



TECHNICAL MANUAL

DUCTED FAN COIL MCFC SERIES

Read this manual before operating the device and keep it
in a safe place for future reference.

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I. GENERAL INFORMATION

The MCFC series horizontal indoor fan coil combines the characteristics of the previous model with the latest technology from the Western industry. It features a sophisticated design, excellent performance, easy installation and a wide range of applications, and is suitable for use in central air conditioning systems in hotels, office buildings and many other facilities.

1.1. FEATURES

■ **Wide range of applications and full load range**

Thanks to its modern design, this fan coil is ideal for variable load conditions and offers unrivalled performance. It can be used in a wide range of centralised air conditioning applications, such as hotels, hospitals, apartments, villas, office buildings, etc.

■ **Excellent quality**

The device owes its superior quality to its high-quality components. Without exception, all products are subjected to rigorous testing during production and upon shipment from the factory, so you can rely on their quality.

■ **Low noise level**

Brushless DC motor, efficiency up to 70% than AC motor, motor cooling capacity up to 8% higher. At low and medium speeds, the energy consumption of the DC motor is only 23-50% compared to that of the AC motor.

■ **High energy efficiency ratio (EER)**

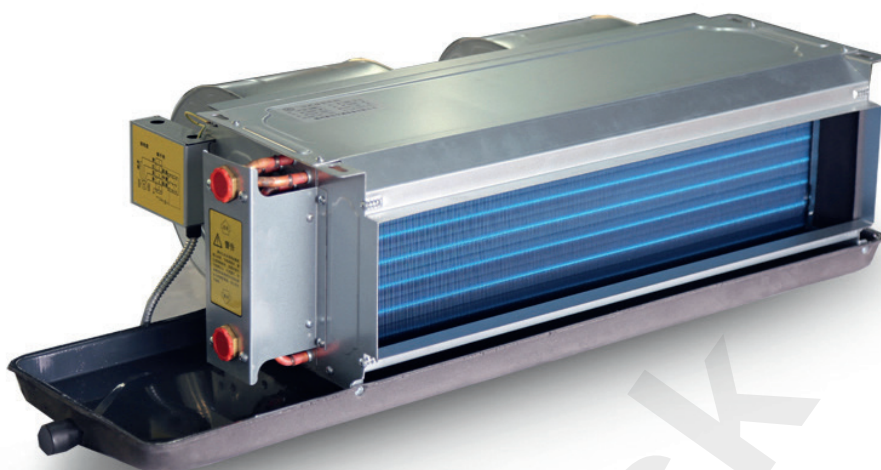
The device has been optimised to make the most of the energy supplied. This is also facilitated by the motor design with improved thermal conductivity.

■ **Attractive appearance, robust and durable construction**

The fan coil units of this series are made of high quality sheet metal. The condensate tray is made in one piece, without welds or welding points, and is covered with felt insulation on all sides that meets fire safety standards: this gives the unit a symmetrical design and simple shape. The device is designed for flush mounting in typical projects. When designing, leave space for the fan coil unit and provide air outlet, taking into account the furniture in the room, so that the fan coil unit fits into the room layout and is conveniently located.

■ **Easy adjustment and maintenance**

The room air volume and cooling capacity can be easily adjusted to suit your needs - switching between three speeds with a push button or infinitely variable speed control with an external thermostat. The motor bearing is automatically lubricated with oil. The motor shaft is made of hardened and tempered steel, protected against rust by a chrome or nickel-phosphorus coating.



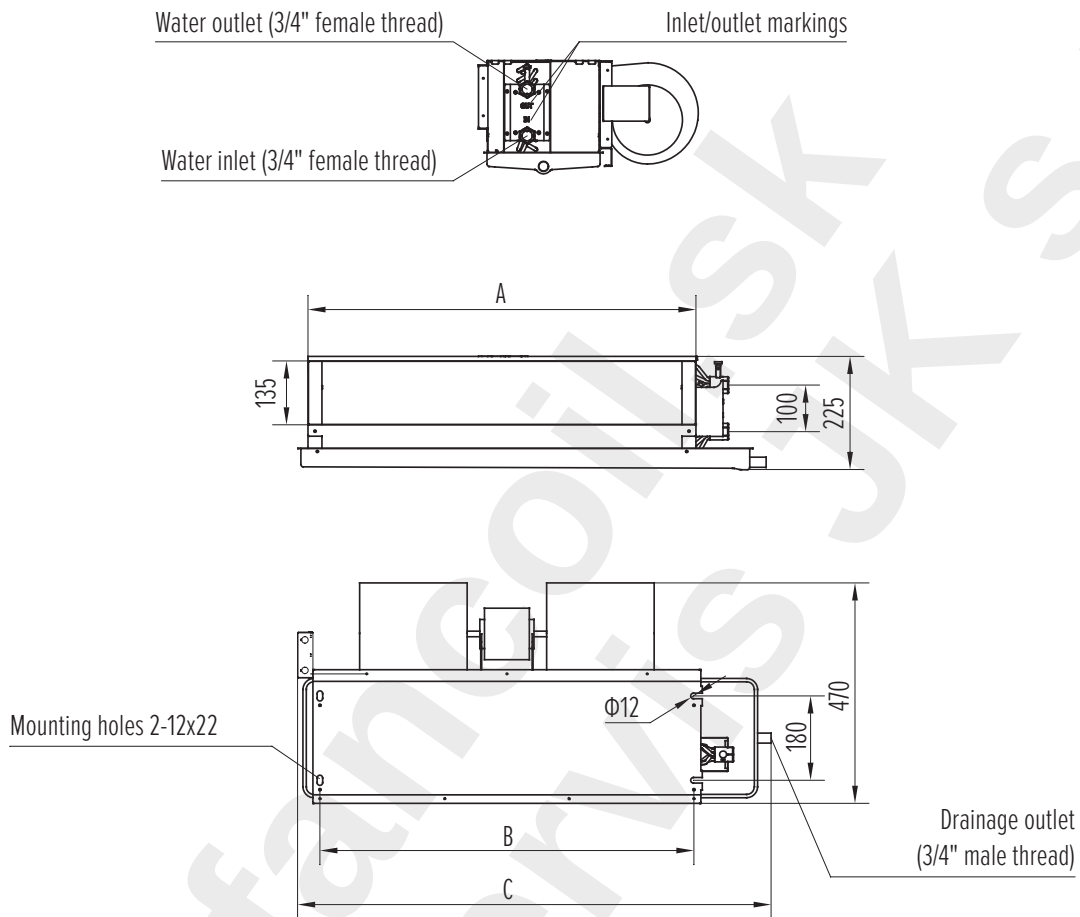
1.2. DESCRIPTION OF FUNCTIONS

Category	N°	Function name
Control function	1	Thermostat
Features for comfort	1	Fast cooling
	2	Three fan speeds
	3	Fast heating up
	4	Humidification (reserved)
Maintaining a healthy environment	1	Removable air filter
	2	Reserved fresh air intake function
Installation	1	Optional drain pipe connection on the left or right
	2	Optional rear or bottom air return
	3	Possibility to adjust static pressure
	4	Optional connection of the connecting pipe on the left or right

