



United Technologies

turn to the experts 



42CW/CH

Fan Coil Unit (High Static Pressure)

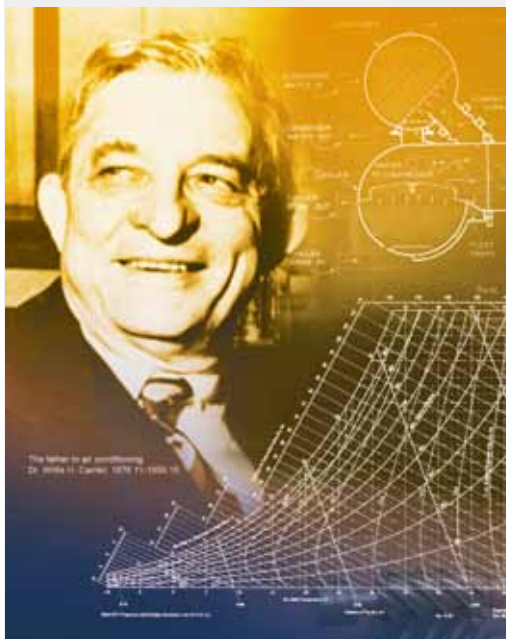
Air Volume: 1200~3000m³/h



Carrier China

Carrier Corporation is a subsidiary of the United Technologies Corp. (UTC), which ranks the 150th in Fortune Top 500 in 2011 and has its operations in aerospace and building systems industries all over the world. From the time the founder Dr. Carrier invented the first system of modern air conditioning in 1902, Carrier has been the world leader in the air conditioning industry with its products and system solutions supplied to numerous famous buildings, and up to now, the network of distribution cover more than 170 countries all over the world. In 2011, Carrier ranked top in the HVAC industry field with its sales revenue of US \$12 billion.

In China, there are 6 Carrier factories which have more than 2500 employees. As the world-class factory, Carrier has a number of technically advanced production lines, manufacturing commercial and residential chillers, compressors and air-side products. A wide range of products are able to meet diversified requirements of different customers. The global R&D center located in Shanghai has the capability of developing several major projects in the same time, with many advanced technical patents awarded to support Carrier stay most competitive in terms of technology advantage in the HVAC industry.



In 1998, Time magazine named Dr. Carrier one of its 20 most influential builders and titans of the 20th century.





Carrier China

Headquartered in Farmington, Connecticut, USA, Carrier Corporation is the world's largest provider of heating, air conditioning and refrigeration solutions, with operations in more than 170 countries including China.

Ever since Dr. Willis Carrier, founder of Carrier Corporation, invented modern air conditioning in 1902, Carrier has stayed at the forefront of the air-conditioning industry for more than 100 years. Regarded as the leader and expert in air conditioning, Carrier has several thousand patents in the air-conditioning industry and eleven lead design centers worldwide, including one in China.

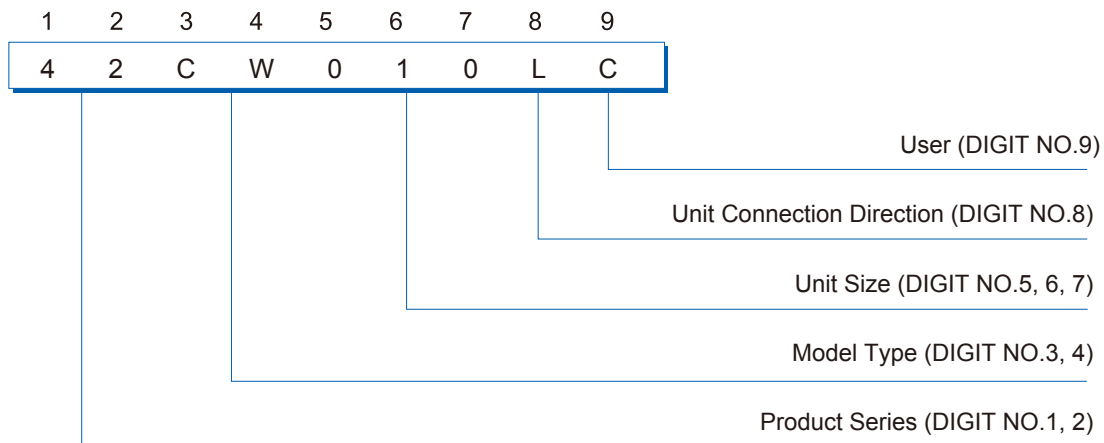
Carrier's products are manufactured at numerous facilities on six continents. The company has approximately 41,000 employees around the world. In 2008, Carrier's revenues were US\$14.9 billion, leading the Heating, Ventilation, Air-conditioning and Refrigeration (HVACR) industry.

