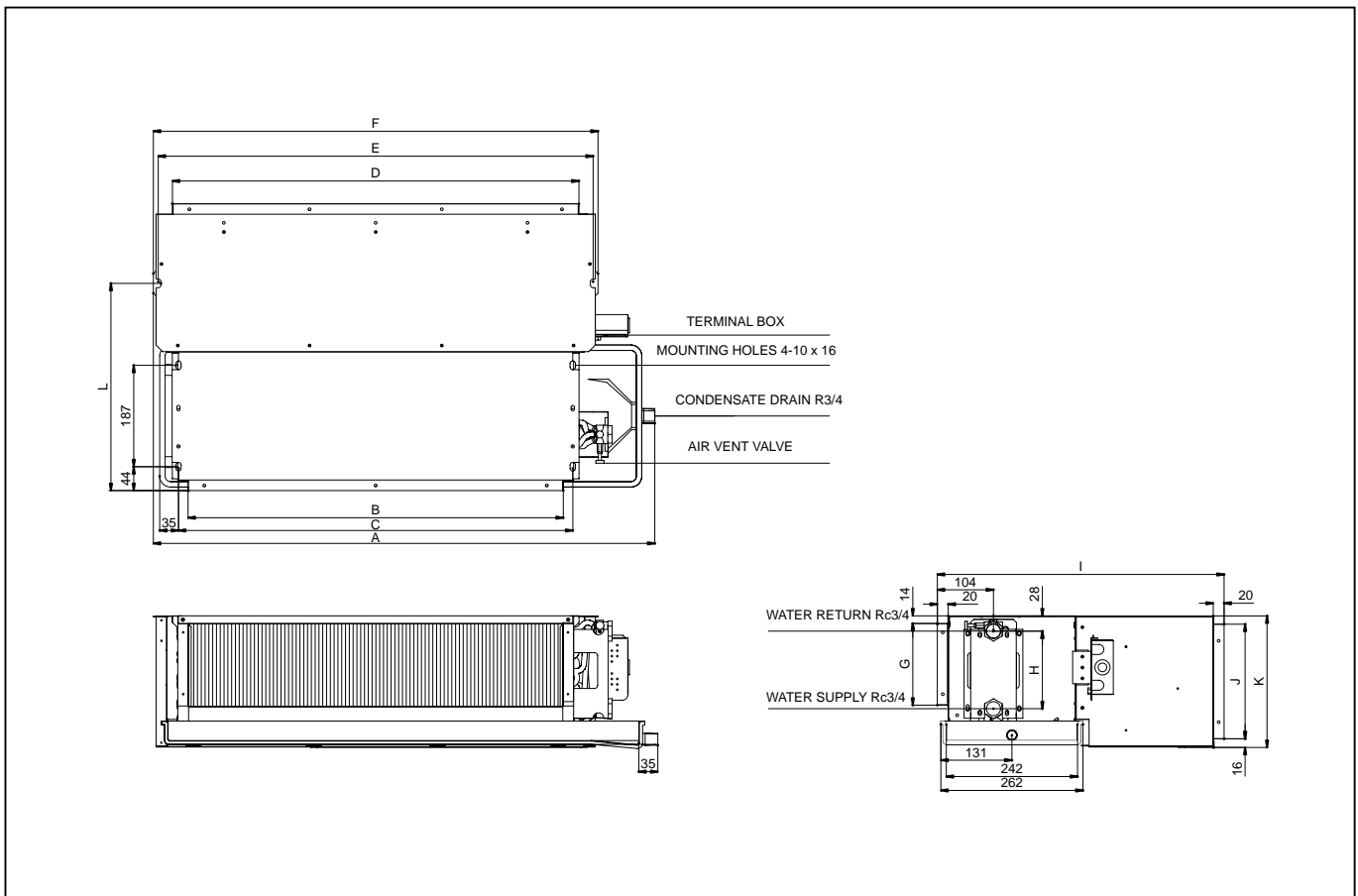
# Water Flow vs Pressure Drop Chart



**NOTE:**  
ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

# Outline and Dimension

Model	A	B	C	D	E	F	G	H	I	J	K	L	Fan number
MCW200DA	677	452	487	469	522	540	151	143	530	211	243	382	1
MCW300DA	827	592	627	649	702	820	151	143	530	211	243	382	2
MCW400DA	927	692	727	749	802	820	151	143	530	211	243	382	2
MCW500DA	997	772	807	789	842	860	151	143	530	211	243	382	2
MCW600DA	1097	872	907	889	942	960	151	143	530	211	243	382	2
MCW800DA	1427	1202	1237	1219	1272	1290	151	143	530	211	243	382	3
MCW900DA	1537	1302	1337	1359	1412	1420	151	143	530	211	243	382	4
MCW1000DA	1727	1502	1537	1519	1572	1580	151	143	530	211	243	382	4
MCW1200DA	1427	1202	1237	1219	1272	1290	201	194	600	266	297	413	3
MCW1400DA	1527	1302	1337	1319	1372	1390	201	194	600	266	297	413	3
MCW1600DA	1827	1602	1637	1619	1672	1690	201	194	600	266	297	413	4

