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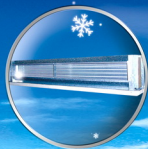
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CFP SERIES
FAN COIL UNIT
CFP 风机盘管



E²C[®] 怡輝興業集團有限公司
EFATAR HOLDINGS LTD.



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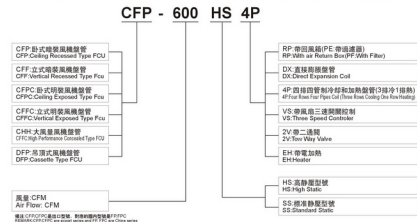
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1. 公司簡介 Company description:

怡輝自創立以來，就一直以風機盤管作其本公司的主導產品之一，已經積十多年之風機盤管生產經驗，多年來本公司一直以重質量、重技術的概念來改良我們的產品，不停吸收國外先進的技術，并與國內外知名品牌共同研發，在技術先進性上一直保持國內領先地位，并被評為高新技術企業。在物料來源方面，我們定期對供應商進行資格評定，做到對物料的來源嚴格監控，確保產品質量穩定、使用壽命長。我們使用現代化機械生產，由原材料開始到半成品到產品裝配一條龍生產，確保所有半成品和成品均在QC的監控下生產，并且確保生產時間的自我控制，縮短生產周期，做到準時供貨，本公司還榮獲了多項國際和國內認證，高美牌風機盤管絕對是您明智的選擇。

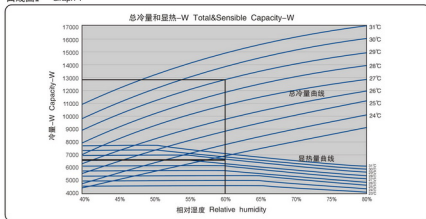
FCU is one of the major products of Efatar group, we have more than ten years manufacturing experience. Quality and technology are Efatar strategy to improve the products. We joint development with international famous air conditioning band to modify Cold Magic's quality awarded the high technology enterprises. And to maintain production quality, suppliers are periodic reviewed to guarantee the reliable material source. We use the micro-process machines to produce the parts from raw material, which under our quality control in the production flow. Cold Magic have compliance and been awarded To many International and Chinese certifies, and is your best choice.

2. 產品型號命名 Product Nomenclature



3. 選型方法 Selection Procedure

曲線圖1 Graph 1





曲線圖1是可以查詢在不同回風工況下所對應的總制冷量和顯熱量。當風量是該機型的額定風量，入水溫度為7℃，出水溫度為5℃時，送風干球由23℃到31℃，相對濕度由40%-80%範圍內的所有回風狀態下的總制冷量和顯熱量都能在曲線圖上查詢得到。例如查詢回風狀態為29℃、60%在曲線圖1機型上的總制冷量和顯熱量：沿橫坐標80%豎直向上交總冷量曲線的29℃曲線所對應的冷量就是總冷量12800W；沿橫坐標80%豎直向上交顯熱量曲線的29℃曲線所對應的冷量就是顯熱冷量6600W。

當冷凍水不是標準狀態時，我們可用通過修正系數來計算出不同冷凍水狀態下的總制冷量和顯熱量。假設風量為曲線圖1的標準風量，回風狀態為29℃、60%，冷凍水狀態為入水6℃，出水溫度差4.5℃，要計算對應的總制冷量和顯熱量。

首先根據回風狀態查到入水7℃，出水溫度差5℃時的總冷量和顯熱量分別為12800W和6600W。

入水6℃，出水溫度差4.5℃時的總冷量QT為：

$$\begin{aligned} QT &= 12800 + 0.45G^* \Delta T \\ &= 12800 + 0.45^* 1800^* 1.5 \\ &= 14015W \end{aligned}$$

入水6℃，出水溫度差4.5℃時的顯熱量QS為：

$$\begin{aligned} QS &= 6600 + 0.185G^* \Delta T \\ &= 6600 + 0.185^* 1800^* 1.5 \\ &= 7099.5W \end{aligned}$$

0.45：總冷量的修正系數；W/hm³℃

0.185：顯熱量的修正系數；W/hm³℃

G：風量M³/H

△T：水溫差系數℃(查表得)

當風量不是標準風量時，我們也可以通過修正系數來計算總冷量和顯熱量。風量修正系數請查詢風量修正系數表。

總冷量=QT*CT(額定風量下的總冷量乘以修正系數)

顯熱量=QS*CS(額定風量下的顯熱量乘以修正系數)

水流量為

$$G = QT / 4.2 \times 10^3 \times \Delta T$$

把計算得的水流量查壓降圖就可以得到對應的水壓降。

Selection

The graph 1 is used to check the total cooling load and sensible heat at difference return air status. For standard specification the inlet water temperature at 7℃, the inlet water temperature difference at 5℃, inlet air dry bulb temperature from 23℃ to 31℃, relative humidity from 40% to 80% referred to the required air flow rate, we could find the total cooling load and sensible heat from the curve.

For example that the return air temperature at 29℃ and 60% RH, on the curve of 29℃ could plot horizontally at 12800W and referred to the sensible heat we plotted 6600W.

When the chilled water not at the standard specification, the cooling load and sensible heat could be corrected by the correction factor.

Example that the standard air flow with return air at 29℃, RH 60%, chilled water at 6℃ and in/out water temperature difference at 4.5℃. To calculate the total cooling load and sensible heat.

First check chilled water at 7℃ and in/out temperature difference at 5℃ the cooling load is 12800W and sensible heat is 6600W then the real total cooling arc:

$$\begin{aligned} QT &= 12800 + 0.45G^* \Delta T \\ &= 12800 + 0.45^* 1800^* 1.5 \\ &= 14015W \end{aligned}$$

The sensible heat arc:

$$\begin{aligned} QS &= 6600 + 0.185G^* \Delta T \\ &= 6600 + 0.185^* 1800^* 1.5 \\ &= 7099.5W \end{aligned}$$

0.45：total cooling load correction factor W/hm³℃

0.185：sensible heat correction factor W/hm³℃

G：air flow rate m³/h

△T：water temperature difference factor ℃ (by table)

When the air flow rate not at the standard, we could check the air flow correction factor to calculated the true cooling load and sensible heat.