Carrier set up its first joint venture in Shanghai in 1987. Now Carrier China has more than 2,200 employees. Carrier products are distributed in through a network of more than 40 sales and service offices.

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Model Number Nomenclature



- DIGIT NO.1, 2
product series
42: Fan Coil Unit
- DIGIT NO.3, 4
model type
CW: High Static Pressure FCU
CH: High Static Pressure FCU (with Heating Coil)
- DIGIT NO.5, 6, 7
Unit Size
010: 1450m³/h
014: 1900m³/h
020: 2400m³/h
- DIGIT NO.8
Unit connection direction (face to the return air inlet)
L: Left (The unit pipe connection is on the left)
R: Right (The unit pipe connection is on the right)
- DIGIT NO.9
O: sale in local (omissible)
C: export

Air Volume

1200 ~ 3300m³/h

Features

Ultra low noise

The unit adopts the newly designed wide impeller and slow speed forward multi-blade impeller, and realizes optimum match with the motor.



Ultra high efficiency

The unit coil adopts the newly developed double-flanging structure of lanced fin and advanced mechanical tube-expanding technique to ensure that the copper tube optimally contacts with the aluminum foil. The lanced fin provides an optimal heat transfer channel for full heat exchanging and the extra wide impeller provides an even air velocity environment for heat transfer. It makes the heat transfer more complete and thereby ensures that the cooling capacity per input power for the 2 row unit exceeds that of the same type 3 row unit of other brands.



Excellent Thermal Insulation

New type of glass fiber acoustic and thermal insulation material ensures not only a flat and beautiful appearance but also an excellent through-flow performance. The thermal insulation of the unit can also meet the international standards even if it is tested under the most severe condensation condition.

Option



TMS710/720



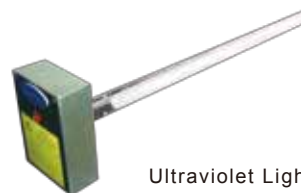
TMS810

Temperature Controller

Motorized 3-way Valve



Motorized 2-way Valve



Ultraviolet Light



Technical Data

42CW/CH is another high quality product of our company improved and developed by adopting advanced technology.

- Ultra-thin body resulting in substantial savings in space.
- High efficiency, low noise and easy maintenance & installation.
- Applicable to central air-conditioning systems and widely used in various places such as factories, buildings, offices and stores.
- 42CW single-coil / 42CH combined-coil unit available for your selection.

Performance	Model	42CW010	42CW014	42CW020	42CH010	42CH014	42CH020
Air Volume m ³ /h		1450	1900	2400	1450	1900	2400
Cooling Capacity kW		10.4	14.0	17.4	10.4	14.0	17.4
Heating Capacity kW		15.1	20.9	26.1	9	12.9	16.2
Rated Power kW		0.18	0.32	0.40	0.18	0.32	0.40
Noise dB(A)		53	53	56	53	53	56
Water Flow l/min		30	40	50	30	40	50
Water Pressure Drop KPa		21	25	24	21	25	24
Fan	Type	Centrifugal, Forward curved blade, Direct drive					
Motor	Type	Open drip-proof type, Class E insulation					
Coil	Type	Sine wave fin					
Heating Coil	Type					Bimetal finned tube	
Connecting Pipe	In-Out	1"MPT					
	Condensing Drain	1"MPT					
Net Weight	Kg	39	47	58	53	65	80

