



United Technologies

turn to the experts 



## 42C/V Fan Coil Unit

Air flow: 340 ~ 2040 m<sup>3</sup>/h



## Turn To The Experts

Founded by the inventor of modern air conditioning, Carrier is the world's leader in high-technology heating, air-conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers. Carrier is a part of UTC Building & Industrial Systems, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide.

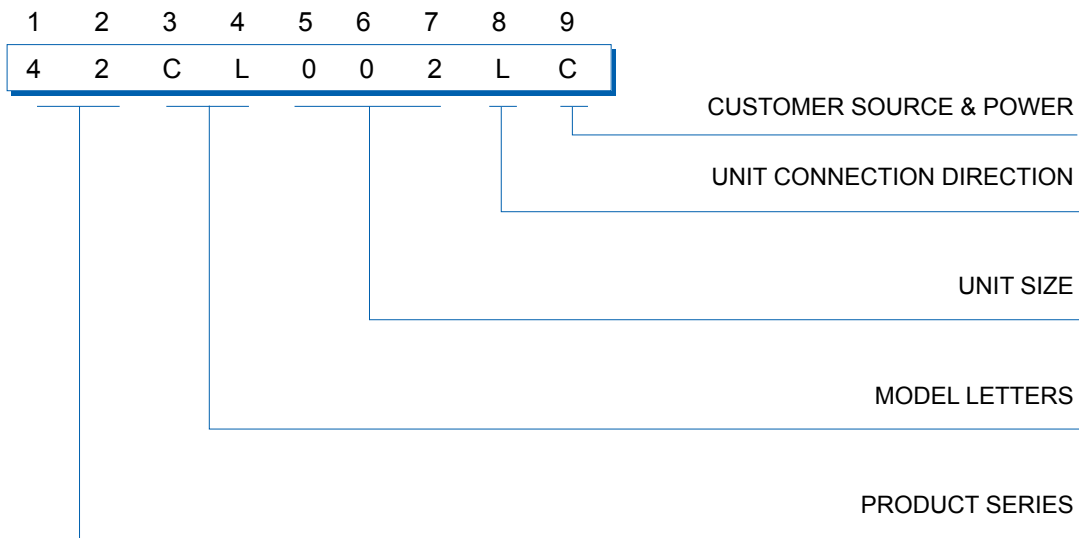
With a broad portfolio of advanced technical patent awards, our global R&D center in Shanghai develops innovative heat, ventilation and air-conditioning (HVAC) solutions.



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



## Model number Nomenclature



- DIGIT NO. 1、 2  
 PRODUCT SERIES  
 42 : FAN COIL UNIT
- DIGIT NO. 3、 4  
 MODEL LETTERS  
 CL : Horizontal cabinet FCU  
 VL : Vertical cabinet FCU  
 VM : Vertical concealed FCU  
 VP : Vertical concealed FCU (high static pressure)
- DIGIT NO.5、 6、 7  
 UNIT SIZE  
 002 : 340m<sup>3</sup>/h  
 003 : 510m<sup>3</sup>/h
- DIGIT NO.8  
 UNIT CONNECTION DIRECTION (FACE TO DISCHARGE AIR)  
 L : LEFT  
 R : RIGHT
- DIGIT NO.9  
 CUSTOMER SOURCE & POWER  
 O : SALE IN LOCAL 220V-1Ph-50Hz (omissible)  
 C : EXPORT 220V-1Ph-50Hz

## Air Flow

340~2040m<sup>3</sup>/h

## Mechanical Specification

Carrier 42C/V is a range of fan coil units designed for horizontal/vertical, concealed/cabinet application.

- Seven size of various type of fan coil unit
- Airflow from 340-2040CMH, cooling capacity from 1800-11600w
- Left/Right connection

### Minimum dimension

Compact design of 42C/V with thick depth of the unit.

### High efficiency

Copper tubes are mechanically bonded into slit aluminum fin collars, which ensure the heat transferring better.

### Low noise levels

Low noise level with optimized fan, low speed motor and special acoustic materials.

### High Quality

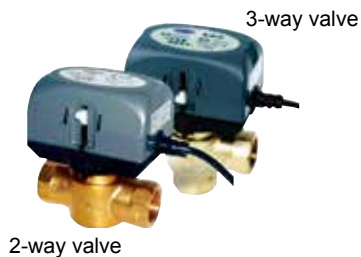
Carrier quality philosophy embraces the product itself, its conception, design and the integrity of its declared performance (proven in rigorous laboratory tests) as well as the manufacturing process, materials and components used to create the product.

