



**42CT
3 Row**



**42CT/CTL
ECM Option**

42CT SERIES [300 to 1400 CFM]

Ducted Chilled Water Fan Coil Unit for Standard Chiller and District Cooling Application



MS ISO 9001 REG. NO. AR 0239

ABOUT CARRIER

CARRIER: A WORLD LEADER IN HEATING, AIR-CONDITIONING AND REFRIGERATION SOLUTIONS.

MAKING THE WORLD A BETTER PLACE TO LIVE, WORK AND PLAY

Built on Willis Carrier’s invention of modern air conditioning in 1902, Carrier is the world leader in heating, air-conditioning and refrigeration solutions. We constantly build upon our history of proven innovation with new products and services that improve global comfort and efficiency.

ABOUT CARRIER INTERNATIONAL SDN BHD (CISB)

Carrier established its first foothold in Malaysia in 1959 when Carrier International (Malaysia) Ltd was formed as a distributor for Carrier air-conditioning equipment and components. The company was subsequently renamed as Carrier International Sdn Bhd (CISB). Today, CISB is one of the largest manufacturers of HVAC products in South-East Asia with products ranges setting the standard for performance, energy efficiency and sustainability.

With state of the art manufacturing technologies, the CISB invests heavily in product design/ development with dedicated engineering team and in house testing laboratories to carry out continuous development in thermal performance and air flow. The factory is ISO 9001:2015 certified which is a guarantee for the quality of our product offering and services provided. The factory also complies with EH&S regulations and takes a responsible approach to environment, health and safety.

As one of the market leader in HVAC industries, our products are manufactured with stringent sourcing, manufacturing and quality process that meets Carrier global QA/QC standard and control.

ABOUT 42CT FAN COIL UNITS

42CT series fan coil units are manufactured in Carrier Malaysia facility under Carrier Corporation USA. These units are produced and designed with latest technology. All units performance is rated in accordance to AHRI standards.

COMPUTER SELECTION

We have made available a computer program to finalize your selections. Please contact your Carrier representative for a computer selection based on your “Quick Selection” plus the design parameters of your application.



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PRODUCT FEATURES

If fan coil terminals are the answer to your job requirements, you can't afford to pass over Carrier's versatile and extensive range of fan coil units. With Carrier's 42CT series fan coil units, you can select furred-in style, in capacities from 300 to 1,400 cfm. Units are ideal for installations in residential, hotels, motels, apartments, offices, hospitals, schools and other multi-room buildings.

Carrier room fan coil terminals provide unsurpassed year round comfort, with high cooling performance. Carrier 42 series terminal requires very little space and is easy to install. Piping, drain and wiring connections are readily accessible to save installation time and field labor expense.

Forget about expensive ductwork, forget about complex system controls, forget the aggravation and choose Carrier's easy to install room fan coil units – in pipe systems. Opt for quiet. Carrier room fan coil units operate at exceptionally low sound levels. Generous amount of insulation absorbs operating sound and rugged, rigid construction ensures vibration free operation at all fan speeds.

Carrier room fan coil units are economical. Three speed fans deliver just the right amount of conditioned air for your comfort needs at any load. And each individual unit can be shut off when not in use. Permanent Split Capacitor motors deliver peak operating efficiency. In choosing Carrier units, you can match your application with a wide range of custom-designed options and accessories. When you go for Carrier 42 series, the advantages to owner, installer and the room occupants are too great to ignore.

Carrier 42CT series fan coils give you design and equipment location flexibility

- Wide range of popular capacities, 300 – 1400 cfm
- Available up to 9 sizes.
- Furred-in units
- Select 4 row coils (Eurovent Certified) 3 row coils (Non-Eurovent Certified) 42CT-/CTL
- Accommodates 2 pipe systems
- Top panel insulated and low fan speed means quiet operation
- Draw outside air for odor dilution
- Uses only minimal space

Select Carrier fan coils for easy, low cost installation

- Easy wiring, piping connections
- Mounting holes, slots speed hanging
- Requires no expensive ductwork
- Ideal for new construction or renovation

Save operating costs with Carrier fan coils

- Higher efficiency & reliability: Electronic Commutated Motor (42CT-/CTL) options
- Individual unit shut-off when not in use
- Efficient, 3 speed centrifugal fans
- Permanent Split Capacitor motors
- High efficiency heat transfer surface

Carrier fan coils save your service and maintenance expense

- Nationwide Carrier service
- Insulated drain pan
- Easy access to components
- Rugged construction
- Factory leak test for coil
- Cleanable Nylon filters
- Long life, heavy duty bearings
- Quick clip filter removal for rear side access
- Threaded in/ out – water connection



ISO 9001 Certificate



IQ Net Certificate

MODEL NUMBER NOMENCLATURE

MODEL 42CT/CTL (AC Motor)

4 2 C T - 0 3 4 - - - 7 0 1 2 5

42 Series
Fan Coil Unit

Model
CT — Furred-in Ceiling
Model with Plenum

- — Standard Application
L — District Cooling Application

Unit Size (Airflow, cfm)
03 — 300
04 — 400
05 — 500
06 — 600
07 — 700
08 — 800
10 — 1000
12 — 1200
14 — 1400

Coil
3 — 3 Row Coil
4 — 4 Row Coil

CISB Code
5 — Factory Code + Standard Packing

Motor
2 — Standard (AC Motor)

Filter Options
1 — Standard Nylon Filter

Development Series
0 — 42CT/CTL (AC & BLDC motor)

Electrical Characteristics
7 — 220/240V-1PH-50Hz

Piping Handling
- — Left Hand connection
R — Right Hand Connection
N — Right Hand Water Piping with Same End Connection
K — Left Hand Water Piping with Same End Connection