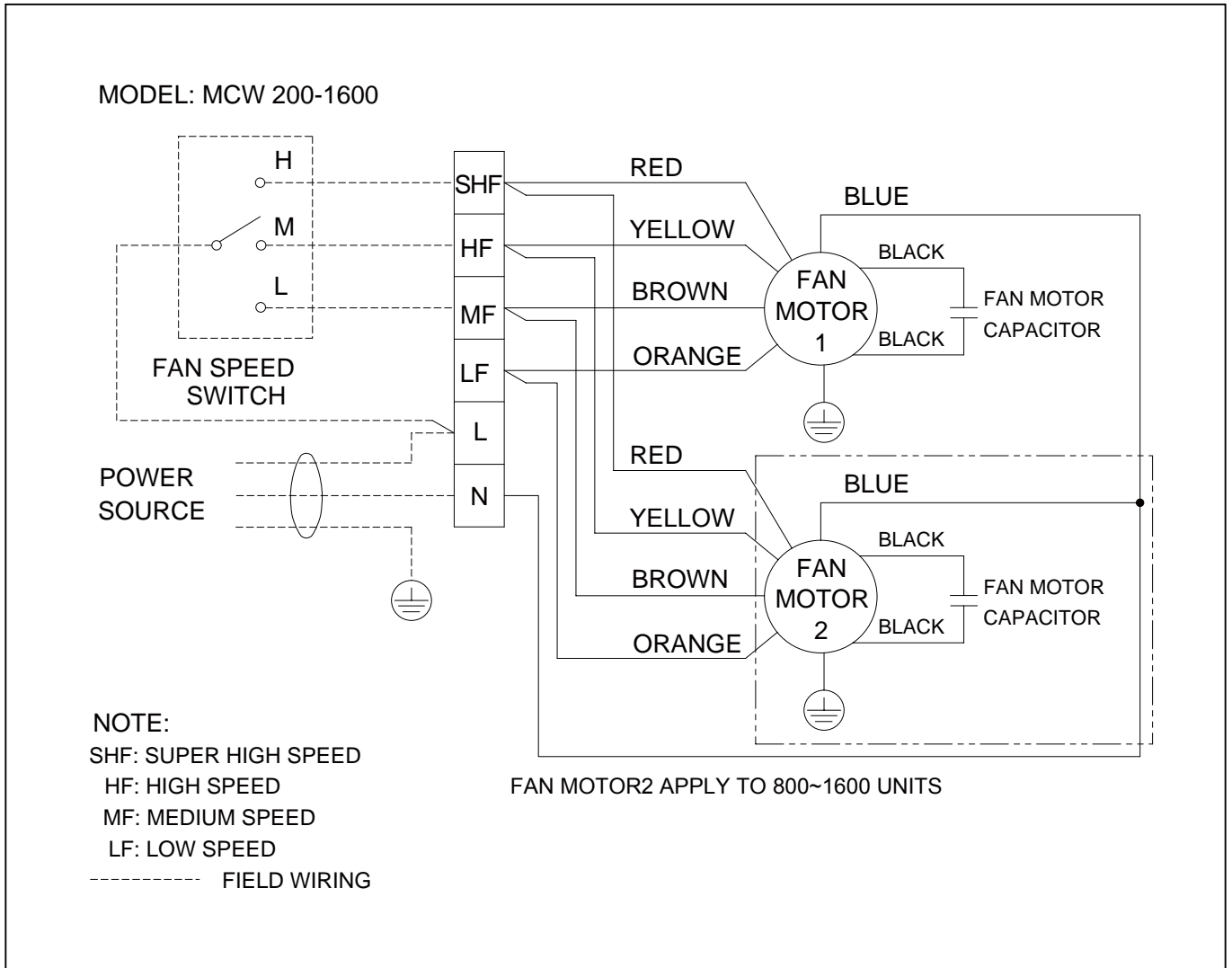


**NOTES:**

- 1) ALL DIMENSIONS ARE IN MM;
- 2) ALL STANDARD UNITS ARE WITH BACK AIR PLENUM AND BOTTOM REMOVAL FILTERS;
- 3) WHEN SELECT EXTENDED DRAIN PAN, PLEASE ADD THE INCREMENT TO THE LENGTH ACCORDINGLY.
- 4) RIGHT HAND COIL CONNECTION SHOWN;
- 5) WIRING CONNECTION SIDE IS THE SAME AS COIL AND DRAIN CONNECTIONS.

# Wiring Diagram

Electrical wiring connection must be done according to the following wiring diagram. The unit must be GROUNDED to the earth system of the building. All field wiring must be installed in accordance with the national wiring regulation and Fire Department regulation.



**NOTE:**  
 FOR MCW DA SERIES, (H. M. L.) ARE CONNECTED TO (SHF. HF. MF.) RESPECTIVELY.

# Installation

## Receiving

All units leaving the factory have been inspected to ensure the shipment of high quality products and reasonable means are utilized to properly pack the fan coil units to protect them in transit.

Carefully inspect all shipments immediately upon delivery. When damage is visible, note this fact on the carrier's freight bill and request that the carrier send a representative to inspect the damage. This may be done by telephone or in person, but should always be confirmed in writing.