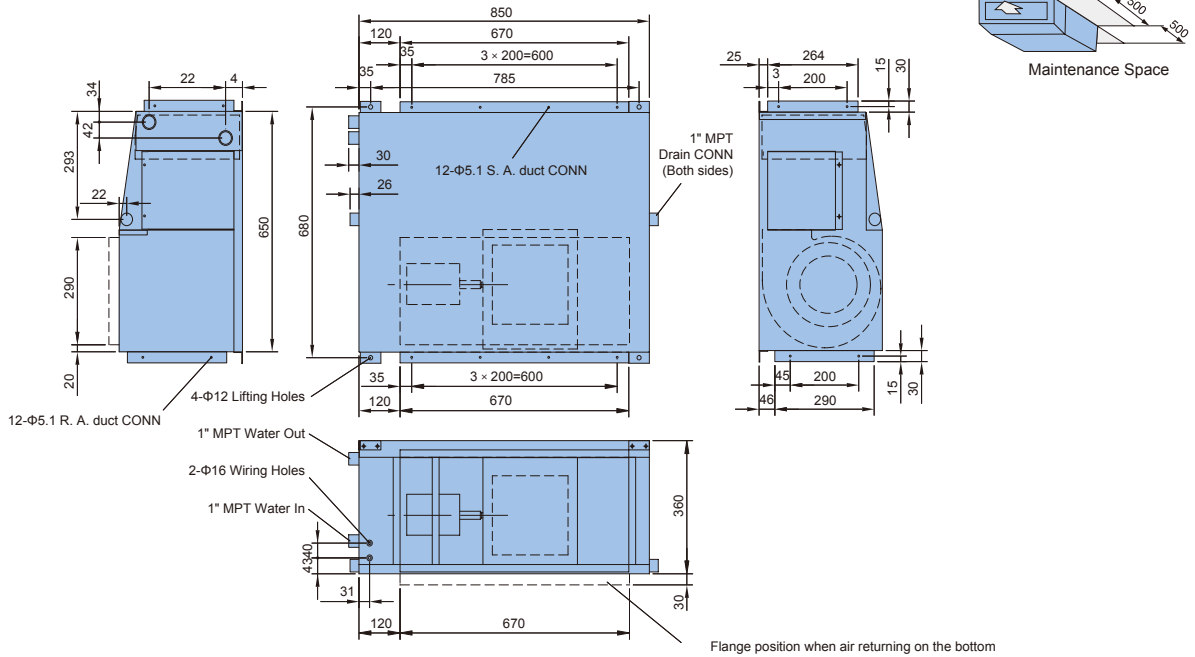
Note: 1. All the performance data above is the data in middle speed.

2. Cooling Conditions: Entering Water 7°C, Temperature Rise 5°C, Entering Air Temperature 27°CDB, 19.5°CWB.

Heating Conditions: Entering Water 60°C, Air 21°CDB, the same water flow as the cooling conditions.

