



TECHNICAL MANUAL

4-WAY CASSETTE FAN COIL UNITS MCFK SERIES

Please read this manual before operating this unit
and keep it securely for future reference.

I. UNIT APPEARANCE

Series	Range of the Air Volume(CFM)							
4-Way Cassette								
	MC FK-03T2	MC FK-04T2	MC FK-05T2	MC FK-06T2	MC FK-08T2	MC FK-10T2	MC FK-12T2	MC FK-14T2

II. UNIT

2.1. FEATURE

Four-way cassette fan coil unit is installed under the ceiling, compared with Floor & Standing type A/C, it has following advantages: saving room space; ceiling installation combining with the decoration, makes the room more elegant; flexible installation in anywhere in the ceiling and 4-direction blowing, makes the indoor temperature is even and makes you feel more comfortable, so cassette type A/C is a perfect replacing Product of floor & standing type A/C.

Application occasions:

Small supermarkets, restaurants, offices, meeting rooms, villas, meeting rooms, livingrooms and so on, and it can even be used as the updating product for modern residential A/C.

Features:

- Concealed design, ceiling installation, room space saving, it is very suitable for family or office occasion;
- With Setting or Auto two operation modes, four-way blowing, strong circulating wind, multi wind speed, the cooling or heating capacity can reach to each corner of the room;
- One-step formed shell by mold, appearance is elegant;
- Special insulation design, achieves high heat insulation efficiency, and no condensation on shell;
- Built-in drain pump, drain-head height is up to 1.2meters, creating the ideal solution for perfect water drainage, also construction and installation is much easier and convenient;
- Long term air filter, wash period is two times longer than normal filter, and maintenance is free;
- 3D helix air blade ensures the air flow sufficiently, reduces the unit thickness, and reduces the operation noise greatly;
- Plastic drip tray adopts innovative foam-PS combined with plastic technical, the thickness of plastic reaches 1mm, avoid any leakage;
- 6 segments heat exchanger, increase exchanging area, the efficiency of heat exchanging increased by 10%~15%;
- Ingenious hook design, the panel is convenient to install or remove;
- Fresh air intake design, leading in fresh air to improve indoor air quality anytime;
- Auto-restart function;
- Standard wireless remote controller and optional wired controller;
- Failure automatic detection, if there is a failure, the indicator will flash and the failure code will display on the wired controller, the failure cause is easier to be found.

2.2. SPECIFICATION

Model			MCFK-03T2	MCFK-04T2	MCFK-05T2	MCFK-06T2	MCFK-08T2	MCFK-10T2	MCFK-12T2	MCFK-14T2
Air flow rate	Hi Speed	CFM	300	400	500	600	800	1000	1200	1400
		m ³ /h	510	680	850	1020	1360	1700	2040	2380
	Medium Speed	CFM	259	341	429	450	600	750	900	1050
		m ³ /h	440	580	730	765	1020	1275	1530	1785
	Low Speed	CFM	212	282	353	300	400	500	600	700
		m ³ /h	360	480	600	510	680	850	1020	1190
Cooling Capacity	Hi Speed	W	3300	3900	4500	5406	7210	9018	10810	12611
	Medium Speed	W	2840	3350	3600	4595	6129	7665	9189	10719
	Low Speed	W	2380	2810	3060	3514	4687	5862	7027	8197
Heating Capacity	Hi Speed	W	4800	5800	6750	8115	10807	13512	16205	18901
	Medium Speed	W	4200	5100	5940	6898	9186	11485	13774	16066
	Low Speed	W	3700	4500	5200	5275	7025	8783	10553	12286
Noise Level		dB(A)	≤39	≤42	≤45	≤44	≤45	≤48	≤50	≤52
Fan Motor	Fan Quantity		1	1	1	1	1	1	1	1
	Motor Quantity		1	1	1	1	1	1	1	1
	Power Input	W	55	62	76	90	131	145	186	225
Water Flow Rate		Kg/h	620	700	940	1150	1400	1680	1820	2245
Water pressure drop		kPa	26	27	29	31	34	36	39	44
Max. Working pressure		MPa	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Dimension (W×D×H)	Net (Body)	mm	570×570×260			835×835×240		835×835×280		
	Packing (Body)	mm	650×650×290			910×910×310		910×910×350		
	Net (Panel)	mm	650×650×55			950×950×55		950×950×55		
	Packing (Panel)	mm	710×710×80			1000×1000×100		1000×1000×100		
Weight	Net/Gross (Body)	kg	18/20.3	18/20.3	18/20.3	24.5/28	25.5/29	26.5/31	28/32.5	28/32.5
	Net/Gross (Panel)	kg	3/5	3/5	3/5	5/7	5/7	5/7	5/7	5/7
Inlet/Outlet Water Pipe			R3/4"(DN20)			Rc3/4"(DN20)				
Drain Pipe			R3/4"(DN20)			R3/4"(DN20)				
Stuffing Quantity (20/40/40H)			135/264/306			96/200/224		84/176/200		

Note:

1. Cooling capacity test conditions: Air inlet temp.: 27°C DB/19.5°C WB, Water inlet/outlet temp.: 7/12°C.
2. Heating capacity test conditions: Air inlet temp.: 21°C DB, Water inlet/outlet temp.: 60/55°C.
3. Noise level is tested in full-anechoic room.
4. Parameters above may be modified as product improvement. We keep the right to change the product specifications without prior notice.

