



YOUR PERFECT PARTNER

HWCW-SERIES
Chiller Water Air Handling Unit
Chiller Water Primary air Handling Unit
1500-40000m³/h(24 Models)



H.W. International Air Conditioning Ltd.

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Vertical Type Unit 座地式風櫃



Horizontal Type Unit 吊掛式風櫃



Modular Air Handling Unit 模塊式空氣處理機

Introduction

"HOOAIR" CHILLER WATER AIR HANDLING UNIT

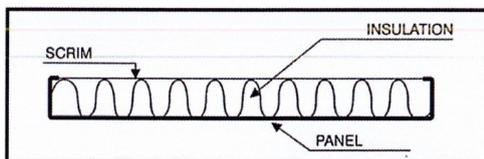
The purpose of this catalogue is to help consulting engineers and equipment specifiers in the preliminary selection of 'HOOAIR' air handling units. However, if required, our sales officers will be happy to provide a computerised unit selection to confirm or complete your preliminary selection.

Now introducing a new dimension in central station air handling unit systems 'HOOAIR' HWCW series chiller water primary air or air handling units. HORIZONTAL/ VERTICAL discharge with 24 standard model capacity range from 1500 m³ /hr. - 40000m³ /hr. cooling capacity from 6.7kw to 749 kw.

* If any special design requirements please refer to our Sales Department.

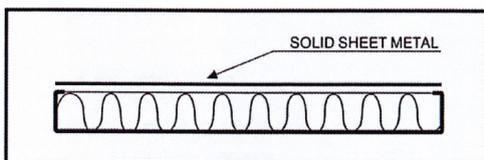
EFFICIENT INSULATION NOW YOU CAN CHOOSE DIFFERENT KIND PANEL TO MEET YOUR SPECIFIC OR JOB REQUIREMENTS.

1. "Single Skin"



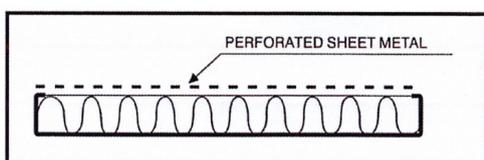
A plan fiberglass scrim preventing erosion of insulation by the airstream 25mm-50mm thickness fiberglass /polyurethane (PU) insulation.

2. "Double Skin"



Sheet metal with insulation between the inner and the outer panel 25mm-80mm panel thickness polyurethane (PU) insulation cover with solid sheet metal.

3. "Double Skin" With perforated inner skin



Sandwiched insulation for sound absorption 25mm - 80mm fiberglass/ polyurethane (PU)insulation with perforated.

此 簡介說明‘豪亞空調’標準型號產品及詳細參考資料，可供工程師或設計人員等使用。如需要特別設計時，可直接聯絡本公司營業部或代理商，由我們專業營業工程師，利用已設計及認可電腦軟件進行輸入及設計輸出，務求使我們的產品能在設計及使用上符合客戶要求。

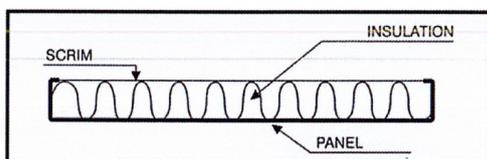
在此特別向各顧問公司、客戶工程人員推薦、全新設計及開發的‘豪亞空調’HWCW系列雙層櫃板，新鮮空氣處理或空氣處理機，可選擇立式或卧式送風位置，我們可提供24個標準型號，送風量由每小時1500立方米至每小時40000立方米，制冷量由6.7千瓦至749千瓦。

*如任何項目設計要求超出標準型號能力，可向本公司營業部查詢。

現在閣下可選配高效能隔熱材料，裝配於風櫃門板上。

1. “單層櫃板”

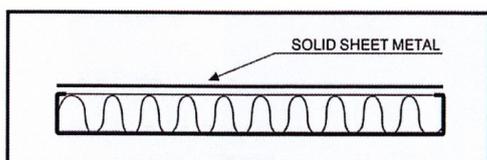
採用材料



玻璃棉板或高密度硬聚氨酯保溫。
門板厚度：25mm-50mm

2. “雙面櫃板”

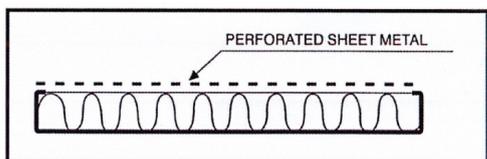
採用材料



高密度硬聚氨酯保溫，雙面封鍍鋅鐵板。
門板厚度：25mm-80mm

3. “雙面沖孔鍍鋅門”

採用材料



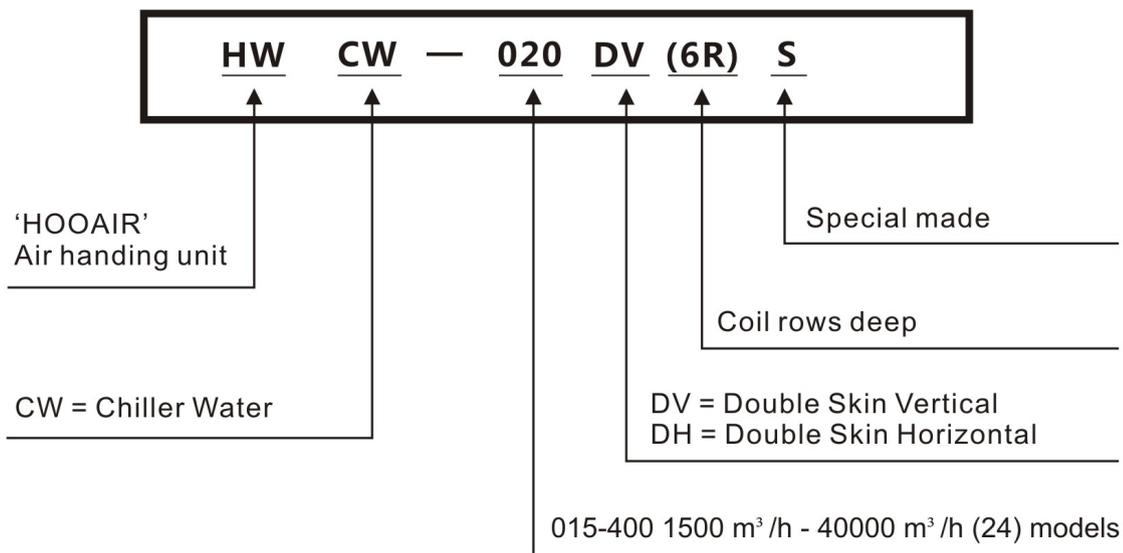
高密度硬聚氨酯保溫及玻璃棉板鍍鋅沖孔鐵門板。
門板厚度：25mm-80mm

Identification 產品型號識別

The HWCW series product line of 'HOOAIR' air handling unit is based on a modular system.

組合選型號識別顯示

EXAMPLE: / 選例:



HWCW產品系列，可透過圖解例子了解型號特性、送風量、制冷能力、送風方向、盤管行數及機身編號等。

1. CHOICE OF BLOWER

雙進風離心式風扇

These are two types of centrifugal fans available

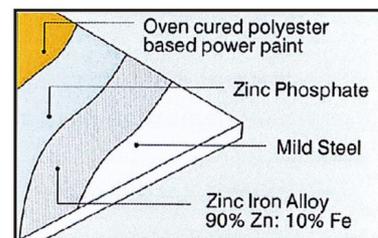
- a. D.I.D.W. forward curved (前傾)
- b. D.I.D.W. Backward curved (後傾)



2. UV POWDER COATING PANELS

櫃身經防腐蝕靜電噴塗處理防紫外光線

All external panels are factory painted with durable oven cured polyester based powder paint.



3. EC PLUG FAN

無段變頻風扇

Easy for services maintenance & reducing the energy power consumption.



4. ANTI-VIBRATION ISOLATION

風扇及馬達避震裝置

As standard from the factory, the fan & motor assembly are mounted on a common base with neoprene or spring anti-vibration mountings.



5. FLEXIBLE DUCT CONNECTOR

出風位置避震接駁

A flexible duct connector is provided to minimise any transmission or vibration to the unit casing.



6. DIRECT EXPANSION COILS

雪種盤管

These coils are of a aluminium, plate fins with bell collars and bonded to used O.D. copper tubes by mechanical expansion coils are provided with pressure type brass distributors with solder type connections and have a minimum and have minimum for two distributors. Copper plate & epoxy coating plate fins are available as an option.



