

FAN COIL UNITS



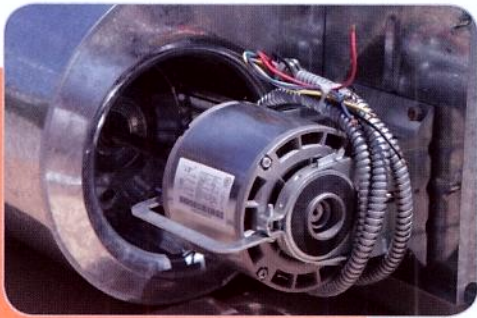
MODEL CF - FEATURES

CF Model Fan Coil Units can provide the maximum economy and air conditioned comfort.

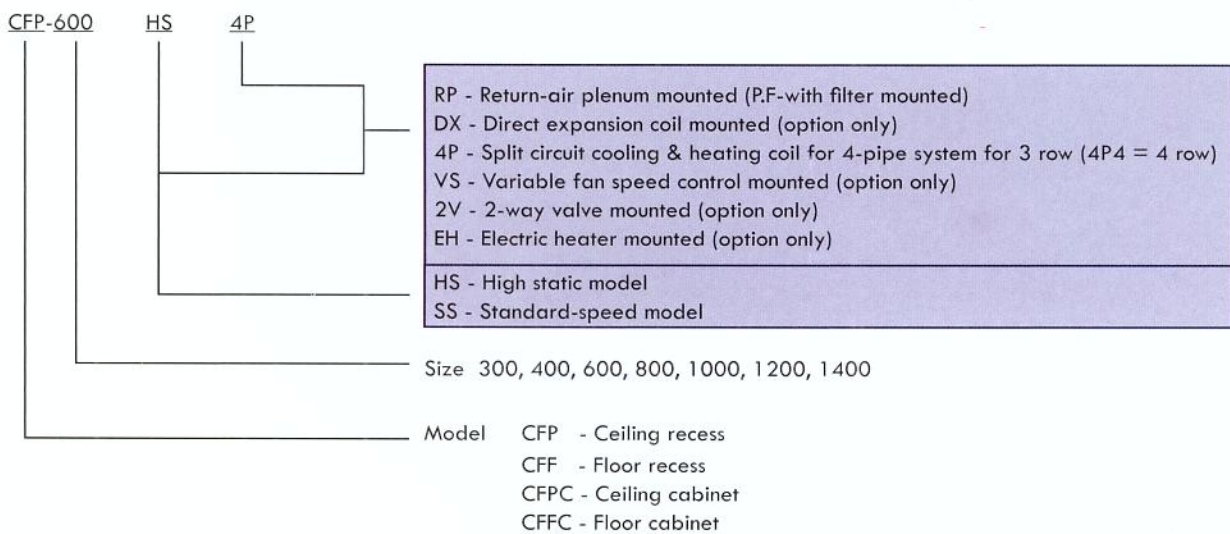
- Versatile selections allowed for required condition:
 CF-SS - Standard static external static pressure of <50Pa. Good for hotels, offices and hospitals.
 CF-HS - High static external static pressure to 100Pa. Ducted applications for shops and restaurants.
 CF-EH - Electric heater mounted.
- Quiet fan of Ø160mm fan wheel driven by factory assembled quality motor.
- 3-row, Ø3/8" dia copper tubes mechanically bonded to high-heat-transfer designed slit profile fins to give improved cooling/heating capacities.
- High quality, low noise, power saving PSC motor.

Construction

Units are fabricated from a rigid galvanized steel casing complete with well-balanced metal constructed DIDW fan(s) driven by PSC motor(s). 3-row standard coil (optional 2-row cooling/1-row heating split circuit for Model CFP-4P), and 5mm standard (optional 10mm) high density, self-fire-extinguishing insulation. For servicing purpose, the fan motor deck can be removed from the coil section at the rear section of the unit. Standard plenums can be fitted to the unit where required.



NOMENCLATURE



COLD MAGIC CHILLED WATER FAN COIL UNITS

MODEL	300	400	600	800	1000	1200	1400
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TYPE							
Sensible (Watt)	1990	3085	3920	5055	5885	7415	8425
Total (Watt)	2655	3990	5015	6845	7700	9500	10615
Water Flow Rate (l/s)	0.20	0.25	0.30	0.35	0.50	0.50	0.55
Water Press. Drop (kPa)	9	21	31	49	20	24	30

* Above data based on 7°C Entering Water and 24°C DB / 17.8°C WB (55% R.H) Air Entering Condition.

RATING CORRECTION															
Standard Static		CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS
Ext. Static Pressure	CF	0.91	0.9	0.93	0.93	0.93	0.92	0.93	0.92	0.92	0.91	0.94	0.93	0.93	0.92
(50Pa)	I/s	125		210		270		320		380		510		580	
High Static		CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS
Ext. Static Pressure	CF	0.8	0.77	0.79	0.77	0.8	0.77	0.83	0.81	0.78	0.75	0.79	0.77	0.84	0.82
(100Pa)	I/s	100		160		210		270		290		380		490	

* CT - Total Heat Capacity CS - Sensible Heat Capacity CF - Correction Factor.

* Above data based on High Speed.

FAN								
Fan Type	Metal Fabricated, DIDW Forward Curved Centrifugal Fan							
Number of Fan Wheel	1	2	2	3	3	4	4	
Nominal	HS	210	320	380	490	570	720	870
Air Volume l/s	SS	170	270	330	400	500	640	730

MOTOR								
Motor Type	3-Speed, Permanent Split Capacitor, Single-Phase							
Poer Supply	240V / 1Ph / 50Hz							
Number of Motor	1	1	1	1	2	2	2	
Maximum	HS	30	40	50	75	25 + 50	50 x 2	60 x 2
Power Input (Watt)	SS	25	35	45	55	25 + 45	45 x 2	55 x 2

COOLING COIL	
Coil Type	Rippled surface aluminium fins mechanically bonded to copper tubes, complete with water in/out sockets and manual air vent.
Tube Diameter	9.52mm (3/8")
Rows / Fins Per Metre	3 + 1, 4 / 470

NET WEIGHT (kg)	21	23	25	27	37	43	46
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CFP, CFF, CFPC, CFFC - COOLING CAPACITIES