2.3. CAPACITY AMENDMENT

2.3.1. Table of variable working condition performance for cooling capacity

Table of variable working condition performance parameter under cooling mode

Unit: W

Air inlet temperature °C			26°C DB/18.7°C WB						27°C DB/19°C WB					
Water inlet temperature °C			5		7		9		5		7		9	
Model (CFM)	Water flow rate (kg/h)	Water pressure drop (kPa)	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
MCFK-03T2	300	3.5	2371	1797	2096	1685	1797	1472	2421	1897	2210	1785	1860	1560
	400	5.9	2705	2020	2381	1870	2044	1633	2779	2132	2455	1970	2118	1733
	500	8.7	3184	2165	2811	1991	2426	1729	3258	2264	2886	2089	2500	1853
	600	12	3361	2133	2991	1954	2573	1693	3445	2240	3027	2061	2657	1800
MCFK-04T2	430	8.1	2794	2117	2471	1984	2117	1735	2852	2235	2602	2103	2190	1838
	550	11.5	3186	2379	2805	2203	2408	1924	3275	2512	2893	2321	2496	2042
	650	15.5	3753	2551	3314	2347	2860	2038	3842	2669	3402	2463	2947	2185
	750	20	4395	2790	3912	2556	3366	2213	4505	2930	3959	2696	3475	2353
MCFK-05T2	600	18	3217	2439	2844	2286	2439	1998	3285	2573	2997	2422	2522	2117
	700	24	3668	2739	3229	2535	2773	2214	3770	2890	3330	2671	2874	2350
	800	30	4115	2797	3632	2571	3134	2234	4210	2925	3729	2700	3230	2395
	900	37	4534	2878	4036	2637	3473	2283	4647	3023	4084	2782	3585	2428
MCFK-06T2	750	21.5	3860	2925	3413	2742	2925	2397	3941	3088	3596	2905	3027	2539
	850	26.8	4299	3209	3784	2971	3249	2595	4418	3387	3903	3130	3368	2754
	950	32.7	4768	3241	4209	2980	3632	2589	4879	3390	4321	3129	3743	2775
	1050	39	5194	3297	4623	3021	3978	2615	5323	3463	4678	3186	4107	2781
MCFK-08T2	900	14.8	5901	4472	5217	4193	4472	3665	6025	4721	5497	4441	4627	3882
	1100	21	6492	4847	5714	4488	4906	3919	6672	5116	5894	4727	5086	4158
	1300	28	7654	5202	6757	4783	5830	4156	7833	5441	6936	5023	6009	4455
	1500	36	8129	5160	7235	4727	6226	4093	8330	5419	7321	4987	6428	4353
MCFK-10T2	1200	23	7107	5386	6284	5050	5386	4414	7256	5685	6621	5349	5573	4676
	1400	30	8113	6056	7141	5608	6131	4897	8337	6393	7365	5907	6356	5197
	1600	38	9566	6502	8445	5979	7287	5194	9790	6801	8669	6278	7511	5568
	1800	46.8	10675	6776	9501	6208	8177	5375	10940	7117	9615	6549	8442	5716
MCFK-12T2	1500	29	8727	6614	7717	6201	6614	5420	8911	6982	8130	6568	6844	5742
	1700	36	9931	7414	8741	6865	7506	5995	10206	7826	9016	7231	7780	6361
	1900	42	11938	8114	10539	7461	9093	6482	12217	8487	10819	7834	9373	6948
	2100	48	12423	7885	11057	7225	9515	6255	12731	8281	11189	7621	9824	6652
MCFK-14T2	1800	30	9394	7120	8307	6675	7120	5834	9592	7515	8752	7070	7367	6180
	2000	37	10026	7485	8825	6931	7578	6053	10304	7901	9102	7300	7855	6422
	2200	43	12756	8670	11261	7972	9716	6926	13055	9068	11560	8371	10015	7424
	2400	50	13296	8440	11834	7732	10184	6695	13626	8864	11976	8157	10514	7120

Variable working condition performance parameter table (continued)