Features and Benefits 產品特性及優點

- Special design die cast aluminium alloy corner joint.
- 特別設計鋁合金鑄壓三角連接座。



- Special made extruded aluminium alloy pentapost frame with anti-corrosion anodized finish
- 經陽極防腐蝕處理鋁合金擠壓成型鋁框架。



- Double skin panel galvanized steel sheet with corro-coat PE polyester powder coat and in-fill. Instapak CFC-FREE polyurethane foam (PU).
- 雙層櫃板、鍍鋅鐵板外經過靜電粉噴塗防紫外光、防腐蝕。
- 板層中央注入 CFC-FREE 高密度硬聚氨酯隔熱材料。



- EASY MAINTENANCE & SITE INSTALLATION

Panels and accessories can be easily removed, rearranged or exchanged on site if necessary. The user will appreciate on site accessibility of components. Air tight access doors and sturdy double skinned floor. Easy assembly of sections reduces contractors installation time.

- 容易保養、安裝組合簡單方便。全部門板及配件可拆下再到地盤組合還原，令安裝人員及工程節省時間及金錢，令工程可在最短時間內完成。



Computer Quick Selection (2.1 Edition)

We have made available a computer program to finalise your selection. For applications where face velocities. Exceeds 3.0m/sec drift eliminators are recommended to avoid moisture carry over.

全新電腦軟件設計(2.1版本), 助你選擇最有效能的產品及型號。在設計過程中, 冷水盤管表面風速超過每秒3米最好採用擋水器。

H.W. International Air Conditioning Ltd.

HOOAIR COIL SELECTION PROGRAM

TYPE: AHU
MODEL: MHCW-0402V(6R)S
EDITION: 1
QUOTATION: 1
PROJECT: 1
CUSTOMER: 1

INPUT DATA: ELEVATION: 0. FOULING FACTOR: 0.0500

TAG	SCMS	MAX FV	EDB	EWB	EWT	% APD	WPD	FPM	TURBS
CW-000	8.333	33.0	28.0	7.0					N

ACTUAL FAN SPEED: 1354 RPM

STACK QTY	WIDTH	LENGTH	UNIT TYPE	COIL TYPE	ROW	FPM	TYPE	KW	LPS	WTR	TWT
1	361	1000	W	W	3	393	SF	5.0	5.0	5.0	5.0

STANDARD FACE VELOCITY (M/SEC): 2.496
ACTUAL FACE AREA(SQ. M): 3.3

SELECTION RUN:	1	1	1	1	1
DIAGNOSTIC:	W	W	WD	WD	
COIL TYPE:	W	W	WD	WD	
ROWS:	3	4	6	8	
FIN TYPE:	SF	SF	SF	SF	
FPM:	393	393	393	393	
TURBS:	N	N	N	N	

LDB:	LWB:	SENSIBLE KW:	TOTAL KW:
23.2	19.1	142.3	196.9
22.2	18.1	142.3	196.9
241.9	352.7	499.2	567.4

LPS:	WTR:	VELOCITY(M/SEC):
11.57	5.0	1.4
16.87	5.0	2.0
23.89	5.0	1.4
27.15	5.0	1.6

APD(KPA):	WPD(KPA):
76.1	15.9
114.1	40.2
228.1	23.2
304.4	34.8

DESIGN: DAT
APPROVAL(DESIGN): DAT
APPROVAL(SALE): DAT
APPROVAL(CUSTOMER): DAT

H.W. INTERNATIONAL AIR CONDITIONING LTD. TEL. 852-2796 8888 FAX. 852-2796 8899

MODEL: MHCW-0402V(6R)S

AHU INFORMATION

DIMENSION	1550H 1150 W 700 D
FAN	ADQ280K
MOTOR	2.30/360V 3 P
FAN SPEED	1354 RPM
FAN SPEED	1435 RPM
MOTOR	50mm P.U.
INSULATION	50mm ALUMINUM
FILTER	50mm ALUMINUM

COIL INFORMATION

COIL DIMEN.	272 W 780 L
COMPLETION	27.2X7.2" IN
BRASS	1/2" O.D. 6 R/W
FRAME	10 FIN/IN
DRIFTING NO.	58037
DESIGN	17-11-20
REVISION	17-11-20
DESIGN	XYG 17-11-20

Ref:

H.W. International Air Conditioning Ltd.

HOOAIR COIL SELECTION PROGRAM

TYPE: AHU
MODEL: MHCW-0850H(4R)S
EDITION: 1
QUOTATION: 1
PROJECT: 1
CUSTOMER: 1

INPUT DATA: ELEVATION: 0. FOULING FACTOR: 0.0500

TAG	SCMS	MAX FV	EDB	EWB	EWT	% APD	WPD	FPM	TURBS
W-100	2.7777	27.0	19.5	7.0					N

ACTUAL FAN SPEED: 2076 RPM

STACK QTY	WIDTH	LENGTH	UNIT TYPE	COIL TYPE	ROW	FPM	TYPE	KW	LPS	WTR	TWT
1	361	1460	W	W	3	393	SF	5.0	5.0	5.0	5.0

STANDARD FACE VELOCITY (M/SEC): 2.496
ACTUAL FACE AREA(SQ. M): 1.1

SELECTION RUN:	1	1	1	1	1
DIAGNOSTIC:	W	W	WD	WD	
COIL TYPE:	W	W	WD	WD	
ROWS:	3	4	6	8	
FIN TYPE:	SF	SF	SF	SF	
FPM:	393	393	393	393	
TURBS:	N	N	N	N	

LDB:	LWB:	SENSIBLE KW:	TOTAL KW:
16.3	14.3	43.50	52.40
15.5	13.9	43.50	52.40
40.50	55.07	74.65	86.77

LPS:	WTR:	VELOCITY(M/SEC):
1.928	5.0	0.5
2.635	5.0	0.7
3.572	5.0	1.0
4.152	5.0	1.1
4.519	5.0	1.2
4.755	5.0	1.3

APD(KPA):	WPD(KPA):
102.6	2.4
142.7	5.2
220.1	12.3
296.8	20.3
373.2	28.4
449.4	36.4

DESIGN: DAT
APPROVAL(DESIGN): DAT
APPROVAL(SALE): DAT
APPROVAL(CUSTOMER): DAT



Standard Performance Data 標準型號性能數據



空調冷水風櫃性能參數表 (Performance Data) AHU

入水溫度(Entering temp.)7°C, 出水溫度 (Leaving temp.) 12°C

入風參數		乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C				乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C				乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C			
盤管		行數 (Rows) 4 , 每寸翅片數 (FPI) 10				行數 (Rows) 6 , 每寸翅片數 (FPI) 10				行數 (Rows) 8 , 每寸翅片數 (FPI) 10			
Model	風量 CMH	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa
HWCW-015	1500	6.7	5.8	0.55	2.1	7.6	6.4	0.41	1.6	9.5	7.2	0.46	2.3
HWCW-020	2000	10.4	8.3	0.83	5.4	12.1	9.2	0.64	4.2	14.4	10.3	0.69	5.8
HWCW-025	2500	12.1	10.0	0.97	3.2	13.9	11.1	0.74	2.4	17.0	12.4	0.81	3.3
HWCW-030	3000	15.8	12.5	1.26	5.7	18.4	14.0	0.98	4.3	21.8	15.5	1.04	5.8
HWCW-040	4000	20.3	16.4	1.21	5.9	25.8	19.2	1.23	7.7	31.4	21.6	1.50	13.3
HWCW-050	5000	27.4	21.3	1.64	11.5	33.5	24.5	1.78	8.0	38.9	26.9	1.86	10.4
HWCW-060	6000	31.2	24.9	1.49	10.6	40.4	29.4	1.93	10.2	48.3	33.0	2.31	17.3
HWCW-065	6500	34.6	27.3	1.66	13.4	44.7	32.2	2.14	12.9	53.0	36.0	2.54	21.6
HWCW-070	7000	38.0	29.6	1.82	16.6	48.8	35.0	2.34	15.8	57.6	39.0	2.76	26.3
HWCW-080	8000	44.6	34.3	2.13	24.1	57.1	40.6	2.73	22.9	65.3	44.4	3.12	21.0
HWCW-090	9000	48.9	38.1	2.34	14.0	63.4	45.3	3.03	17.6	74.6	50.4	3.57	28.9
HWCW-100	10000	55.6	42.8	2.66	19.0	71.8	50.9	3.43	23.5	84.0	56.5	4.02	38.3