Total cooling load = QT * CT (the standard cooling load from standard flow rate times factor)

Sensible heat = QS * CS (the standard sensible heat from standard flow rate times factor)

Water flow rate:

$$G = QT / 4.2 * 10^3 / \Delta T$$

Then check the pressure drop from the pressure drop table.

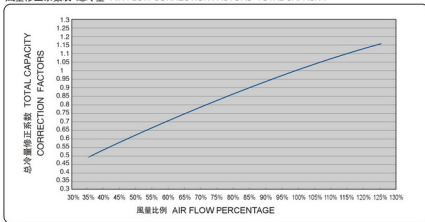
4. 水溫差系數表(△T) Chilled Water Temperature Difference Factor Table

進水溫度 Inlet Water Temp	出水溫度/ O Chilled Water Temperature Difference			
	4.5℃	5℃	5.5℃	6℃
6℃	1.5	1	0.5	0
6.5℃	1	0.5	0	-0.5
7℃	0.5	0	-0.5	-1
7.5℃	0	-0.5	-1	-1.5
8℃	-0.5	-1	-1.5	-2
8.5℃	-1	-1.5	-2	
9℃	-1.5	-2		

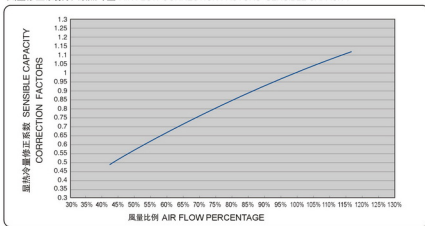


5. 風量修正係數表 AIR FLOW CORRECTION FACTORS

風量修正係數表-總冷量 AIR FLOW CORRECTION FACTORS-TOTAL CAPACITY



風量修正係數表-顯熱冷量 AIR FLOW CORRECTION FACTORS-SENSIBLE CAPACITY



6. CFP 風機盤管系列 CFP Series Fan Coil Unit

6-1. 產品介紹 General Description

本公司 CFP 系列風機盤管一共有 4 種結構形式：卧式暗裝風機盤管、卧式明裝風機盤管、立式暗裝風機盤管和立式明裝風機盤管。他們的性能參數是一致的，而不同的結構則適合不同的使用場合和室內裝修。本公司生產的風機盤管適用於賓館、辦公室、醫院、商場及餐館等需要冷風和熱風的場合。除標準機型外，我們還可以根據客戶的要求加裝回風箱、空氣過濾器、三速開關、電動二通閥和輔助電加熱等配件和功能。下折式盤管專利技術，用戶只需要拆幾個螺絲就可以輕易的把整個盤管拆下來，清洗盤管快捷、方便。為了便于維修，特意預留了電機維修面板，可以從機組底部進行維修。

CFP 系列風機盤管是采用低噪風機，葉輪直徑為 160mm，配高效率電機，採用金屬蛇皮管，彎曲容易，安裝方便，安全可靠。標準的 3 排盤管（客戶可選擇其他非標的排數）是采用管徑為 3/8" 的無縫銅管，配以機械漲接滾筒翅片，傳熱效率高。外殼是由優質鍍鋅板構成（明裝機外表面會進行噴粉處理），內貼 5mm 或 10mm 保溫材料。

The CFP fan coil unit series have four difference construction: concealed type FCU, expose type FCU, vertical concealed type FCU and vertical expose type FCU. Those four FCU have the same performance, and suitable for variable applications and designs. Cold Magic FCU can install in hotel, office, hospital, shop center and restaurant to provide the cold or hot air treatment. We have the standard models and refer to client request make the return air premium, filters, three speed switch, on/off valve electrical heaters and other parts. We own the patent of dismantle coil construction, maintenance carried by unscrow the whole coil, easy to clean and effective. Also suitable to work under the roof.

The CFP fan coil units use the low noise level fan and high efficiency motor, is standard three-row coil used 3/8" copper tube and high heat transfer rate aluminum fins. The case constructed by high quality GI sheets and with powder coated for exposed FCU, insulated with 5mm or 10mm material.

6-2. 性能參數 Data

卧式暗裝普通型風機盤管主要技術參數 Standard Static Type FCU Base Data

項目 Item	參數 Data	型號 Model	CFP-300	CFP-400	CFP-600	CFP-800	CFP-1000	CFP-1200	CFP-1400	
風量 Air Flow m ³ /h	高速 High Speed	620	960	1210	1460	1800	2300	2620		
	中速 Middle Speed	520	680	950	1160	1540	1800	2080		
	低速 Low Speed	400	500	690	800	1110	1260	1420		
供冷量 Cooling Capacity	W	3410	4696	6223	7815	8925	11666	13496		
	kW	0.15	0.2	0.2	0.25	0.4	0.4	0.4		
水壓降 Water Pressure Drop	Kpa	5	14	16	28	13	16	17		
噪音 Noise	dB(A)	<42	<44	<47	<48	<50	<52	<54		
盤管 Coil	型式 Type	銅管配以機械漲接滾筒翅片 Mechanical Expanded Copper Tube And Ai Fin								
	排數 Row 每方寸管徑 Fin per Inch	3排(四管制)2排制1.排制熱 3Row(4Pipe)2Row Cooling, 1Row Heating/1/2/3"								
	最大工作壓力 Max Pressure	標準 Standard, 20kg/cm ²								
風機 Fan	型式 Type	前向葉片,雙進風扇心式 Forward Curve, Double Inlet Centrifugal								
	數量 No	1	2	2	2	3	4	4		
電機 Motor	型式 Type	單相電容運轉异步電機,三速 Single Phase, Three Speed								
	數量 No	1	1	1	1	2	2	2		
輸入功率 Power Input	W	52	75	102	130	152	250	336		
	進出水 I/O Pipe	3/4"								
接管 Pipe Connection	進水 Water Inlet Pipe	3/4"								
	排水 Drain Pipe	3/4"								
重量 Weight		21	23	25	29	37	43	46		

注：以上數據於下列條件下測得
 Note: Above data base on:
 標準室內空氣條件 Standard Room Air Condition: 相對濕度 RH=50%
 Dry bulb CB=27°C Wet bulb WB=19.5°C Relative Humidity RH=50%