Unit: W

Air inlet temperature °C			27°C DB/19.5°C WB						28°C DB/22°C WB					
Water inlet temperature °C			5		7		9		5		7		9	
Model (CFM)	Water flow rate (kg/h)	Water pressure drop (kPa)	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
MCFK-03T2	300	3.5	2509	1860	2222	1723	2045	1716	3145	2331	2846	2206	2571	1907
	400	5.9	2879	2082	2555	1920	2224	1819	3602	2604	3278	2463	2954	2135
	500	8.7	3408	2239	3010	2053	2626	1946	4217	2771	3868	2638	3482	2288
	600	12	3564	2217	3194	2014	2790	1890	4469	2780	4076	2570	3647	2268
MCFK-04T2	430	8.1	2956	2190	2617	2029	2410	2022	3705	2747	3352	2599	3029	2245
	550	11.5	3392	2452	3011	2262	2622	2143	4244	3069	3862	2902	3481	2516
	650	15.5	4017	2640	3549	2420	3095	2294	4971	3265	4561	3110	4106	2697
	750	20	4660	2899	4177	2634	3650	2471	5845	3636	5330	3361	4769	2966
MCFK-05T2	600	18	3404	2522	3014	2337	2776	2328	4267	3163	3860	2993	3488	2585
	700	24	3905	2823	3466	2603	3018	2468	4885	3532	4446	3340	4007	2896
	800	30	4404	2893	3889	2652	3392	2514	5449	3579	4998	3408	4500	3108
	900	37	4807	2991	4309	2717	3765	2549	6030	3751	5498	3468	4920	3061
MCFK-06T2	750	21.5	4083	3027	3616	2803	3330	2793	5119	3795	4632	3591	4185	3102
	850	26.8	4576	3308	4061	3051	3536	2891	5725	4139	5210	3914	4695	3478
	950	32.7	5103	3352	4507	3073	3931	2914	6314	4148	5792	3949	5215	3730
	1050	39	5507	3426	4936	3113	4313	2920	6907	4296	6299	3972	5636	3506
MCFK-08T2	900	14.8	6242	4627	5528	4286	5090	4270	7826	5801	7081	5490	6398	4571
	1100	21	6911	4996	6133	4607	5340	4366	8646	6251	7868	5911	7090	5126
	1300	28	8192	5381	7235	4933	6310	4677	10135	6658	9298	6339	8371	5499
	1500	36	8619	5361	7725	4871	6749	4570	10809	6724	9858	6216	8820	5487
MCFK-10T2	1200	23	7518	5573	6658	5162	6131	5143	9426	6987	8528	6612	7705	5712
	1400	30	8636	6243	7664	5757	6673	5456	10804	7811	9832	7386	8860	6406
	1600	38	10239	6726	9043	6166	7886	5846	12668	8322	11621	7924	10463	6873
	1800	46.8	11318	7041	10145	6397	8863	6002	14195	8831	12946	8164	11583	7206
MCFK-12T2	1500	29	9232	6844	8176	6339	7528	6316	11575	8580	10473	8119	9462	6843
	1700	36	10572	7643	9382	7048	8169	6680	13226	9562	12036	9042	10847	7674
	1900	42	12777	8394	11285	7694	9842	7296	15808	10385	14503	9888	13057	8578
	2100	48	13172	8194	11806	7445	10315	6984	16520	10276	15066	9500	13480	7888
MCFK-14T2	1800	30	9938	7367	8801	6823	8104	6799	12460	9236	11273	8740	10185	7207
	2000	37	10673	7716	9472	7116	8248	6744	13353	9654	12152	9129	10951	8084
	2200	43	13652	8969	12058	8221	10516	7795	16891	11096	15496	10565	13951	9393
	2400	50	14098	8770	12636	7968	11040	7476	17681	10999	16125	10168	14428	8975