### Easy Maintenance

42C/V use a heavy gage, galvanized steel with closed-cell, fire-retardant foam insulation. Water never touched the case, so that the corrosion is minimized and a long life is ensured. All coils are factory leakage tested. The motor/fan can be easily removed from the units, which makes it easy for maintenance.



### Options



TMS710/720



TMS810

Thermostat

## Various series of FCU with excellent performance



- 42CE: Horizontal Concealed Type  
(More details in 42CE catalog)



- 42VM: Vertical Concealed Type  
42VP: Vertical Concealed Type with High static pressure motor



- 42CL: Horizontal Cabinet Type



- 42VL: Vertical Cabinet Type

## Technical Data

### CL/VL/VM/VP

Model		002	003	004	006	008	010	012
Nominal Airflow m <sup>3</sup> /h	H	340	510	680	1020	1360	1700	2040
	M	265	405	535	790	1060	1360	1595
	L	195	305	405	585	790	1020	1180
Cooling Capacity W	42VL/VM/VP	2200	2900	3700	5400	7400	10000	11600
	42CL	2050	2700	3700	5400	7200	10000	11200
Heating Capacity W	42VL/VM/VP	3520	4640	5920	8370	11470	15500	18000
	42CL	3280	4320	5920	8370	11160	15000	17500
Input Power W	42VL/CL/VM	37	50	62	96	134	152	189
	42VP	44	59	72	108	156	174	212
Sound dB(A)	42VL/CL/VM	36	38	41	45	46	46	49
	42VP	38	40	43	47	48	49	52
Water Flow l/min	42VL/VM/VP	6.3	8.4	10.6	15.5	21.3	28.7	33.3
	42CL	5.9	7.8	10.6	15.5	20.7	28.7	32.1
Water Pressure Drop kPa		20	20	20	28	40	30	40
Fan	Type	Centrifugal, Front Curve						
Motor	Type	Permanent Capacitive, Ball Bearing						
Coil	Working Pressure	1.6 MPa						
Coil Connection	In-Out	ZG3/4" FPT						
	Condensing Drain	ZG3/4" MPT						
Net Weight kg	42VL	19	21	23.5	28	38	48	48
	42CL	19.5	21.5	24.5	30	41	52	52
	42VM/VP	14	15	18	22	32	41	41
Accessories		Thermostat, Motorized valve						

Note: 1. The data is the performance in high speed with relevant static pressure.

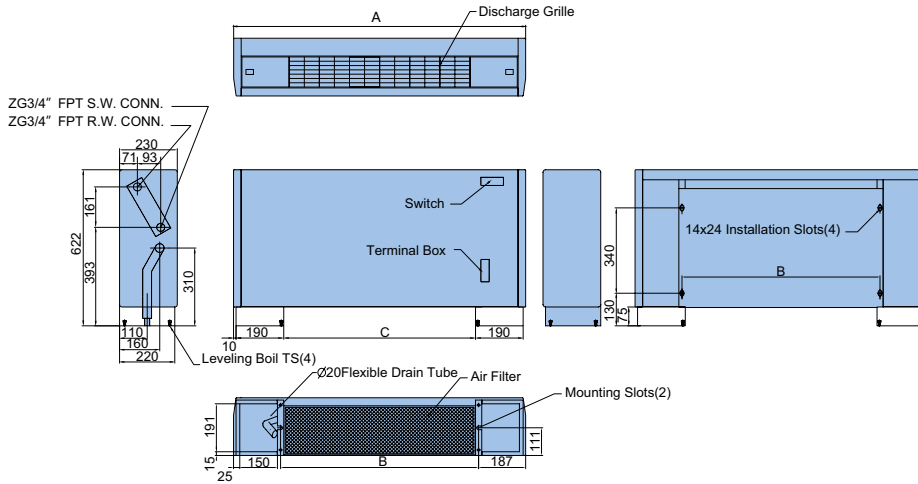
2. Cooling Condition: Entering Water 7 °C, Temperature Rise 5 °C, Entering Air Temperature 27 °C DB, 19.5 °C WB.

Heating Conditions: Entering Water 60 °C, Enter Air Temperature DB=21 °C, Water flow same as cooling condition

3. The noise is tested in the semi-anechoic test room, measured with a fine audiometer located 1 meter away from the unit front panel and the unit bottom panel.