Heater Options
- — No Heater
D — 1.2 kW Heater
E — 1.5 kW Heater
F — 1.8 kW Heater
H — 2.2 kW Heater
J — 2.4 kW Heater
K — 3.0 kW Heater
L — 3.6 kW Heater
M — 4.4 kW Heater

Drain Pan
- — Standard Drain Pan
S — Stainless Steel Drain Pan

MODEL NUMBER NOMENCLATURE (cont')

MODEL 42CT/CTL (BLDC Motor)

4 2 C T - 0 3 4 - - K 7 0 1 E 5

42 Series
Fan Coil Unit

Model
CT — Furred-in Ceiling
Model with Plenum

- — Standard Application
L — District Cooling Application

Unit Size (Airflow, cfm)
03 — 300
04 — 400
05 — 500
06 — 600
07 — 700
08 — 800
10 — 1000
12 — 1200
14 — 1400

Coil
3 — 3 Row Coil
4 — 4 Row Coil

Motor
E5 — Standard BLDC Motor (Stepless Thermostat)
EV — Standard BLDC Motor (Modulating Thermostat)

Filter Options
1 — Standard Nylon Filter

Development Series
0 — 42CT/CTL (AC & BLDC motor)

Electrical Characteristics
7 — 220/240V-1PH-50Hz

Piping Handling
N — Right Hand Water Piping with Same End Connection
K — Left Hand Water Piping with Same End Connection

Heater Options
- — No Heater
D — 1.2 kW Heater
E — 1.5 kW Heater
F — 1.8 kW Heater
H — 2.2 kW Heater
J — 2.4 kW Heater
K — 3.0 kW Heater
L — 3.6 kW Heater
M — 4.4 kW Heater

Drain Pan
- — Standard Drain Pan
S — Stainless Steel Drain Pan

NEW SERIES: 42CT/CTL EXPLODED VIEW & MAIN FEATURES

| No | Components |
|----|------------------|
| 1 | Top Plenum |
| 2 | Blower |
| 3 | Motor |
| 4 | Fan Deck |
| 5 | Bottom Plenum |
| 6 | Insulation Strip |
| 7 | Tube Sheet |
| 8 | Header Support |
| 9 | Control Box |
| 10 | Drain Pan |
| 11 | Top Panel |

Filter
6 mm Nylon Filter

AC/BLDC Motor Options

Integrated Return Air Plenum

- Ensure better form and appearance. This integrated return air plenum also simplify assembly process.

Coil
3R/4R coil for chiller application
4R coil for district cooling application

Control Options

- Thermostat & Valves

Aluminum Blue Fin

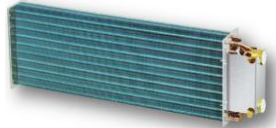
- Lanced sine wave Hydrophilic aluminum blue fin for improved performance.

V-Type Drain Pan

- V type drain pan for better condensate flow.

High Efficiency

- 42CT/CTL unit coil were manufactured using the latest developed double-flanging structure of wide seam blue hydrophilic aluminum fin with an advance mechanical tube-expanding process. This 42CT/CTL hydrophilic aluminum fin will provide sufficient heat transfer channel for an efficient heat exchange. In addition, the wide impeller fan will provide a uniform air distribution that makes the heat transfer more effective and ensure a better cooling capacity.



Low Noise

- 42CT/CTL unit series are equipped with a wide diameter impeller and a low speed forward multi-blade. The fan casing is strengthened with reinforcing ribs that provides additional structure strength.
- It adopts NSK bearings which ensuring small vibration and low noise during operation.



High Strength V Type Drain Pan

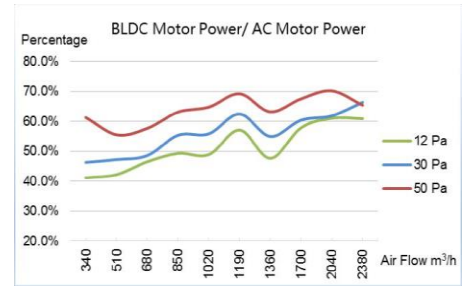
- 42CT/CTL unit series will come with a newly designed V-type drain pan that are produced using an integral molding process. The design of the drain outlet that are located at the lowest position of the unit will ensure condensate able to drain out smoothly. With this V-type design, it will also enhance the strength of the drain pan to avoid any deformation during transportation process.



NEW SERIES: FEATURES OF 42CT/CTL BRUSHLESS DC MOTOR FCU

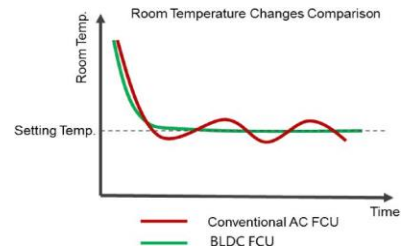
Significant Energy Saving

The energy consumption of 42CT/CTL BLDC FCU is only around 40%~70% compared to the conventional AC FCU. 42CT/CTL BLDC motor are capable of regulating up to 300rpm on a high efficiency which are not possible in a conventional AC motor. This give advantage on 42CT/CTL BLDC to have the speed flexibility in meeting customer comfort. In addition, BLDC motor will also give a higher energy saving advantage when operating at a low speed as compared to AC motor.



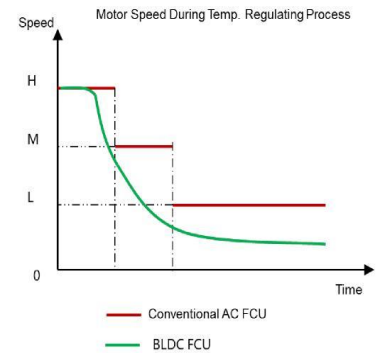
Excellent Comfort

BLDC motor FCU have a stepless speed function that can regulate the air flow smoothly. This BLDC system can be design to regulate the set point temperature by constantly interconnect with the electrical water valve. Set precision of Carrier THT420 series LCD thermostat for 42CT/CTL BLDC, is up to 0.5°C. This great temperature control features in 42CT/CTL BLDC FCU will certainly meets customer satisfaction for a comfort application.