II. GENERAL PARAMETERS

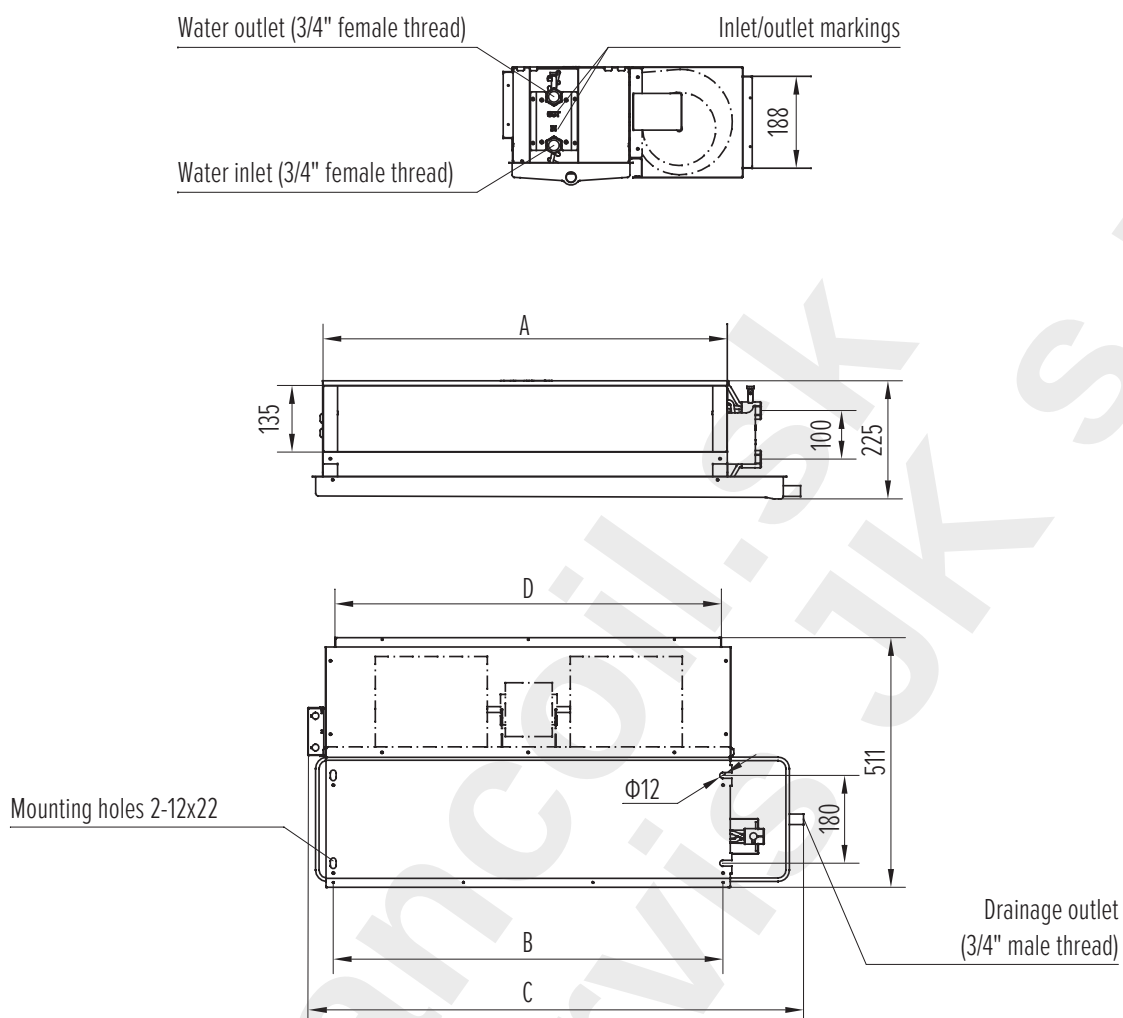
2.1. DIMENSIONS OF THE DEVICE

Horizontal installation models without air intake chamber



Model	Overall dimensions (mm)		
	A	B	C
MCFC-034-DT2	510	480	693
MCFC-051-DT2	640	610	823
MCFC-068-DT2	745	715	928
MCFC-085-DT2	830	800	1013
MCFC-102-DT2	960	930	1143
MCFC-136-DT2	1260	1230	1443
MCFC-170-DT2	1410	1380	1593
MCFC-204-DT2	1630	1600	1813
MCFC-238-DT2	1830	1800	2013

Horizontal installation models with rear air intake chamber



Model	Overall dimensions (mm)			
	A	B	C	D
MCFC-034-DT2	510	480	693	420
MCFC-051-DT2	640	610	823	540
MCFC-068-DT2	745	715	928	680
MCFC-085-DT2	830	800	1013	740
MCFC-102-DT2	960	930	1143	860
MCFC-136-DT2	1260	1230	1443	1060
MCFC-170-DT2	1410	1380	1593	1320
MCFC-204-DT2	1630	1600	1813	1520
MCFC-238-DT2	1830	1800	2013	1660

2.2. TABLE OF OPERATING PARAMETERS OF THE DEVICE

2.2.1. Table of fan coil parameters for horizontal flush-mounted installation

Model			MCFC-034-DT2	MCFC-051-DT2	MCFC-068-DT2
Air flow rate	High speed	m ³ /h	340	510	680
	Average speed	m ³ /h	255	382	510
	Low speed	m ³ /h	170	255	340
Cooling capacity	High speed	W	1800	2700	3600
	Average speed	W	1440	2160	2880
	Low speed	W	1170	1755	2340
Heat output	High speed	W	2700	4050	5400
	Average speed	W	2160	3240	4320
	Low speed	W	1755	2633	3510
External static pressure		Pa.	50	50	50
Number of coil rows			2	2	2
Noise level		dB(A)	42	44	46
Fan motor	Number of fans		1	2	2
	Number of engines		1	1	1
	Input power	W	49	66	84
Water consumption		m ³ /h	0,39	0,55	0,7
Drop in water pressure		kPa	12	16	20
Maximum working pressure		MPa	1.6	1.6	1.6
Net weight		kg	17	19	20
Inlet / outlet water pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)
Drain pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)

Note.

1. The cooling capacity was tested under the following conditions: inlet air temperature 27°C dry bulb / 19.5°C wet bulb; inlet/outlet water temperature 7°C / 12°C.
2. The heat output was tested under the following conditions: inlet air temperature 21°C dry thermometer; inlet water temperature 60/55°C.
3. The noise level was tested in a completely echo-free room.
4. These performance and flow rates are given at a static pressure of 30Pa.

