Carrier

42C/V
Fan Coil Unit

Air flow: 340 ~ 2040 m³/h



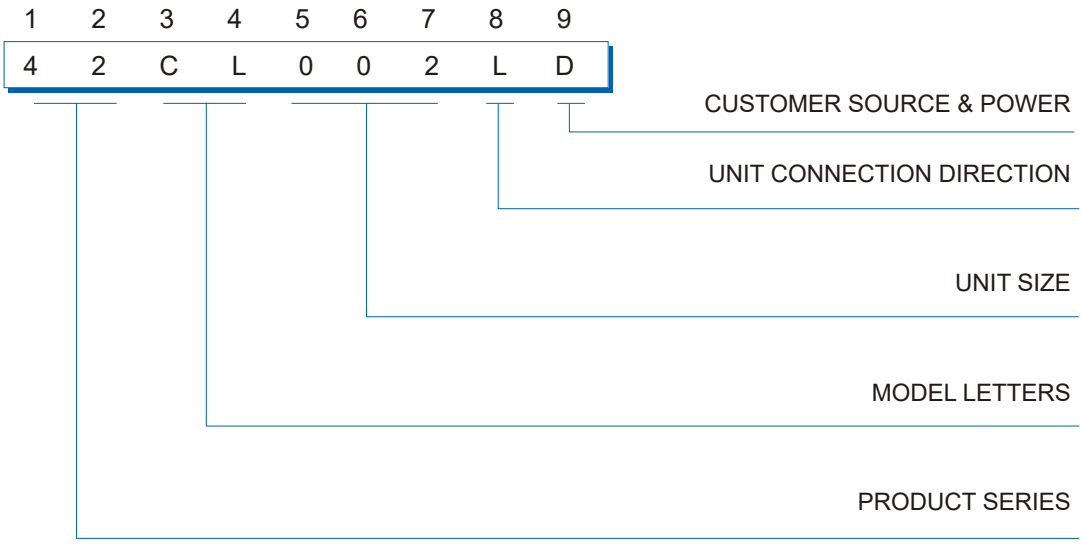


In 1998, Time magazine named Dr. Carrier one of its 20 most influential builders and titans of the 20thcentury.

Carrier is a leading global provider of innovative HVAC, refrigeration, fire, security and building automation technologies. Supported by the iconic Carrier name, the company's portfolio includes industry-leading brands such as Carrier, Kidde, Edwards, LenelS2 and Automated Logic. Carrier's businesses enable modern life, delivering efficiency, safety, security, comfort, productivity and sustainability across a wide range of residential, commercial and industrial applications.



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^3/h
  003 : 510m^3/h

- DIGIT NO.8
  UNIT CONNECTION DIRECTION (FACE TO DISCHARGE AIR)
  L : LEFT
  R : RIGHT

- DIGIT NO.9
  CUSTOMER SOURCE & POWER
  C:Initial design, comply with GB/T 19232-2003
  (parameters refer to catalogue CAT_42CV_E-1811-05
  D:First design modify,comply with GB/T 19232-2019
  (parameters refer to this catalogue)

Air Flow

340~2040m^3/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 2200~11200W
- 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