卧式暗装高静压型风机盘管主要技术参数 High Static Type FCU Base Data

项目 Item	参数 Data	型号 Model	CFP-300	CFP-400	CFP-600	CFP-800	CFP-1000	CFP-1200	CFP-1400
风量 Air Flow m ³ /h	高速 High Speed		750	1160	1360	1780	2060	2600	3130
	中速 Middle Speed		615	890	1120	1380	1670	1980	2360
	低速 Low Speed		470	630	780	960	1290	1400	1650
供冷量 Cooling Capacity	W	3848	5525	6734	8638	9771	12668	15183	
水量 Water Flow	L/S	0.15	0.2	0.2	0.25	0.4	0.4	0.4	
水阻力 Water Pressure Drop	Kpa	5	14	16	28	13	16	17	
噪音 Noise	dB(A)	<44	<46	<49	<50	<52	<54	<56	
盘管 Coil	型式 Type	副管配以机械膨胀铜翅片 Mechanical Expanded Copper Tube And Al Fin							
	排数 Rows 每寸片数 Fins/inch	3排 (四管制: 2排制冷, 1排制热) 3Flow (4Pipe=2Flow Cooling, 1Flow Heating) 12/3/8"							
	最大工作压力 Max Pressure	标准 Standard: 2.0kg/cm ²							
风机 Fan	型式 Type	前弯叶片, 双进风离心式 Forward Curve, Double Inlet Centrifugal							
	数量 No.	1	2	2	2	3	4	4	
电机 Motor	型式 Type	单相电容运转异步电机 Three Speed Single Phase, Three Speed							
	数量 No.	1	1	1	1	2	2	2	
	电源 Power	220VAC/1P/50HZ							
输入功率 Power Input	W	74	96	128	168	202	250	336	
接管 Pipe Connection	进出水 IO Pipe	3/4"							
	冷凝水 Drain Pipe	3/4"							
重量 Weight	Kg	21	23	25	29	37	43	46	

以上参数基于以下工况条件下测得:
干球温度 DB=27℃, 湿球温度 WB=19.5℃, 相对湿度 RH=50%
Note: Above data base on:
Dry bulb DB=27℃, Wet bulb WB=19.5℃, Relative humidity RH=50%

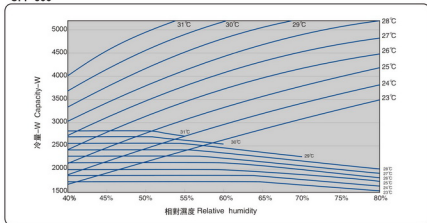
6-3. 风量参数 Air Delivery

型号 Model	在不同余压下的风量 (高速) High Speed CMH @ E.S.P. Indicated						
	High speed	10	20	30	40	50	60
CFP-300-SS	620	580	520	470	-	-	-
CFP-400-SS	960	855	750	626	-	-	-
CFP-600-SS	1210	1090	950	810			
CFP-800-SS	1460	1390	1300	1190			
CFP-1000-SS	1800	1680	1540	1390			
CFP-1200-SS	2300	2130	1950	1770			
CFP-1400-SS	2620	2410	2170	1940			
CFP-300-HS	750	689	659	628	568	476	334
CFP-400-HS	1160	1080	1045	999	919	815	678
CFP-600-HS	1360	1250	1195	1139	1029	864	606
CFP-800-HS	1760	1638	1586	1516	1394	1237	1028
CFP-1000-HS	2060	2027	1946	1847	1651	1488	1046
CFP-1200-HS	2600	2428	2332	2256	2084	1863	1625
CFP-1400-HS	3130	2877	2750	2623	2370	2117	1665