Note: The above specifications are subject to change without notice
 注意：以上產品規格及尺寸如有更改，恕不另行通知



Standard Performance Data 標準型號性能數據

空調冷水風櫃性能參數表 (Performance Data) AHU
 入水溫度(Entering temp.)7°C, 出水溫度 (Leaving temp.) 12°C

入風參數		乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C				乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C				乾球溫度 (DB) 27°C, 濕球溫度 (WB) 19.5°C			
盤管		行數 (Rows) 4, 每寸翅片數 (FPI) 10				行數 (Rows) 6, 每寸翅片數 (FPI) 10				行數 (Rows) 8, 每寸翅片數 (FPI) 10			
Model	風量 CMH	總冷量 KW	顯冷量 KW	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 KW	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 KW	流量 L/S	水阻力 Kpa
HWCW-120	12000	66.5	51.3	3.18	17.5	87.6	61.7	4.19	31.7	96.8	66.1	4.63	16.1
HWCW-130	13000	72.3	55.7	3.46	17.9	95.2	66.9	4.56	30.2	106.2	72.2	5.08	20.2
HWCW-150	15000	84.8	64.8	4.06	20.1	101.5	73.8	4.85	12.1	121.4	82.8	5.81	17.1
HWCW-160	16000	95.8	72.6	4.58	13.4	119.4	83.9	5.72	14.6	138.8	92.3	6.64	23.4
HWCW-180	18000	106.8	81.31	5.11	12.7	137.2	95.5	6.57	20.1	158.4	104.8	7.58	31.9
HWCW-190	19000	114.2	86.4	5.46	14.8	146.1	101.4	6.99	23.2	168.2	111.1	8.05	36.7
HWCW-200	20000	117.9	90.1	5.64	12.4	155.2	107.3	7.43	26.7	175.7	116.4	8.41	23.8
HWCW-240	24000	147.4	110.4	7.05	20.6	185.0	128.2	8.85	20.4	212.7	140.5	10.18	33.1
HWCW-280	28000	165.6	126.3	7.92	11.2	217.7	150.4	10.42	24.8	249.7	164.6	11.95	39.8
HWCW-300	30000	176.6	135.0	8.45	11.1	232.5	160.8	11.13	24.5	266.9	176.1	12.77	39.2
HWCW-350	35000	206.0	157.5	9.86	11.7	271.3	187.6	12.98	25.5	311.4	205.4	14.90	40.5
HWCW-400	40000	235.4	179.9	11.26	12.4	310.1	214.4	14.83	26.7	355.9	234.7	17.03	42.0

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Standard Performance Data 標準型號性能數據



空調冷水風櫃性能參數表 (Performance Data) PAU

入水溫度(Entering temp.)7°C, 出水溫度 (Leaving temp.) 12°C

入風參數		乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C				乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C				乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C			
Model	風量 CMH	行數 (Rows) 4, 每寸翅片數 (FPI) 10		行數 (Rows) 6, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10		行數 (Rows) 6, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10	
		總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa
HWCW-015	1500	13.8	5.9	0.66	3.2	20.8	8.3	0.99	8.3	25.0	9.9	1.20	13.8
HWCW-020	2000	21.4	8.8	1.02	8.0	29.6	11.8	1.42	18.3	34.8	13.7	1.67	29.2
HWCW-025	2500	25.2	10.5	1.21	4.8	36.3	14.4	1.74	11.6	43.0	17.0	2.06	18.7
HWCW-030	3000	32.8	13.5	1.57	8.5	45.2	17.9	2.16	18.9	52.9	20.9	2.53	29.8
HWCW-040	4000	47.6	19.3	2.28	19.2	63.2	25.0	3.02	40.4	66.4	26.2	3.18	8.1
HWCW-050	5000	59.1	23.9	2.83	14.8	78.8	31.1	3.77	31.7	86.3	34.0	4.13	14.8
HWCW-060	6000	74.0	29.8	3.54	24.5	90.7	36.0	4.34	17.7	106.0	41.8	5.07	24.0
HWCW-065	6500	81.5	32.7	3.90	30.5	99.8	39.5	4.77	22.2	116.0	45.8	5.55	29.9
HWCW-070	7000	88.9	35.6	4.25	37.2	103.8	41.2	4.97	13.0	122.3	48.2	5.85	17.9
HWCW-080	8000	100.5	40.3	4.81	30.5	121.9	48.3	5.83	18.8	142.2	56.1	6.80	25.4
HWCW-090	9000	114.3	45.8	5.47	34.9	134.9	53.5	6.46	15.3	158.4	62.5	7.58	20.9
HWCW-100	10000	118.7	48.0	5.68	13.8	153.0	60.6	7.32	20.4	178.3	70.4	8.53	27.5

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空調冷水風櫃性能參數表 (Performance Data) PAU
 入水溫度(Entering temp.)7°C, 出水溫度 (Leaving temp.) 12°C

入風參數		乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C				乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C				乾球溫度 (DB) 33°C, 濕球溫度 (WB) 28°C							
Model	風量 CMH	行數 (Rows) 4, 每寸翅片數 (FPI) 10		行數 (Rows) 6, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10		行數 (Rows) 8, 每寸翅片數 (FPI) 10					
		總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa	總冷量 KW	顯冷量 Kw	流量 L/S	水阻力 Kpa
HWCW-120	12000	148.4	59.7	7.10	22.9	187.2	74.0	8.96	28.1	216.7	85.5	10.37	37.4	216.7	85.5	10.37	37.4
HWCW-130	13000	163.3	65.5	7.81	28.5	198.3	78.5	9.49	21.6	231.4	91.3	11.07	29.3	231.4	91.3	11.07	29.3
HWCW-150	15000	174.2	70.7	8.33	13.6	234.6	92.8	11.23	31.6	267.4	105.5	12.79	33.1	267.4	105.5	12.79	33.1
HWCW-160	16000	220.6	88.0	10.56	36.1	251.3	99.3	12.02	12.6	291.8	115.3	13.96	19.0	291.8	115.3	13.96	19.0
HWCW-180	18000	242.9	97.1	11.62	21.1	289.5	114.3	13.85	17.2	333.3	131.7	15.94	25.6	333.3	131.7	15.94	25.6
HWCW-190	19000	259.2	103.5	12.40	24.4	308.7	121.8	14.77	19.8	343.8	135.7	16.45	14.3	343.8	135.7	16.45	14.3
HWCW-200	20000	275.8	110.0	13.19	28.2	327.8	129.3	15.68	22.6	374.7	148.2	17.93	33.3	374.7	148.2	17.93	33.3
HWCW-240	24000	335.8	133.7	16.07	37.6	390.8	154.2	18.70	17.3	447.8	177.1	21.42	26.1	447.8	177.1	21.42	26.1
HWCW-280	28000	386.1	153.9	18.47	33.8	460.5	181.7	22.03	19.3	525.7	208.0	25.15	29.1	525.7	208.0	25.15	29.1
HWCW-300	30000	418.2	166.6	20.01	40.4	492.3	194.2	23.55	19.1	562.4	222.5	26.91	28.8	562.4	222.5	26.91	28.8
HWCW-350	35000	480.2	191.5	22.97	29.4	573.6	226.3	27.45	20.7	655.6	259.4	31.37	30.8	655.6	259.4	31.37	30.8
HWCW-400	40000	546.4	218.0	26.14	29.6	655.6	258.7	31.37	22.6	749.3	296.4	35.85	33.3	749.3	296.4	35.85	33.3

Note: The above specifications are subject to change without notice
 注意: 以上產品規格及尺寸如有更改, 恕不另行通知