Low Noise

BLDC FCU has a wide regulating range that reduce the motor speed smoothly as the room temperature reach the set point. By using a BLDC motor FCU, the unit will be mostly operating at a medium or low speed which give a lower noise level. Furthermore, the carbon brush noise, which are unavoidable in a conventional AC FCU, can also be eliminated by using this BLDC motor.



Convenient Application

Modifying the external static pressure requirement can be easily done on the field by changing the dip switch settings between 12Pa,30Pa and 50 Pa as required. THT420 Series thermostat have a timing function which can conveniently set start and switch off time. By using IPM drive module, it has over current protection, overvoltage protection, undervoltage protection, plugging protection ,overspeed protection and other functions that will ensure a reliable performance..



Flexible Control

Carrier 42CT/CTL BLDC FCU can not only match Carrier THT420 series thermostat, but also is compatible with any normal 0~10V thermostat on the market. This give the flexibility for users to choose their own thermostat in order to meet diverse applications.



| PN | Part Name |
|---------|--------------------------------------|
| THT420A | Thermostat (2 pipe) |
| THT420B | Thermostat (2 pipe + MODBUS) |
| THT420M | Thermostat (2 pipe) Modulating Valve |

TECHNICAL DATA

42CT Furred-in Ceiling FCU with Plenum 3 Rows (AC)

| PERFORMANCE | | | MODEL: 42CT | | | | | | | | |
|------------------------------------|-----------------------------|--|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | 03 | 04 | 05 | 06 | 07 | 08 | 10 | 12 | 14 |
| | | | --70125 & -R70125 | | | | | | | | |
| Air Volume | High | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | ℓ/s | 142 | 189 | 236 | 283 | 330 | 378 | 472 | 566 | 661 |
| Cooling Capacity (Fluid)* | | kW | 3.30 | 4.10 | 5.00 | 5.60 | 6.60 | 8.10 | 9.30 | 10.40 | 11.50 |
| | | Btu/hr | 11,270 | 14,002 | 17,076 | 19,125 | 22,540 | 27,663 | 31,761 | 35,518 | 39,275 |
| Motor power output | | W | 24 | 30 | 51 | 55 | 72 | 34 x 2 | 48 x 2 | 62 x 2 | 83 x 2 |
| Motor current | | Amp | 0.29 | 0.35 | 0.43 | 0.49 | 0.59 | 0.70 | 0.84 | 1.02 | 1.55 |
| Sound Pressure** | High | dB(A) | 37.6 | 39.3 | 40.5 | 41.5 | 42.2 | 42.8 | 43.1 | 43.5 | 44.5 |
| | Med | | 35.9 | 37.8 | 38.3 | 39.6 | 40.2 | 40.8 | 40.9 | 41.5 | 42.7 |
| | Low | | 34.4 | 36.6 | 36.6 | 37.8 | 38.2 | 38.6 | 38.7 | 39.6 | 40.7 |
| Water Flow | | ℓ/s | 0.14 | 0.17 | 0.21 | 0.24 | 0.28 | 0.35 | 0.39 | 0.44 | 0.49 |
| Water Pressure Drop | | kPa | 20.1 | 16.5 | 26.1 | 20.6 | 19.9 | 26.5 | 28.7 | 30.0 | 28.7 |
| Fan Type | | Centrifugal Forward-curved blades | | | | | | | | | |
| Motor Type | | Permanent Split Capacitor | | | | | | | | | |
| Coil | No. of Row | | 3 | | | | | | | | |
| | Working Pressure | | 1.72 MPa | | | | | | | | |
| | Face Area (m ²) | | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.26 | 0.27 | 0.32 | 0.35 |
| | Water Volume (ℓ) | | 0.63 | 0.71 | 0.80 | 0.97 | 1.05 | 1.30 | 1.35 | 1.56 | 1.73 |
| Connections | Water In-Out/ Material | | 3/4" FPT (BSP)/ Brass (Threaded Connections) | | | | | | | | |
| | Condensate Drain/ Material | | 3/4" MPT (BSP)/ GI Steel (Threaded Connections) | | | | | | | | |
| Cabinet Size | Height | mm | 242 | | | | | | | | |
| | Width | mm | 560 | | | | | | | | |
| | Length | mm | 781 | 861 | 941 | 1,101 | 1,181 | 1,421 | 1,471 | 1671 | 1,831 |
| Casing Material / Thickness | | Galvanized Steel/ 0.8 & 1.0mm | | | | | | | | | |
| Casing Treatment / External Finish | | G60 Galvanized Steel (Z180 Zinc Coating) | | | | | | | | | |
| Net Weight | | kg | 16.7 | 17.6 | 19.6 | 22.2 | 23.6 | 30.5 | 32.6 | 35.9 | 38.6 |

NOTE:
 * Based on motor at high speed, standard air and dry coil operation, 5.6°C water temperature rise; entering-air temperature 26.7°C dB; 19.4°C wB; entering water temperature 7.2°C.
 ** Sound measurement in accordance with JIS8616-2006 Standard (1.5M below the unit bottom)

-- For other design conditions, please apply the selection program to finalize your applications --

Performance Assurance
 Rated in accordance with
 AHRI Standard Condition

TECHNICAL DATA (cont')