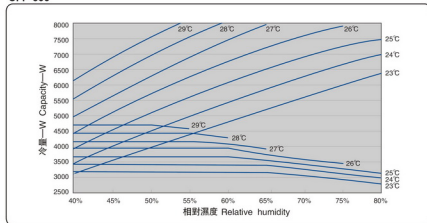


6-4. 總冷量和顯熱-W Total&Sensible Capacity-W

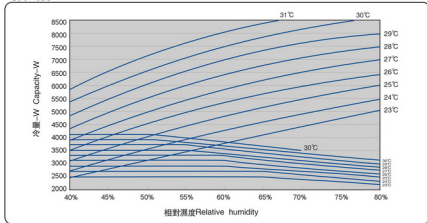
CFP-300



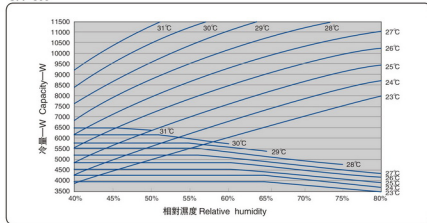
CFP-600



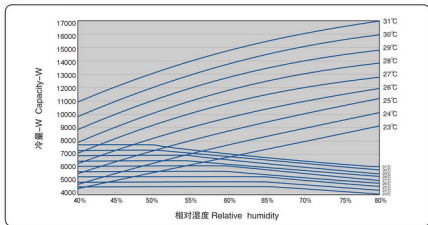
CFP-400



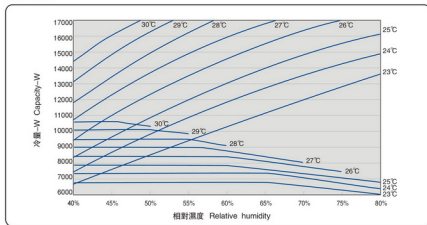
CFP-800



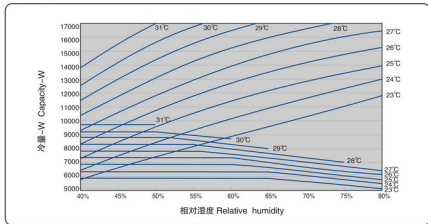
CFP-1000



CFP-1400



CFP-1200



6-5. 制熱參數 Heating Data

基本制熱量—kW BASE HOT WATER CAPACITIES—kW

ROW 排數	UNIT SIZE	水流量(L/S) Water Flow(L/S)													
		0.03	0.06	0.09	0.15	0.25	0.3	0.35	0.4	0.45	0.5	0.6	0.7	0.8	
1ROW	CFP-300	2230	2682	2872	3044	-	-	-	-	-	-	-	-	-	-
	CFP-400	2880	3638	3972	4281	-	-	-	-	-	-	-	-	-	
	CFP-600	3266	4260	4712	5137	-	-	-	-	-	-	-	-	-	
	CFP-800	3768	5117	5758	-	-	-	-	-	-	-	-	-	-	
	CFP-1000	4113	5791	6625	-	-	-	-	-	-	-	-	-	-	
	CFP-1200	4498	6633	7758	-	-	-	-	-	-	-	-	-	-	
3ROW	CFP-1400	4697	7118	8439	-	-	-	-	-	-	-	-	-	-	
	CFP-300	3518	4790	5290	5739	6036	-	-	-	-	-	-	-	-	
	CFP-400	3881	5970	7036	7999	8633	8805	8930	9027	-	-	-	-	-	
	CFP-600	4216	6798	8217	9583	10470	10720	10900	11039	-	-	-	-	-	
	CFP-800	-	7388	9307	11291	13609	12973	13239	13443	13905	13739	-	-	-	
	CFP-1000	-	-	9708	12485	14545	15076	15469	15773	16017	16220	16526	16793	16928	
CFP-1200	-	-	10971	14610	17496	18263	18833	19379	19636	19933	20385	20720	20978		
CFP-1400	-	-	11670	15846	19293	20227	20924	21471	21911	22276	22833	23246	23665		

備註: 參數圖中單位為 kW, 1kW=1000W
NOTE: Ratings based on nominal CMH, 15 degrees C, 55%-65% degrees C, EWT

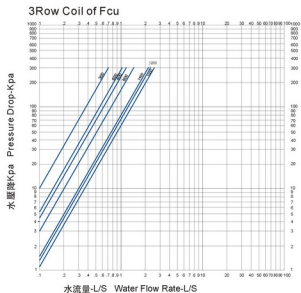


制熱修正係數 Hot Water Temperature Correction Factors

進風溫度 (°C) Air InT (°C)	進水溫度 (°C) EWT (°C)											
	35	40	45	50	55	60	65	70	75	80	85	90
10	0.536	0.649	0.762	0.878	0.994	1.11	1.227	1.344	1.461	1.579	1.695	1.81
13	0.472	0.584	0.696	0.813	0.928	1.044	1.16	1.277	1.394	1.511	1.627	1.743
16	0.408	0.52	0.633	0.747	0.862	0.978	1.094	1.211	1.328	1.445	1.56	1.675
19	0.344	0.456	0.568	0.682	0.797	0.912	1.028	1.144	1.261	1.378	1.493	1.608
22	0.280	0.391	0.503	0.617	0.731	0.846	0.962	1.078	1.194	1.311	1.425	1.54
25	0.216	0.328	0.438	0.551	0.665	0.78	0.895	1.011	1.127	1.243	1.358	1.473
28	0.151	0.261	0.373	0.486	0.599	0.714	0.829	0.944	1.06	1.176	1.291	1.405

制熱修正係數 = 基本制熱量 / 修正後制熱量
Hot Water Heating Capacity / Basic Capacity x Temperature Correction Factor x Air Flow Factor

6-6. 水壓降圖表 Pressure Drop Table



6-7. 外形尺寸 Dimension

型號, CFP (嵌入式暗裝)

注: (1) 除非另外說明, 左手接管。

(2) 安裝檢修門及維護風扇電機。

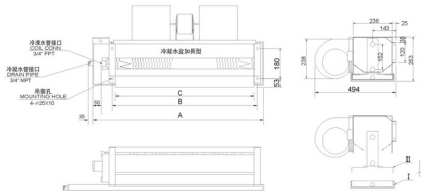
(3) 電機至開關及機組與電源的连接工作由客戶完成。

(4) 現場不允許高于工作壓力運行

(5) 清洗時, 先拆下水盤 I, 然後擰開盤管保護蓋兩邊的螺絲, 即可將盤管部分 II 拆卸下來

Model: Ceiling Recessed Type FCU

- Remark: 1. unless stated water pipe connection with left hand side.
2. installed the access door for fan and motor maintenance.
3. The power cable connection by client.
4. It is not permissible for over working pressure.
5. For dismantle the coil, first remove the drain pan (I) then unscrew the locknut to dismantle the coil (II)



機外尺寸及重量 DIMENSION AND WEIGHT

型號 MODEL	尺寸 DIMENSION (mm)			數量 QUANTITY		淨重 NET WEIGHT Kg
	A	B	C	風機 FAN	電機 MOTOR	
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



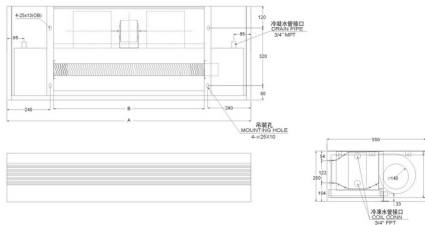
型號: CFPC(臥式明裝)

注: (1) 除非另外說明, 左手接管。

- (2) 安裝檢修門及維護風扇電機。
- (3) 電機至開關及機組與電源的接線工作由客戶完成。
- (4) 現場不允許高于工作壓力運行。

Remark: Ceiling Exposed Type Fcu

1. unless stated water pipe connection with left hand side.
2. installed the access door for fan and motor maintenance.
3. The power cable connection by client.
4. it is not permissible for over working pressure.



機外尺寸及重量 DIMENSION AND WEIGHT

型號 MODEL	尺寸 DIMENSION(mm)		數量 QUANTITY		淨重 NET WEIGHT Kg
	A	B	風機 FAN	電機 MOTOR	
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	2248	1766	4	2	68

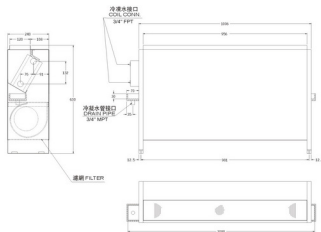
型號: CFF(立式暗裝)

注: (1) 除非另外說明, 左手接管。

- (2) 安裝檢修門及維護風扇電機。
- (3) 電機至開關及機組與電源的接線工作由客戶完成。
- (4) 現場不允許高于工作壓力運行。

Model: Vertical Recessed Type Fcu

- Remark: 1. unless stated water pipe connection with left hand side.
2. installed the access door for fan and motor maintenance.
 3. The power cable connection by client.
 4. it is not permissible for over working pressure.