Unit Physical Data 機組數據



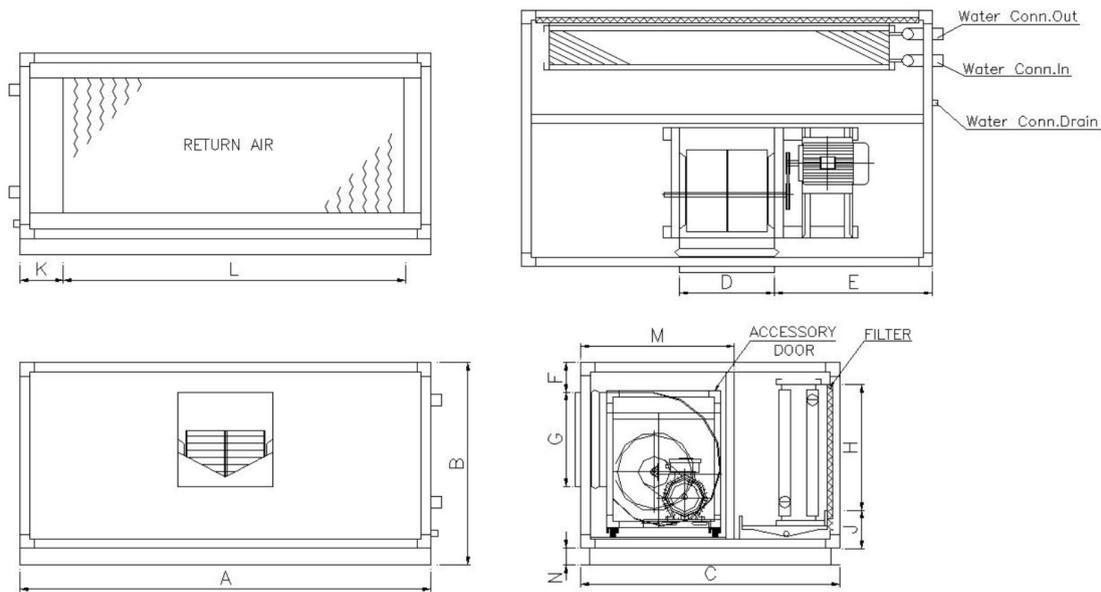
Model 型號	Air-Flow 送風量 CMH	Fan Dia. 風扇直徑 (mm)	Fan Motor 風扇馬達 Kw (功率)	Connections 水管接頭 Inch (英寸)						Drain 排水管 Inch (英寸)	Unit Weight 機組總重量			
				4R AHU	6R AHU	8R AHU	4R PAU	6R PAU	8R PAU		4R (4行) Kg (公斤)	6R (6行) Kg (公斤)	8R (8行) Kg (公斤)	
HWCW-015	1500	180	0.55	1"	1-1/4"	1"	1-1/4"	PAU	1-1/4"	1"	(H) 120	(V) 150	(H) 140	(V) 170
HWCW-020	2000	180	0.55	1-1/4"	1-1/4"	1-1/4"	1-1/4"	PAU	1-1/2"	1"	130	160	145	180
HWCW-025	2500	200	0.75	1-1/4"	1-1/4"	1-1/4"	1-1/4"	PAU	1-1/2"	1"	135	170	145	190
HWCW-030	3000	225	0.75	1-1/4"	1-1/4"	1-1/4"	1-1/2"	PAU	1-1/2"	1"	141	180	150	210
HWCW-040	4000	250	0.75	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"	2"	1"	170	200	190	260
HWCW-050	5000	280	0.75	1-1/2"	1-1/2"	1-1/2"	2"	2"	2-1/2"	1"	180	215	210	280
HWCW-060	6000	315	1.5	1-1/2"	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	1"	210	250	240	320
HWCW-065	6500	315	1.5	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	2-1/2"	1"	240	300	270	360
HWCW-070	7000	355	1.5	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	2-1/2"	1-1/4"	280	340	310	400
HWCW-080	8000	355	1.5	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	2-1/2"	1-1/4"	320	380	350	450
HWCW-090	9000	400	2.2	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	3"	1-1/4"	360	430	400	520
HWCW-100	10000	400	2.2	2"	2"	2-1/2"	2-1/2"	2-1/2"	3"	1-1/4"	400	480	450	580

Note: The above specifications are subject to change without notice
 注意：以上產品規格及尺寸如有更改，恕不另行通知

Model 型號	AIR-FLOW 送風量 CMH	FAN Dia. 風扇直徑 (mm)	FAN MOTOR 風扇馬達 Kw(功率)	CONNECTIONS 水管接頭 inch(英寸)						DRAIN 排水管 inch	UNITWEIGHT 機組總重量						
				4R AHU	6R AHU	8R AHU	4R PAU	6R PAU	8R PAU		4R (4行) Kg (公斤)	6R (6行) Kg (公斤)	8R (8行) Kg (公斤)	(H)	(V)	(H)	(V)
HWCW-120	12000	400	3	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	1-1/4"	450	550	520	620	570	660
HWCW-130	13000	450	3	2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	1-1/4"	520	630	580	700	630	730
HWCW-150	15000	450	4	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	1-1/4"	590	700	650	780	720	830
HWCW-160	16000	500	4	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	1-1/4"	640	750	710	850	780	900
HWCW-180	18000	500	5.5	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"X2	1-1/4"	700	820	780	950	850	980
HWCW-190	19000	500	5.5	2-1/2"	2-1/2"	3"	3"	3"	3"	3"X2	1-1/4"	780	900	860	1050	980	1150
HWCW-200	20000	560	5.5	2-1/2"	2-1/2"	3"	3"	3"	3"X2	3"X2	1-1/4"	855	1050	950	1100	1050	1250
HWCW-240	24000	560	7.5	2-1/2"	3"	3"	3"	3"	3"X2	3"X2	1-1/4"	950	1150	1050	1150	1150	1350
HWCW-280	28000	630	7.5	3"	3"	3"	3"	3"	3"X2	3"X2	1-1/4"	1050	1250	1150	1300	1250	1500
HWCW-300	30000	630	7.5	3"	3"	3"	3"	3"	3"X2	4"X2	1-1/4"	1180	1400	1300	1550	1400	1700
HWCW-350	35000	710	11	3"	3"	3"	3"	3"	3"X2	4"X2	1-1/4"	1300	1550	1450	1750	1600	1950
HWCW-400	40000	710	15	3"	3"	3"X2	4"X2	4"X2	4"X2	4"X2	1-1/4"	1450	1750	1600	1900	1700	2050

Note: The above specifications are subject to change without notice
 注意：以上產品規格及尺寸如有更改，恕不另行通知

Horizontal Type Unit Dimensional Chart (吊掛式風櫃尺寸表)



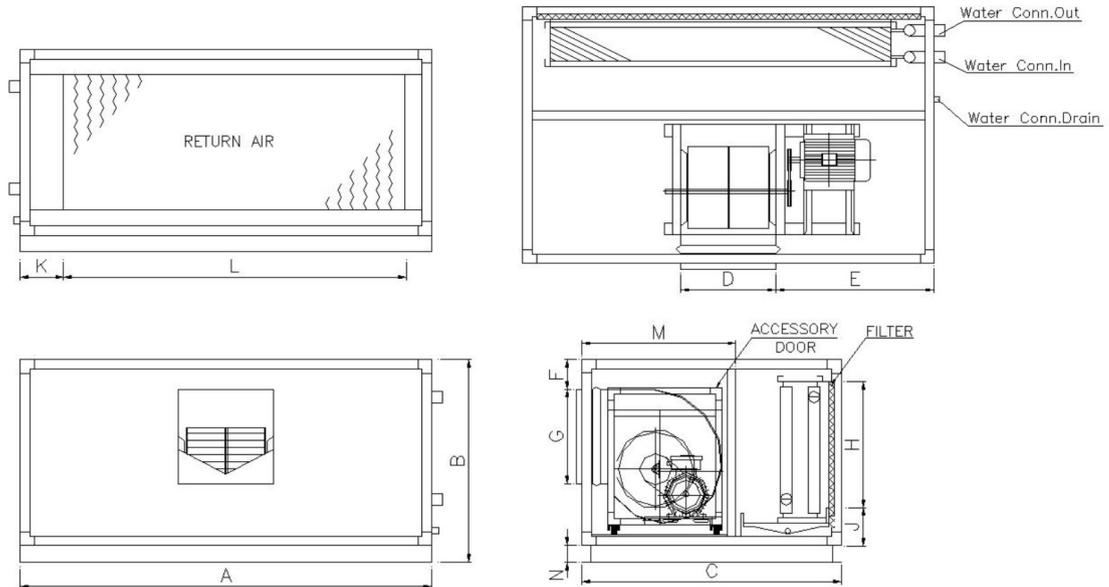
MODEL	A	B	C			D	E	F	G	H	J	K	L	M	N
			4R	6R	8R										
HWCW-015	820	620	1015	1065	1115	229	430	165	229	362	151	185	440	515	*
HWCW-020	930	620	1015	1065	1115	229	430	165	229	362	151	185	585	515	*
HWCW-025	860	715	1030	1080	1130	256	430	190	256	457	151	205	585	530	*
HWCW-030	1010	715	1030	1080	1130	288	430	145	288	457	151	195	700	530	*
HWCW-040	1260	715	1080	1130	1180	322	469	100	322	457	151	195	935	580	*
HWCW-050	1295	815	1135	1185	1235	361	467	100	361	553	151	195	975	635	*
HWCW-060	1500	815	1135	1185	1235	404	548	100	404	553	151	200	1165	635	*
HWCW-065	1595	815	1135	1185	1235	404	596	100	404	553	151	205	1265	635	*
HWCW-070	1500	910	1195	1245	1295	453	524	105	453	648	164	215	1170	695	*
HWCW-080	1665	910	1195	1245	1295	453	606	105	453	648	164	210	1330	695	*
HWCW-090	1595	1035	1260	1310	1360	507	544	144	507	775	164	250	1260	760	*
HWCW-100	1735	1035	1260	1310	1360	507	614	144	507	775	164	220	1400	760	*