42CT Furred-in Ceiling FCU with Plenum 3 Rows (BLDC)

| PERFORMANCE | | | MODEL: 42CT (BLDC) | | | | | | | | |
|------------------------------------|-----------------------------|--------|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | 03 | 04 | 05 | 06 | 07 | 08 | 10 | 12 | 14 |
| | | | -K701E5 & -N701E5 | | | | | | | | |
| Air Volume | High | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | l/s | 142 | 189 | 236 | 283 | 330 | 378 | 472 | 566 | 661 |
| Cooling Capacity (Fluid)* | | kW | 3.30 | 4.10 | 5.00 | 5.60 | 6.60 | 8.10 | 9.30 | 10.40 | 11.50 |
| | | Btu/hr | 11,270 | 14,002 | 17,076 | 19,125 | 22,540 | 27,663 | 31,761 | 35,518 | 39,275 |
| Motor power output | | W | 50 | 50 | 105 | 105 | 105 | 50x2 | 105x2 | 105x2 | 105x2 |
| Motor current | | Amp | 0.16 | 0.20 | 0.27 | 0.32 | 0.41 | 0.45 | 0.57 | 0.72 | 0.89 |
| Sound Pressure** | High | dB(A) | 37.6 | 39.3 | 40.5 | 41.5 | 42.2 | 42.8 | 43.1 | 43.5 | 44.5 |
| | Med | | 35.9 | 37.8 | 38.3 | 39.6 | 40.2 | 40.8 | 40.9 | 41.5 | 42.7 |
| | Low | | 34.4 | 36.6 | 36.6 | 37.8 | 38.2 | 38.6 | 38.7 | 39.6 | 40.7 |
| Water Flow | | l/s | 0.14 | 0.17 | 0.21 | 0.24 | 0.28 | 0.35 | 0.39 | 0.44 | 0.49 |
| Water Pressure Drop | | kPa | 20.10 | 16.50 | 26.10 | 20.60 | 19.90 | 26.50 | 28.70 | 30.00 | 28.70 |
| Fan Type | | | Centrifugal Forward-curved blades | | | | | | | | |
| Coil | No. of Row | | 3 | | | | | | | | |
| | Working Pressure | | 1.72 MPa | | | | | | | | |
| | Face Area (m ²) | | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.26 | 0.27 | 0.32 | 0.35 |
| | Water Volume (l) | | 0.63 | 0.71 | 0.80 | 0.97 | 1.05 | 1.30 | 1.35 | 1.56 | 1.73 |
| Connections | Water In-Out/ Material | | 3/4" FPT (BSP)/ Brass (Threaded Connections) | | | | | | | | |
| | Condensate Drain/ Material | | 3/4" MPT (BSP)/ GI Steel (Threaded Connections) | | | | | | | | |
| Cabinet Size | Height | mm | 242 | | | | | | | | |
| | Width | mm | 560 | | | | | | | | |
| | Length | mm | 781 | 861 | 941 | 1,101 | 1,181 | 1,421 | 1,471 | 1671 | 1,831 |
| Casing Material / Thickness | | | Galvanized Steel/ 0.8 & 1.0mm | | | | | | | | |
| Casing Treatment / External Finish | | | G60 Galvanized Steel (Z180 Zinc Coating) | | | | | | | | |
| Net Weight | | kg | 17.7 | 18.6 | 20.6 | 23.2 | 24.6 | 31.5 | 33.6 | 36.9 | 39.6 |



BLDC Motor



THT420 Thermostat

NOTE:

* Based on motor at high speed, standard air and dry coil operation, 5.6°C water temperature rise; entering-air temperature 26.7°C dB; 19.4°C wB; entering water temperature 7.2°C.

** Sound measurement in accordance with JIS8616-2006 Standard (1.5M below the unit bottom)

-- For other design conditions, please apply the selection program to finalize your applications --

Performance Assurance
Rated in accordance with
AHRI Standard Condition

TECHNICAL DATA (cont')

42CT Furred-in Ceiling FCU with Plenum 4 Rows (BLDC)

| PERFORMANCE | | | MODEL: 42CT (BLDC) | | | | | | | | |
|------------------------------------|-----------------------------|--|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | 03 | 04 | 05 | 06 | 07 | 08 | 10 | 12 | 14 |
| | | | -K701E5 & -N701E5 | | | | | | | | |
| Air Volume | High | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | ℓ/s | 142 | 189 | 236 | 283 | 330 | 378 | 472 | 566 | 661 |
| Cooling Capacity (Fluid)* | | kW | 3.70 | 4.10 | 5.00 | 6.00 | 6.80 | 8.20 | 10.10 | 10.60 | 12.40 |
| | | Btu/hr | 12,636 | 14,002 | 17,076 | 20,491 | 23,223 | 28,004 | 34,493 | 36,201 | 42,348 |
| Motor power output | | W | 50 | 50 | 105 | 105 | 105 | 50x2 | 105x2 | 105x2 | 105x2 |
| Motor current | | Amp | 0.16 | 0.20 | 0.27 | 0.32 | 0.41 | 0.45 | 0.57 | 0.72 | 0.89 |
| Sound Pressure** | High | dB(A) | 36.7 | 38.9 | 39.6 | 40.5 | 41.3 | 42.1 | 42.3 | 42.5 | 44.0 |
| | Med | | 35.1 | 37.7 | 37.5 | 38.4 | 39.3 | 40.1 | 40.3 | 40.8 | 42.0 |
| | Low | | 33.3 | 36.1 | 35.6 | 36.5 | 37.5 | 38.4 | 38.4 | 39.4 | 39.9 |
| Water Flow | | ℓ/s | 0.16 | 0.18 | 0.21 | 0.26 | 0.29 | 0.35 | 0.43 | 0.45 | 0.53 |
| Water Pressure Drop | | kPa | 17.50 | 12.90 | 13.20 | 15.90 | 20.30 | 19.50 | 25.10 | 20.00 | 28.70 |
| Fan Type | | Centrifugal Forward-curved blades | | | | | | | | | |
| Coil | No. of Row | | 4 | | | | | | | | |
| | Working Pressure | | 1.72 MPa | | | | | | | | |
| | Face Area (m ²) | | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.26 | 0.27 | 0.32 | 0.35 |
| | Water Volume (ℓ) | | 0.84 | 0.95 | 1.06 | 1.29 | 1.40 | 1.73 | 1.80 | 2.08 | 2.30 |
| Connections | Water In-Out/ Material | | 3/4" FPT (BSP)/ Brass (Threaded Connections) | | | | | | | | |
| | Condensate Drain/ Material | | 3/4" MPT (BSP)/ GI Steel (Threaded Connections) | | | | | | | | |
| Cabinet Size | Height | mm | 242 | | | | | | | | |
| | Width | mm | 560 | | | | | | | | |
| | Length | mm | 781 | 861 | 941 | 1,101 | 1,181 | 1,421 | 1,471 | 1671 | 1,831 |
| Casing Material / Thickness | | Galvanized Steel/ 0.8 & 1.0mm | | | | | | | | | |
| Casing Treatment / External Finish | | G60 Galvanized Steel (Z180 Zinc Coating) | | | | | | | | | |
| Net Weight | | kg | 18.2 | 19.1 | 21.3 | 23.9 | 25.3 | 32.3 | 34.4 | 37.9 | 40.4 |