機外尺寸及重量 DIMENSION AND WEIGHT

型號 MODEL	尺寸 DIMENSION(mm)			數量 QUANTITY		淨重 NET WEIGHT Kg
	A	B	C	風機 FAN	電機 MOTOR	
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	1485	1410	1461	3	2	42
CFF-1200	1736	1660	1711	4	2	48
CFF-1400	1916	1840	1891	4	2	52

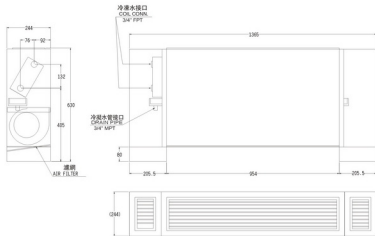


型號: CFFC(立式明裝)

- 注: (1) 除非另外說明, 左手接管。
(2) 安裝檢修門及維護風扇電機。
(3) 電機至開關及機組與電源的连接工作由客戶完成。
(4) 現場不允許高于工作壓力運行

Model: Vertical Exposed Type Fcu

- Remark: 1. unless stated water pipe connection with left hand side.
2. installed the access door for fan and motor maintenance.
3. The power cable connection by client.
4. It is not permissible for over working pressure.



機外尺寸及重量 DIMENSION AND WEIGHT

型號 MODEL	尺寸 DIMENSION(mm)		數量 QUANTITY		淨重 NET WEIGHT Kg
	A	B	風機 FAN	電機 MOTOR	
CFF-300	980	569	1	1	30
CFF-400	1230	819	2	1	37
CFF-600	1365	954	2	1	40
CFF-800	1650	1239	2	1	44
CFF-1000	1845	1434	3	2	54
CFF-1200	2095	1684	4	2	62
CFF-1400	2275	1864	4	2	67

7. CHH 風機盤管系列 CHH Series Fan Coil Unit

7-1. 產品介紹 General Description

CHH 型風機盤管空調器是專為在隱蔽位置處安裝而設計的嵌入式設備, 他在克服多種風管設計阻力的同時仍然輸送需求的大風量和大冷(熱)量, 其風口速度可達 150Pa, 尤其適用於遠距離及高風壓系統輸送冷(熱)量的場合。

風扇我們採用風輪直徑為 $\phi 200-\phi 250$, 風扇外殼和風輪均是採用鍍鋅板制作。每個風輪獨立匹配一個高效能電機, 電機電源是 220V/1P/50HZ。盤管是采用 1/2" 的紫銅管, 配以機械滾接波紋銅翅片, 傳熱效率高。標準機型是 4 排盤管的(客戶可一特別要求其他排數)。整機的外殼是采用鍍鋅板制作, 結構堅固, 安裝方便, 外形美觀。在形成冷機的位置貼上保溫棉以防止機體上產生冷凝水。

CHH description
The CHH FCU is designed for the conceal installation, and service greater air flow rate and cooling (heating) load, the external pressure could be provided at 150Pa, which suitable for far delivered high pressure, cooling and heating duct work

We use 200-250 diameter fan blower, the case constructed by GI sheet. Each fan equipped with a high efficiency motor, power supply by 220V/1P/50Hz. Coil with 1/2" copper tube and with the high heat transfer aluminum fins. Standard model with 4 row coil, rigid construction produced by GI sheet, easy installation and simple design. Prevent condensate by applied insulation at required location.

7-2. 性能參數 Data

項目 Item	參數 Code	型號 Model	CHH305	CHH308	CHH310	CHH312	CHH314	CHH316	CHH318	CHH200	CHH240	CHH300	CHH305
供冷量 Cooling Capacity	W		6462	9416	12287	13159	16039	18644	20433	22663	25963	32956	38739
水量 Water Flow	L/S		0.31	0.44	0.57	0.62	0.73	0.89	1.11	1.34	1.58	1.81	2.11
水壓降 Water Pressure Drop	Kpa		4	9	16	26	12	19	25.5	32	25	12	17
噪音 Noise	dB(A)		58.5	59.2	62.4	62.3	62.4	60.9	56.2	55.5	60	63.1	64.3
盤管 Coil	型式 Type	銅管配以機械滾接波紋翅片 Mechanical Expanded Copper Tube And Al Fin											
	管數 No. 每寸管數 管徑 Max Dia. 最大工作壓力 Max Pressure 或設計壓力 Design Pressure	4 排(1-6 路均可訂做, 四管制可訂做) 4Row(Can Order 1-6Row or 4 Pipe)/12/12" 2Mpa / 3Mpa											
風機 Fan	型式 Type	前向葉片, 雙進風離心式 Forward Curve Double Inlet Centrifugal											
	數量 No.	1	1	1	2	2	2	2	2	2	2	2	2
	風量 (M ³ /H)	1020	1445	1870	2040	2410	2735	3075	3400	4100	5200	5980	
機外余壓 Static Pressure	標準型盤管, 額定風量下餘壓為 75Pa (額大可達 150Pa) 75Pa at Standard Air Flow(Max 150Pa)												
電機 Motor	型式 Type	單相電容運轉异步電機, 三速 Single Phase, Three Speed											
	數量 No.	1	1	1	2	2	2	2	2	2	2	2	2
電機 Power	220VAC/1P/50HZ												
輸入功率 Power Input	W	210	330	400	450	570	750	840	890	1000	1190	1290	
接管 Pipe Connection	進出水 In/O Pipe	$\phi 3/4$ " 外螺紋 $\phi 3/4$ " Male Screw Thread $\phi 1$ " 外螺紋 $\phi 1$ " Male Screw Thread $\phi 1.1/16$ " 外螺紋 $\phi 1.1/16$ " Male Screw Thread											
	冷卻水 Drain Pipe	$\phi 3/4$ " 外螺紋 $\phi 3/4$ " Male Screw Thread											
重量 Weight	Kg	30	35	41	55	62	68	74	81	90	94	98	