Model			MCFC-085-DT2	MCFC-102-DT2	MCFC-136-DT2
Air flow rate	High speed	m ³ /h	850	1020	1360
	Average speed	m ³ /h	638	765	1020
	Low speed	m ³ /h	425	510	680
Cooling capacity	High speed	W	4500	5400	7200
	Average speed	W	3600	4320	5760
	Low speed	W	2925	3510	4680
Heat output	High speed	W	6750	8100	10800
	Average speed	W	5400	6480	8640
	Low speed	W	4388	5265	7020
External static pressure		Pa.	50	50	50
Number of coil rows			2	2	3
Noise level		dB(A)	47	49	50
Fan motor	Number of fans		2	2	3
	Number of engines		1	1	1
	Input power	W	100	118	174
Water consumption		m ³ /h	0,82	0,91	1,34
Drop in water pressure		kPa	23	26	28
Maximum working pressure		MPa	1.6	1.6	1.6
Net weight		kg	22	25	31
Inlet / outlet water pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)
Drain pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)

Note.

1. The cooling capacity was tested under the following conditions: inlet air temperature 27°C dry bulb / 19.5°C wet bulb; inlet/outlet water temperature 7°C / 12°C.
2. The heat output was tested under the following conditions: inlet air temperature 21°C dry thermometer; inlet water temperature 60/55°C.
3. The noise level was tested in a completely echo-free room.
4. These performance and flow rates are given at a static pressure of 30Pa.

Model			MCFC-170-DT2	MCFC-204-DT2	MCFC-238-DT2
Air flow rate	High speed	m ³ /h	1700	2040	2380
	Average speed	m ³ /h	1275	1530	1785
	Low speed	m ³ /h	850	1020	1190
Cooling capacity	High speed	W	9000	10800	12600
	Average speed	W	7200	8640	10080
	Low speed	W	5850	7020	8190
Heat output	High speed	W	13500	16200	18900
	Average speed	W	10800	12960	15120
	Low speed	W	8775	10530	12285
External static pressure		Pa.	50	50	50
Number of coil rows			3	3	3
Noise level		dB(A)	52	54	56
Fan motor	Number of fans		4	4	4
	Number of engines		1	1	1
	Input power	W	210	250	300
Water consumption		m ³ /h	1,59	1,8	2,07
Drop in water pressure		kPa	32	38	42
Maximum working pressure		MPa	1.6	1.6	1.6
Net weight		kg	37	42	44
Inlet / outlet water pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)
Drain pipe			R3/4"(Дy 20)	R3/4"(Дy 20)	R3/4"(Дy 20)

Note.

1. The cooling capacity was tested under the following conditions: inlet air temperature 27°C dry bulb / 19.5°C wet bulb; inlet/outlet water temperature 7°C / 12°C.
2. The heat output was tested under the following conditions: inlet air temperature 21°C dry thermometer; inlet water temperature 60/55°C.
3. The noise level was tested in a completely echo-free room.
4. These performance and flow rates are given at a static pressure of 30Pa.

2.2.2. Performance tables for cooling

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-034-DT2	5	5	7	1421	1094	1562	1093	1697	1120	1768	1278	2032	1355
		6,5	14	1672	1287	1837	1286	1997	1318	2080	1375	2186	1458
		7,9	16	1839	1416	2021	1415	2197	1450	2288	1518	2413	1609
		9,5	20	1973	1519	2168	1517	2356	1555	2455	1636	2601	1734
	6	5	7	1326	1021	1457	1020	1583	1045	1649	1102	1753	1169
		6,5	14	1560	1201	1714	1200	1863	1229	1940	1282	2039	1359
		7,9	16	1715	1321	1885	1320	2049	1352	2134	1413	2245	1497
		9,5	20	1840	1417	2022	1416	2198	1451	2290	1505	2394	1596
	7	5	7	1230	947	1351	946	1469	969	1530	1016	1566	1077
		6,5	14	1447	1114	1590	1113	1728	1140	1800	1189	1890	1260
		7,9	16	1591	1225	1749	1224	1901	1255	1980	1314	2088	1392
		9,5	20	1707	1314	1876	1313	2039	1346	2124	1400	2225	1484
	8	5	7	1131	871	1243	870	1351	892	1408	936	1486	991
		6,5	14	1331	1025	1463	1024	1590	1049	1656	1096	1743	1161
		7,9	16	1464	1127	1609	1126	1749	1154	1822	1202	1910	1274
		9,5	20	1571	1209	1726	1208	1876	1238	1954	1282	2039	1359
	9	5	7	1041	801	1144	801	1243	821	1295	855	1359	906
		6,5	14	1224	943	1346	942	1463	965	1524	1004	1595	1064
		7,9	16	1347	1037	1480	1036	1609	1062	1676	1102	1753	1169
		9,5	20	1445	1113	1588	1111	1726	1168	1798	1177	1871	1247

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,87	0,85	0,69	0,65

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-051-DT2	5	7,1	10	2132	1616	2342	1694	2546	1724	2652	1790	2979	1959
		8,4	18	2508	1901	2756	1992	2995	2028	3120	2106	3505	2311
		11,2	23	2758	2091	3031	2192	3295	2231	3432	2317	3855	2555
		13,5	28	2959	2243	3252	2351	3535	2393	3682	2485	4135	2658
	6	7,1	10	1988	1507	2185	1580	2375	1608	2474	1670	2779	1794
		8,4	18	2339	1773	2571	1859	2794	1892	2911	1965	3269	2065
		11,2	23	2573	1950	2828	2044	3074	2081	3202	2161	3596	2388
		13,5	28	2760	2092	3033	2193	3297	2232	3435	2318	3858	2546
	7	7,1	10	1845	1398	2027	1465	2203	1492	2295	1549	2578	1681
		8,4	18	2170	1645	2385	1724	2592	1755	2700	1823	3033	1952
		11,2	23	2387	1809	2623	1897	2851	1930	2970	2005	3336	2106
		13,5	28	2561	1941	2814	2034	3059	2071	3186	2151	3579	2204
	8	7,1	10	1697	1286	1865	1348	2027	1372	2111	1425	2372	1539
		8,4	18	1996	1513	2194	1586	2385	1614	2484	1677	2790	1909
		11,2	23	2196	1665	2413	1745	2623	1776	2732	1844	3069	2021
		13,5	28	2356	1786	2589	1872	2814	1905	2931	1979	3292	2144
	9	7,1	10	1561	1183	1716	1240	1865	1262	1942	1311	2182	1408
		8,4	18	1837	1392	2018	1459	2194	1485	2285	1543	2567	1674
		11,2	23	2020	1531	2220	1605	2413	1634	2514	1697	2824	1855
		13,5	28	2167	1643	2382	1667	2589	1753	2697	1820	3029	1903