Notes:

- 1) The above specifications are subject to change without notice.
以上產品規格及尺寸如有更改,恕不通知.
- 2) The above units are mm
以上單位為毫米
- 3) The width(A) is based on 6 rows of PAU
潤(A)度尺寸是以 PAU 6 rows 計算
- 4) *Standard model excluded base frame
帶*型號產品無底架



Horizontal Type Unit Dimensional Chart (吊掛式風櫃尺寸表)

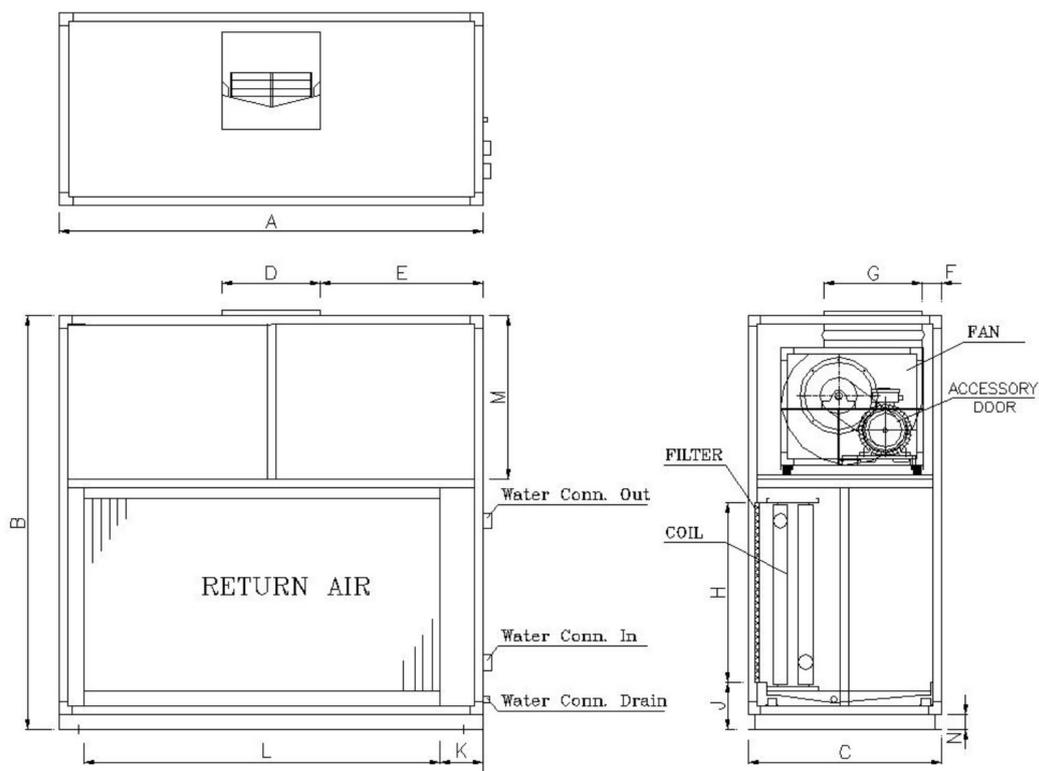


MODEL	A	B	C			D	E	F	G	H	J	K	L	M	N
			4R	6R	8R										
HWCW-120	1835	1195	1390	1440	1490	507	664	244	507	870	164	185	1500	890	64
HWCW-130	1920	1225	1390	1440	1490	569	676	203	569	902	164	185	1570	890	64
HWCW-150	2100	1260	1390	1440	1490	569	766	263	569	934	164	205	1750	890	64
HWCW-160	2000	1365	1420	1470	1520	638	681	90	638	1060	164	195	1650	920	64
HWCW-180	2205	1365	1420	1470	1520	638	784	90	638	1060	164	195	1850	920	64
HWCW-190	2305	1365	1420	1470	1520	638	834	90	638	1060	164	195	1960	920	64
HWCW-200	2410	1375	1560	1610	1660	715	848	90	715	1060	164	200	2060	1060	76
HWCW-240	2450	1585	1560	1610	1660	715	868	277	715	1250	164	205	2100	1060	76
HWCW-280	2900	1535	1660	1710	1760	801	910	101	801	1200	164	215	2270	1160	76
HWCW-300	3085	1560	1660	1710	1760	801	990	195	801	1200	164	210	2430	1160	100
HWCW-350	3205	1750	1800	1850	1900	898	1016	202	898	1403	164	250	2550	1300	100
HWCW-400	3300	1900	1800	1850	1900	898	1066	322	898	1555	164	220	2650	1300	100

Notes:

- 1) The above specifications are subject to change without notice.
以上產品規格及尺寸如有更改,恕不通知.
- 2) The above units are mm
以上單位為毫米
- 3) The width(A) is based on 6 rows of PAU
潤(A)度尺寸是以 PAU 6 rows 計算

Vertical Type Unit Dimensional Chart (座地式風櫃尺寸表)

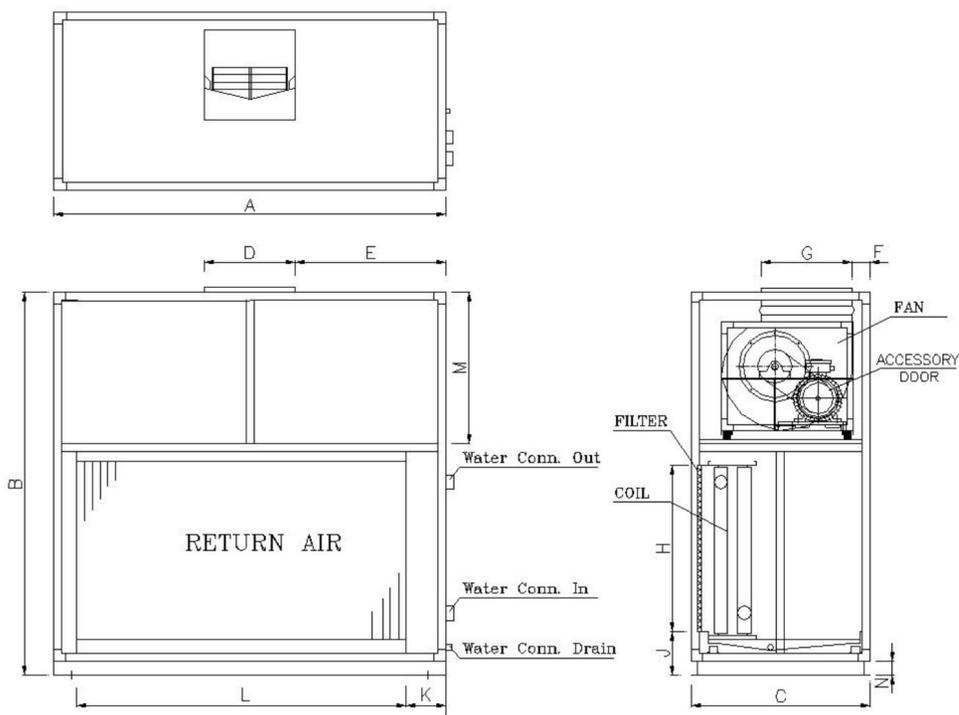


MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
HWCW-015	820	1150	610	229	430	100	229	362	151	180	440	490	51
HWCW-020	930	1150	610	229	430	100	229	362	151	180	585	490	51
HWCW-025	860	1245	610	256	430	100	256	457	151	180	585	520	51
HWCW-030	1010	1330	665	288	430	100	288	457	151	180	700	570	64
HWCW-040	1260	1330	725	322	469	100	322	457	151	205	935	610	64
HWCW-050	1295	1495	785	361	467	100	361	553	151	205	975	670	64
HWCW-060	1500	1510	785	404	548	100	404	553	151	205	1165	730	64
HWCW-065	1595	1510	785	404	596	100	404	553	151	205	1265	730	64
HWCW-070	1500	1670	865	453	524	100	453	648	164	205	1170	810	64
HWCW-080	1665	1670	865	453	606	100	453	648	164	205	1330	810	64
HWCW-090	1595	1825	865	507	544	100	507	775	164	205	1260	900	64
HWCW-100	1735	1875	945	507	614	100	507	775	164	205	1400	900	64