注: 以上數據系以下參數下之標準值
標準空氣: 20°C, 濕度 50%, 密度 1.2 kg/m³, 焓 50.1 kJ/kg
Note: Above data based on
Dry bulb: 20°C, Wet bulb: 16°C, Density: 1.2 kg/m³, Enthalpy: 50.1 kJ/kg

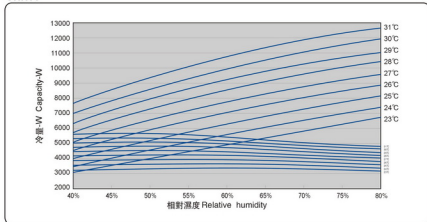


7-3. 風量參數 Air Delivery

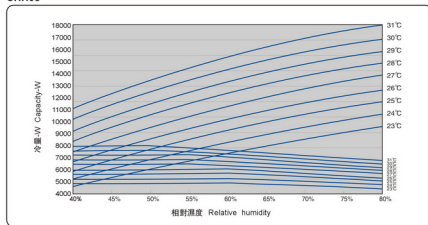
機型 MODEL	0Pa時風量 (M3/H) Air Flow(M3/H) @0Pa			高速時各余壓點的風量 (M3/H) High Speed Air Flow(M3/H) @ E.S.P. Indicated						
	低 Low	中 Mid	高 Hi	25Pa	50Pa	60Pa	75Pa	100Pa	125Pa	150Pa
CHH06	900	1070	1320	1220	1120	1070	1020	920	730	440
CHH08	1070	1480	1800	1680	1560	1510	1445	1310	1155	820
CHH10	1370	1730	2125	2090	2060	1970	1870	1650	1430	1190
CHH12	1450	1870	2415	2280	2180	2100	2040	1800	1615	1340
CHH14	1580	2100	3075	2855	2635	2530	2410	2160	1885	1510
CHH16	1750	2350	3450	3210	2975	2855	2735	2480	2175	1700
CHH18	2100	3050	3650	3550	3315	3195	3075	2840	2550	2055
CHH20	2400	3125	3790	3680	3590	3480	3400	3025	2720	2210
CHH24	2934	3765	4890	4550	4320	4220	4100	3650	3240	2750
CHH30	3516	4374	5860	5680	5460	5330	5200	4640	4140	3730
CHH35	3828	4913	6380	6310	6180	6090	5960	5300	4790	4410

7-4. 總冷量和顯熱-W Total&Sensible Capacity-W

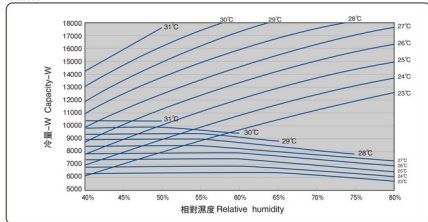
CHH06



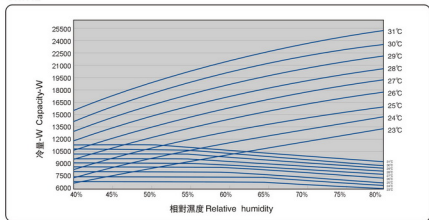
CHH08



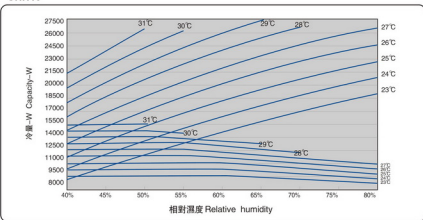
CHH10



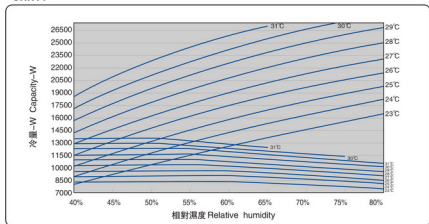
CHH12



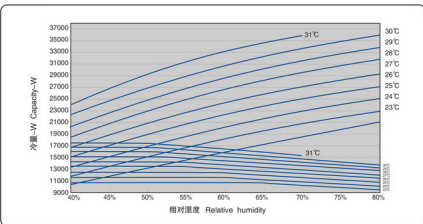
CHH16



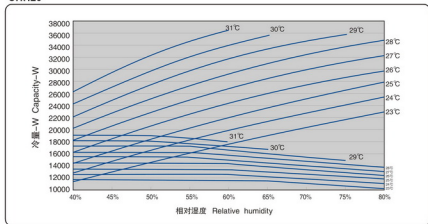
CHH14



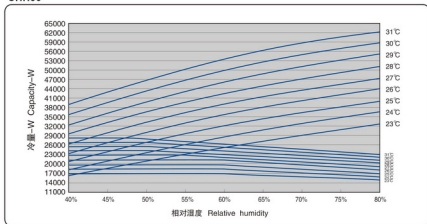
CHH18



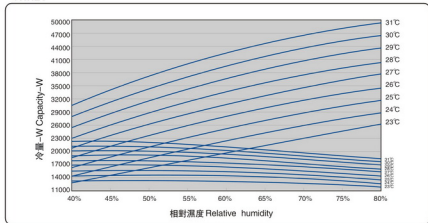
CHH20



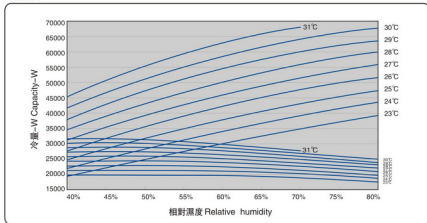
CHH30



CHH24



CHH35





7-5. 制熱參數 Heating Data

ROW排數	UNIT SIZE	水流量(L/S) Water Flow(L/S)										
		0.2	0.4	0.6	0.8	1	1.4	1.8	2.2	2.6	3	
4ROW	CHH06	10.0	10.9	11.3	11.5	11.6	-					
	CHH08	13.3	14.9	15.6	15.9	16.1	-	-	-	-	-	
	CHH10	16.1	18.6	19.5	20.0	20.3	-	-	-	-	-	
	CHH12	16.8	20.1	21.3	21.9	22.3	22.8	-	-	-	-	
	CHH14	19.0	23.3	24.8	25.7	26.1	26.7	-	-	-	-	
	CHH16	20.8	26.1	27.9	28.9	29.5	30.2	-	-	-	-	
	CHH18	-	28.2	30.6	31.9	32.7	33.6	34.2	-	-	-	
	CHH20	-	30.5	33.3	34.8	35.8	36.9	37.5	-	-	-	
	CHH24	-	33.2	37.8	40.0	41.4	43.1	44.1	44.7	45.1	-	
	CHH30	-	-	44.6	48.2	50.3	52.8	54.3	55.3	56.0	56.5	
	CHH35	-	-	50.1	54.6	57.2	60.4	62.2	63.4	64.3	64.9	