# Dimension

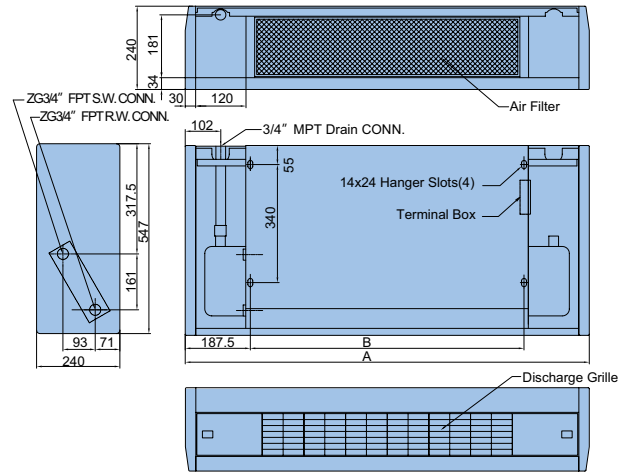
## 42VL



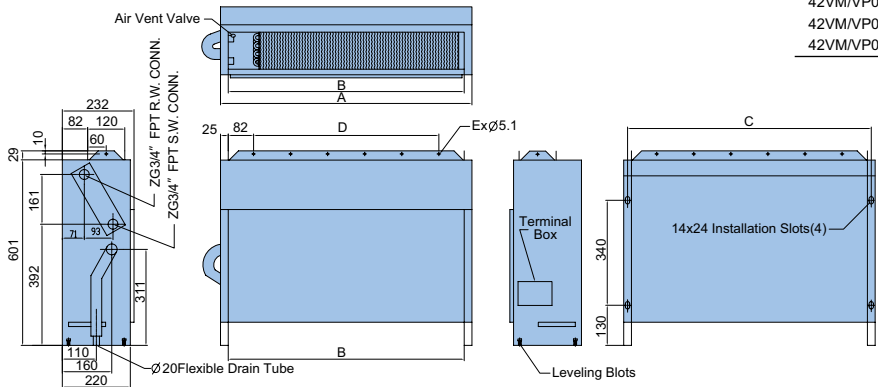
42VL	Dimension		
	A	B	C
42VL002	924	549	524
42VL003	1044	669	644
42VL004	1164	789	764
42VL006	1404	1029	1004
42VL008	1764	1389	1364
42VL010	2244	1869	1844
42VL012	2244	1869	1844

## 42CL

42CL	Dimension	
	A	B
42CL002	924	549
42CL003	1044	669
42CL004	1164	789
42CL006	1404	1029
42CL008	1764	1389
42CL010	2244	1869
42CL012	2244	1869