BLDC Motor



THT420 Thermostat

NOTE:
 * Based on motor at high speed, standard air and dry coil operation, 5.6°C water temperature rise; entering-air temperature 26.7°C dB; 19.4°C wB; entering water temperature 7.2°C.
 ** Sound measurement in accordance with JIS8616-2006 Standard (1.5M below the unit bottom)

-- For other design conditions, please apply the selection program to finalize your applications --

Performance Assurance
 Rated in accordance with
AHRI Standard Condition

TECHNICAL DATA (cont')

42CTL Furred-in Ceiling FCU with Plenum 4 Rows (BLDC)

| PERFORMANCE | | | MODEL: 42CTL (BLDC) | | | | | | | | |
|------------------------------------|-----------------------------|--------|---|-------|--------|--------|--------|--------|--------|--------|--------|
| | | | 03 | 04 | 05 | 06 | 07 | 08 | 10 | 12 | 14 |
| | | | -K701E5 & -N701E5 | | | | | | | | |
| Air Volume | High | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | ℓ/s | 142 | 189 | 236 | 283 | 330 | 378 | 472 | 566 | 661 |
| Cooling Capacity (Fluid)* | | kW | 2.40 | 2.90 | 3.90 | 4.90 | 5.40 | 6.80 | 8.10 | 10.40 | 11.60 |
| | | Btu/hr | 8,196 | 9,904 | 13,319 | 16,734 | 18,442 | 23,223 | 27,663 | 35,518 | 39,616 |
| Motor power output | | W | 50 | 50 | 105 | 105 | 105 | 50x2 | 105x2 | 105x2 | 105x2 |
| Motor current | | Amp | 0.16 | 0.20 | 0.27 | 0.32 | 0.41 | 0.45 | 0.57 | 0.72 | 0.89 |
| Sound Pressure** | High | dB(A) | 36.7 | 38.9 | 39.6 | 40.5 | 41.3 | 42.1 | 42.3 | 42.5 | 44.0 |
| | Med | | 35.1 | 37.7 | 37.5 | 38.4 | 39.3 | 40.1 | 40.3 | 40.8 | 42.0 |
| | Low | | 33.3 | 36.1 | 35.6 | 36.5 | 37.5 | 38.4 | 38.4 | 39.4 | 39.9 |
| Water Flow | | ℓ/s | 0.07 | 0.08 | 0.10 | 0.13 | 0.14 | 0.18 | 0.22 | 0.28 | 0.30 |
| Water Pressure Drop | | kPa | 44.60 | 20.70 | 40.40 | 30.50 | 34.80 | 38.30 | 44.40 | 46.00 | 57.00 |
| Fan Type | | | Centrifugal Forward-curved blades | | | | | | | | |
| Coil | No. of Row | | 4 | | | | | | | | |
| | Working Pressure | | 1.72 MPa | | | | | | | | |
| | Face Area (m ²) | | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.26 | 0.27 | 0.32 | 0.35 |
| | Water Volume (ℓ) | | 0.84 | 0.95 | 1.06 | 1.29 | 1.40 | 1.73 | 1.80 | 2.08 | 2.30 |
| Connections | Water In-Out/ Material | | 3/4" FPT (BSP)/ Brass (Threaded Connections) | | | | | | | | |
| | Condensate Drain/ Material | | 3/4" MPT (BSP)/ GI Steel (Threaded Connections) | | | | | | | | |
| Cabinet Size | Height | mm | 242 | | | | | | | | |
| | Width | mm | 560 | | | | | | | | |
| | Length | mm | 781 | 861 | 941 | 1,101 | 1,181 | 1,421 | 1,471 | 1671 | 1,831 |
| Casing Material / Thickness | | | Galvanized Steel/ 0.8 & 1.0mm | | | | | | | | |
| Casing Treatment / External Finish | | | G60 Galvanized Steel (Z180 Zinc Coating) | | | | | | | | |
| Net Weight | | kg | 18.2 | 19.1 | 21.3 | 23.9 | 25.3 | 32.3 | 34.4 | 37.9 | 40.4 |



BLDC Motor



THT420 Thermostat

NOTE:

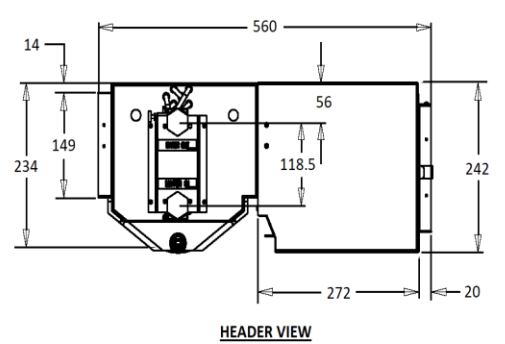
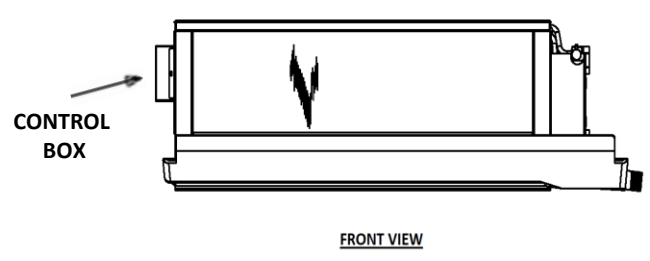
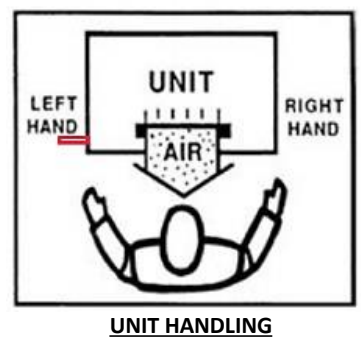
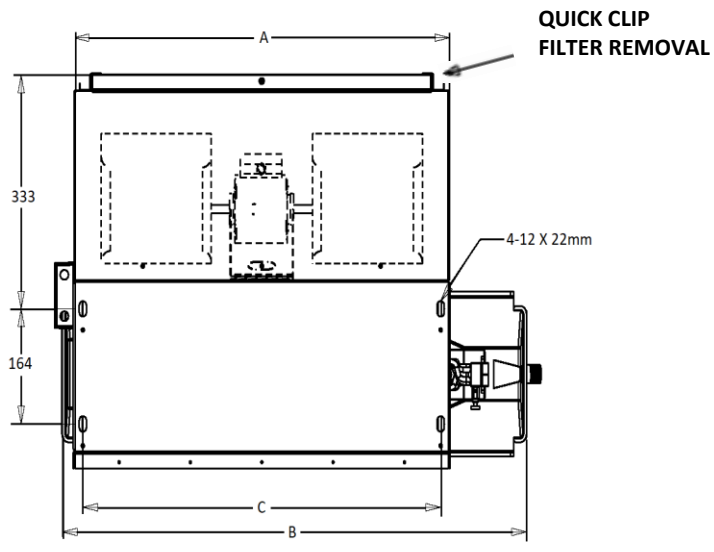
- * Based on motor at high speed, standard air and wet coil operation; 8.9°C water temperature rise; entering air temperature 24.4°C DB; 17.2°C WB; Entering water temperature 5.5°C.
- ** Sound measurement in accordance with Standard JIS8616-2006 (1.5m below the unit bottom).

-- For other design conditions, please apply the selection program to finalize your applications --

Performance Assurance
Rated in accordance with
AHRI Standard Condition

UNIT DIMENSIONS AND WEIGHT

42CT-/CTL Furred-in Ceiling FCU with Plenum



| MODEL 42CT-/CTL | DIMENSIONS (mm) | | | NET WEIGHT (kg) | | |
|--------------------|-----------------|------|------|-------------------|---------------------|---------------------|
| | A | B | C | 3 Rows (AC Motor) | 3 Rows (BLDC Motor) | 4 Rows (BLDC Motor) |
| 03 | 632 | 781 | 602 | 16.7 | 17.7 | 18.2 |
| 04 | 712 | 861 | 682 | 17.6 | 18.6 | 19.1 |
| 05 | 792 | 941 | 762 | 19.6 | 20.6 | 21.3 |
| 06 | 952 | 1101 | 922 | 22.2 | 23.2 | 23.9 |
| 07 | 1032 | 1181 | 1002 | 23.6 | 24.6 | 25.3 |
| 08 | 1272 | 1421 | 1242 | 30.5 | 31.5 | 32.3 |
| 10 | 1322 | 1471 | 1292 | 32.6 | 33.6 | 34.4 |
| 12 | 1522 | 1671 | 1492 | 35.9 | 36.9 | 37.9 |
| 14 | 1682 | 1831 | 1652 | 38.6 | 39.6 | 40.4 |

PERFORMANCE RATING

42CT- Furred-in Ceiling Model (3-Rows)