備註: 參數基于標準風速, 19°C 進風/7°C 回風/20°C 供水/15°C
NOTE: Ratings based on standard CMV, 19 Degrees C, 12.5/7 Degrees C DWT

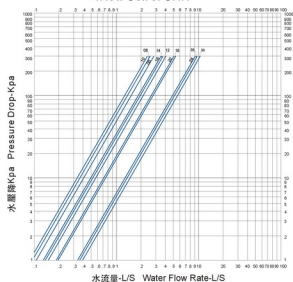
制熱量修正系數 Hot Water Temperature Correction Factors

進風溫度(°C) Air ENT(°C)	進水溫度(°C) EWT(°C)											
	35	40	45	50	55	60	65	70	75	80	85	90
10	0.536	0.649	0.762	0.878	0.994	1.11	1.227	1.344	1.461	1.579	1.695	1.81
13	0.472	0.584	0.698	0.813	0.928	1.044	1.16	1.277	1.394	1.511	1.627	1.743
16	0.408	0.52	0.633	0.747	0.862	0.978	1.094	1.211	1.328	1.445	1.56	1.675
19	0.344	0.456	0.568	0.682	0.797	0.912	1.028	1.144	1.261	1.378	1.493	1.608
22	0.280	0.391	0.503	0.617	0.731	0.846	0.962	1.078	1.194	1.311	1.425	1.54
25	0.216	0.326	0.438	0.551	0.665	0.78	0.895	1.011	1.127	1.243	1.358	1.473
28	0.151	0.261	0.373	0.486	0.599	0.714	0.829	0.944	1.06	1.176	1.291	1.405

制熱量(HkW) = 基本制熱量 × 制熱參數修正系數 × 供水修正系數
Hot Water Heating Capacity (kW) = Base Capacity × Temperature Correction Factor × Air Flow Factor

7-6. 水壓降 Pressure Drop

4Row Coil of CHH





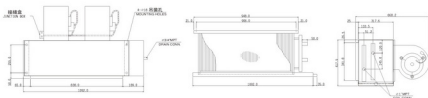
7-7. 外形尺寸 Dimension

型號, CHH

- (1) 除非另外說明, 左手接管。
- (2) 安裝檢修門及建議風扇電機。
- (3) 電機至開關及機組與電源的接線工作由客戶完成。
- (4) 現場不允許高于工作壓力運行。

Model: CHH

- Remark: 1. unless stated water pipe connection with left hand side.
2. installed the access door for fan and motor maintenance.
 3. The power cable connection by client.
 4. It is not permissible for over working pressure.



機外尺寸及重量 DIMENSION AND WEIGHT

型號 MODEL	尺寸 DIMENSION (mm)							數量 QUANTITY		淨重 NET WEIGHT kg	
	A	B	C	D	E	F	G	H	風機 FAN		電機 MOTOR
CHH06	610	356	424	466	342	Φ3/4"	450	417	1	1	30
CHH08	736	482	550	592	342	Φ3/4"	450	417	1	1	35
CHH10	838	584	652	694	342	Φ3/4"	450	417	1	1	41
CHH12	965	711	779	821	342	Φ3/4"	450	417	2	2	55
CHH14	1092	838	906	948	342	Φ1"	450	417	2	2	62
CHH16	1219	965	1038	1075	342	Φ1"	450	417	2	2	68
CHH18	1346	1092	1160	1202	342	Φ1"	450	417	2	2	74
CHH20	1448	1194	1262	1304	342	Φ1"	450	417	2	2	81
CHH24	1652	1398	1466	1508	342	Φ1-1/4"	450	417	2	2	90
CHH30	1702	1448	1516	1558	406	Φ1-1/4"	500	481	2	2	94
CHH35	1956	1702	1770	1812	406	Φ1-1/4"	500	481	2	2	98

8. 吊頂式風機盤管 Cassette Type FCU Base Data

8-1. 產品介紹 Descrption

高美牌吊頂式風機盤管的設計適合各種使用場合。它的送風口和回風口聚在一體, 在風路系統中省去了送風风管; 四面全方位送風, 冷熱分布均勻, 送風範圍廣, 能快速舒適調溫; 風口面板採用ABS制作, 造型高雅, 款式新穎, 外觀豪華, 尺寸與標準天花一致, 容易安裝并與室內裝飾混為一體, 機身還預留了送風管接口和斷風吸入口供客戶選擇安裝。

Cold Magic cassette type FCUs are designed for various interior installation. This type FCU required no air duct, four directions air delivery, heating or cooling could evenly distribute to the area, provide the comfort environment. The elegant and modern designed face panel produced by ABS plastic, which dimensions match with all common ceiling tiles, convenient for interior installation. And we reserve the best air connection for client option.