Notes:

- 4) The above specifications are subject to change without notice.
以上產品規格及尺寸如有更改,恕不通知.
- 5) The above units are mm
以上單位為毫米
- 6) The width(A) is based on 6 rows of PAU
潤(A)度尺寸是以 PAU 6 rows 計算

Vertical Type Unit Dimensional Chart (座地式風櫃尺寸表)



MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
HWCW-120	1835	2025	1010	507	664	100	507	870	164	205	1500	900	64
HWCW-130	1920	2090	1010	569	676	100	569	902	164	220	1570	950	64
HWCW-150	2100	2140	1010	569	766	100	569	934	164	220	1750	950	64
HWCW-160	2000	2330	1080	638	681	100	638	1060	164	220	1650	1050	64
HWCW-180	2205	2380	1080	638	784	100	638	1060	164	220	1850	1050	64
HWCW-190	2305	2380	1080	638	834	100	638	1060	164	220	1960	1050	64
HWCW-200	2410	2465	1230	715	848	100	715	1060	164	220	2060	1150	76
HWCW-240	2450	2660	1230	715	868	100	715	1250	164	220	2100	1150	76
HWCW-280	2620	2950	1360	801	910	100	801	1403	164	220	2270	1260	76
HWCW-300	2780	2950	1360	801	990	100	801	1403	164	220	2430	1260	100
HWCW-350	2930	3250	1510	898	1016	100	898	1555	164	250	2550	1430	100
HWCW-400	3300	3250	1510	898	1066	100	898	1555	164	250	2920	1430	100

Notes:

7) The above specifications are subject to change without notice.

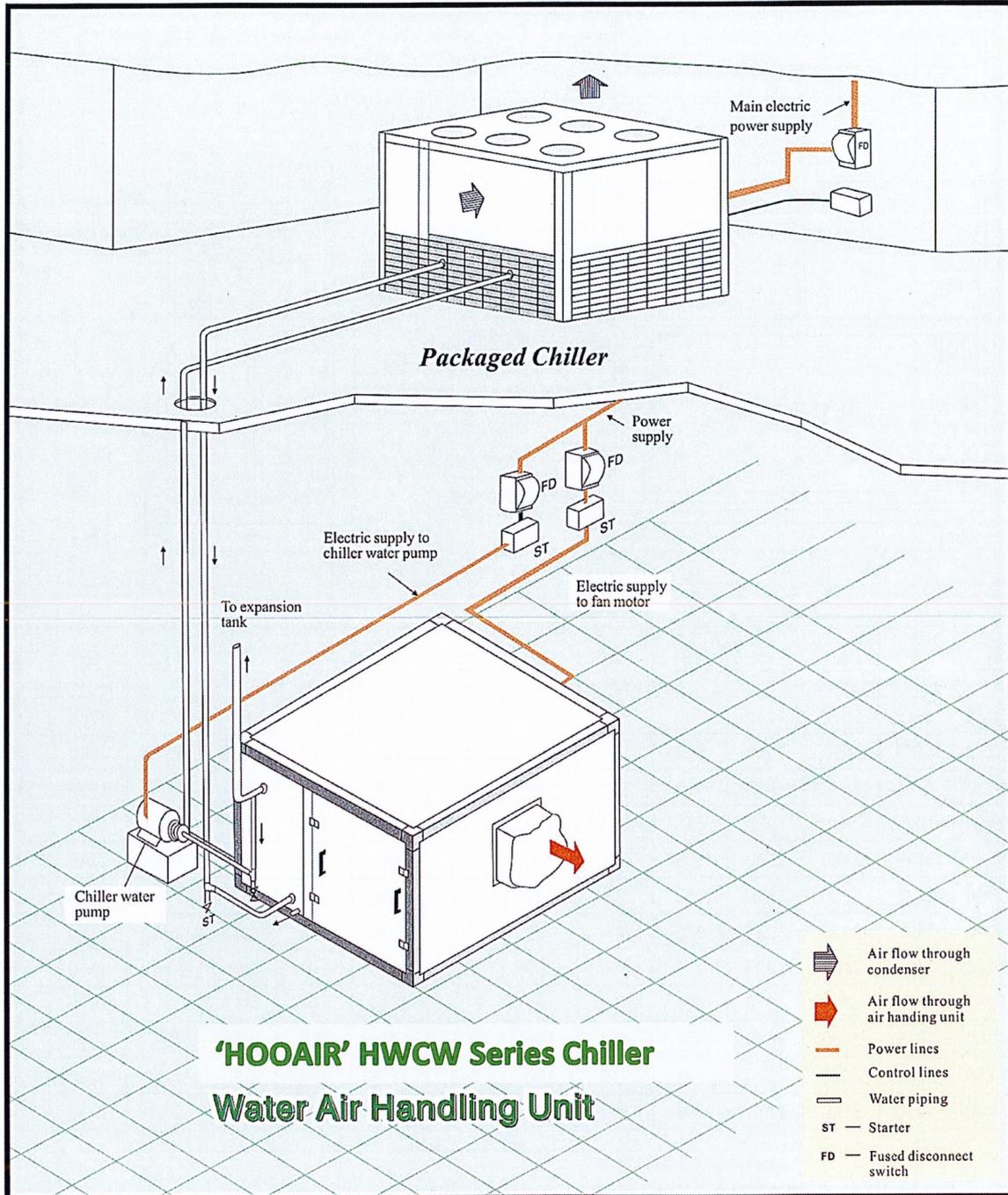
以上產品規格及尺寸如有更改,恕不通知.

8) The above units are mm

以上單位為毫米

9) The width(A) is based on 6 rows of PAU

潤(A)度尺寸是以 PAU 6 rows 計算



Maintenance space min .600 - 800 mm

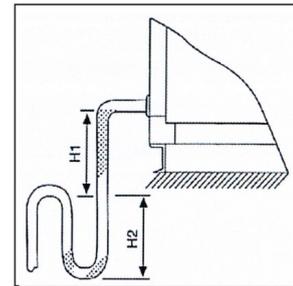
維修空間至少 600 到 800 mm

Water Dripping

- check and clean drain pipe
- check pipe insulation
- check coil face velocity (max 2.8 m / sec.)

Drain Problem

- check drain pipe and connection
- check air filter
- check static pressure meter
- check air-volume control dampers



H1 Should be more than pressure difference
H2 Should be more than 15mm

		no. off bells											
2-pole	1	.55	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	max. motor output	
	2	1.1	2.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
	3	1.5	4.0	4.0	4.0	4.0	7.5	7.5	18.5	18.5	18.5		
4-pole	1	.55	1.1	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	max. motor output	
	2	1.1	1.5	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
	3	1.5	3.0	4.0	4.0	7.5	7.5	11.0	11.0	15.0	15.0		
1	2	3		71	80	90	100	112	118	132	140	160	motor pulley
≤315	71	1.00	.89	.79	.71	.63	.60	.54	.51	.44			
	80	1.13	1.00	.89	.80	.71	.68	.61	.57	.50			
	90	1.27	1.12	1.00	.90	.80	.76	.68	.64	.56			
≤450	100	1.41	1.25	1.11	1.00	.89	.85	.76	.71	.62			
	112	1.58	1.40	1.24	1.12	1.00	.95	.85	.80	.70			
	118	1.66	1.48	1.31	1.18	1.05	1.00	.89	.84	.74			
	132	1.86	1.65	1.47	1.32	1.18	1.12	1.00	.94	.82			
≤710/560	140	1.97	1.75	1.56	1.40	1.25	1.19	1.06	1.00	.88			
	160	2.25	2.00	1.78	1.60	1.43	1.36	1.21	1.14	1.00			
	200	2.82	2.50	2.22	2.00	1.79	1.69	1.52	1.43	1.25			
	250	3.52	3.12	2.78	2.50	2.23	2.12	1.89	1.79	1.56			
	280	3.94	3.50	3.11	2.80	2.50	2.37	2.12	2.00	1.75			
all	400	5.63	5.00	4.44	4.00	3.57	3.39	3.03	2.86	2.50			