2.3.2. Table of variable working condition performance for heating capacity

Table of variable working condition performance parameter under heating mode

Unit: W

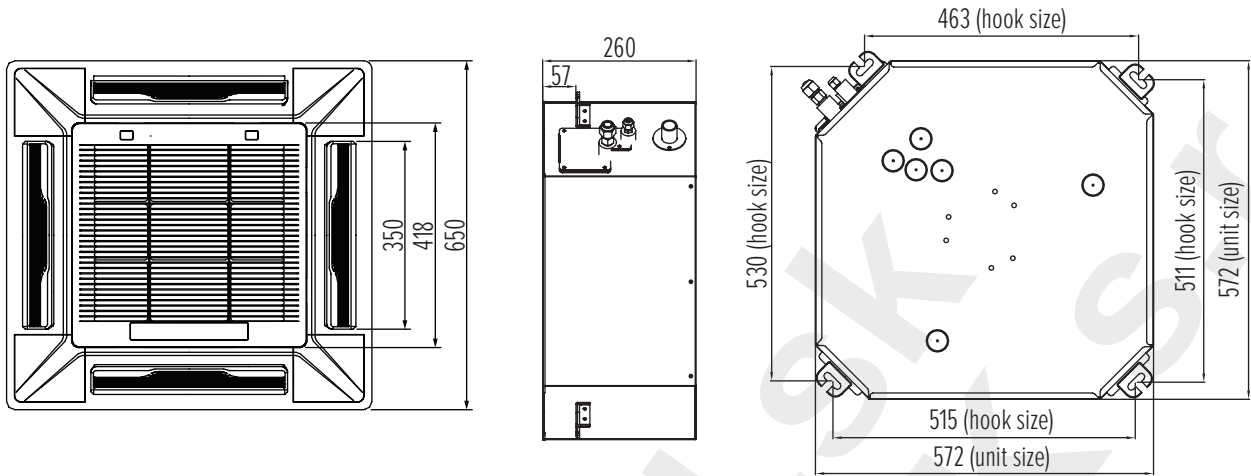
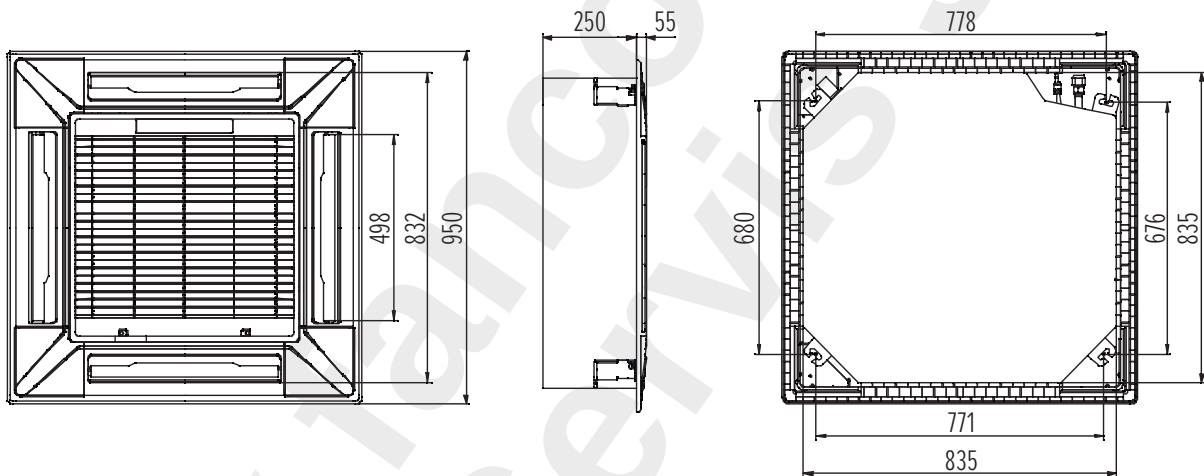
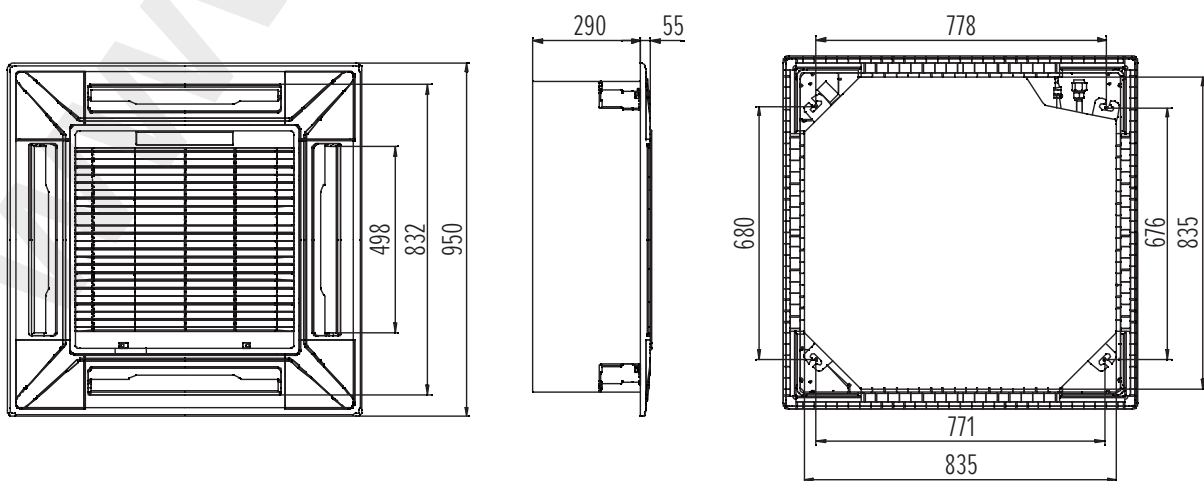
Air inlet temperature °C			18°C DB						20°C DB					
Water inlet temperature °C			40	45	50	60	70	80	40	45	50	60	70	80
Model (CFM)	Water flow rate (kg/h)	Water pressure drop (kPa)												
MCFK-03T2	300	3.5	2247	2754	3274	4290	5305	6334	2044	2564	3058	4087	5115	6131
	400	5.9	2345	2876	3418	4480	5553	6613	2135	2666	3196	4270	5330	6405
	500	8.7	2466	3032	3586	4705	5836	6942	2250	2804	3369	4500	5607	6738
	600	12	2622	3232	3817	5000	6195	7389	2390	2976	3586	4767	5963	7158
MCFK-04T2	430	8.1	2709	3322	3949	5174	6398	7638	2464	3091	3689	4928	6169	7393
	550	11.5	2907	3566	4239	5555	6886	8203	2647	3306	3964	5294	6611	7943
	650	15.5	3202	3936	4655	6108	7576	9013	2921	3640	4374	5843	7279	8748
	750	20	3507	4323	5105	6687	8285	9884	3196	3980	4795	6377	7976	9574
MCFK-05T2	600	18	3150	3861	4592	6015	7439	8881	2865	3595	4289	5731	7172	8596
	700	24	3268	4008	4764	6244	7740	9219	2976	3715	4455	5951	7431	8927
	800	30	3477	4274	5054	6632	8226	9787	3172	3952	4749	6343	7903	9498
	900	37	3647	4495	5310	6955	8618	10280	3325	4139	4988	6633	8295	9957
MCFK-06T2	750	21.5	3832	4698	5586	7318	9050	10803	3486	4373	5218	6971	8725	10457
	850	26.8	4005	4911	5838	7651	9485	11297	3646	4553	5459	7293	9105	10939