ENTERING AIR CONDITIONING			DB=24°C		WB=17.8°C(RH=55%)		3-ROW COOLING CAPACITY IN WATT					
SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C									
			5		6		7		8		9	
			SH	TH	SH	TH	SH	TH	SH	TH	SH	TH
300	0.05	1	1630	1720	1580	1585	1450	1450	1315	1315	1180	1180
	0.10	3	1895	2425	1825	2235	1750	2045	1680	1860	1610	1670
	0.15	5	2090	2905	1995	2675	1905	2450	1820	2225	1730	1995
	0.20	9	2190	3145	2085	2900	1990	2655	1890	2410	1795	2165
400	0.10	5	2865	3430	2765	3165	2665	2895	2565	2625	2360	2360
	0.15	9	3125	4095	3000	3775	2875	3455	2755	3135	2635	2815
	0.20	14	3300	4530	3160	4175	3020	3820	2880	3465	2745	3115
	0.25	21	3385	4730	3235	4360	3085	3990	2940	3625	2800	3255
600	0.10	5	3505	3945	3395	3640	3280	3330	3020	3020	2715	2715
	0.15	10	3865	4880	3720	4500	3570	4115	3430	3735	3290	3355
	0.20	16	4120	5520	3950	5090	3780	4660	3615	4225	3450	3795
	0.30	31	4290	5940	4100	5475	3920	5015	3740	4550	3560	4085
800	0.15	12	4565	5605	4395	5170	4230	4730	4065	4290	3855	3855
	0.20	19	4920	6510	4720	6000	4520	5495	4325	4985	4135	4475
	0.25	28	5210	7230	4985	6665	4760	6100	4540	5535	4320	4970
	0.35	49	5575	8110	5310	7475	5055	6845	4800	6210	4555	5575
1000	0.20	4	5565	6895	5360	6355	5150	5815	4950	5275	4740	4740
	0.30	8	6010	8020	5760	7390	5515	6765	5275	6140	5040	5510
	0.40	13	6310	8765	6035	8080	5760	7395	5495	6710	5230	6025
	0.50	20	6460	9125	6170	8415	5885	7700	5600	6985	5330	6275
1200	0.20	5	6885	8130	6635	7490	6400	6855	6170	6200	5935	5585
	0.30	10	7540	9815	7235	9050	6940	8280	6645	7515	6360	6745
	0.40	16	7955	10860	7615	10010	7280	9160	6955	8315	6625	7465
	0.50	24	8120	11260	7765	10380	7415	9500	7070	8620	6735	7740
1400	0.20	5	7610	8495	7365	7830	7120	7170	6505	6505	5840	5840
	0.30	10	8330	10370	8015	9560	7705	8750	7405	7940	7105	7130
	0.40	17	8845	11680	8480	10765	8130	9855	7780	8940	7440	8030
	0.55	30	9205	12580	8815	11600	8425	10615	8045	9635	7670	8650

Note: SH: Sensible Heat (W) TH: Total Heat (W)

ENTERING AIR CONDITIONING			DB=26°C		WB=19.5°C(RH=55%)		3-ROW COOLING CAPACITY IN WATT					
SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C									
			5		6		7		8		9	
			SH	TH	SH	TH	SH	TH	SH	TH	SH	TH
300	0.05	1	1750	2030	1700	1890	1655	1750	1605	1610	1470	1470
	0.10	3	2055	2865	1980	2665	1910	2470	1840	2270	1765	2075
	0.15	5	2275	3425	2180	3190	2090	2955	2000	2715	1915	2480
	0.20	9	2390	3715	2285	3460	2185	3200	2085	2945	1990	2690
400	0.10	5	3100	4050	2995	3770	2895	3490	2795	3210	2695	2930
	0.15	9	3395	4835	3265	4500	3145	4170	3020	3835	2900	3500
	0.20	14	3590	5345	3445	4975	3305	4610	3170	4240	3035	3870
	0.25	21	3685	5585	3535	5200	3385	4815	3240	4430	3100	4045
600	0.10	5	3785	4660	3665	4335	3550	4015	3440	3695	3330	3370
	0.15	10	4185	5760	4040	5360	3895	4965	3750	4565	3605	4170
	0.20	16	4475	6515	4300	6065	4135	5620	3970	5170	3805	4720
	0.30	31	4670	7010	4480	6530	4295	6045	4115	5560	3935	5075
800	0.15	12	4940	6615	4770	6160	4605	5705	4440	5245	4275	4790
	0.20	19	5340	7685	5140	7155	4940	6625	4750	6095	4555	5565
	0.25	28	5670	8530	5440	7945	5215	7355	4995	6765	4775	6175
	0.35	49	6085	9570	5820	8910	5560	8250	5305	7590	5055	6930
1000	0.20	4	6025	8135	5820	7575	5610	7010	5410	6450	5205	5890
	0.30	8	6525	9460	6275	8810	6030	8155	5790	7505	5555	6850
	0.40	13	6870	10340	6590	9625	6315	8915	6050	8200	5785	7485
	0.50	20	7040	10770	6745	10025	6460	9285	6175	8540	5900	7800
1200	0.20	5	7435	9590	7195	8930	6955	8270	6715	7605	6485	6945
	0.30	10	8175	11580	7875	10785	7580	9985	7285	9185	6995	8385
	0.40	16	8650	12815	8310	11930	7970	11045	7645	10165	7320	9280
	0.50	24	8835	13285	8475	12370	8125	11455	7780	10535	7455	9620
1400	0.20	5	8205	10025	7960	9335	7710	8645	7470	7950	7235	7260
	0.30	10	9015	12235	8705	11395	8395	10550	8090	9705	7785	8860
	0.40	17	9600	1380	9235	12830	8885	11880	8535	10930	8190	9980
	0.55	30	10010	14845	9615	13825	9225	12800	8845	11775	8470	10750

Note: SH: Sensible Heat (W) TH: Total Heat (W)