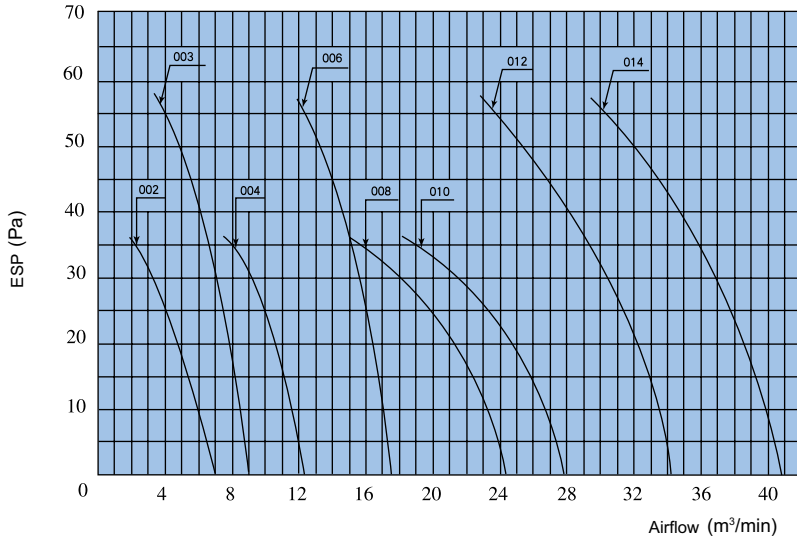
## 42VM/VP



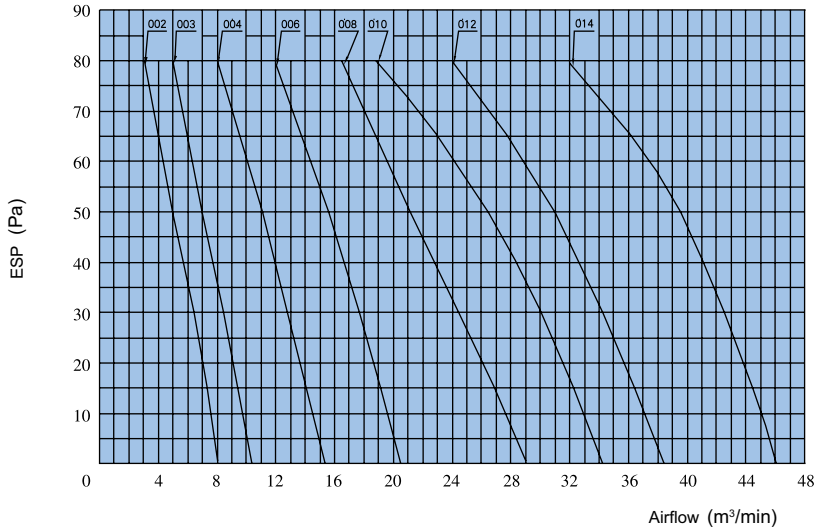
42VM/VP	Dimension				
	A	B	C	D	E
42VM/VP002	574	524	549	360	10
42VM/VP003	694	644	669	480	12
42VM/VP004	814	764	789	600	14
42VM/VP006	1054	1004	1029	840	18
42VM/VP008	1414	1364	1389	1200	24
42VM/VP010	1894	1844	1869	1680	32
42VM/VP012	1894	1844	1869	1680	32

# Fan Performance

## Standard Static Pressure Unit



## High Static Pressure Unit



Based on dry air condition, high speed, without filter and grills.

### Copacity multiplier vs. speed table (cooling)

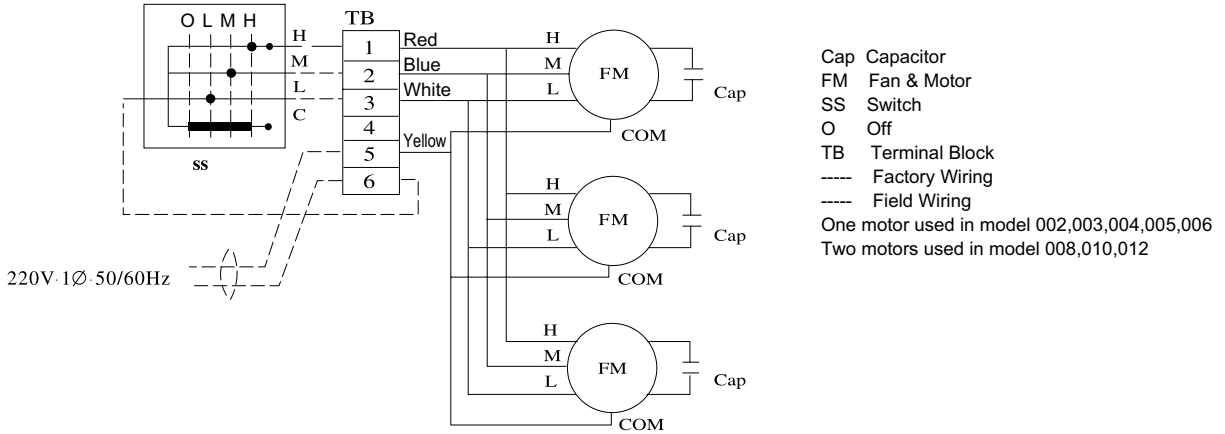
		002	003	004	006	008	010	012
Med	TH	0.85	0.86	0.87	0.89	0.86	0.86	0.89
	SH	0.83	0.84	0.85	0.87	0.84	0.84	0.87
Low	TH	0.7	0.71	0.74	0.74	0.73	0.73	0.73
	SH	0.66	0.67	0.7	0.7	0.69	0.69	0.69

### Copacity multiplier vs. speed table (heating)

		002	003	004	006	008	010	012
Med	TH	0.84	0.85	0.86	0.87	0.86	0.86	0.87
Low	SH	0.72	0.73	0.74	0.75	0.74	0.74	0.75



## Electric Diagram



## Motor input power

Model		002	003	004	006	008	010	012
Power (W)	VL/CL/VM	37	52	62	96	134	152	189
	VP	44	59	72	108	156	174	212
Current (A)	VL/CL/VM	0.17	0.24	0.28	0.44	0.61	0.69	0.86
	VP	0.2	0.27	0.33	0.49	0.71	0.79	0.96

Model	42CL、VM、Vp							42VL						
	002	003	004	006	008	010	012	002	003	004	006	008	010	012
Base Unit	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Filter	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Speed Switch	●	●	●	●	●	●	●	○	○	○	○	○	○	○
Thermostat	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Note: ○ Refers to the standard accessory

● Refers to the options. Customers need to order it dividually



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.



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