	950	32.7	4098	5038	5958	7817	9696	11535	3738	4658	5598	7477	9316	11195
	1050	39	4181	5153	6087	7973	9879	11784	3811	4745	5717	7603	9509	11415
MCFK-08T2	900	14.8	5284	6478	7701	10089	12477	14895	4806	6030	7194	9612	12030	14418
	1100	21	5671	6954	8267	10834	13431	15998	5163	6447	7730	10327	12894	15490
	1300	28	6117	7520	8892	11668	14473	17218	5580	6953	8355	11160	13906	16711
	1500	36	6548	8071	9533	12487	15472	18457	5970	7431	8954	11909	14893	17878
MCFK-10T2	1200	23	6597	8088	9616	12597	15579	18598	6001	7529	8982	12001	15020	18002
	1400	30	7086	8690	10331	13538	16783	19991	6452	8056	9660	12904	16112	19357
	1600	38	7645	9398	11113	14581	18087	21517	6974	8689	10442	13947	17378	20884
	1800	46.8	8169	10069	11893	15579	19303	23026	7447	9271	11171	14857	18581	22304
MCFK-12T2	1500	29	7916	9705	11539	15116	18694	22317	7200	9034	10778	14401	18023	21601
	1700	36	8490	10412	12378	16221	20109	23952	7731	9652	11574	15461	19305	23192
	1900	42	9554	11744	13888	18222	22603	26890	8715	10859	13049	17430	21717	26098
	2100	48	9612	11848	13994	18331	22712	27093	8763	10909	13144	17481	21863	26244
MCFK-14T2	1800	30	8795	10782	12819	16795	20770	24794	8000	10037	11975	16000	20024	23999
	2000	37	9440	11576	13762	18035	22358	26630	8595	10732	12868	17190	21463	25785
	2200	43	10460	12858	15205	19951	24747	29441	9542	11889	14287	19083	23777	28573
	2400	50	10849	13372	15795	20689	25635	30580	9891	12313	14835	19730	24676	29621