CFP, CFF, CFPC, CFFC - HEATING CAPACITIES

ENTERING AIR CONDITIONING

DB=20°C

3-ROW HEATING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C							
			40	45	50	55	60	65	70	80
300	0.05	1	1532	1915	2298	2681	3064	3447	3830	4596
	0.10	3	2076	2595	3114	3633	4152	4671	5190	6228
	0.15	5	2378	2973	3567	4162	4756	5351	5945	7134
	0.20	9	2444	3055	3666	4277	4888	5499	6110	7332
400	0.10	5	3368	4210	5052	5894	6736	7578	8420	10104
	0.15	9	3724	4655	5586	6517	7448	8379	9310	11172
	0.20	14	3936	4920	5904	6888	7872	8856	9840	11808
	0.25	21	4002	5003	6003	7004	8004	9005	10005	12006
600	0.10	5	4078	5098	6117	7137	8156	9176	10195	12234
	0.15	10	4536	5670	6804	7938	9072	10206	11340	13608
	0.20	16	4838	6048	7257	8467	9676	10886	12095	14514
	0.30	31	4982	6228	7473	8719	9964	11210	12455	14946
800	0.15	12	5412	6765	8118	9471	10824	12177	13530	16236
	0.20	19	5842	7303	8763	10224	11684	13145	14605	17526
	0.25	28	6148	7685	9222	10759	12296	13833	15370	18444
	0.35	49	6384	7980	9576	11172	12768	14364	15960	19152
1000	0.20	4	6332	7915	9498	11081	12664	14247	15830	18996
	0.30	8	6892	8615	10338	12061	13784	15507	17230	20676
	0.40	13	7248	9060	10872	12684	14496	16308	18120	21744
	0.50	20	7404	9255	11106	12957	14808	16659	18510	22212
0	0.20	5	7480	9350	11220	13090	14960	16830	18700	22440
	0.30	10	8554	10693	12831	14970	17108	19247	21385	25662
	0.40	16	9206	11508	13809	16111	18412	20714	23015	27618
	0.50	24	9436	11795	14154	16513	18872	21231	23590	28308
1400	0.20	5	8184	10230	12276	14322	16368	18414	20460	24552
	0.30	10	9330	11663	13995	16328	18660	20993	23325	27990
	0.40	17	10068	12585	15102	17619	20136	22653	25170	30204
	0.55	30	10404	13005	15606	18207	20808	23409	26010	31212

ENTERING AIR CONDITIONING

DB=22°C

3-ROW HEATING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C							
			40	45	50	55	60	65	70	80
300	0.05	1	1379	1762	2145	2528	2911	3294	3677	4443
	0.10	3	1868	2397	2906	3425	3944	4463	4982	6020
	0.15	5	2140	2735	3329	3924	4518	5113	5707	6896
	0.20	9	2200	2811	3422	4033	4644	5255	5866	7088
400	0.10	5	3031	3873	4715	5557	6399	7241	8083	9767
	0.15	9	3352	4283	5214	6145	7076	8007	8938	10800
	0.20	14	3542	4526	5510	6494	7478	8462	9446	11414
	0.25	21	3602	4602	5603	6603	7604	8604	9605	11606
600	0.10	5	3670	4690	5709	6729	7748	8768	9787	11826
	0.15	10	4082	5216	6350	7484	8618	9752	10886	13154
	0.20	16	4354	5564	6773	7983	9192	10402	11611	14030
	0.30	31	4484	5729	6975	8220	9466	10711	11957	14448
800	0.15	12	4871	6224	7577	8930	10283	11636	12989	15695
	0.20	19	5258	6718	8179	9639	11100	12560	14021	16942
	0.25	28	5533	7070	8607	10144	11681	13218	14755	17829
	0.35	49	5746	7342	8938	10534	12130	13726	15322	18514
1000	0.20	4	5699	7282	8865	10448	12031	13614	15197	18363
	0.30	8	6203	7926	9649	11372	13095	14818	16541	19987
	0.40	13	6523	8335	10147	11959	13771	15583	17395	21019
	0.50	20	6664	8515	10366	12217	14068	15919	17770	21472
1200	0.20	5	6732	8602	10472	12342	14212	16082	17952	21692
	0.30	10	7699	9837	11976	14114	162853	18391	20530	24807
	0.40	16	8285	10587	12888	15190	17491	19793	22094	26697
	0.50	24	8492	10851	13210	15569	17928	20287	22646	27364
1400	0.20	5	7366	9412	11458	13504	15550	17596	19642	23734
	0.30	10	8397	10730	13062	15395	17727	20060	22392	27057
	0.40	17	9061	11578	14095	16612	19129	21646	24163	29197
	0.55	30	9364	11965	14566	17167	19768	22369	24970	30172

CFP-4P, CFFC-4P, CFPC-4P, CFFC-4P COOLING CAPACITIES

ENTERING AIR CONDITIONING DB=24°C WB=17.8°C(RH=55%) 2-ROW COOLING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C									
			5		6		7		8		9	
			SH	TH	SH	TH	SH	TH	SH	TH	SH	TH
300 4P	0.05	3	1465	1550	1420	1425	1305	1305	1185	1185	1060	1060
	0.10	11	1705	2135	1640	1965	1575	1800	1510	1635	1450	1470
	0.15	22	1880	2525	1795	2325	1715	2130	1640	1935	1555	1735
	0.20	36	1970	2705	1875	2495	1790	2285	1700	2070	1615	1860
400 4P	0.10	12	2580	3085	2490	2850	2400	2605	2310	2360	2125	2125
	0.15	25	2810	3605	2700	3320	2585	3040	2480	2760	2370	2475
	0.20	41	2970	3940	2840	3630	2720	3325	2590	3015	2470	2710
	0.25	60	3045	4065	2910	3750	2775	3430	2645	3115	2520	2800
600 4P	0.10	13	3155	3550	3055	3275	2950	2995	2720	2720	2445	2445
	0.15	27	3480	4295	3350	3960	3215	3620	3085	3285	2960	2950
	0.20	44	3710	4800	3555	4430	3400	4055	3255	3675	3105	3300
	0.25	65	3860	5110	3690	4710	3530	4315	3365	3915	3204	3515
800 4P	0.15	15	3880	4765	3735	4395	3595	4020	3455	3645	3275	3275
	0.20	31	4330	5600	4155	5160	3980	4725	3805	4285	3640	3850
	0.25	51	4690	6290	4485	5800	4285	5305	4085	4815	3890	4325
	0.25	75	5240	7135	4990	6580	4750	6025	4510	5465	4280	4905
1000 4P	0.10	3	4450	5515	4290	5085	4120	4650	3960	4220	3790	3790
	0.15	7	5170	6735	4955	6210	4745	5685	4535	5160	4335	4630
	0.20	11	5490	7190	5250	6630	5010	6065	4780	4505	4550	4940
	0.25	16	5685	7300	5430	6730	5180	6160	4930	5590	4690	5020
1200 4P	0.15	8	5510	6505	5310	5990	5120	5485	4935	4980	4470	4750
	0.20	11	6180	6385	5935	7240	5690	6300	5450	6010	5215	5395
	0.25	16	6605	8690	6320	8010	6040	7330	5775	6650	5500	5970
	0.35	30	6900	9010	6600	8305	6300	7600	6010	6895	5725	6190
1400 4P	0.15	9	6090	6800	5890	6265	5700	5740	5250	5205	4670	4670
	0.20	15	6830	8295	6575	7650	6320	7000	5450	6350	5215	5705
	0.25	22	7430	9345	7125	8610	6830	7885	6535	7150	6250	6425
	0.35	44	7735	10065	7405	9280	7080	8490	6760	7710	6445	6920

Note: SH: Sensible Heat (W) TH: Total Heat (W)