The shipment should be unpacked in the presence of the agent so that the damage or loss can be determined. The carrier's agent will make an inspection report and a copy will be given to the consignee for forwarding to the carrier with a formal claim.

## Location

Before installation, please check the following:

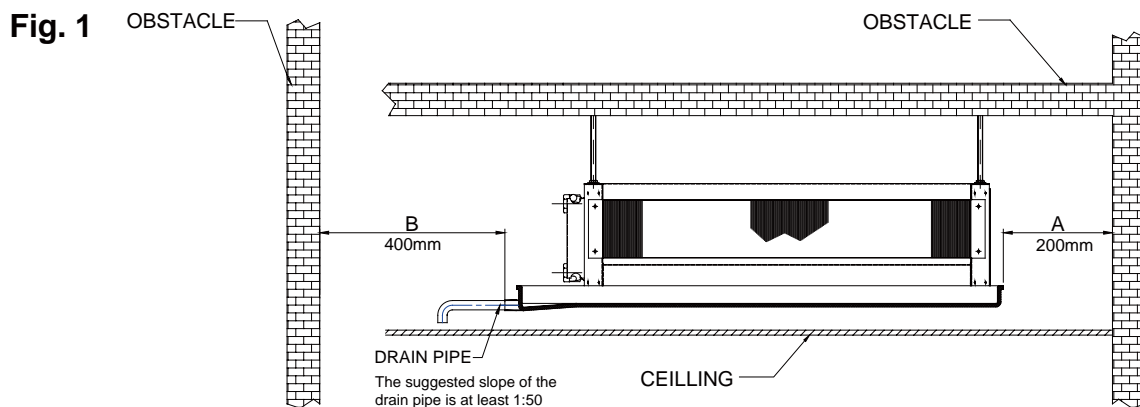
1. There must be enough space for unit installation and maintenance. Please refer to the outline and dimensions and fig.1 for the minimum distance between the unit and obstacle.
2. In case of installation in free blow, the unit must be installed at a minimum height of 2.5m to avoid contact with the appliance.
3. Please ensure enough space for piping connection and electrical wiring.
4. Please make sure that the hanging rods can support weight of the unit.

## Installation

1. The unit is designed for concealed ceiling installation.
2. There are holes on the top of the unit for hanging. Please refer to Fig.1. Fig.2 and Fig.3.
3. Make sure that the top of the unit is level.