Table of c variable working condition performance parameter under heating mode (continued)

Unit: W

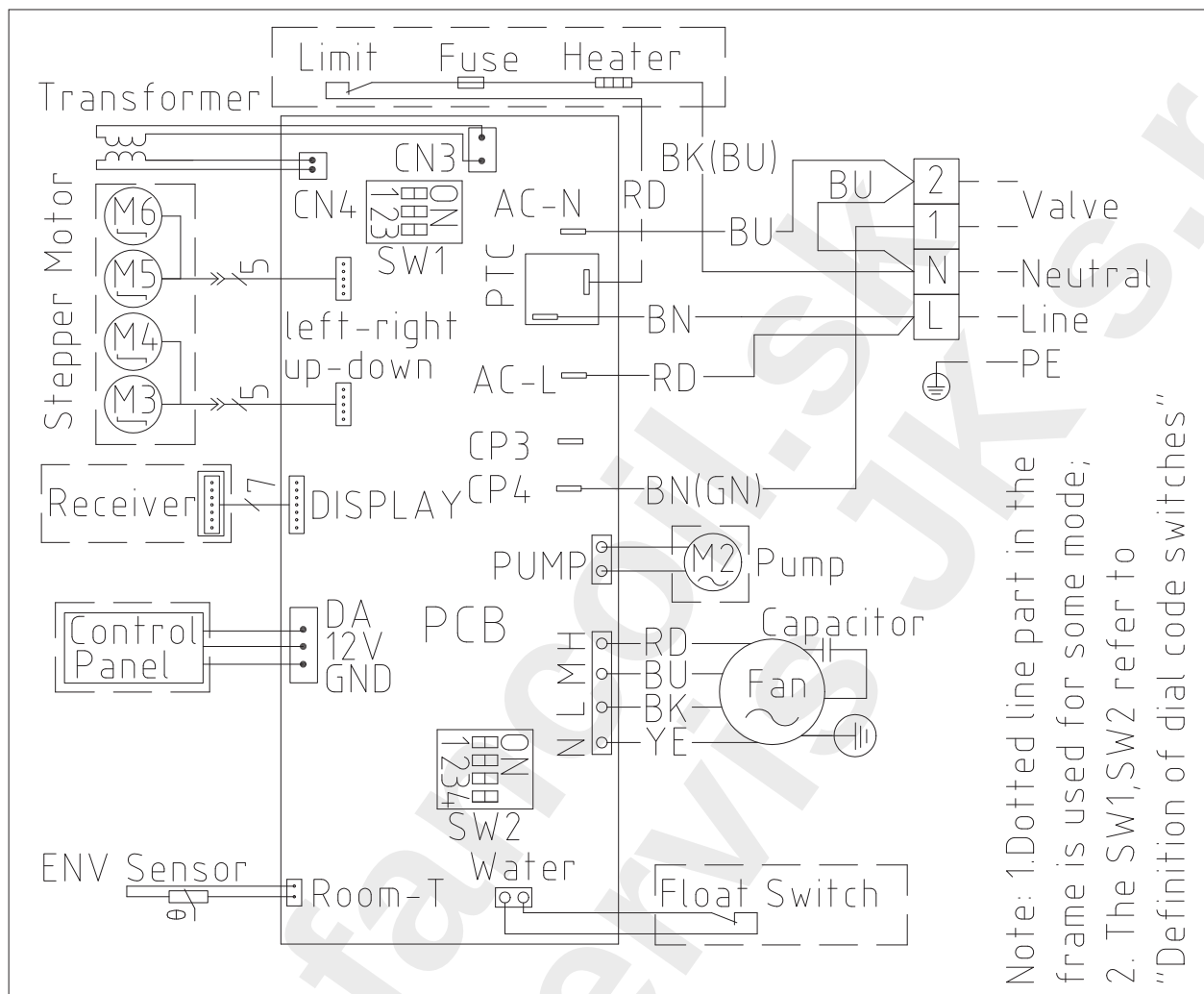
Air inlet temperature °C			21°C DB						22°C DB					
Water inlet temperature °C			40	45	50	60	70	80	40	45	50	60	70	80
Model (CFM)	Water flow rate (kg/h)	Water pressure drop (kPa)												
MCFK-03T2	300	3.5	1954	2450	2957	3985	5014	6017	1840	2335	2856	3884	4900	5915
	400	5.9	2024	2567	3097	4171	5232	6306	1913	2456	2986	4047	5121	6182
	500	8.7	2130	2695	3248	4368	5499	6605	2022	2575	3140	4259	5378	6510
	600	12	2280	2866	3463	4646	5841	7036	2147	2743	3329	4525	5719	6926
MCFK-04T2	430	8.1	2357	2954	3567	4806	6046	7256	2219	2816	3444	4684	5909	7134
	550	11.5	2510	3184	3841	5172	6488	7820	2372	3045	3704	5019	6351	7667
	650	15.5	2765	3499	4218	5670	7139	8575	2625	3343	4077	5530	6983	8450
	750	20	3050	3833	4632	6214	7812	9410	2871	3670	4452	6051	7649	9264
MCFK-05T2	600	18	2740	3434	4147	5588	7030	8436	2581	3275	4004	5446	6870	8293
	700	24	2821	3577	4317	5814	7293	8789	2666	3423	4163	5641	7138	8618
	800	30	3002	3800	4580	6157	7751	9312	2849	3630	4427	6004	7581	9175
	900	37	3172	3986	4817	6463	8126	9788	2986	3817	4631	6293	7955	9635
MCFK-06T2	750	21.5	3334	4178	5044	6798	8552	10262	3139	3984	4871	6625	8357	10089
	850	26.8	3457	4384	5290	7124	8937	10770	3267	4194	5101	6913	8747	10560
	950	32.7	3539	4478	5398	7257	9136	10975	3359	4278	5218	7077	8936	10816
	1050	39	3636	4570	5523	7409	9315	11220	3423	4375	5309	7215	9120	11045
MCFK-08T2	900	14.8	4597	5761	6955	9373	11791	14149	4328	5492	6716	9134	11522	13910
	1100	21	4895	6208	7491	10088	12655	15251	4626	5939	7223	9790	12386	14953
	1300	28	5282	6684	8057	10832	13637	16382	5013	6386	7788	10563	13339	16144
	1500	36	5695	7157	8650	11604	14589	17574	5360	6853	8315	11299	14284	17299
MCFK-10T2	1200	23	5740	7193	8684	11703	14722	17666	5404	6858	8386	11405	14386	17368
	1400	30	6117	7758	9361	12606	15813	19058	5781	7422	9026	12233	15478	18685
	1600	38	6600	8353	10069	13537	17042	20473	6265	7980	9733	13201	16670	20175
	1800	46.8	7105	8929	10791	14477	18201	21924	6688	8549	10373	14097	17821	21583
MCFK-12T2	1500	29	6887	8632	10420	14043	17666	21199	6485	8229	10063	13685	17263	20841
	1700	36	7328	9295	11216	15104	18947	22835	6926	8893	10814	14657	18545	22388
	1900	42	8248	10439	12583	16917	21298	25585	7829	9973	12163	16498	20832	25212
	2100	48	8360	10507	12697	17034	21415	25797	7869	1059	12205	16587	20968	25395
MCFK-14T2	1800	30	7652	9590	11577	15602	19627	23552	7205	9143	11180	15204	19180	23155
	2000	37	8148	10334	12471	16793	21066	25388	7701	9887	12023	16296	20619	24891
	2200	43	9031	11430	13777	18522	23318	28013	8572	10919	13317	18063	22808	27604
	2400	50	9436	11859	14331	19226	24171	29117	8881	11354	13776	18721	23667	28662