ENSURE THAT:

- the correct pulleys and number of belts are fitted
- the pulleys are fitted as close as possible to the bearings
- the drive and driven pulleys are correctly aligned (see sketch 2)
- the drive belts are correctly tensioned (see sketch 1)

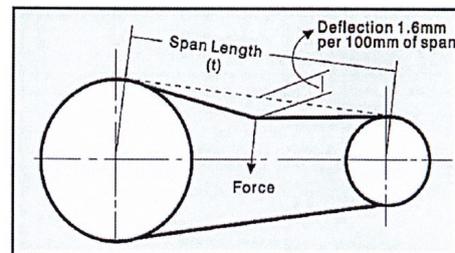
ALL OF THESE FEATURES WILL:

- maximise belt, pulley and bearing life
- minimise wear and noise

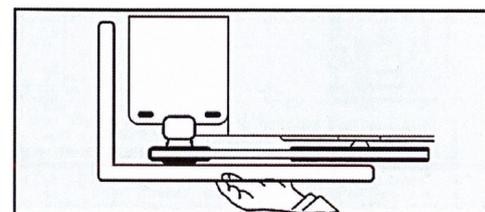
MAINTENANCE

- check belts for tension and wear (tension see sketch 1)
- check that pulleys are firmly attached to their shafts
- regrease bearings when necessary (355 and upward only)
- check bearing for wear*
- clean impeller when necessary

*bearings should be replaced before failure due to wear, since a seizure may cause damage to the fan and motor



Sketch 1) drive tension



Sketch 2) correct alignment of pulleys

V- BELT TENSION

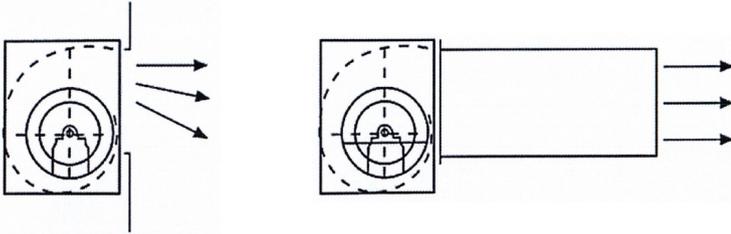
Regular inspection of the v-belt tension is of major important to ensure a good operating unit. In any case this inspection has to take place after the first 100 running hours and subsequently after each (approx.) 1000 hours or once a year. The v-belt tension is inspected with a "finger-push" (see sketch), and the correct tension gives a total deflection of approx. 2-3cm.

Installation and Maintenance 安裝及保養注意事項及守則

DUCT WORK– Be sure to use canvas covered ducts at the air suction inlet and discharge outlets.

- Be sure to install an air filter at the return air suction and primary air suction outlet.

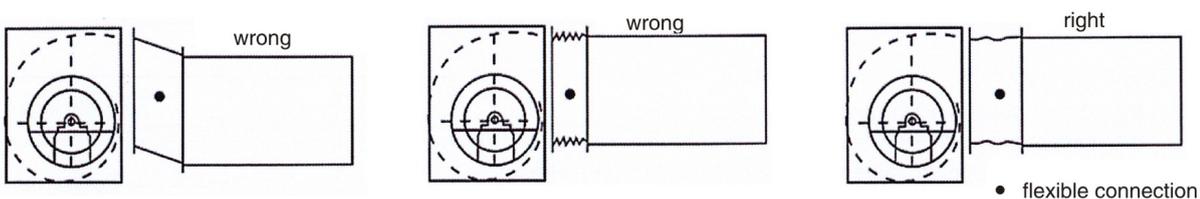
Outlet Conditions .Free versus Ducted



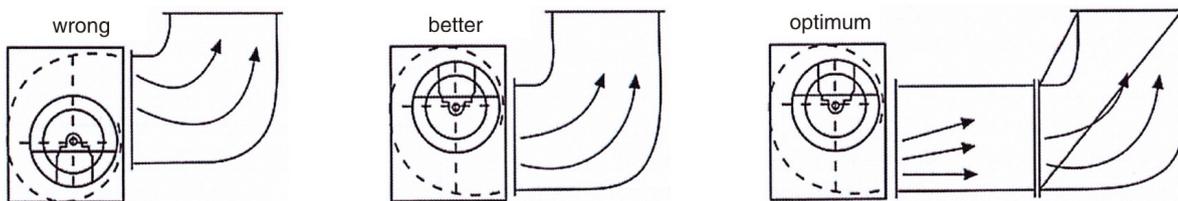
Discharging a centrifugal fan directly to atmosphere or plenum chamber is inefficient, because all dynamic pressure is lost. This can be improved by ducting the outlet, which regains part of the dynamic pressure and allows the air to become less turbulent.

Air Flow– Laminar versus Turbulent

The performance and pressure losses of components in an air handling system (coil, filters, dampers, etc.) are based on laminar flow. The devices should therefore be placed at a distance no closer than 3–4 times the fan impeller diameter from the fan outlet, or straightening devices must be applied. Not doing this will result in higher pressure losses, loss of performance and increased noise levels.



A smooth passage at the discharge is desirable at all times. Avoid misalignment or concertina.

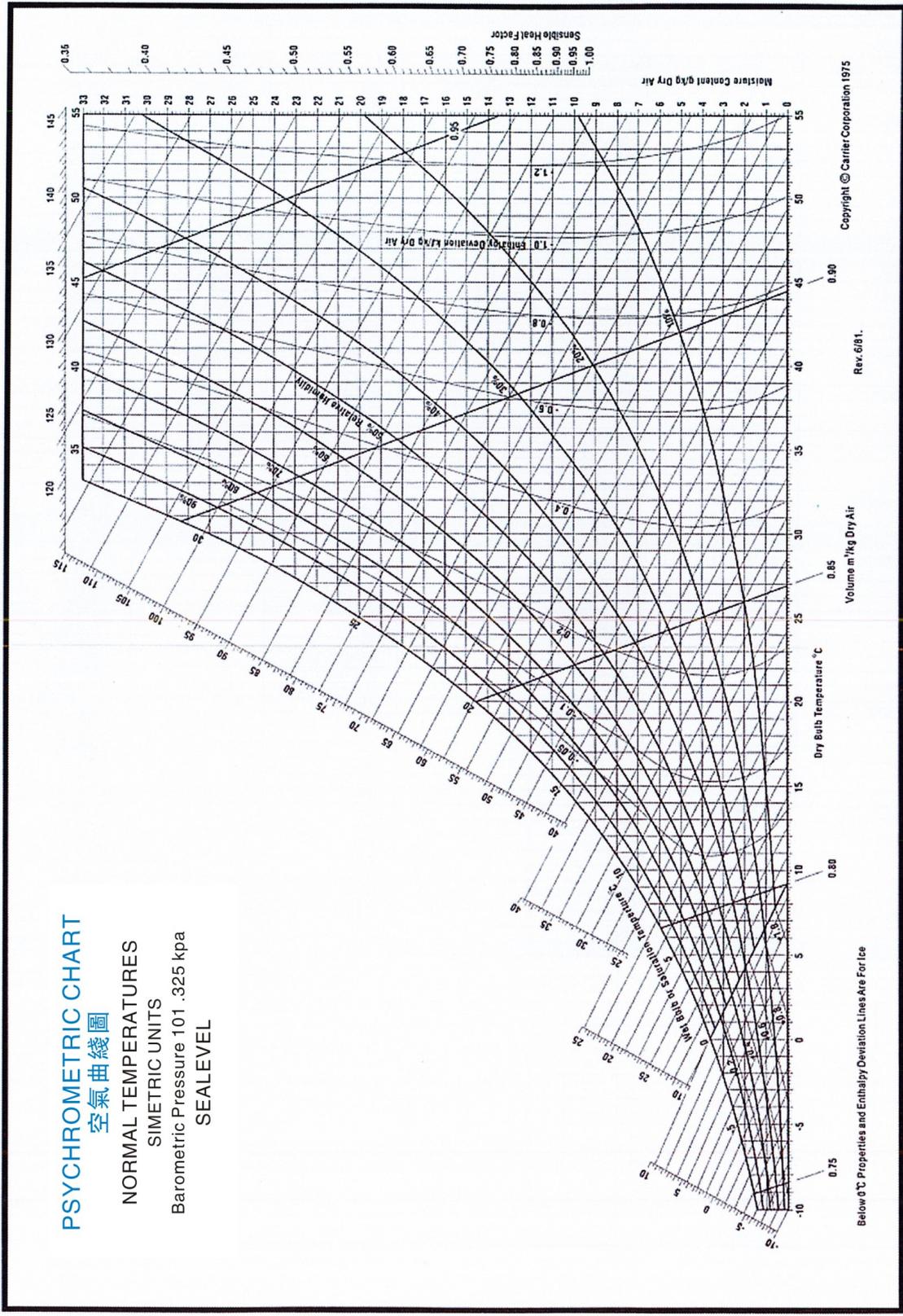


Extremely high losses occur when attempts are made to change the direction of the airflow close to the fan discharge.