3-way valve



2-way valve



TMS710/720



TMS810

Thermostat





- 42VM: Vertical Concealed Type

  42VP: Vertical Concealed Type with High static pressure motor



- 42CL: Horizontal Cabinet Type



- 42VL: Vertical Cabinet Type

Technical Data

42VL/CL/VM/VP

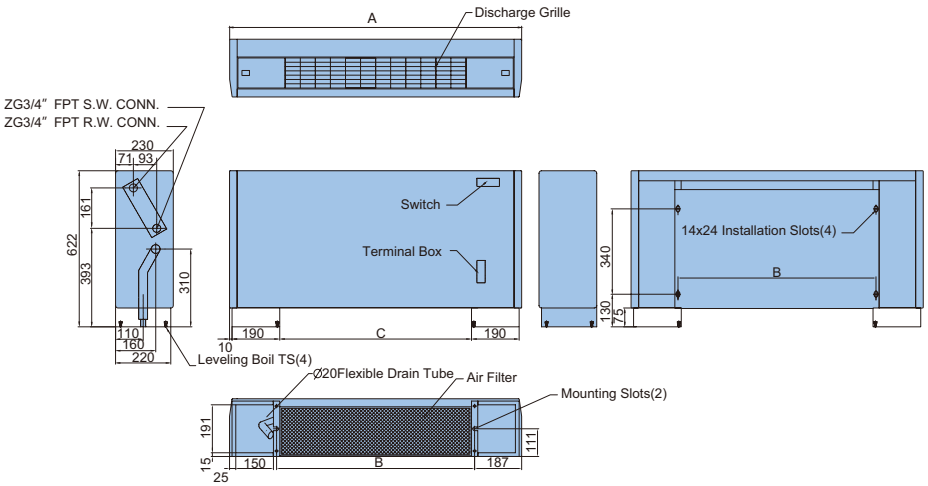
Performance	Model	002	003	004	006	008	010	012
Air Volume (m^3/h)	High	340	510	680	1020	1360	1700	2040
	Med	265	405	535	790	1060	1360	1595
	Low	195	305	405	585	790	1020	1180
Total Cooling Capacity (W)	42VL/VM/VP	2200	2900	3700	5400	7400	10000	11200
	42CL	2050	2700	3700	5400	7200	10000	11200
Sensible Cooling Capacity (W)	42VL/VM/VP	1570	2155	2780	4075	5545	7355	8395
	42CL	1495	2045	2780	4075	5435	7355	8395
Heating Capacity (W)	42VL/VM/VP	3520	4640	5920	8370	11470	15500	18000
	42CL	3280	4320	5920	8370	11160	15000	17500
Power Input (W)	42VL/VM/CL	36	50	60	93	130	147	183
	42VP	43	57	70	105	151	169	206
Sound Level dB(A)	42VL/VM/CL	36	38	41	45	46	46	49
	42VP	35	37	40	42	43	43	47
Water Flow(cooling&heating) (l/min)	42VL/VM/VP	6.3	8.4	10.6	15.5	21.3	28.7	32.1
	42CL	5.9	7.8	10.6	15.5	20.7	28.7	32.1
Water Pressure Drop(cooling&heating) (KPa)		20	20	20	28	40	30	40
FCEER (W/W)	42VL/VM	54	54	56	51	49	57	51
	42CL	52	51	56	51	49	57	51
	42VP	46	45	47	45	43	49	46
FCCOP (W/W)	42VL/VM	88	86	88	79	75	90	82
	42CL	82	80	88	79	73	87	80
	42VP	73	74	77	71	65	80	70
Fan	Type	Centrifugal, forward multi-blade						
Motor	Type	Permanent Split Capacitor						
Coil	Rows	2						
	Working Pressure	1.6 MPa						
Coil Connection	In-out	ZG3/4" FPT						
	Drain connection	ZG3/4" MPT						
Net Weight (kg)	42VL	19.0	21.0	23.5	28.0	38.0	48.0	48.0
	42CL	19.5	21.5	24.5	30.0	41.0	52.0	52.0
	42VM/42VP	14.0	15.0	18.0	22.0	32.0	41.0	41.0
Accessories		Thermostat，2Way/3Way Valve						

Note: 1.The coil data is the performance in high speed with relevant static pressure. Standard external static pressure for 42CL/VL/VM is 0Pa, for 42VP is 30Pa.

2. Cooling conditions: inlet water 7°C, temperature rise 5°C, entry air temperature DB 27°C, WB 19.5°C, Heating conditions: inlet water 60°C, same water flow as the cooling conditions, entry air temperature DB 21°C. Heating capacity based on inlet water 45°C, please refer to FCU selection software.
3. Sound level is tested per GB/T 19232-2019.
4. FCEER means fan coil cooling erengy efficiency ratio and FCCOP means fan coil heating coefficiency of performance, defined per GB/T 19232-2019.