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,91	0,88	0,69	0,65

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-068-DT2	5	9,3	11	2835	2321	3111	2349	3404	2383	3546	2482	3972	2854
		11,7	20	3335	2731	3661	2764	4005	2803	4172	2920	4673	3298
		14,6	26	3668	3004	4027	3040	4405	3084	4589	3212	5140	3603
		17,6	32	3935	3223	4319	3261	4726	3308	4923	3446	5514	3824
	6	9,3	11	2637	2160	2894	2185	3167	2217	3299	2309	3695	2653
		11,7	20	3102	2541	3405	2571	3726	2608	3881	2717	4347	3069
		14,6	26	3412	2795	3746	2828	4098	2869	4269	2988	4781	3365
		17,6	32	3660	2998	4018	3034	4396	3077	4579	3206	5129	3565
	7	9,3	11	2446	2003	2685	2027	2938	2056	3060	2142	3427	2453
		11,7	20	2878	2357	3159	2385	3456	2419	3600	2520	4032	2846
		14,6	26	3165	2592	3475	2623	3802	2661	3960	2772	4435	3100
		17,6	32	3396	2781	3727	2814	4078	2855	4248	2974	4758	3298
	8	9,3	11	2245	1839	2465	1861	2697	1888	2809	1966	3146	2268
		11,7	20	2642	2164	2900	2189	3173	2221	3305	2313	3702	2623
		14,6	26	2906	2380	3190	2408	3490	2443	3635	2545	4072	2861
		17,6	32	3117	2553	3422	2583	3744	2621	3900	2730	4368	3032
	9	9,3	11	2055	1683	2255	1703	2467	1727	2570	1799	2879	2067
		11,7	20	2417	1980	2653	2003	2903	2032	3024	2117	3387	2386
		14,6	26	2659	2178	2919	2204	3193	2235	3326	2328	3726	2609
		17,6	32	2852	2336	3131	2364	3425	2538	3568	2498	3997	2772

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,82	0,80	0,60	0,56

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-085-DT2	5	10,8	16	3537	3060	3887	3098	4243	3144	4420	3280	4965	3542
		13,6	23	4161	3600	4573	3645	4992	3699	5200	3859	5841	3946
		17,1	36	4577	3960	5030	4009	5491	4069	5720	4244	6425	4429
		20,5	45	4910	4247	5396	4301	5891	4365	6136	4553	6892	4646
	6	10,8	16	3300	2854	3626	1890	3958	2933	4123	3060	4631	3297
		13,6	23	3882	3358	4266	3400	4657	3451	4851	3599	5449	3671
		17,1	36	4270	3694	4692	3740	5123	3796	5336	3959	5994	4044
		20,5	45	4581	3962	5034	4012	5495	4075	5724	4247	6429	4338
	7	10,8	16	3061	2648	3364	2681	2672	2721	3825	2838	4296	3054
		13,6	23	3601	3115	3957	3154	4320	3201	4500	3339	5044	3401
		17,1	36	3941	3426	4353	3469	4752	3521	4950	3673	5560	3752
		20,5	45	4249	3676	4669	3722	5098	3777	5310	3940	5964	4031
	8	10,8	16	2816	2436	3094	2466	3378	2503	3519	2611	3353	2809
		13,6	23	3313	2866	3641	2902	3974	2945	4142	3072	4650	3131
		17,1	36	3644	3152	4005	3195	4372	3241	4554	3379	5115	3456
		20,5	45	3909	3381	4296	3424	4690	3475	4885	3625	5487	3724
	9	10,8	16	2591	2241	2847	2269	3108	2303	3237	2402	3636	2566
		13,6	23	3048	2636	3349	2669	3656	2709	3809	2826	4278	2858
		17,1	36	3353	2900	3684	2936	4022	2980	4190	3109	4706	3263
		20,5	45	3596	3111	3952	3150	4315	3197	4494	3335	5048	3420

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,81	0,79	0,58	0,55

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-102-DT2	5	13,3	19	4245	3672	4664	3718	5092	3773	5304	4411	5941	4676
		15,2	26	4994	4319	5487	4374	5991	4439	6240	4914	6990	5209
		21	43	5493	4751	6036	4811	6590	4883	6864	5267	7689	5583
		25,3	53	5892	5097	6475	5161	7069	5238	7364	5537	8248	5869
	6	13,3	19	3959	3425	4351	3468	4750	3520	4948	4107	5542	4353
		15,2	26	4658	4029	5119	4080	5588	4141	5821	4573	6250	4847
		21	43	5124	4432	5631	4488	6147	4555	6403	4912	7172	5207
		25,3	53	5497	4755	6040	4814	6594	4886	6869	5154	7694	5463
	7	13,3	19	3673	3177	4036	3217	4406	3265	4590	3803	5141	4031
		15,2	26	4321	3738	4749	3785	5184	3841	5400	4236	6048	4490
		21	43	4753	4112	5223	4163	5702	4225	5940	4548	6653	4821
		25,3	53	5099	4411	5603	4466	6117	4533	6372	4772	7137	5058
	8	13,3	19	3379	2923	3713	2960	4054	3004	4223	3499	4730	3709
		15,2	26	3975	3439	4369	3482	4769	3534	4968	3899	5565	4133
		21	43	4373	3783	4806	3830	5246	3887	5465	4179	6121	4430
		25,3	53	4691	4058	5111	4109	5628	4170	5862	4389	6566	4652
	9	13,3	19	3109	2689	3416	2723	3730	2764	3885	3196	4351	3388
		15,2	26	3657	3164	4019	3203	4388	3251	4571	3559	5119	3773
		21	43	4023	3480	4421	3524	4827	3576	5028	3815	5631	4044
		25,3	53	4316	3733	4743	3780	5178	3837	5393	4011	6041	4252

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,83	0,81	0,57	0,53

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-136-DT2	5	18	24	5653	4749	6226	4844	6789	4922	7072	5732	8223	6076
		22,3	28	6651	5587	7325	5699	7988	5791	8320	6407	9674	6791
		28,4	48	7316	6145	8057	6268	8786	6370	9152	6839	10641	7249
		34,2	58	7848	6592	8643	6724	9425	6833	9818	7141	11415	7569
	6	18	24	5273	4430	5808	4518	6333	4592	6597	5336	7670	5656
		22,3	28	6204	5211	6833	5316	7451	5402	7762	5961	9024	6319
		28,4	48	6824	5733	7516	5847	8196	5942	8538	6365	9926	6747
		34,2	58	7321	6149	8063	6273	8792	6374	9159	6652	10648	7051
	7	18	24	4892	4109	5388	4192	5875	4260	6120	4940	7115	5236
		22,3	28	5755	4843	6338	4931	6912	5011	7200	5523	8371	5854
		28,4	48	6331	5318	6972	5424	7603	5512	7920	5897	9208	6251
		34,2	58	6791	5705	7479	5819	8156	5913	8496	6156	9878	6525
	8	18	24	4501	3780	4957	3856	5405	3919	5630	4545	6546	4818
		22,3	28	5295	4448	5831	4537	6359	4610	6624	5077	7701	5382
		28,4	48	5824	4892	6414	4990	6995	5071	7286	5429	8471	5755
		34,2	58	6248	5248	6881	5353	7504	5440	7816	5674	9088	6014
	9	18	24	4141	3478	4560	3548	4973	3605	5180	4149	6022	4398
		22,3	28	4871	4092	5365	4174	5850	4241	6094	4631	7085	4909
		28,4	48	5358	4501	5901	4591	6435	4666	6703	4948	7794	5245
		34,2	58	5748	4828	6330	4925	6903	5005	7191	5178	8361	5489