Dimensions

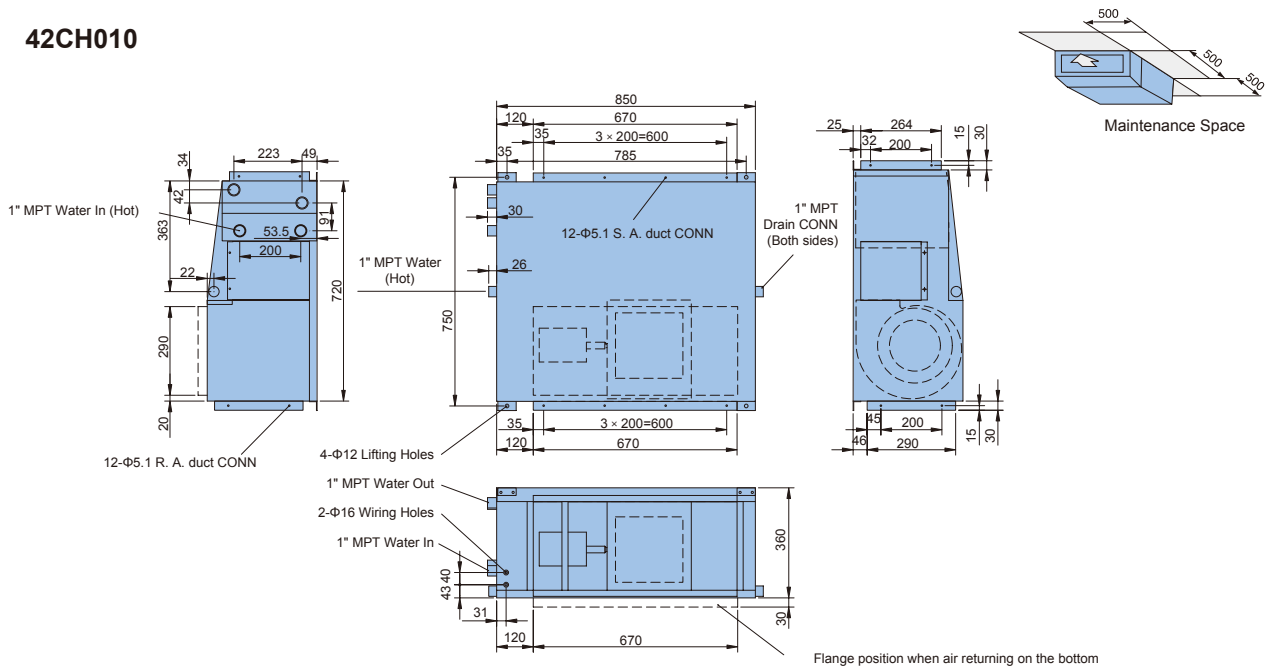
42CW010



Note:

- Pipe connection shown in above drawings is left-handed side piping connection (right-handed side piping connection is also available).
- The bottom panel can be exchanged with the connecting flange of the R. A. plenum to facilitate return air from bottom of the unit.

42CH010



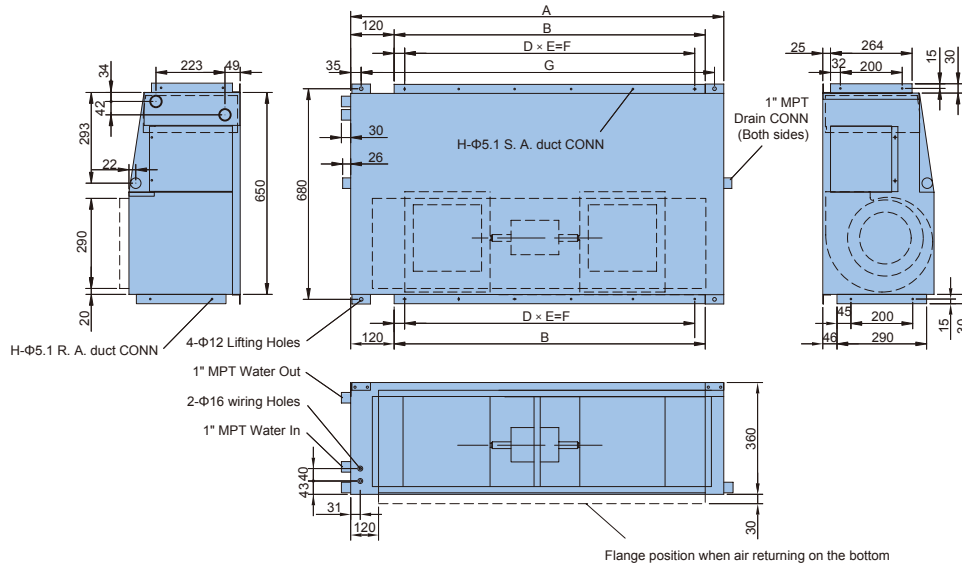
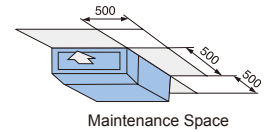
Note:

- Pipe connection shown in above drawings is left-handed side piping connection (right-handed side piping connection is also available).
- The bottom panel can be exchanged with the connecting flange of the R. A. plenum to facilitate return air from bottom of the unit.

Dimensions

42CW014.020

Model	Dimension							
	A	B	C	D	E	F	G	H
42CW014	1170	990	75	4	210	840	1105	14
42CW020	1500	1320	60	6	200	1200	1435	18