ENTERING AIR CONDITIONING DB=26°C WB=19.5°C(RH=55%) 2-ROW COOLING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C									
			5		6		7		8		9	
			SH	TH	SH	TH	SH	TH	SH	TH	SH	TH
300 4P	0.05	3	1575	1830	1530	1705	1490	1575	1445	1450	1325	1325
	0.10	11	1850	2525	1785	2350	1720	2175	1660	2000	1590	1830
	0.15	22	2050	2980	1965	2780	1885	2575	1800	2365	1725	2160
	0.20	36	2155	3195	2060	2980	1970	2755	1880	2535	1795	2315
400 4P	0.10	12	2790	3645	2700	3395	2610	3145	2520	2890	2430	2640
	0.15	25	3060	4225	2940	3960	2835	3670	2720	3375	2610	3080
	0.20	41	3235	4655	3105	4330	2975	4015	2855	3690	2735	3370
	0.25	60	3320	4805	3185	4475	3050	4145	2920	3810	2790	3480
600 4P	0.10	13	3410	4195	3300	3905	3195	3615	3100	3330	3000	3035
	0.15	27	3770	5070	3640	4720	3510	4370	3375	4020	3245	3670
	0.20	44	4030	5670	3870	5280	3725	4890	3575	4500	3425	4110
	0.25	65	4205	6030	4035	5620	3870	5200	3705	4785	3545	4365
800 4P	0.15	15	4200	5625	4055	5240	3915	4850	3775	4460	3635	4075
	0.20	31	4700	6610	4525	6155	4350	5700	4180	5245	4010	4790
	0.25	51	5105	7425	4900	6915	4695	6400	4500	5890	4300	5375
	0.25	75	5720	8425	5475	7845	5230	7260	4990	6680	4755	6100
1000 4P	0.10	3	4820	6510	4660	6060	4490	5610	4330	5160	4165	4715
	0.15	7	5615	7950	5400	7405	5190	6855	4980	6305	4780	5755
	0.20	11	5980	8480	5735	7895	5495	7315	5265	6725	5035	6140
	0.25	16	6200	8620	5940	8020	5685	7430	5435	6835	5195	6240
1200 4P	0.15	8	5950	7675	5760	7145	5565	6620	5375	6085	5190	5560
	0.20	11	6705	9265	6460	8630	6220	7990	5975	7350	5740	6710
	0.25	16	7180	10255	6900	9545	6620	8840	6350	8135	6080	7425
	0.35	30	7510	10630	7205	9900	6910	9165	6615	8430	6330	7700
1400 4P	0.15	9	6565	8020	6370	7470	6170	6920	5980	6360	5790	5810
	0.20	15	7395	9790	7140	9120	6885	8440	6635	7765	6385	7090
	0.25	22	8065	11025	7760	10265	7465	9505	7170	8745	6880	7985
	0.35	44	8610	11880	8270	11060	7935	10240	7610	9420	7285	8600

Note: SH: Sensible Heat (W) TH: Total Heat (W)



CFP-4P, CFFC-4P, CFPC-4P, CFFC-4P HEATING CAPACITIES

ENTERING AIR CONDITIONING

DB=20°C

1-ROW HEATING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C							
			40	45	50	55	60	65	70	80
300 4P	0.033	3	850	1070	1280	1490	1700	1920	2130	2560
	0.050	6	1180	1470	1770	2060	2360	2660	2900	3540
	0.067	11	1370	1720	2060	2410	2750	3100	3440	4130
	0.100	21	1510	1880	2260	2630	3010	3380	3760	4510
400 4P	0.033	5	1640	2050	2470	2880	3290	3700	4110	4930
	0.050	10	1940	2420	2910	3390	3880	4360	4850	5810
	0.067	16	2130	2600	3190	3720	4250	4780	5310	6380
	0.100	32	2400	3000	3600	4190	4800	5390	6000	7190
600 4P	0.033	5	1870	2330	2800	3260	3730	4200	4660	5600
	0.050	11	2250	2820	3380	3940	4500	5070	5630	6760
	0.067	19	2480	3100	3720	4340	4960	5580	6200	7440
	0.100	37	2820	3530	4230	4940	5640	6350	7060	8470
800 4P	0.033	1	1910	2380	2860	3340	3820	4290	4770	5720
	0.050	3	2410	3010	3610	4210	4810	5410	6010	7220
	0.067	5	2770	3470	4160	4850	5540	6240	6930	8320
	0.100	10	3200	4000	4800	5600	6400	7190	7990	9590
1000 4P	0.033	1	2200	2760	3310	3860	4410	4960	5510	6610
	0.050	3	2800	3460	4150	4840	5530	6220	6910	8300
	0.067	6	3150	3930	4720	5500	6290	7130	7860	9430
	0.100	11	3700	4620	5540	6470	7400	8320	9240	11090
1200 4P	0.033	1	2440	3050	3770	4270	4890	5500	6110	7330
	0.050	3	3120	3900	4680	5450	6230	7010	7790	9350
	0.067	6	3660	4570	5490	6400	7320	8230	9150	10970
	0.100	12	4420	5530	6640	7740	8850	9950	11060	13270
1400 4P	0.033	2	3510	3130	3760	4390	5010	5640	6270	7520
	0.050	3	3320	4150	4980	5810	6640	7470	8310	9970
	0.067	6	3900	4800	5850	6830	7800	8780	9760	11710
	0.100	13	4780	5980	7170	8370	9560	10760	11950	14340