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,83	0,81	0,58	0,55

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-170-DT2	5	21,2	28	7075	6035	7783	6141	8478	6231	8840	6498	10269	6603
		26,5	32	8323	7100	9156	7224	9974	7331	10401	7644	12081	7768
		33,5	52	9155	7809	10072	7947	10972	8064	11441	8409	13289	8545
		40,3	60	9821	8377	10804	8525	11769	8651	12273	9020	14256	9167
	6	21,2	28	6599	5629	7260	5728	7909	5813	8247	9061	9579	6160
		26,5	32	7764	6623	8541	6739	9304	6839	9702	7131	11270	7247
		33,5	52	8540	7285	9395	7413	10235	7522	10672	7844	12397	7971
		40,3	60	9162	7815	10079	7952	10979	8070	11448	8415	13298	8551
	7	21,2	28	6122	5222	6735	5314	7336	5392	7650	5623	8886	5714
		26,5	32	7202	6144	7923	6251	8631	6344	9000	6615	10454	6722
		33,5	52	7922	6758	8716	6877	9494	6978	9900	7277	11500	7394
		40,3	60	8499	7249	9349	7377	10785	7486	10620	7806	12336	7932
	8	21,2	28	5632	4804	6196	4889	6749	4961	7038	5173	8175	5257
		26,5	32	6626	5652	7289	5751	7941	5836	8280	6086	9618	6184
		33,5	52	7289	6217	8018	6326	8735	6420	9108	6694	10580	6803
		40,3	60	7819	6669	8601	6787	9370	6887	9770	7181	11349	7298
	9	21,2	28	5182	4420	5700	4498	6209	4564	6475	4759	7521	4836
		26,5	32	6096	5200	6706	5291	7305	5369	7618	5599	8849	5690
		33,5	52	6706	5720	7377	5820	8036	5906	8379	6159	9733	6259
		40,3	60	7193	6136	7913	6244	8620	6336	8989	6607	10441	6714

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,78	0,76	0,57	0,54

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-204-DT2	5	25,6	32	8480	6428	9329	7136	10184	7251	10609	7575	12346	7716
		30	38	9976	7562	10975	8396	11981	8531	12481	8911	14524	9078
		40,4	56	10974	8318	12072	9235	13180	9384	13729	9802	15977	9986
		48,6	64	11772	8923	12950	9907	14138	10066	14727	10515	17139	10712
	6	25,6	32	7910	5996	8702	6657	9500	6764	9896	7066	11517	7198
		30	38	9306	7054	10238	7932	11177	7958	11642	8313	13549	8468
		40,4	56	10237	7760	11262	8615	12294	8754	12807	9144	14904	9315
		48,6	64	10981	8324	12081	9242	13189	9390	13738	9809	15988	9992
	7	25,6	32	7338	5562	8073	6175	8813	6275	9180	6555	10683	6677
		30	38	8633	6544	9497	7265	10368	7382	10800	7711	12569	7855
		40,4	56	9496	7198	10447	7992	11405	8120	11880	8482	13825	8641
		48,6	64	10187	7722	11207	8573	12234	8711	12744	9099	14831	9269
	8	25,6	32	6751	8117	7427	5681	8108	5773	8446	6030	9829	6143
		30	38	7942	6020	8737	6684	9539	6791	9936	7094	11563	727
		40,4	56	8736	6622	9611	7352	10492	7471	10930	7804	12190	7950
		48,6	64	9372	7104	10310	7887	11256	8014	11724	8371	13644	8528
	9	25,6	32	6211	4708	6833	5227	7459	5311	7770	5548	9042	5651
		30	38	7307	5539	8038	6149	8775	6248	9141	6527	10638	6649
		40,4	56	8038	6092	8842	6764	9653	6873	10055	7179	11702	7314
		48,6	64	8622	6536	9485	7256	10355	7010	10787	7702	12553	7846

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,80	0,78	0,59	0,56

Model	Water inlet temperature, °C	Water consumption, l/min	Water pressure drop, kPa	Inlet air temperature, °C									
				24.0DB		25.0DB		26.0DB		27.0DB		28.0DB	
				17.0WB		18.0WB		19.0WB		19.5WB		20.0WB	
				TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-238-DT2	5	29,3	36	9904	8498	10884	8696	11869	8902	12377	9295	13850	11721
		36,2	42	11652	9998	12805	10231	13964	10473	14561	10935	16294	12177
		46,2	59	12818	10997	14085	11254	15360	11520	16017	12029	17923	12488
		55,6	68	13750	11797	15110	12073	16477	12358	17182	12903	19227	12706
	6	29,3	36	9239	7927	10153	8112	11072	8304	11545	8671	12920	10910
		36,2	42	10870	9326	11945	9544	13026	9769	13583	10201	15200	11311
		46,2	59	11957	10259	13139	10498	14328	10746	14941	11221	16720	11621
		55,6	68	12826	11005	14095	11262	15371	11528	16028	12037	17936	11840
	7	29,3	36	8571	7354	9418	7525	10271	7703	10710	8043	11985	10117
		36,2	42	10083	8651	11080	8853	12083	9063	12600	9463	14100	10499
		46,2	59	11092	9517	12189	9739	13292	9969	13860	10409	15510	10764
		55,6	68	11898	10209	13075	10447	14258	10694	14868	11166	16638	10965
	8	29,3	36	7885	6765	8665	6923	9449	7087	9583	7400	11026	9304
		36,2	42	9277	7959	10194	8145	11117	8338	11592	8706	12972	9660
		46,2	59	10204	8755	11213	8960	1228	9171	12751	9576	14269	9907
		55,6	68	10946	9392	12029	9611	13118	9838	13679	10073	15307	10089
	9	29,3	36	7254	6224	7972	6369	8693	6520	9065	6808	10144	8493
		36,2	42	8534	7323	9379	7493	10227	7671	10665	8009	11934	8821
		46,2	59	9388	8055	10316	8243	11250	8438	11731	8810	13128	9040
		55,6	68	10071	7634	11067	8842	12068	9051	12584	9151	14082	9212