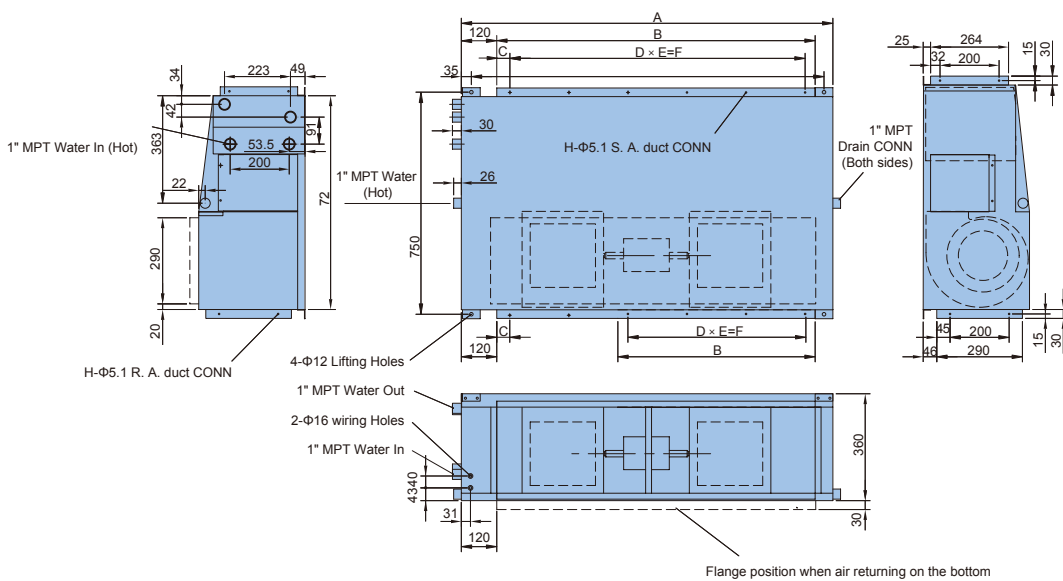
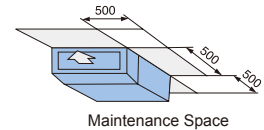


Note:

- Pipe connection shown in above drawings is left-handed side piping connection (right-handed side piping connection is also available).
- The bottom panel can be exchanged with the connecting flange of the R. A. plenum to facilitate return air from bottom of the unit.

42CH014.020

Model	Dimension							
	A	B	C	D	E	F	G	H
42CH01	1170	990	75	4	210	840	1105	14
42CH02	1500	1320	60	6	200	1200	1435	18



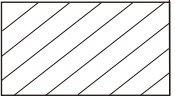
Note:

- Pipe connection shown in above drawings is left-handed side piping connection (right-handed side piping connection is also available).
- The bottom panel can be exchanged with the connecting flange of the R. A. plenum to facilitate return air from bottom of the unit.