ENTERING AIR CONDITIONING

DB=22°C

1-ROW HEATING CAPACITY IN WATT

SS/HS	Water Flow l/s	W.P.D. kpa	Entering Water Temperature °C							
			40	45	50	55	60	65	70	80
300 4P	0.033	3	770	980	1190	1410	1620	1830	2050	2470
	0.050	6	1060	1360	1650	1950	2240	2530	2830	3420
	0.067	11	1240	1580	1930	2250	2610	2950	3300	3980
	0.100	21	1350	1730	2110	2480	2860	3230	3610	4360
400 4P	0.033	5	1480	1890	2300	2710	3120	3530	3950	4770
	0.050	10	1740	2230	2710	3200	3680	4170	4650	5620
	0.067	16	1910	2440	2970	3500	4020	4570	5100	6160
	0.100	32	2160	2760	3360	3960	4560	5160	5750	6950
600 4P	0.033	5	1680	2150	2610	3080	3550	4010	4480	5410
	0.050	11	2030	2590	3150	3720	4280	4840	5400	6530
	0.067	19	2240	2860	3480	4100	4720	5340	5960	7200
	0.100	37	2540	3250	3950	4650	5360	6070	6770	8190
800 4P	0.033	1	1720	2190	2670	3150	3620	4100	4580	5530
	0.050	3	2160	2770	3370	3970	4570	5170	5780	6980
	0.067	5	2490	3190	3880	4580	5270	5960	6660	8040
	0.100	10	2880	3680	4480	5280	6080	6870	7670	9270
1000 4P	0.033	1	1990	2540	3090	3640	4190	4740	5290	6400
	0.050	3	2490	3180	3870	4570	5260	5950	6640	8020
	0.067	5	2830	3620	4400	5190	5970	6760	7540	9120
	0.100	11	3330	4250	5170	6100	7020	7950	8880	10720
1200 4P	0.033	1	2200	2810	3420	4030	4640	5250	5860	7080
	0.050	3	2800	3580	4360	5140	5920	6700	7480	9040
	0.067	6	3290	4210	5120	6030	6950	7870	8780	10610
	0.100	12	3980	5090	6190	7300	8400	9510	10620	12830
1400 4P	0.033	2	2260	2880	3510	4140	4760	5390	6020	7270
	0.050	3	2990	3820	4650	5480	6310	7140	7970	9630
	0.067	6	3510	4490	5460	6440	7410	8390	9360	11320
	0.100	13	4300	5500	6700	7890	9080	10280	11470	13860

RATING CORRECTION BY ESP & L/S

FAN SPEED: HIGH CFP, CFF-SS CF: CORRECTION FACTOR CT: TOTAL HEAT CAPACITY CS: SENSIBLE HEAT CAPABILITY

MODEL CRP CFF	CT CS	External Static Pressure (Pa)											
		0		10		20		30		40		50	
		CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S
300 SS	CT	1.08	170	1.05	160	1.03	150	1.00	145	.96	140	.91	125
	CS	1.09		1.06		1.03		1.00		.95		.90	
400 SS	CT	1.06	270	1.05	260	1.02	250	1.00	240	.97	220	.93	210
	CS	1.07		1.05		1.03		1.00		.96		.93	
600 SS	CT	1.05	340	1.04	330	1.02	320	1.00	300	.97	290	.93	270
	CS	1.06		1.05		1.03		1.00		.97		.92	
800 SS	CT	1.05	400	1.04	390	1.02	380	1.00	370	.97	350	.93	320
	CS	1.06		1.04		1.02		1.00		.97		.92	
1000 SS	CT	1.06	500	1.04	480	1.03	470	1.00	440	.97	420	.92	380
	CS	1.07		1.05		1.03		1.00		.97		.91	
1200 SS	CT	1.06	640	1.04	620	1.02	590	1.00	570	.97	540	.94	510
	CS	1.06		1.04		1.02		1.00		.97		.93	
1400 SS	CT	1.05	730	1.03	700	1.02	680	1.00	660	.97	630	.93	580
	CS	1.06		1.04		1.02		1.00		.97		.92	

FAN SPEED: MEDIUM CFP, CFF-SS CF: CORRECTION FACTOR CT: TOTAL HEAT CAPACITY CS: SENSIBLE HEAT CAPABILITY

MODEL CRP CFF	CT CS	External Static Pressure (Pa)											
		0		10		20		30		40		50	
		CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S
300 SS	CT	.97	140	.94	130	.89	120	.84	110	.79	100	.73	85
	CS	.97		.93		.88		.82		.76		.69	
400 SS	CT	.95	210	.93	200	.90	190	.87	180	.83	170	.78	160
	CS	.94		.92		.88		.85		.80		.76	
600 SS	CT	.92	260	.91	250	.88	240	.85	230	.81	210	.76	190
	CS	.91		.89		.87		.83		.79		.73	
800 SS	CT	.92	320	.91	310	.89	300	.87	280	.83	270	.80	250
	CS	.91		.90		.88		.85		.81		.77	
1000 SS	CT	.93	390	.91	380	.88	350	.85	330	.81	310	.76	280
	CS	.92		.90		.87		.83		.78		.73	
1200 SS	CT	.93	500	.91	480	.89	470	.86	440	.83	420	.79	380
	CS	.92		.90		.88		.85		.81		.77	
1400 SS	CT	.95	600	.93	580	.91	550	.89	530	.87	510	.84	406
	CS	.94		.92		.90		.87		.85		.82	



RATING CORRECTION BY ESP & L/S

FAN SPEED: HIGH CFP-HS CF: CORRECTION FACTOR CT: TOTAL HEAT CAPACITY CS: SENSIBLE HEAT CAPABILITY

MODEL CRP CFP	CT CS	External Static Pressure (Pa)											
		0		20		40		60		80		100	
		CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S
300 HS	CT	1.16	210	1.12	190	1.08	170	1.01	150	.91	125	.80	100
	CS	1.18		1.13		1.09		1.01		.90		.77	
400 HS	CT	1.14	320	1.10	290	1.06	260	1.00	240	.92	200	.79	160
	CS	1.16		1.12		1.06		1.00		.91		.77	
600 HS	CT	1.11	380	1.08	350	1.05	330	1.00	300	.92	260	.80	200
	CS	1.12		1.09		1.06		.99		.91		.77	
800 HS	CT	1.14	490	1.11	450	1.06	410	1.00	370	.93	320	.83	270
	CS	1.15		1.12		1.07		1.00		.92		.81	
1000 HS	CT	1.12	570	1.09	540	1.06	500	1.01	450	.92	380	.78	290
	CS	1.14		1.11		1.07		1.01		.91		.75	
1200 HS	CT	1.11	720	1.08	680	1.04	620	1.00	570	.92	490	.79	380
	CS	1.13		1.09		1.05		.99		.91		.77	
1400 HS	CT	1.13	870	1.09	800	1.05	740	1.00	670	.93	580	.84	490
	CS	1.15		1.10		1.06		1.01		.93		.82	

FAN SPEED: MEDIUM CFP-HS CF: CORRECTION FACTOR CT: TOTAL HEAT CAPACITY CS: SENSIBLE HEAT CAPABILITY

MODEL CRP CFP	CT CS	External Static Pressure (Pa)											
		0		20		40		60		80		100	
		CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S	CF	L/S
300 HS	CT	1.08	170	1.03	160	.96	140	.87	110	.76	90	.62	70
	CS	1.09		1.03		.95		.85		.72		.56	
400 HS	CT	1.06	270	1.02	250	.97	220	.90	190	.79	160	.63	110
	CS	1.07		1.03		.96		.88		.77		.58	
600 HS	CT	1.05	340	1.02	320	.97	290	.90	250	.81	210	.67	150
	CS	1.06		1.03		.97		.89		.78		.62	
800 HS	CT	1.05	400	1.02	380	.97	350	.90	300	.81	250	.70	200
	CS	1.06		1.02		.97		.89		.79		.65	
1000 HS	CT	1.06	500	1.03	470	.97	420	.89	360	.81	300	.67	230
	CS	1.07		1.03		.96		.88		.78		.62	
1200 HS	CT	1.06	640	1.02	590	.97	540	.92	490	.83	420	.69	310
	CS	1.06		1.02		.97		.91		.81		.65	
1400 HS	CT	1.05	730	1.02	680	.97	630	.93	580	.87	520	.76	410
	CS	1.06		1.02		.97		.93		.85		.72	