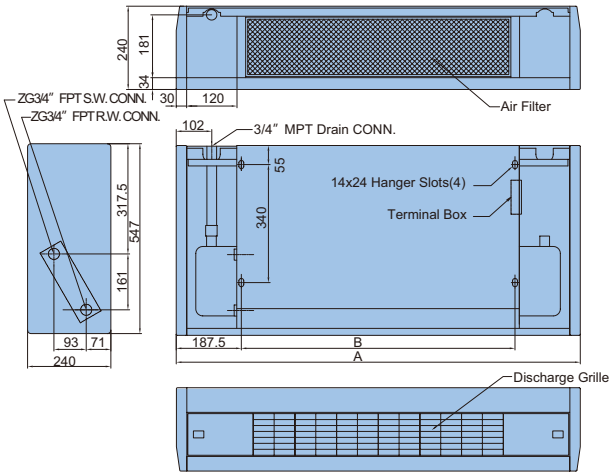
Dimension

42VL



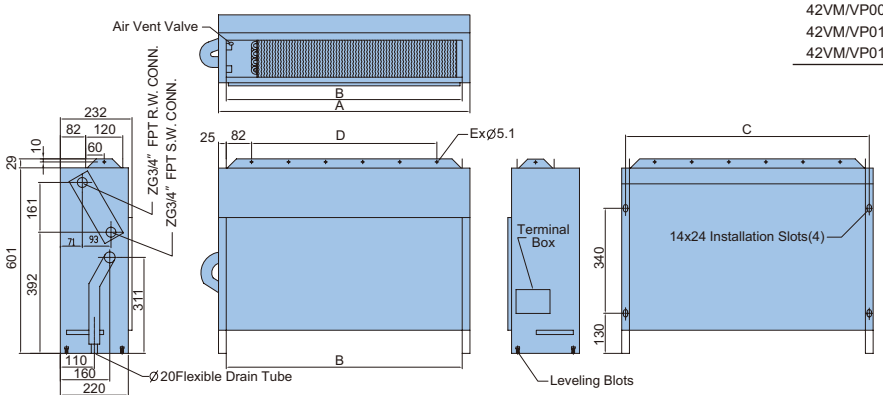
42VL	Dimension		
	A	B	C
42VL002	924	549	524
42VL003	1044	669	644
42VL004	1164	789	764
42VL006	1404	1029	1004
42VL008	1764	1389	1364
42VL010	2244	1869	1844
42VL012	2244	1869	1844