| Model 42CT | Speed | ESP Pa | Air Flow (CFM) | Capacity (kW) | | Air off FCU (°C) | | Water Flow (ℓ/s) | Water Pressure (kPa) |
|---------------|--------|-----------|-------------------|---------------|----------|------------------|------|---------------------|----------------------------|
| | | | | Total | Sensible | DB | WB | | |
| 033 | High | 50 | 267 | 3.3 | 2.1 | 13.1 | 12.6 | 0.14 | 20.1 |
| | Medium | | 206 | 2.7 | 1.7 | 12.3 | 11.8 | 0.11 | 13.8 |
| | Low | | 114 | 1.6 | 1.0 | 11.0 | 10.5 | 0.07 | 5.3 |
| 043 | High | 50 | 352 | 4.1 | 2.6 | 13.5 | 13.0 | 0.17 | 16.5 |
| | Medium | | 276 | 3.4 | 2.2 | 12.8 | 12.3 | 0.14 | 11.5 |
| | Low | | 178 | 2.4 | 1.5 | 11.7 | 11.1 | 0.10 | 5.9 |
| 053 | High | 50 | 453 | 5.0 | 3.3 | 13.8 | 13.3 | 0.21 | 26.0 |
| | Medium | | 346 | 4.2 | 2.7 | 13.0 | 12.4 | 0.18 | 19.3 |
| | Low | | 256 | 3.3 | 2.1 | 12.1 | 11.5 | 0.14 | 12.4 |
| 063 | High | 50 | 536 | 5.6 | 3.7 | 14.4 | 13.7 | 0.24 | 20.5 |
| | Medium | | 432 | 4.8 | 3.2 | 13.6 | 13.0 | 0.21 | 15.9 |
| | Low | | 273 | 3.5 | 2.2 | 12.4 | 11.8 | 0.15 | 8.4 |
| 073 | High | 50 | 601 | 6.6 | 4.4 | 13.9 | 13.3 | 0.28 | 19.9 |
| | Medium | | 475 | 5.6 | 3.7 | 13.1 | 12.6 | 0.24 | 15.3 |
| | Low | | 341 | 4.4 | 2.8 | 12.2 | 11.6 | 0.19 | 9.3 |
| 083 | High | 50 | 719 | 8.1 | 5.3 | 13.7 | 13.2 | 0.35 | 26.5 |
| | Medium | | 552 | 6.8 | 4.3 | 12.8 | 12.3 | 0.29 | 19.4 |
| | Low | | 355 | 4.8 | 3.0 | 11.7 | 11.1 | 0.20 | 10.0 |
| 103 | High | 50 | 862 | 9.3 | 6.1 | 14.1 | 13.5 | 0.39 | 28.7 |
| | Medium | | 667 | 7.8 | 5.1 | 13.2 | 12.6 | 0.33 | 21.5 |
| | Low | | 472 | 6.1 | 3.9 | 12.2 | 11.6 | 0.26 | 13.7 |
| 123 | High | 50 | 994 | 10.4 | 7.0 | 14.3 | 13.7 | 0.44 | 29.9 |
| | Medium | | 815 | 9.2 | 6.1 | 13.6 | 13.0 | 0.39 | 24.0 |
| | Low | | 606 | 7.5 | 4.8 | 12.6 | 12.0 | 0.32 | 16.7 |
| 143 | High | 50 | 1139 | 11.5 | 7.8 | 14.7 | 13.9 | 0.49 | 28.7 |
| | Medium | | 946 | 10.2 | 6.8 | 14.0 | 13.3 | 0.43 | 23.6 |
| | Low | | 719 | 8.5 | 5.6 | 13.1 | 12.4 | 0.36 | 16.9 |

NOTE: Air Conditions: EDB/EWB 26.7/19.4°C

Water Conditions: EWT/LWT 7.2/12.8°C

ΔT: 5.6°C

42CT Furred-in Ceiling Model (4-Rows) BLDC Motor

| Model 42CT | Speed | ESP Pa | Air Flow (CFM) | Capacity (kW) | | Air off FCU (°C) | | Water Flow (ℓ/s) | Water Pressure (kPa) |
|---------------|--------|-----------|-------------------|---------------|----------|------------------|------|---------------------|----------------------------|
| | | | | Total | Sensible | DB | WB | | |
| 034 | High | 50 | 256 | 3.7 | 2.2 | 11.4 | 11.0 | 0.16 | 17.5 |
| | Medium | | 188 | 2.9 | 1.7 | 10.6 | 10.2 | 0.12 | 10.5 |
| | Low | | 104 | 1.7 | 1.0 | 9.6 | 9.0 | 0.07 | 3.7 |
| 044 | High | 50 | 329 | 4.1 | 2.6 | 12.8 | 12.4 | 0.18 | 12.9 |
| | Medium | | 269 | 3.6 | 2.2 | 12.2 | 11.7 | 0.15 | 9.6 |
| | Low | | 166 | 2.4 | 1.5 | 11.0 | 10.4 | 0.10 | 4.5 |
| 054 | High | 50 | 431 | 5.0 | 3.2 | 13.6 | 13.0 | 0.21 | 13.2 |
| | Medium | | 334 | 4.2 | 2.6 | 12.7 | 12.2 | 0.18 | 9.1 |
| | Low | | 250 | 3.3 | 2.1 | 11.9 | 11.3 | 0.14 | 5.9 |
| 064 | High | 50 | 529 | 6.0 | 3.9 | 13.7 | 13.1 | 0.26 | 15.9 |
| | Medium | | 427 | 5.2 | 3.3 | 13.0 | 12.4 | 0.22 | 11.8 |
| | Low | | 263 | 3.6 | 2.2 | 11.8 | 11.1 | 0.15 | 5.7 |
| 074 | High | 50 | 591 | 6.8 | 4.4 | 13.6 | 13.0 | 0.29 | 20.3 |
| | Medium | | 451 | 5.7 | 3.6 | 12.7 | 12.1 | 0.24 | 14.4 |
| | Low | | 306 | 4.2 | 2.6 | 11.7 | 11.0 | 0.18 | 8.0 |
| 084 | High | 50 | 675 | 8.2 | 5.2 | 13.2 | 12.6 | 0.35 | 19.5 |
| | Medium | | 507 | 6.6 | 4.2 | 12.3 | 11.7 | 0.28 | 12.8 |
| | Low | | 324 | 4.6 | 2.8 | 11.2 | 10.6 | 0.20 | 6.3 |
| 104 | High | 50 | 832 | 10.1 | 6.4 | 13.2 | 12.7 | 0.43 | 25.1 |
| | Medium | | 654 | 8.5 | 5.3 | 12.3 | 11.8 | 0.36 | 18.8 |
| | Low | | 469 | 6.6 | 4.1 | 11.5 | 10.8 | 0.28 | 11.5 |
| 124 | High | 50 | 934 | 10.6 | 6.9 | 13.7 | 13.1 | 0.45 | 20.0 |
| | Medium | | 758 | 9.2 | 5.9 | 13.0 | 12.4 | 0.39 | 15.3 |
| | Low | | 569 | 7.5 | 4.7 | 12.1 | 11.5 | 0.32 | 10.3 |
| 144 | High | 50 | 1085 | 12.4 | 8.0 | 13.7 | 13.1 | 0.53 | 28.7 |
| | Medium | | 913 | 11.0 | 7.1 | 13.1 | 12.4 | 0.47 | 23.6 |
| | Low | | 714 | 9.2 | 5.9 | 12.3 | 11.6 | 0.39 | 17.0 |