CFP SOUND POWER LEVELS

MODEL CFP-SS (STANDARD SPEED MOTOR)

MEASURED AT 30 Pa EXT. S.P. RE. 10⁻¹² WATTS (DB)

FAN SPEED	UNIT SIZE	Octave Band Frequencies, Hz							
		63	125	250	500	1000	2000	4000	8000
H	300 SS	34	46	41	43	43	38	34	23
	400 SS	35	47	45	46	44	39	31	26
	600 SS	38	50	45	46	45	41	32	25
	800 SS	40	52	47	49	48	44	36	31
	1000 SS	38	51	46	48	47	42	33	27
	1200 SS	40	52	46	49	47	42	36	30
	1400 SS	42	54	49	52	51	48	39	34
M	300 SS	34	44	36	37	37	30	22	-
	400 SS	31	42	39	40	39	33	24	-
	600 SS	31	44	39	41	39	34	25	-
	800 SS	34	47	43	45	41	37	26	22
	1000 SS	35	46	42	44	42	36	27	21
	1200 SS	37	48	43	46	42	37	28	23
	1400 SS	38	51	46	48	44	40	31	26

MODEL CFP-HS (HIGH STATIC MOTOR)

MEASURED AT 50 Pa EXT. S.P. RE. 10⁻¹² WATTS (DB)

FAN SPEED	UNIT SIZE	Octave Band Frequencies, Hz							
		63	125	250	500	1000	2000	4000	8000
H	300 HS	38	52	47	49	48	44	36	30
	400 HS	38	50	46	48	48	43	35	30
	600 HS	40	53	49	52	50	47	38	31
	800 HS	43	57	53	55	53	50	41	34
	1000 HS	42	55	51	54	52	48	39	34
	1200 HS	45	57	53	55	53	50	42	34
	1400 HS	47	59	55	57	55	52	43	38
M	300 HS	34	46	41	43	43	38	34	23
	400 HS	35	47	45	46	44	39	31	26
	600 HS	38	50	45	46	45	41	32	25
	800 HS	40	52	47	49	48	44	36	31
	1000 HS	38	51	46	48	47	42	33	27
	1200 HS	40	52	46	49	47	42	36	30
	1400 HS	42	54	49	52	51	48	39	34

Since engineers design for sound requirements based on Noise Criteria (NC) levels, it is necessary to convert the sound power levels shown above to NC levels. Sound energy is absorbed by room surfaces and furnishings and is further dissipated by diffusion into the space. The room absorption effects as calculated in accordance with the procedure outlined in the ASHRAE Guide provides a method of determining the sound pressure levels necessary to obtain NC levels. Typical room absorption effects are given on this page. To determine the NC level of a unit, subtract the room absorption effects from the sound power levels for all octave bands and plot the resulting sound pressure values on an NC curve. The NC level is determined by the octave band yielding the highest NC value.

ROOM ABSORPTION EFFECT							
Room Type	Octave Band						
	2	3	4	5	6	7	8
	Centre Frequency Hz						
	125	250	500	1000	2000	4000	8000
Soft (Exec. Office)	4	8	11	11	11	11	11
Medium (Apts. & Motel)	3	7	8	9	9	9	9
Hard (Hospital)	0	1	3	4	4	5	6

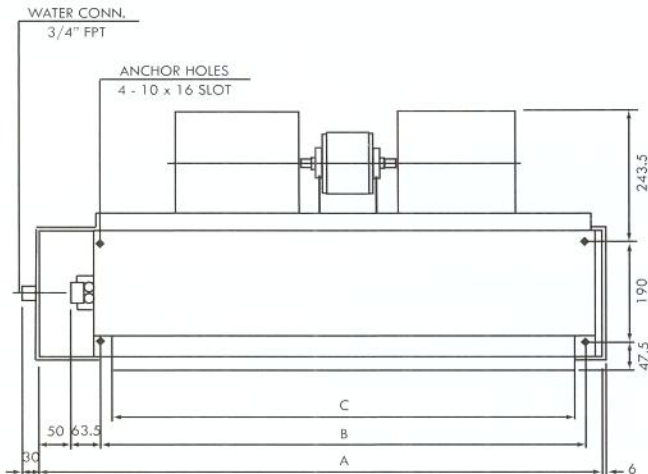
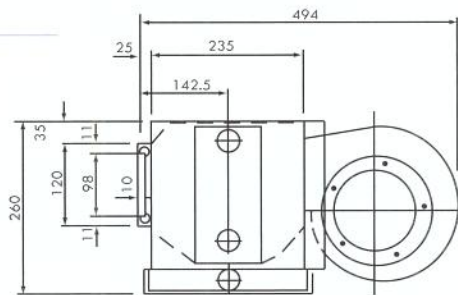
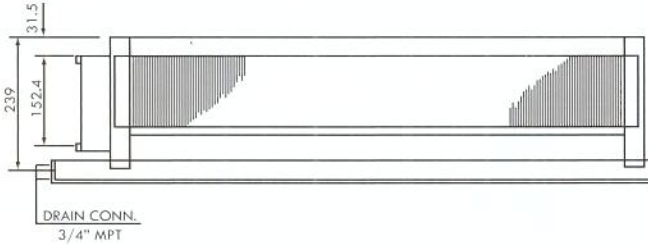
Note: Occupant at least 1.5 meters (5 ft.) from sound source.