2.4. DIMENSION

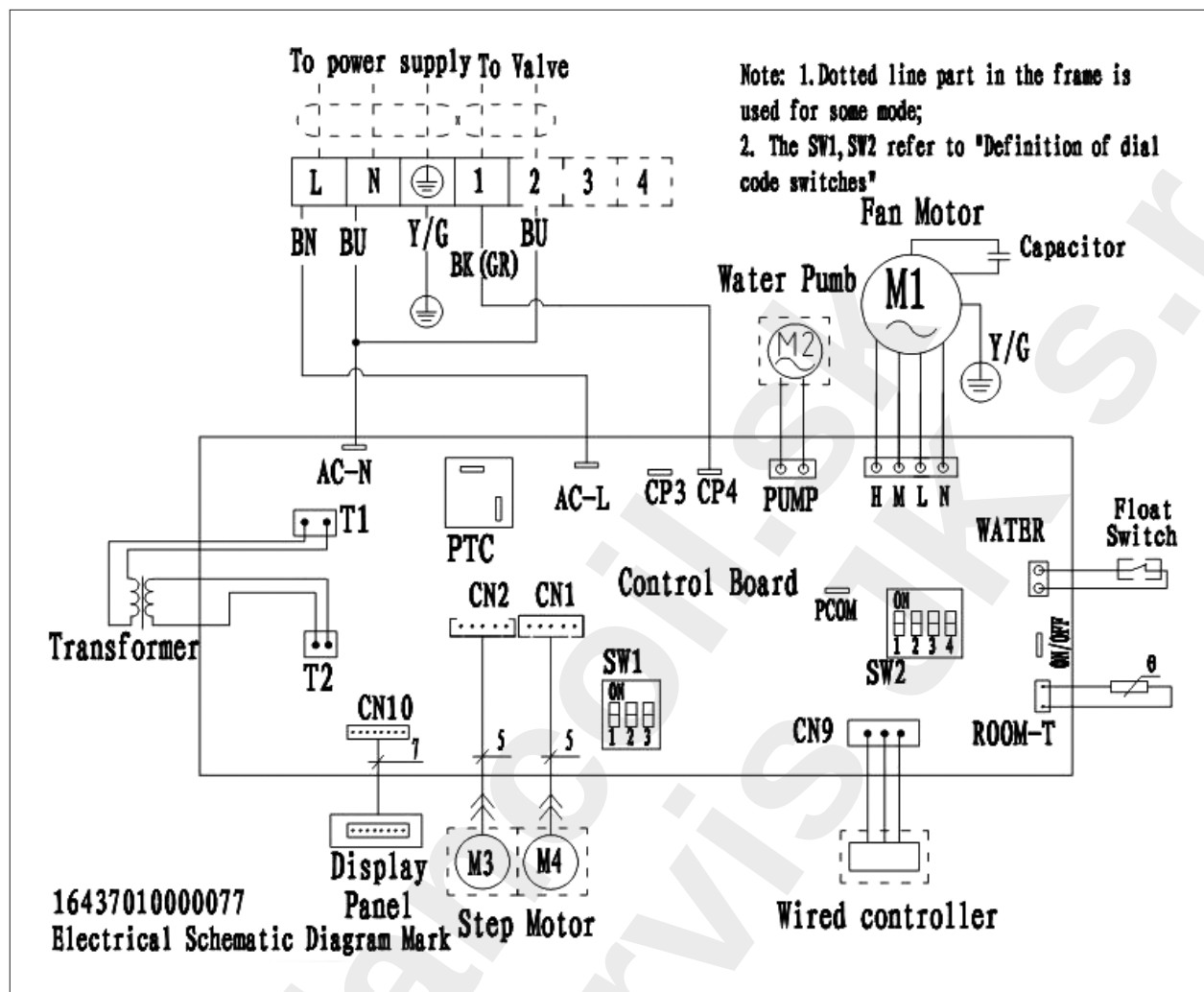
MCFK-03T2, MCFK-04T2, MCFK-05T2**MCFK-06T2, MCFK-08T2****MCFK-10T2, MCFK-12T2, MCFK-14T2**