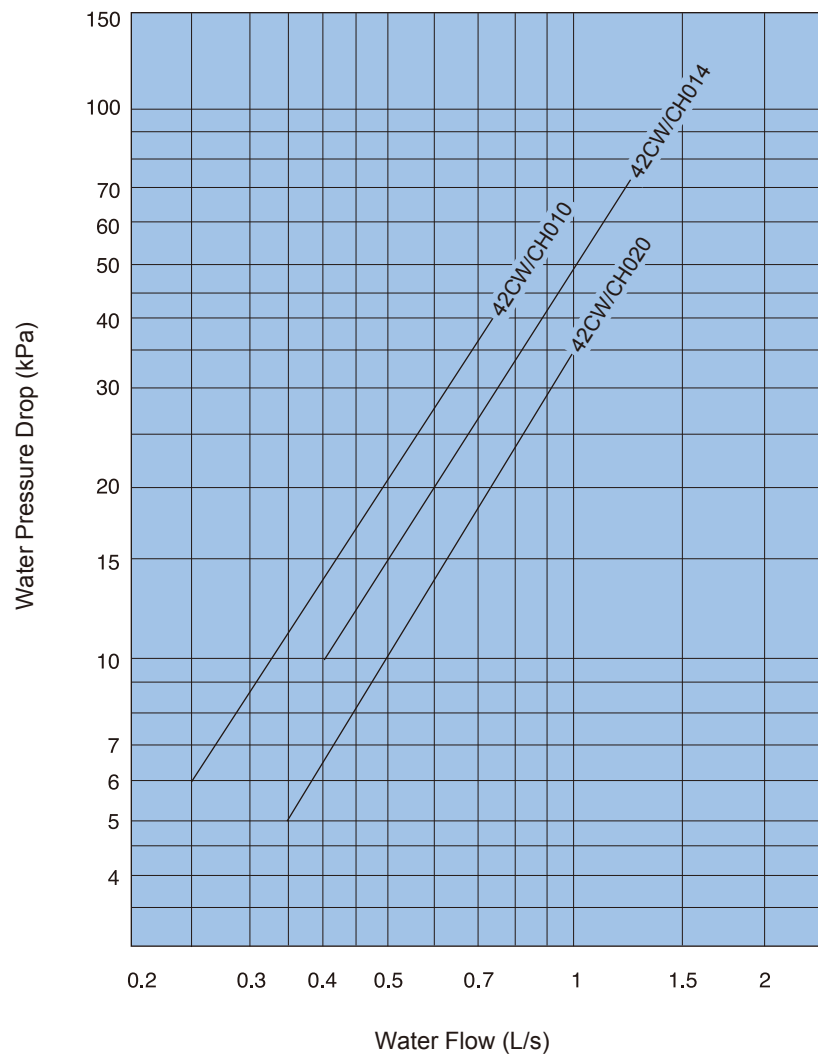
Operation Limitation

Max. Allowable Ent. Air Wet Bulb Temp. for Cooling

Model	42CW/CH			Ent. Air Temp. (°C, Wet Bulb)
	010	014	020	
Air Volume	1700	2200	3300	24.5
(m ³ / h)	1450	1900	2400	
	1200	1600	2000	