CEILING RECESS TYPE

MODEL CFP

Note:

1. Unless otherwise specified left-hand pipe connection furnished
2. furnished access door to service fan motor



EXTERNAL DIMENSIONS & WEIGHT

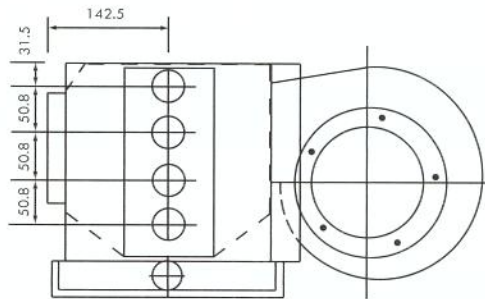
MODEL NO.	DIMENSIONS (mm)			NUMBER OF		NET WEIGHT (kg)
	A	B	C	Fan(s)	Motor(s)	
CFP - 300	715	572	534	1	1	21
CFP - 400	890	748	710	2	1	23
CFP - 600	1020	876	838	2	1	25
CFP - 800	1305	1156	1118	2	1	29
CFP - 1000	1490	1333	1295	3	2	37
CFP - 1200	1740	1588	1550	4	2	43
CFP - 1400	1920	1766	1728	4	2	46



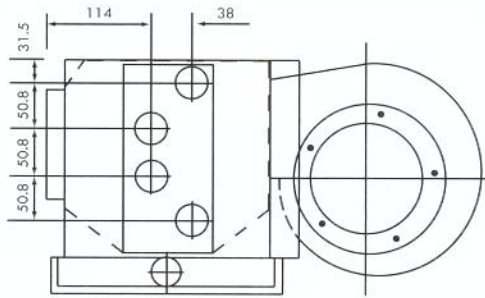
MODEL CFP-4P
4-Pipe

MODEL CFP-4P (4R)
4-Pipe

MODEL CFPC



2 Row Cooling + 1 - Row Heating

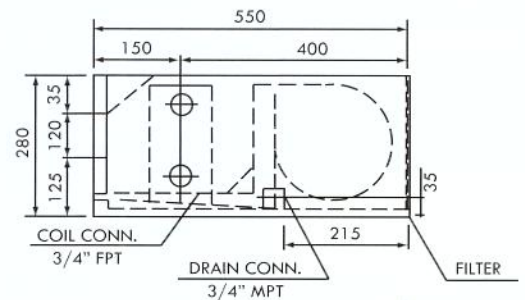
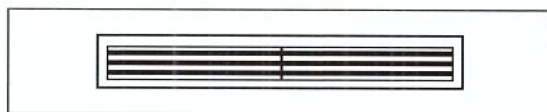
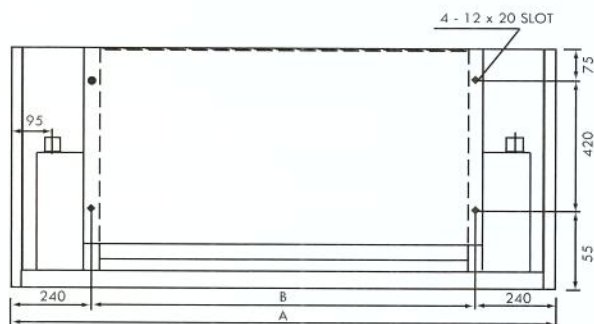


3 Row Cooling + 1 - Row Heating

Note: All coil connections are 3/4" FPT

CEILING CABINET TYPE

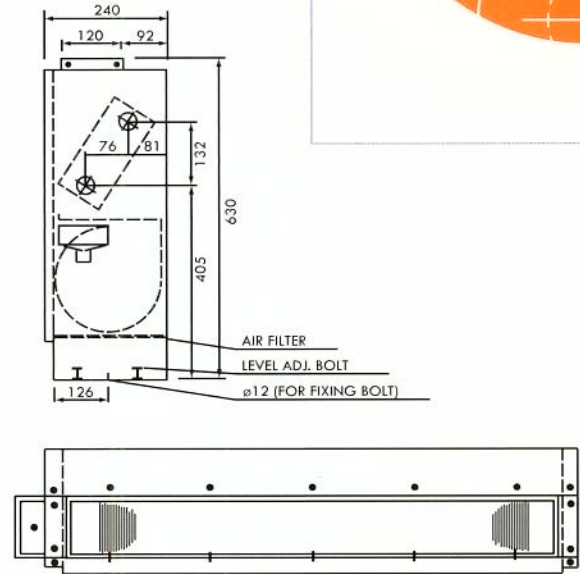
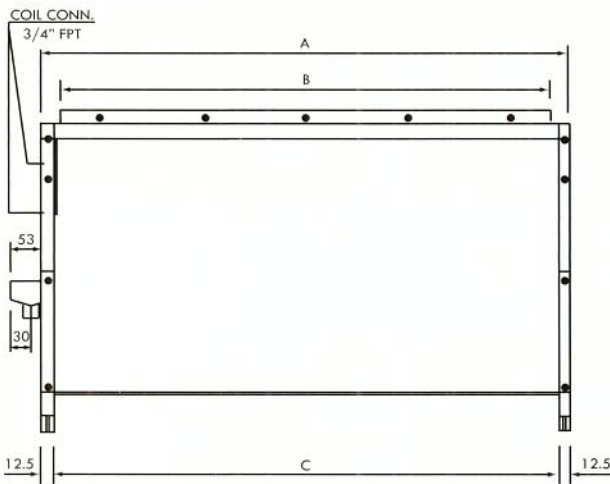
MODEL NO.	DIMENSIONS (mm)		NUMBER OF		NET WEIGHT (kg)
	A	B	Fan(s)	Motor(s)	
CFPC - 300	1052	572	1	1	29
CFPC - 400	1228	748	2	1	37
CFPC - 600	1356	876	2	1	40
CFPC - 800	1636	1156	2	1	47
CFPC - 1000	1813	1333	3	2	57
CFPC - 1200	2068	1588	4	2	64
CFPC - 1400	2246	1766	4	2	68



Note: Performances are same as CFP

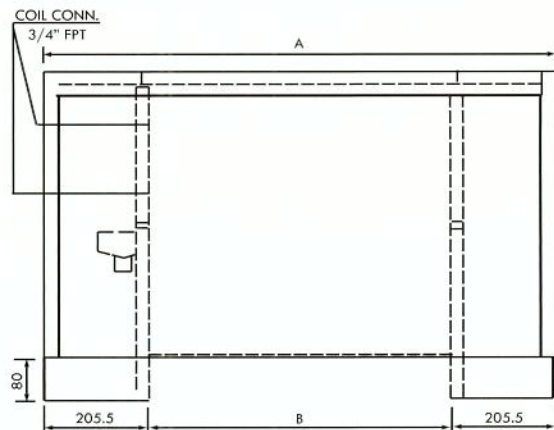
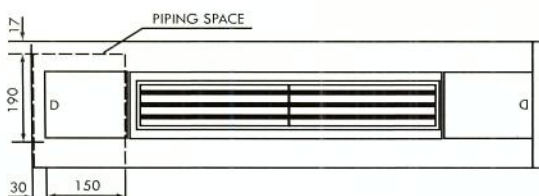
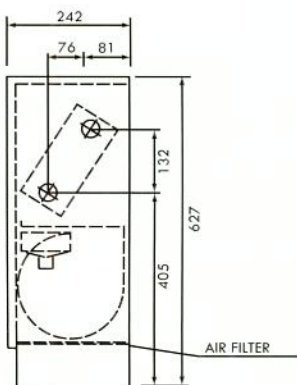
FLOOR RECESS TYPE