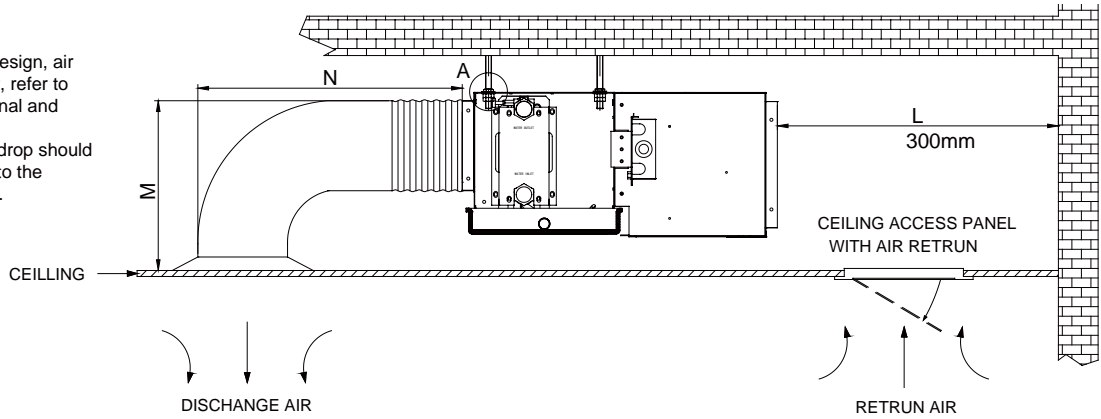
## Insulation

1. The insulation design and materials should be complying with local and national codes and regulations.
2. Chilled water pipes and all parts on the pipes should be insulated.
3. It is also necessary to insulate the air duct.

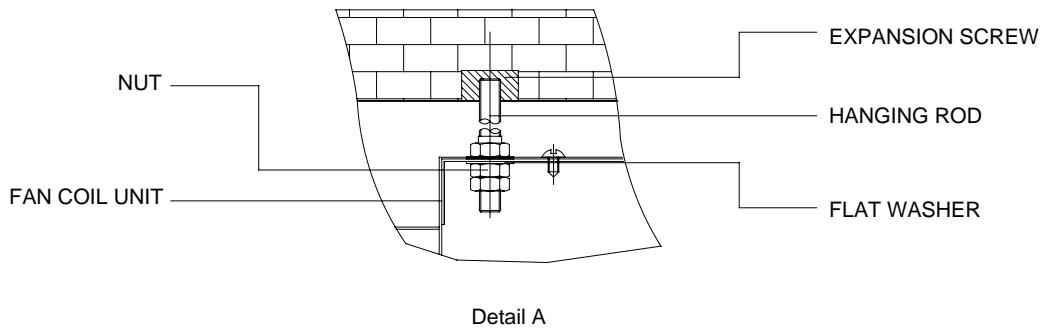


**NOTE:**

Dimension M and N was determined by air duct design, air duct should be fire-proof, refer to concerned country national and local regulations. Circulatory air pressure drop should be approximately equal to the External Static Pressure.



**Fig.3** DETAIL A:



## Air Duct Connection

1. Circulatory air pressure drop should be within External Static Pressure.
2. Galvanized steel air ducts are suitable.
3. Make sure there is no leak of air.
4. Air duct should be fire-proof, refer to concerned country national and local regulations.