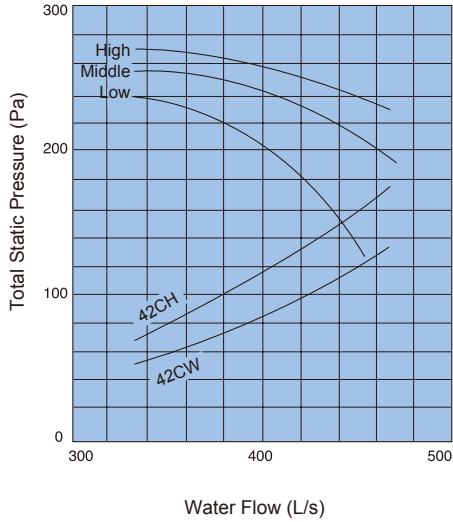


Water Pressure Drop of Coil

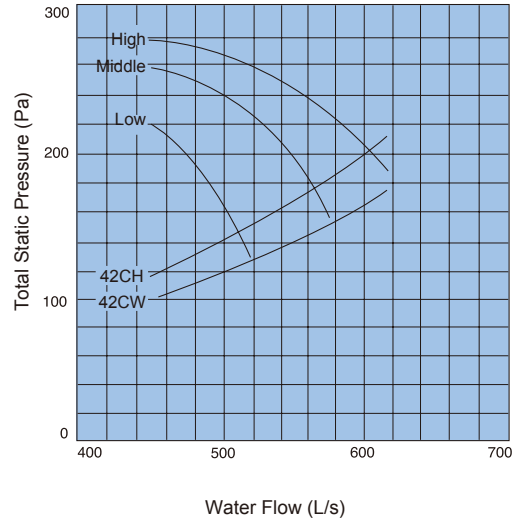


Fan Performance

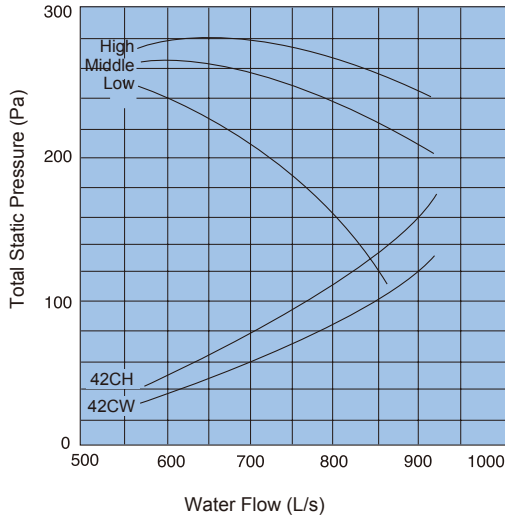
42CW/CH010



42CW/CH014

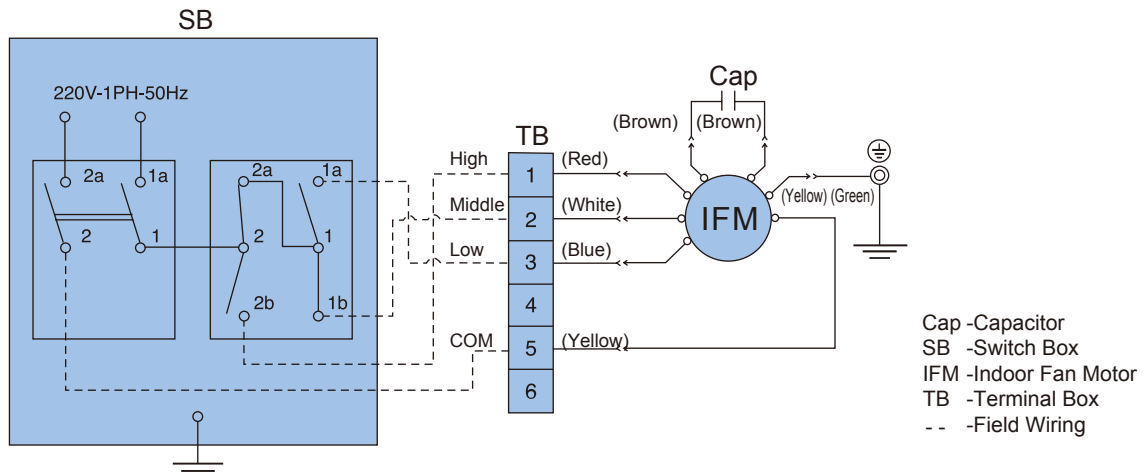


42CW/CH020



- Note: 1. The fan performance curves are obtained based on wet coils.
 2. The total static pressures are presented in the vertical coordinates of the figures. To determine the external static pressure, deduct the unit pressure drop from the total static pressure (can be looked up according to a given air flow). When using heating coils, deduct the pressure drop of the unit with heating coils.
 3. Use the curves in the ranges as shown in the figures, can't exceed it.

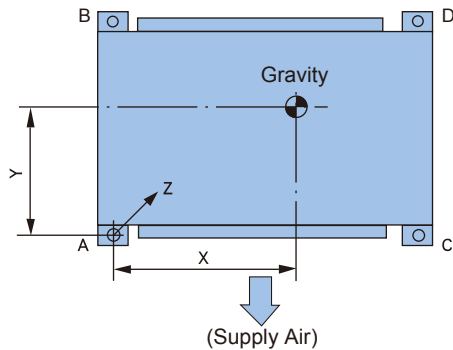
Wiring



Electrical Data

Model	Power			Fan Motor	
	Voltage-Phase-Frequency (V-ph-Hz)	Voltage Range (V)		Capacity (kW)	Full-Load Current (A)
		Min.	Max.		
42CW/CH010	220-1-50	198	242	0.18	1.4
42CW/CH014				0.32	1.8
42CW/CH020				0.4	3.0

Center of Gravity & Load Distribution



Model	Net Weight (kg)	Load Distribution(kg)				Center of Gravity(mm)		
		A	B	C	D	X	Y	Z
42CW/CH010	39/53	8.4	8.4	9.6	12.6	418	380	186
42CW/CH014	47/65	9.1	12.8	10.6	14.5	642	363	186
42CW/CH020	58/80	14	15.1	13.6	15.3	684	370	186

Heating Capacity of Heating Coil

42CH010

(kW)

Air Volume (m ³ / h)	Hot Water Flow (L/S)		
	0.25	0.5	0.75
1200	7.4	8.1	8.3
1450	8.2	9.0	9.4
1700	8.9	10.0	10.3
Water Pressure Drop (kPa)	2.5	8.8	18.3

42CH014

(kW)

Air Volume (m ³ / h)	Hot Water Flow (L/S)		
	0.33	0.67	1.0
1600	10.8	11.6	12.0
1900	11.8	12.9	13.2
2200	12.9	14.1	14.6
Water Pressure Drop (kPa)	6.6	22.7	47.3

42CH020

(kW)

Air Volume (m ³ / h)	Hot Water Flow (L/S)		
	0.42	0.83	1.25
2000	13.6	14.8	15.3
2400	14.7	16.2	16.8
3300	17.6	19.8	20.7
Water Pressure Drop (kPa)	2.0	6.6	13.6

Note: 1. Ent. Water 60 , Ent. Air 21 . 2. Max. Allowable Outlet Air 60



Carrier improves the world around us; Carrier improves people's lives; our products and services improve building performance; our culture of improvement will not allow us to rest when it comes to the environment.



The Manufacturer reserves the right to change any product specifications without prior notices
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Version:	CAT_42CW/CH_E-1301_02_CHK
Supersede:	CAT_42CW/CH_E-1204_01_CHK
Effective Date:	Feb, 2013