- Electrical work**
- Be sure to use independent branch circuit.
 - Be sure to ground the unit
- (The grounding terminal is located on the jount box mounting plate covered by the access panel. [right])



Psychrometric Chart 空氣曲綫圖





Conversion Table 單位換算表

To convert	From	To	Multiply by			
CONVERSIONS OF ENERGY AND POWER						
energy	能量	ft-lb	呎-磅	J	焦耳	1.355 818
		Btu	英國熱量單位	J	焦耳	1.055.06
power	功能	(Int. Steam Table)	英國熱量單位	—	—	—
		J	焦耳	ft-lb	呎-磅	0.737 562 12
		J	焦耳	Btu	英國熱量單位	0.000 947 813 3
		Btu/hr	瓦特	W	瓦特	0.293 066 7
		hp (550 ft-lb/s)	馬力	W	瓦特	745.699 9
		tons of refrig.	冷凍量	W	瓦特	3.516.8
		W	瓦特	Btu/hr	瓦特	3.412 19
		W	瓦特	hp (550 ft-lb/s)	馬力	0.001 341 022
		W	瓦特	tons of refrig	冷凍量	0.000 284 349 4
		Kcal/hr	大卡	Kw	瓦特	1.163
Kcal/hr	大卡	Btu/hr	瓦特	3.9683		
CONVERSIONS OF LENGTH, AREA, VOLUME AND ANGULAR MEASUREMENT						
長度、面積、體積及角度換算表						
length	長度	inch	英吋	metre	公尺 (米)	0.0254
		foot	英吋	metre	公尺 (米)	0.304 8
		metre	公尺 (米)	inch	英吋	39.370 1
		metre	公尺 (米)	foot	英吋	3.280 84
area	面積	square inch	平方英吋	square metre	平方米	0.000 645 16
		square foot	平方英吋	square metre	平方米	0.092 903 0
		square metre	平方米	square inch	平方英吋	1.550.00
		square metre	平方米	square foot	平方英吋	10.763 9
volume	體積	cubic inch	立方英吋	cubic metre	立方米	0.000 016 387 1
		cubic foot	立方英吋	cubic metre	立方米	0.028 317 0
		gallon	加侖	cubic metre	立方米	0.003 785 4
		cubic metre	立方米	litre	升	1000
		cubic metre	立方米	cubic inch	立方英吋	61,023.74
		cubic metre	立方米	cubic foot	立方英吋	25.315
		cubic metre	立方米	gallon	加侖	264.1 73
plane angle	平面角度	degrees	角度	radian	角度	0.017 453 3
		radian	弧度	degrees	角度	57.295 8
pressure	壓力	psi		Pa (N/m ²)		6.894.76
		psf		Pa (N/m ²)		47.880 3
		ft of water (4°C)		Pa (N/m ²)		2.988.98
		in. of water (4°C)		Pa (N/m ²)		249.082
		in. of Hg (15.6°C)		Pa (N/m ²)		2.276.85
		Pa (N/m ²)		psi		0.000 145 038
		Pa (N/m ²)		psf		0.020 885 4
		Pa (N/m ²)		ft of water (4°C)		0.000 334 562
		Pa (N/m ²)		in. of water (4°C)		0.004 014 74
		Pa (N/m ²)		in. of Hg (15.6°C)	水銀柱高	0.000 296 13
		volume flow rate	容積流量	cfm	立方呎	m ³ /s
cfs				m ³ /s		0.028 316 85
gpm				m ³ /s		0.000 063 090 2
gpm				L/s		0.063 090 2
m ³ /s				cfm		2,118.00
m ³ /s				cfs		35.314 7
m ³ /s				gpm		15,850.3
m ³ /s				gpm		15,850.3
mass flow rate	質量流量	L/s		gpm		15,850.3
		lb/s		kg/s		0.483 592
		lb/min		kg/s		0.007 559 87
		lb/hr		kg/s		0.000 125 998
		kg/s		lb/s		2.204 62
		kg/s		lb/min		132.277
		kg/s		lb/hr		7,936.64
rotative speed	轉速	rpm		rad/s		0.104 720
		rad/s		rpm		9.549 29

**Standard atmospheric Pressure is set at 101 325 Pa

攝氏C	攝氏F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F
-10	14.0	10	50.0	27	80.6	37	98.6	47	116.6	57	134.6	67	152.6	77	170.6	90	194.0
-8	17.6	12	53.6	28	82.4	38	100.4	48	118.4	58	136.4	68	154.4	78	172.4	92	197.6
-6	21.2	14	57.2	29	84.2	39	102.2	49	120.2	59	138.2	69	156.2	79	174.2	94	201.2
-4	24.8	16	60.8	30	86.0	40	104.0	50	122.0	60	140.0	70	158.0	80	176.0	96	204.8
-2	28.4	18	64.4	31	87.8	41	105.8	51	123.8	61	141.8	71	160.8	81	177.8	98	208.4
0	32.0	20	68.0	32	89.6	42	107.6	52	125.6	62	143.6	72	161.6	82	179.6	100	212.0
2	35.6	22	71.6	33	91.4	43	109.4	53	127.4	63	145.4	73	163.4	83	181.4	102	215.6
4	39.2	24	75.2	34	93.2	44	111.2	54	129.2	64	147.2	74	165.2	84	183.2	104	219.2
6	42.8	25	77.0	35	95.0	45	113.0	55	131.0	65	149.0	75	167.0	85	186.8	106	222.8
8	46.4	26	78.8	36	96.8	46	114.8	56	132.8	66	150.8	76	168.8	88	190.4	108	226.4



Selection of AHU 風櫃設計資料表格

Customer:	Person To Contact:
Project:	Job No.:
Location:	Telephone:
Date:	Fax:
FAN SELECTION:	Fan Speed (rpm):
Air Volume:	Fan Efficiency (%):
Fan Type:	Sound Power Level (db A):
Type of Blade:	Absorbed Power:
Drive:	Motor Speed (rpm):
Total Pressure:	Motor Rating (kw):
External Static Pressure:	Power Supply (volt/phase/Hz):
COIL SELECTION:	
AIR SIDE	WATER SIDE
On Coil (DB/WB):	Water In:
Off Coil (DB/WB):	Water Out:
Max Face Velocity (m/s):	Water Flow Rate:
Total Load (kw):	Water Pressure Drop:
Sensible Load (km):	Water Velocity (m/s):
Air Pressure Drop (Pa):	Piping Connection Size:
Tube/ Fin Material:	Drain Connection Size:
No. Of Rows/ Fin Pitch:	
Coil Face Area (m²):	
Coil Dimensions (H x W):	
FILTER SELECTION:	
Type:	
Material: Aluminium <input type="checkbox"/> , Nylon <input type="checkbox"/> , Special Specify_____	
Dimension (H x W x Thickness):	
Quantity:	
Pressure Drop(Pa):	
Efficiency (%):	
UNIT LAYOUT:	Model:
	Overall Dimension H x W x D:
	Type: Single Skin <input type="checkbox"/> Double Skin <input type="checkbox"/>
	External Sheet:
	Internal Sheet:
	Insulation:
	Frame:
	Channel Base/Foot:
	Weatherproof Canopy:
	Total Weight:
Remarks:	

If any enquiry, please contact our office:
Tel: 852-2796 8888 Fax: 852-2796 8899



ISO 9001 : 2015
證書編號 : CC 2054



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豪華國際空調有限公司

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