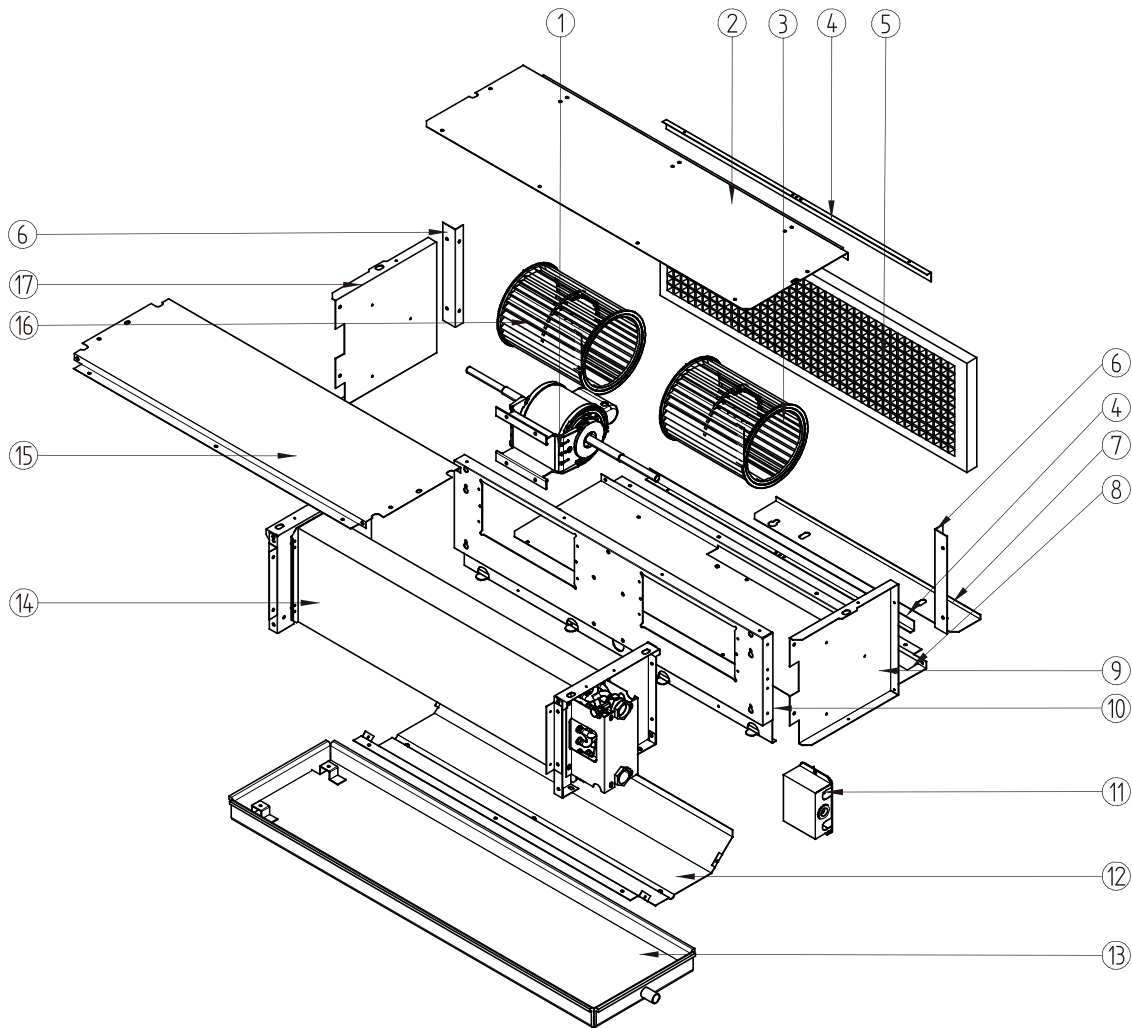
## Pipe Connection

1. Using suitable fittings as water pipe connections with reference to the outline and dimensions.
2. The water inlet is on the bottom while outlet on top.
3. The connection must be concealed with rubberized fabric to avoid leakage.
4. Drain pipe can be PVC or steel.
5. Tightening torque should not be too high when connecting water pipes, in order to avoid brass deformation or water-leakage by torsion split.
6. The suggested slope of the drain pipe is at least 1:50.

## Wiring

1. Wiring connection must be done according to the wiring diagram on the unit.
2. The unit must be GROUNDED well.
3. An appropriate strain relief device must be used to attach the power wires to the terminal box.
4. A 7/8" hole is designed on the terminal box for field installation of the strain relief device.
5. Field wiring must be complied with the national security regulations.
6. A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with the relevant local and national legislation.

# Exploded-view & Part List



Item	Description
1	Motor
2	Top Panel For Air Return Plenum
3	Blower Left
4	Flange top/bottom For Air Return Plenum
5	Filter
6	Flange left/right For Air Return Plenum
7	Filter Cover
8	Bottom Panel For Air Return Plenum
9	Side Panel Right For Air Return Plenum
10	Fan Deck
11	Terminal Box
12	Drain Guide
13	Drain Pan
14	Coil Assy
15	Top Panel
16	Blower Right
17	Side Panel Left For Air Return Plenum



MODEL		MCW200DA	MCW300DA	MCW400DA	MCW500DA	MCW600DA	MCW800DA
CLASS B MOTOR	MOTOR 1	YDK36-4Be M03034065200	YSK56-4B4 M03034065201	YSK71-4B4 M03034065202	YSK100-4B4 M03034065203	YSK150-4B6 M03034065204	YSK150-4B6 M03034065204
	MOTOR 2	\	\	\	\	\	YDK71-4B4 M03034065205
DRAIN PAN		M50014063363	M50014063364	M50014063365	M50014063366	M50014063367	M50014063368
BLOWER	LEFT	M03029000980	M03024060001	M03029000980	M03029000980	M03029000980	M03029000980
	RIGHT	\	M03024060002	M03029000981	M03029000981	M03029000981	M03029000981
COIL	LEFT HAND	M50024065190	M50024065191	M50024065192	M50024065193	M50024065194	M50024065195
	RIGHT HAND	M50024065180	M50024065181	M50024065182	M50024065183	M50024065184	M50024065185
FILTER	8mm NYLON	M03084066197	M03084066198	M03084066199	M03084066200	M03084066201	M03084066202
	25mm NYLON	M03084066187	M03084066188	M03084066189	M03084066190	M03084066191	M03084066192