8-2. 性能參數 Data

表1 Table 1

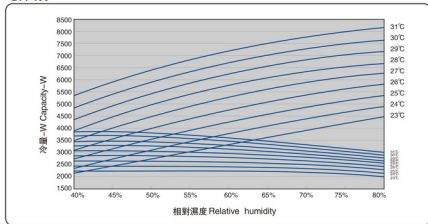
項目 Item	參數 Data	型號 Model	DFF-400	DFF-600	DFF-800	DFF-1200
風量 Air Flow m ³ /h	高速 High Speed		1020	1290	1800	2300
	中速 Middle Speed		760	980	1360	1760
	低速 Low Speed		600	670	1100	1250
供冷量 Cooling Capacity	W		4393	7205	8138	13536
水量 Water Flow	L/S		0.23	0.33	0.39	0.62
水壓降 Water Pressure Drop	Kpa		15	50	13	46
噪音 Noise	dB(A)		48.7	49	49.1	53
盤管 Cool	型式 Type	銅管配以機械連接波紋銅管 Mechanical Expanded Copper Tube And Air Fin				
	排數 Row 每寸片數 Fin 每吋 Pipe Dia.	2-3排 2-3Row /12/3/8"				
	最大工作壓力 Max Pressure	標準 Standard, 20kg/cm ²				
風機 Fan	型式 Type	前向單片, 雙速風扇心式 Forward Curve Double Inlet Centrifugal				
	數量 No.	1個50W 1個60W 2個50W 2個60W				
電機 Motor	型式 Type	單相電容運轉异步電機 Three Single Phase, Three Speed				
	數量 No.	1 1 2 2				
電壓 Power		220VAC/1P/50HZ				
輸入功率 Power Input	W	75 102 130 205				
接管 Pipe Connection	進出水 IO Pipe	3/4"				
	冷卻水 Drain Pipe	3/4"				
重量 Weight	Kg	38 40 65 72				

以上數據僅供參考, 以下數據為工程設計用
 Note: Above data base on:
 Dry bulb DB=27°C; Wet bulb WB=19.5°C; Relative humidity RH=50%

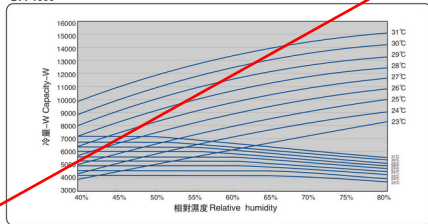


8-3. 總冷量和顯熱-W Total&Sensible Capacity-W

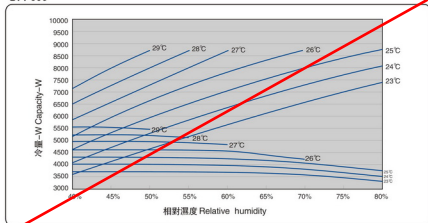
DFP400



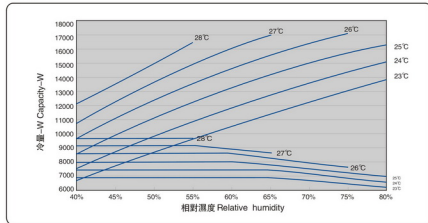
DFP1000



DFP600



DFP1400





8-4. 制熱參數 Heating Data

基本制熱量-KW BASE HOT WATER CAPACITIES-KW

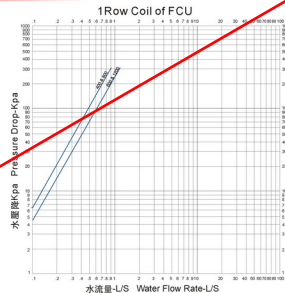
GPM	水流量(L/S) Water Flow(L/S)								
	0.48	0.95	1.43	2.38	3.96	4.76	5.55	6.34	7.13
NUT SIZE	0.03	0.06	0.09	0.15	0.25	0.3	0.35	0.4	0.45
DFP-400	3720	5606	6499	7270	7766	7899	7996	-	-
DFP-600	4689	7763	9515	11195	12315	12587	-	-	-
DFP-800	7440	11212	12998	14540	15532	15796	15992	-	-
DFP-1200	9378	15526	19030	22390	24630	25174	-	-	-

備註: 參數給予標準環境, 19°C 送風, 16°C 回風和 60°C 供水溫度
NOTE: Ratings based on standard conditions, 19 Degree C DB/16 Degree C WB

進風溫度(°C) Air Inlet(°C)	進水溫度(°C) EWT(°C)											
	35	40	45	50	55	60	65	70	75	80	85	90
10	0.536	0.649	0.762	0.878	0.994	1.11	1.227	1.344	1.461	1.579	1.695	1.812
13	0.472	0.584	0.698	0.813	0.928	1.044	1.16	1.277	1.394	1.511	1.627	1.743
16	0.408	0.52	0.633	0.747	0.862	0.978	1.094	1.211	1.328	1.445	1.56	1.675
19	0.344	0.456	0.568	0.682	0.797	0.913	1.028	1.144	1.261	1.378	1.493	1.608
22	0.280	0.391	0.503	0.617	0.731	0.846	0.962	1.078	1.194	1.311	1.425	1.54
25	0.216	0.326	0.438	0.551	0.665	0.78	0.895	1.011	1.127	1.243	1.358	1.473
28	0.151	0.261	0.373	0.486	0.599	0.714	0.829	0.944	1.06	1.176	1.291	1.405

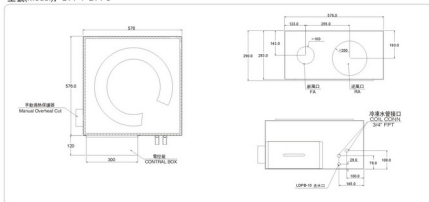
制熱量(KW) = 基本制熱量(KW) × 制熱修正係數 × 溫度修正係數 Heat Heating Capacity(KW)=Base Capacity × Temperature Correction Factor × Air Flow Factor

8-5. 水壓降 Pressure Drop

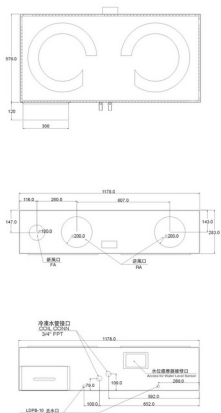


8-6. 外形尺寸 Dimension

型號(Model): DFP4 DFP6



型號(Model): DFP8 DFP12



9. 電控部分 Wiring connection

所有系列的風機盤管都可以用溫控器控制,請參考下面的線路圖(標準風機盤管不包含電磁閥)

All series FCU could be controlled by three speed switch controller, please referred to the wiring diagram. (Standard FCU does not include the water valve.)