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C

WB — Wet bulb temperature °C

TH — Total heat W

SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,78	0,85	0,54	0,50

2.2.3. Table of thermal characteristics of fan coils

Unit of measurement: W

Inlet air temperature, °C			21.0DB						
Inlet water temperature, °C			40	45	50	55	60	65	70
Model	Water consumption, l/min	Water pressure drop, kPa							
MCFC-034-DT2	5	7	1248	1580	1903	2239	2565	2898	3217
	6,5	14	1314	1663	2004	2357	2700	3051	3387
	7,9	16	1362	1724	2078	2444	2800	3164	3512
	9,5	20	1395	1766	2128	2503	2867	3240	3597
MCFC-051-DT2	7,1	10	1872	2370	2855	3359	3848	4348	4826
	8,4	18	1971	2494	3005	3536	4050	4577	5080
	11,2	23	2043	2587	3116	3666	4200	4746	5268
	13,5	28	2093	2649	3192	3755	4301	4860	5395
MCFC-068-DT2	9,3	11	2496	3160	3807	4478	5130	5797	6435
	11,7	20	2627	3326	4007	4714	5400	6102	6773
	14,6	26	2725	3449	4156	4889	5600	6328	7024
	17,6	32	2790	3532	4256	5006	5735	6480	7193
MCFC-085-DT2	10,8	16	3120	3949	4758	5598	6413	7546	8043
	13,6	23	3284	4157	5009	5893	6750	7628	8467
	17,1	36	3406	4311	5194	6111	7000	7910	8780
	20,5	45	3488	4415	5319	6258	7169	8100	8991
MCFC-102-DT2	13,3	19	3744	4739	5710	6718	7695	8695	9652
	15,2	26	3941	4989	6011	7071	8100	9153	10160
	21	43	4087	5173	6233	7333	8400	9492	10536
	25,3	53	4186	5298	6383	7510	8602	9720	10790
MCFC-119-DT2	16,9	23	4368	5529	6662	7838	8978	10144	11261
	20,2	27,6	4598	5821	7013	8250	9450	10679	11853
	24,3	46	4768	6035	7272	8555	9800	11074	12292
	29,5	56	4884	6181	7447	8762	10036	11340	12588
MCFC-136-DT2	18	24	4992	6319	7613	8957	10260	11594	12869
	22,3	28	5255	6652	8014	9428	10800	12204	13546
	28,4	48	5449	6898	8311	9777	11200	12656	14048
	34,2	58	5581	7064	8511	10013	11470	12961	14386
MCFC-170-DT2	21,2	28	6240	7899	9517	11196	12825	14492	16086
	26,5	32	6569	8315	10018	11789	13500	15255	16933
	33,5	52	6812	8622	10388	12222	14000	15819	17560
	40,3	60	6976	8830	10639	12516	14337	16201	17983
MCFC-204-DT2	25,6	32	7488	9479	11420	13435	15390	17391	19304
	30	38	7882	9978	12021	14143	16200	18306	20320
	40,4	56	8174	10347	12466	14666	16799	18983	21071
	48,6	64	8371	10596	12767	15019	17204	19441	21579
MCFC-238-DT2	29,3	36	8736	11059	13324	15675	17955	20289	22521
	36,2	42	9196	11641	14025	16500	18900	21357	23706
	46,2	59	9536	12071	14544	17110	19599	22147	24583
	55,6	68	9766	12362	14894	17523	20072	22681	25176

Note: the above table shows the heating capacity at high speed, while the cooling capacity at medium and low speeds is the value in the table above multiplied by the speed correction factor.

Speed correction factor										
Model	34	51	68	85	102	119	136	170	204	238
Medium	0,83	0,86	0,77	0,77	0,79	0,78	0,78	0,74	0,76	0,75
Low	0,65	0,65	0,56	0,55	0,53	0,55	0,55	0,54	0,57	0,55

2.2.4. Performance table for cooling

Unit of measurement: W

Inlet air temperature, °C			27.0DB / 19.5WB									
Inlet water temperature, °C			5		6		7		8		9	
Model	Water consumption, l/min	Water pressure drop, kPa	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
MCFC-034-DT2	5	7	1768	1278	1649	1102	1530	1016	1408	936	1295	855
	6,5	14	2080	1375	1940	1282	1800	1189	1656	1096	1524	1004
	7,9	16	2288	1518	2134	1413	1980	1314	1822	1202	1676	1102
	9,5	20	2455	1636	2290	1505	2124	1400	1954	1282	1798	1177
MCFC-051-DT2	7,1	10	2652	1790	2474	1670	2295	1549	2111	1425	1942	1311
	8,4	18	3120	2106	2911	1965	2700	1823	2484	1677	2285	1543
	11,2	23	3432	2317	3202	2161	2970	2005	2732	1844	2514	1697
	13,5	28	3682	2485	3435	2318	3186	2151	2931	1979	2697	1820
MCFC-068-DT2	9,3	11	3546	2482	3299	2309	3060	2142	2809	1966	2570	1799
	11,7	20	4172	2920	3881	2717	3600	2520	3305	2313	3024	2117
	14,6	26	4589	3212	4269	2988	3960	2772	3635	2545	3326	2328
	17,6	32	4923	3446	4579	3206	4248	2974	3900	2730	3568	2498
MCFC-085-DT2	10,8	16	4420	3280	4123	3060	3825	2838	3519	2611	3237	2402
	13,6	23	5200	3859	4851	3599	4500	3339	4142	3072	3809	2826
	17,1	36	5720	4244	5336	3959	4950	3673	4554	3379	4190	3109
	20,5	45	6136	4553	5724	4247	5310	3940	4885	3625	4494	3335
MCFC-102-DT2	13,3	19	5304	4411	4948	4107	4590	3803	4223	3499	3885	3196
	15,2	26	6240	4914	5821	4573	5400	4236	4968	3899	4571	3559
	21	43	6864	5267	6403	4912	5940	4548	5465	4179	5028	3815
	25,3	53	7364	5537	6869	5154	6372	4772	5862	4389	5393	4011
MCFC-119-DT2	16,9	23	6188	4668	5773	4168	5355	3866	4927	3557	4533	3273
	20,2	27,6	7280	5257	6791	4904	6300	4548	5796	4185	5333	3850
	24,3	46	8008	5782	7470	5394	6930	5003	6376	4603	5866	4235
	29,5	56	8591	6203	8014	5786	7434	5368	6839	4938	6292	4544
MCFC-136-DT2	18	24	7072	5732	6597	5336	6120	4940	5630	4545	5180	4149
	22,3	28	8320	6407	7762	5961	7200	5523	6624	5077	6094	4631
	28,4	48	9152	6839	8538	6365	7920	5897	7286	5429	6703	4948
	34,2	58	9818	7141	9159	6652	8496	6156	7816	5674	7191	5178
MCFC-170-DT2	21,2	28	8840	6498	8247	9061	7650	5623	7038	5173	6475	4759
	26,5	32	10401	7644	9702	7131	9000	6615	8280	6086	7618	5599
	33,5	52	11441	8409	10672	7844	9900	7277	9108	6694	8379	6159
	40,3	60	12273	9020	11448	8415	10620	7806	9770	7181	8989	6607
MCFC-204-DT2	25,6	32	10609	7575	9896	7066	9180	6555	8446	6030	7770	5548
	30	38	12481	8911	11642	8313	10800	7711	9936	7094	9141	6527
	40,4	56	13729	9802	12807	9144	11880	8482	10930	7804	10055	7179
	48,6	64	14727	10515	13738	9809	12744	9099	11724	8371	10787	7702
MCFC-238-DT2	29,3	36	12377	9295	11545	8671	10710	8043	9583	7400	9065	6808
	36,2	42	14561	10935	13583	10201	12600	9463	11592	8706	10665	8009
	46,2	59	16017	12029	14941	11221	13860	10409	12751	9576	11731	8810
	55,6	68	17182	12903	16028	12037	14868	11166	13679	10073	12584	9151

Note: the above table is the cooling capacity at high speed, the cooling capacity at medium speed and low speed is the value in the above table multiplied by the speed correction factor.