MODEL		MCW900DA	MCW1000DA	MCW1200DA	MCW1400DA	MCW1600DA
CLASS B MOTOR	MOTOR 1	YSK150-4B6 M03034065204	YSK150-4B6 M03034065204	YSK240-4B8 M03034065206	YSK280-4B8 M03034065208	YSK240-4B8 M03034065206
	MOTOR 2	YSK150-4B6 M03034065204	YSK150-4B6 M03034065204	YDK95-4B6 M03034065207	YDK125-4B6 M03034065209	YSK240-4B8 M03034065206
DRAIN PAN		M50014063369	M50014063370	M50014063368	M50014063369	M50014063797
BLOWER	LEFT	M03024060001	M03029000980	M03024060003	M03024060003	M03024060003
	RIGHT	M03024060002	M03029000981	M03024060004	M03024060004	M03024060004
COIL	LEFT HAND	M50024065196	M50024065197	M50024065202	M50024065203	M50024065204
	RIGHT HAND	M50024065186	M50024065187	M50024065199	M50024065200	M50024065201
FILTER	8mm NYLON	M03084066203	M03084066226	M03084066204	M03084066205	M03084066206
	25mm NYLON	M03084066193	M03084066225	M03084066148	M03084066195	M03084066196

**NOTE:**  
LEFT OR RIGHT HAND COIL IS CONSIDERED FACING THE AIR FLOW.

# Optional

## 1. Drain pan

100mm and 200mm extended cold-rolled steel drain pan and stainless steel drain pan available, meet various application requirements.

## 2. Insulation

Aramflex Class 0 insulation material ensure more effective thermal and sound insulation together with fire-proof safety.

## 3. Casing

Anti-corrosion powder coating, looks elegant and more durable to erosive environment.

## 4. Filter

25mm nylon filter and 25mm aluminum filter optional.  
Different material filter meet various customer requirements.

## 5. Motor

Class F insulation motor provides reliable operation and suits harder applications.

# Guide Specifications

## Unit Description

Factory-assembled, horizontal, blow-thru type, galvanized casing, ceiling ducted fan coil unit is complete with water coil, fans, motors, drain pan, filters and all required wiring, with full access to internal components.

## Quality Assurance

Each coil is factory tested for leakage at 3.3MPa air pressure with coil submerged in water. Each unit and its moving components (fans and motors) are factory computer-tested and recorded after unit is complete and before it is packed.

## Component Specifications

### 1. Casing

Construction is of 0.8mm thickness galvanized steel, lined inside with 8mm fibre glass and 5mm PE thermal and acoustical insulation. Return air plenum is lined with 5mm PE foam and has a 20mm flange for return duct connection. Supply duct connection also has a 20mm flange. Removable bottom panel is provided for access to the fan/motor assembly.

### 2. Coil

Standard unit is equipped with a 4-row coil for installation in a 2-pipe system. Coil has 3/8 inch seamless copper tubes, slit type aluminum blue fins bonded to the tubes by mechanical expansion. Each coil has a manual air vent and two Rc3/4 water pipe connections with a working pressure of 1.6MPa.

### 3. Fan

Direct-driven centrifugal fan wheel has forward-curved blades which are statically and dynamically balanced. The fan housing and blades are constructed of high quality hot-galvanizing steel.

### 4. Motor

Fan motor is 4-speed, 220V-240V, single-phase, 50Hz, permanent split-capacitor with ball type bearing and build-in automatic reset thermal overload protection. The motor's insulation is class B, class F optional.

### 5. Drain pan

The drain pan plate body is constructed of cold-rolled steel by way of integral cupping. Both its sides are sprayed with plastic coating. And its outer wall is lined with 7mm heat insulating PE foam and high quality adhesive by way of integral adhering and pressing. It extends under the full length and width of the coils and is pitched for positive drainage with features of high anti-corrosion, anti-condensation and high fire reluctance.

### 6. Filter

Filter is with washable type double-layer nylon media in 8mm or 25mm thickness aluminum frame or 25mm aluminum filter.



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Details of specifications and equipment are also subject to change to suit local conditions and requirements and not all models are available in every market.