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

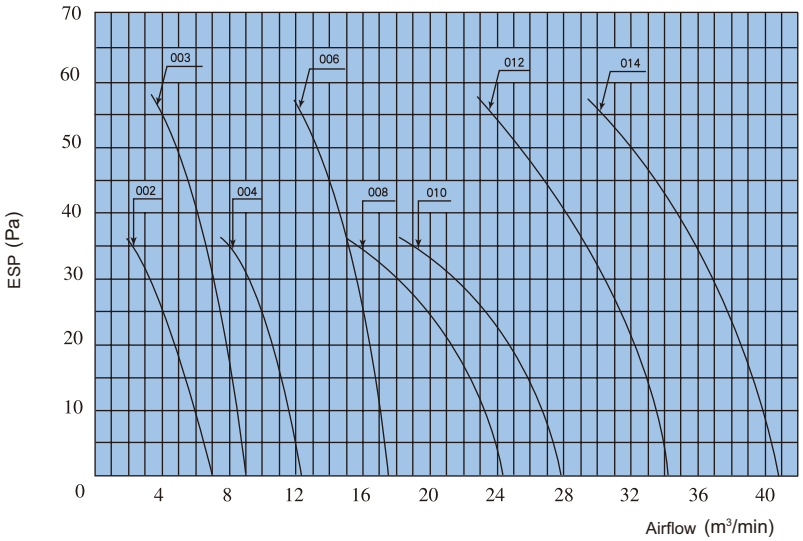
42VM/VP



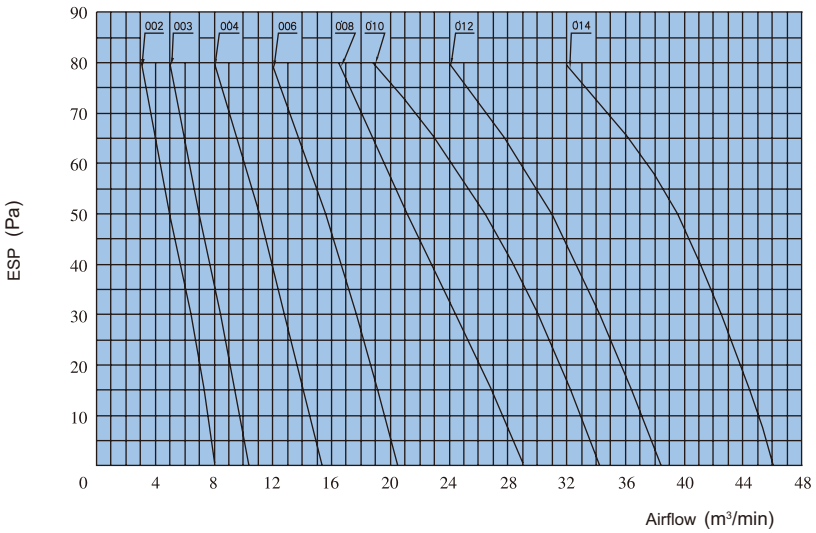
42VM/VP	Dimension				
	A	B	C	D	E
42VM/VP002	574	524	549	360	10
42VM/VP003	694	644	669	480	12
42VM/VP004	814	764	789	600	14
42VM/VP006	1054	1004	1029	840	18
42VM/VP008	1414	1364	1389	1200	24
42VM/VP010	1894	1844	1869	1680	32
42VM/VP012	1894	1844	1869	1680	32

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)

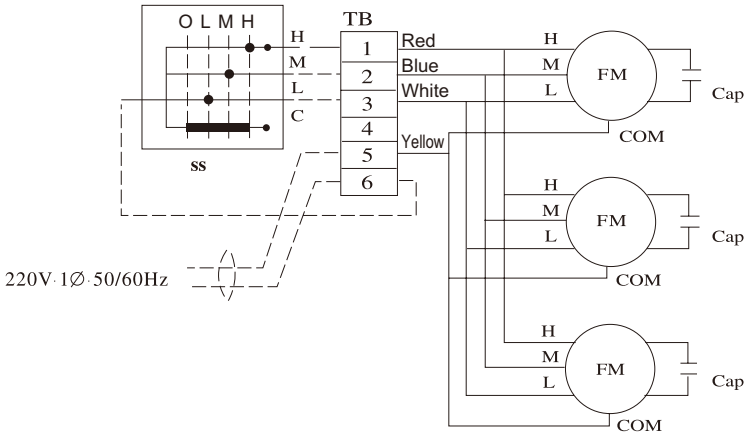
		002	003	004	006	008	010	012
Med	TH	0.85	0.86	0.87	0.89	0.86	0.86	0.89
	SH	0.83	0.84	0.85	0.87	0.84	0.84	0.87
Low	TH	0.7	0.71	0.74	0.74	0.73	0.73	0.73
	SH	0.66	0.67	0.7	0.7	0.69	0.69	0.69

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 Data

Electric Diagram



Cap Capacitor
FM Fan & Motor
SS Switch
O Off
TB Terminal Block
----- Factory Wiring
----- Field Wiring
One motor used in model 002,003,004,005,006
Two motors used in model 008,010,012

Motor input power

Model		002	003	004	006	008	010	012
42CL/VL /VM	Power input（W）	36	50	60	93	130	147	183
	Current （A）	0.17	0.23	0.28	0.43	0.6	0.67	0.84
42VP	Power input（W）	43	57	70	105	151	169	206
	Current （A）	0.2	0.26	0.32	0.48	0.69	0.77	0.94

Note: Above data is based on high speed

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

improve buildings™

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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