DB — Dry bulb temperature °C
WB — Wet bulb temperature °C
TH — Total heat W
SH — Sensible heat W

Speed correction factor			
Medium		Low	
TH	SH	TH	SH
0,87	0,85	0,69	0,65

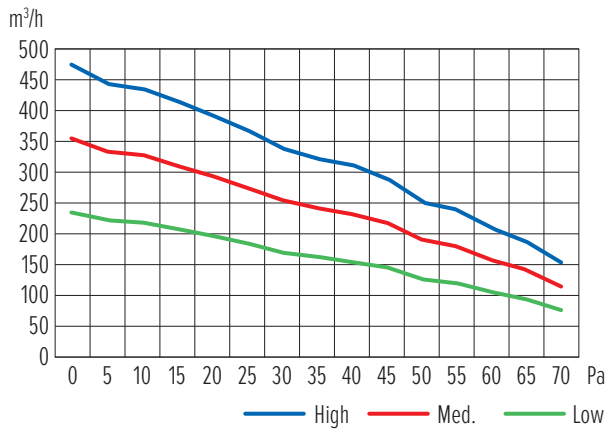
Correction for glycol

Mass fraction of glycol	Volume fraction of glycol	Freezing point	Density	Density	Specific heat capacity	Specific heat capacity	Increase in volume
%	%	°C	at 50 °C, kg/dm ³	at 100 °C, kg/dm ³	kJ/kg·°K	kJ/kg·°K	0→100 °C, %
5	4.8	0	0.989	0.958	4.18	4.20	4.33
10	9.6	-4	1.000	0.970	4.10	4.12	5.00
20	19.4	-10	1.012	0.980	3.95	4.05	5.40
30	27.4	-17	1.025	0.991	3.81	3.92	5.60
34	33.4	-21	1.030	0.994	3.73	3.86	5.85
40	39.6	-25	1.037	1.000	3.60	3.78	6.20
44	43.7	-30	1.041	1.004	3.50	3.73	6.32
50	49.5	-37	1.047	1.010	3.45	3.65	6.50
max. 52	51.6	-40	1.050	1.012	3.42	3.62	6.51

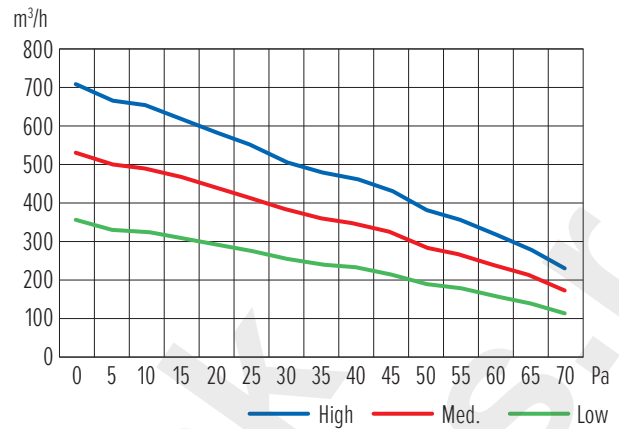
2.2.5. Fan characteristics

Model		Standard value	Static pressure (Pa)														
		Air flow rate (m ³ /h)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
MCFC-034-DT2	High	340	473	445	435	415	391	367	340	323	309	289	255	238	210	187	153
	Medium	340	354	334	326	311	293	275	255	242	232	216	191	178	158	140	114
	Low	340	236	223	218	207	196	184	170	161	154	144	127	119	105	93	76
MCFC-051-DT2	High	510	709	668	653	622	587	551	510	484	464	433	382	357	316	280	229
	Medium	510	532	501	490	467	440	413	382	363	348	325	286	267	237	210	172
	Low	510	354	334	326	311	293	275	255	242	232	216	191	178	158	140	114
MCFC-068-DT2	High	680	945	891	870	830	782	734	680	646	618	578	510	476	421	374	306
	Medium	680	709	668	653	622	587	551	510	484	464	433	382	357	316	280	229
	Low	680	473	445	435	415	391	367	340	323	309	289	255	238	210	187	153
MCFC-085-DT2	High	850	1063	1003	969	935	918	876	850	816	773	756	722	671	629	578	527
	Medium	850	797	752	727	701	689	657	637	612	580	567	541	503	471	433	395
	Low	850	531	502	485	468	459	438	425	408	386	378	361	335	314	289	263
MCFC-102-DT2	High	851	1275	1204	1163	1122	1102	1051	1020	979	928	907	867	805	754	693	632
	Medium	851	956	903	872	842	826	788	765	734	696	680	650	604	566	520	474
	High	851	638	602	581	561	551	525	510	489	464	453	433	402	377	346	316
MCFC-136-DT2	Medium	852	1700	1605	1550	1496	1469	1401	1360	1305	1237	1210	1156	1074	1006	924	843
	Low	852	1275	1204	1163	1122	1102	1051	1020	979	928	907	867	805	754	693	632
	Низ.	852	850	802	775	748	734	700	680	652	618	605	578	537	503	462	421
MCFC-170-DT2	High	853	2125	2006	1938	1870	1836	1751	1700	1632	1547	1513	1445	1343	1258	1156	1054
	Medium	853	1594	1505	1454	1403	1377	1313	1275	1224	1160	1134	1083	1007	943	867	790
	Low	853	1063	1003	969	935	918	876	850	816	773	756	722	671	629	578	527
MCFC-204-DT2	High	2040	2387	2305	2244	2203	2162	2101	2040	1958	1897	1815	1734	1652	1591	1509	1428
	Medium	2040	1790	1729	1683	1652	1622	1576	1530	1468	1422	1361	1300	1239	1193	1132	1071
	Low	2040	1193	1153	1122	1102	1081	1051	1020	979	948	907	867	826	795	754	714
MCFC-238-DT2	High	2380	2785	2689	2618	2570	2523	2451	2380	2284	2213	2118	2023	1927	1856	1761	1666
	Medium	2380	2088	2017	1964	1928	1892	1839	1785	1713	1660	1588	1517	1445	1392	1320	1249
	Low	2380	1392	1345	1309	1285	1261	1226	1190	1142	1106	1059	1011	963	928	880	833