MODEL NO.	DIMENSIONS (mm)			NUMBER OF		NET WEIGHT (kg)
	A	B	C	Fan(s)	Motor(s)	
CFF - 300	621	545	596	1	1	21
CFF - 400	871	795	846	2	1	27
CFF - 600	1006	930	981	2	1	31
CFF - 800	1291	1215	1266	2	1	36
CFF - 1000	1486	1410	1461	3	2	42
CFF - 1200	1736	1660	1711	4	2	48
CFF - 1400	1916	1840	1891	4	2	52



FLOOR CABINET TYPE

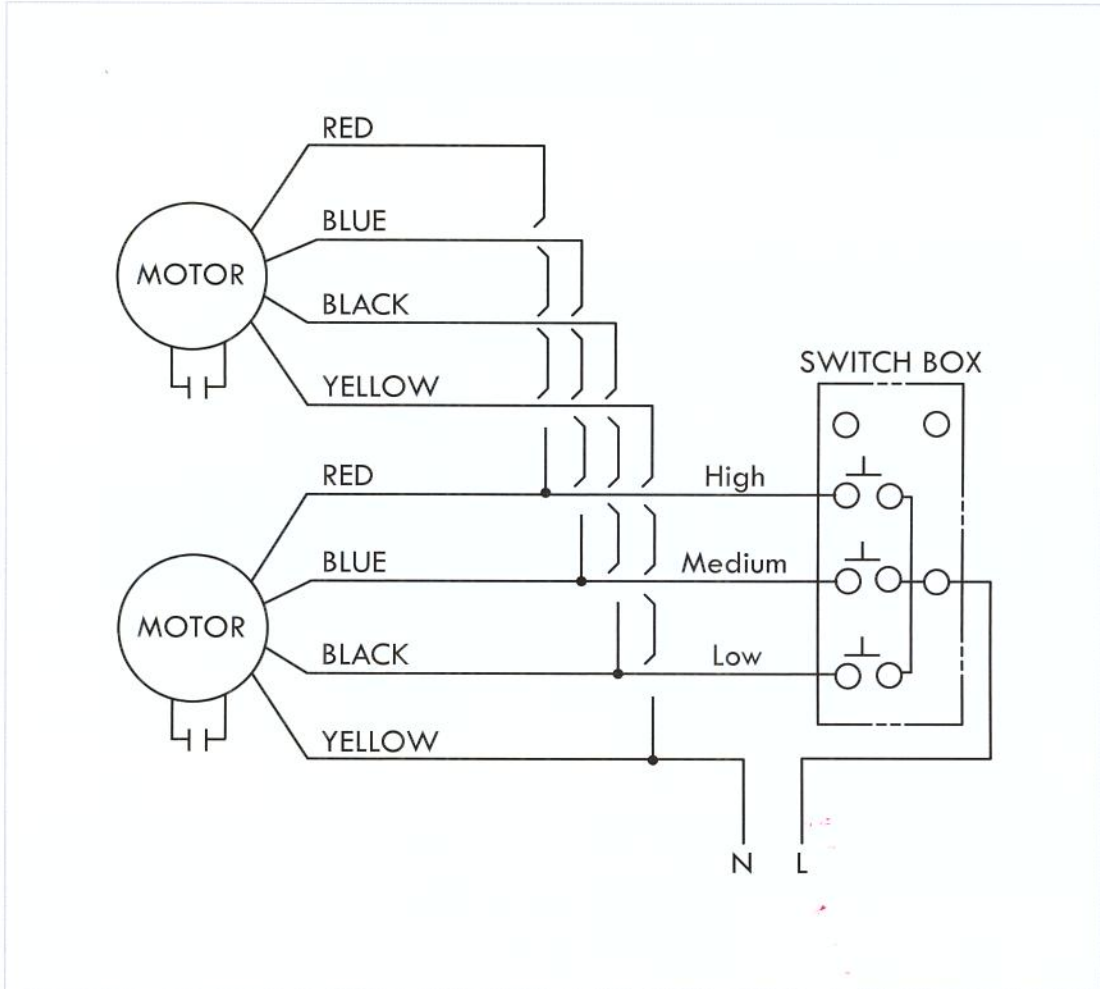
MODEL NO.	DIMENSIONS (mm)		NUMBER OF		NET WEIGHT (kg)
	A	B	Fan(s)	Motor(s)	
CFFC - 300	980	569	1	1	30
CFPC - 400	1230	819	2	1	37
CFFC - 600	1365	954	2	1	40
CFFC - 800	1650	1239	2	1	44
CFFC - 1000	1845	1434	3	2	54
CFFC - 1200	2095	1684	4	2	62
CFFC - 1400	2275	1864	4	2	67





WIRING CONNECTION

MODEL CFF



Note:

1. During commissioning please re-check wiring to prevent motor burn-out due to incorrect wiring.
2. If neutral wire is mis-connected to H, M, L speed wire, motor will be damaged and sometimes cause opposite rotation before burn-out.
3. Motor bearings are permanently lubricated.
4. Please provide access to service motor.

LOCATION



The Cold Magic products are manufactured by Efatar Engineering, in Shunde, China. Since 2005 G.J. Walker has developed a close relationship with Efatar Engineering to bring the Cold Magic Units to Australia.

Manufacturing this range of units in China allows G.J. Walker to provide competitive prices to the Australian market whilst continuing to provide quality units built to ISO-9001 and EuroVent certified.



GJWALKER

AIR HANDLING SYSTEMS

G.J. Walker Pty Ltd
A.B.N. 96 100 717 173

VICTORIA

Gary & Damon Walker
2B Glass Street Richmond Victoria
P.O. Box 14 Richmond 3121
T: 03 9429 9811
F: 03 9429 1344
E: gary@gjwalker.com.au
damon@gjwalker.com.au

QUEENSLAND

Chris Rogerson
P.O. Box 8127 Cleveland 4163
T: 07 3821 3666
F: 07 3821 3661
M: 0438 716 610
E: chrisr_walker@bigpond.com

NEW SOUTH WALES

Barry Johnson
P.O. Box 244 Narrabeen 2101
T: 02 9984 9773
F: 02 9982 3662
M: 0407 707 138
E: walkersy@bigpond.net.au

Turner Engineering
A.B.N. 43 009 381 373

WESTERN AUSTRALIA

16 Gympie Way Willetton
WA 6155
P.O. Box 304 Willetton 6955
T: 08 9354 9599
F: 08 9354 9560
E: wa.info@turnerengineering.com.au