2.5. ELECTRICAL WIRING AND CONNECTION

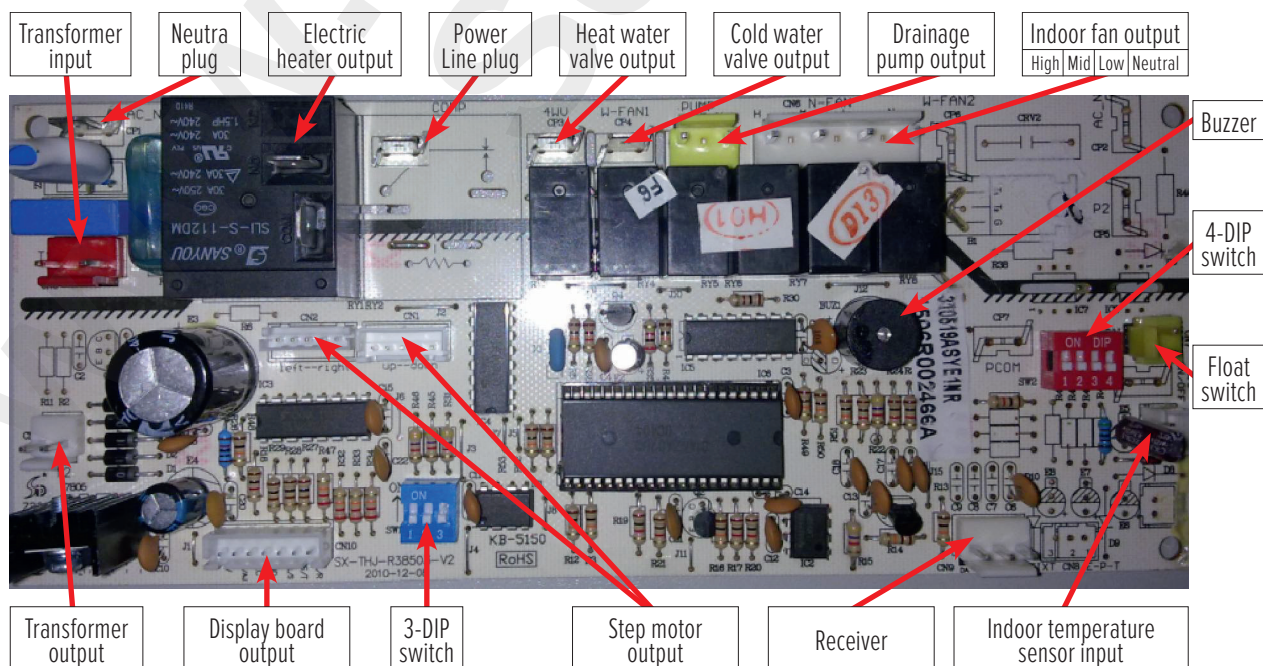
MCFK-03T2, MCFK-04T2, MCFK-05T2



MCFK-06T2, MCFK-08T2, MCFK-10T2, MCFK-12T2, MCFK-14T2



Introduction of control board QFPD-3F-HCE2 (PCB) sockets



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