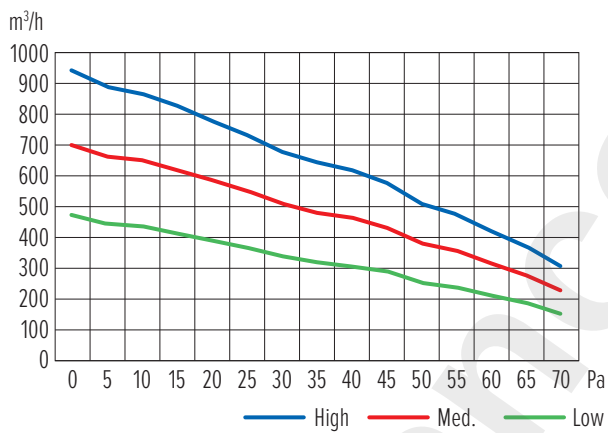
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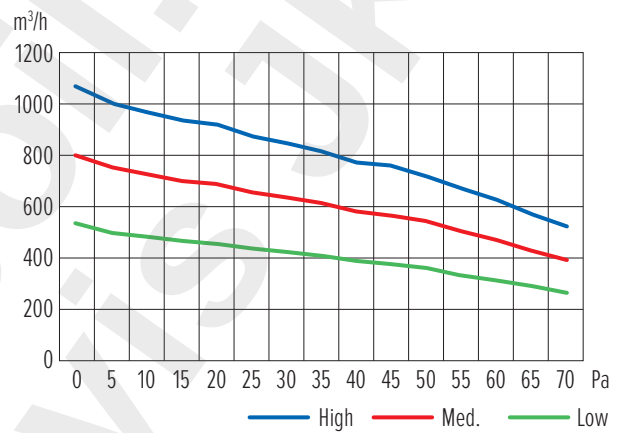
MCFC-051-DT2



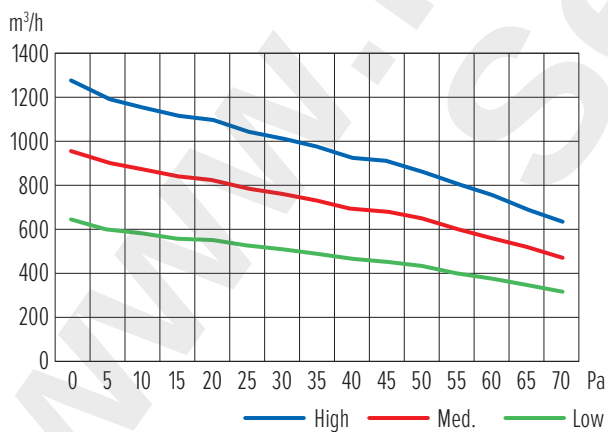
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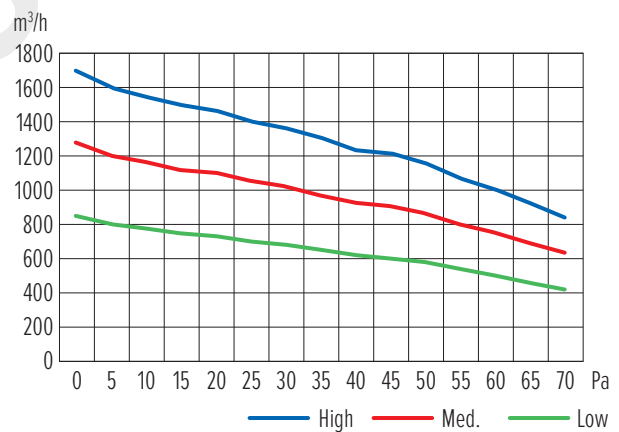
MCFC-085-DT2



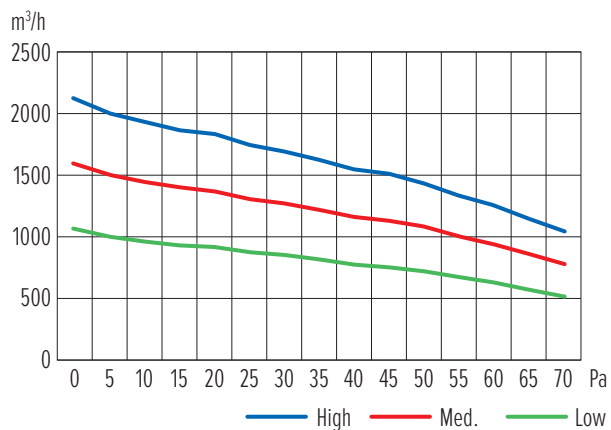
MCFC-102-DT2



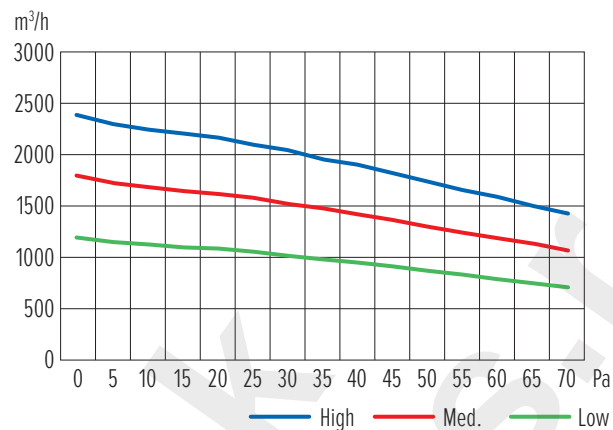
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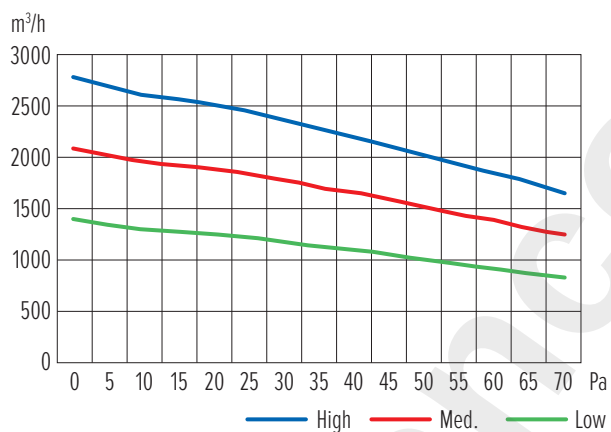
MCFC-170-DT2



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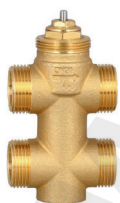


MCFC-238-DT2



2.3. ADDITIONAL COMPONENTS

Electric three-way valve



Valve actuator



Mycond Block thermostat



www.fancoil.sk
Servis JK S.r.o.

MYCOND LIMITED

info@mycond.eu