NOTE: Air Conditions: EDB/EWB 26.7/19.4°C

Water Conditions: EWT/LWT 7.2/12.8°C

ΔT: 5.6°C

-- For other design conditions, please apply the selection program to finalize your applications --

PERFORMANCE RATING (cont')

42CTL Furred-in Ceiling Model (4-Rows) District Cooling Application BLDC Motor

| Model 42CTL | Speed | ESP Pa | Air Flow (CFM) | Capacity (kW) | | Air off FCU (°C) | | Water Flow (ℓ/s) | Water Pressure (kPa) |
|----------------|--------|-----------|-------------------|---------------|----------|------------------|------|---------------------|----------------------------|
| | | | | Total | Sensible | DB | WB | | |
| 034 | High | 50 | 258 | 2.4 | 1.8 | 12.2 | 11.5 | 0.07 | 44.6 |
| | Medium | | 189 | 2.0 | 1.4 | 11.3 | 10.7 | 0.05 | 28.5 |
| | Low | | 105 | 1.2 | 0.9 | 10.0 | 9.4 | 0.03 | 11.5 |
| 044 | High | 50 | 331 | 2.9 | 2.2 | 12.7 | 12.0 | 0.08 | 20.7 |
| | Medium | | 272 | 2.5 | 1.9 | 12.1 | 11.4 | 0.07 | 15.7 |
| | Low | | 167 | 1.8 | 1.3 | 11.1 | 10.4 | 0.05 | 7.6 |
| 054 | High | 50 | 434 | 3.9 | 2.9 | 12.6 | 11.9 | 0.10 | 40.4 |
| | Medium | | 336 | 3.2 | 2.4 | 11.9 | 11.2 | 0.09 | 28.5 |
| | Low | | 252 | 2.6 | 1.9 | 11.1 | 10.5 | 0.07 | 18.7 |
| 064 | High | 50 | 533 | 4.9 | 3.6 | 12.5 | 11.8 | 0.13 | 30.5 |
| | Medium | | 430 | 4.2 | 3.1 | 11.8 | 11.2 | 0.11 | 22.6 |
| | Low | | 265 | 2.9 | 2.1 | 10.7 | 10.1 | 0.08 | 10.9 |
| 074 | High | 50 | 595 | 5.4 | 4.0 | 12.5 | 11.8 | 0.14 | 34.8 |
| | Medium | | 455 | 4.5 | 3.3 | 11.7 | 11.1 | 0.12 | 24.4 |
| | Low | | 308 | 3.3 | 2.4 | 10.7 | 10.1 | 0.09 | 13.6 |
| 084 | High | 50 | 681 | 6.8 | 4.9 | 11.7 | 11.2 | 0.18 | 38.3 |
| | Medium | | 511 | 5.5 | 3.9 | 10.9 | 10.4 | 0.15 | 26.0 |
| | Low | | 326 | 3.9 | 2.7 | 9.9 | 9.3 | 0.10 | 12.9 |
| 104 | High | 50 | 839 | 8.1 | 5.9 | 12.1 | 11.4 | 0.22 | 44.4 |
| | Medium | | 659 | 6.8 | 4.9 | 11.3 | 10.7 | 0.18 | 33.2 |
| | Low | | 473 | 5.3 | 3.8 | 10.4 | 9.8 | 0.14 | 20.8 |
| 124 | High | 50 | 941 | 10.4 | 7.3 | 10.8 | 10.4 | 0.28 | 46.0 |
| | Medium | | 763 | 8.9 | 6.2 | 10.2 | 9.7 | 0.24 | 35.2 |
| | Low | | 574 | 7.1 | 4.9 | 9.5 | 8.9 | 0.19 | 23.6 |
| 144 | High | 50 | 1094 | 11.2 | 8.0 | 11.6 | 11.0 | 0.30 | 57.0 |
| | Medium | | 920 | 9.9 | 7.0 | 11.0 | 10.4 | 0.27 | 46.3 |
| | Low | | 720 | 8.3 | 5.8 | 10.2 | 9.6 | 0.22 | 34.0 |

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C

Water Conditions: EWT/LWT 5.5/14.4°C

ΔT: 8.9°C

-- For other design conditions, please apply the selection program to finalize your applications --

ELECTRICAL DATA

42CT-/CTL MOTOR DATA (AC)

| Model | Unit Size | Power Supply (V-Ph-Hz) | Fan Speed | Fan Speed (rpm) 3 Row | Fan Speed (rpm) 4 Row | Nominal Power Output (W) | Power Input (W) 3 Rows | Power Input (W) 4 Rows | Running Amps | | Remarks |
|-----------------|-----------|------------------------|-----------|-----------------------|-----------------------|--------------------------|------------------------|------------------------|--------------|--------|---|
| | | | | | | | | | 3 rows | 4 rows | |
| 42CT- /42CTL | 03 | 230-1-50 | Hi | 1126 | 1140 | 24 | 70 | 69 | 0.30 | 0.30 | * Total motor amps and watts shown for units with 2 motors (size 08 to 14). |
| | | | Med | 1048 | 1065 | | 60 | 59 | 0.27 | 0.27 | |
| | | | Low | 959 | 974 | | 49 | 48 | 0.23 | 0.23 | |
| | 04 | | Hi | 1167 | 1185 | 30 | 79 | 74 | 0.34 | 0.32 | |
| | | | Med | 1078 | 1080 | | 69 | 68 | 0.30 | 0.30 | |
| | | | Low | 981 | 988 | | 57 | 56 | 0.25 | 0.26 | |
| | 05 | | Hi | 1250 | 1256 | 51 | 101 | 99 | 0.44 | 0.43 | |
| | | | Med | 1118 | 1134 | | 87 | 84 | 0.40 | 0.39 | |
| | | | Low | 1035 | 1037 | | 77 | 76 | 0.36 | 0.35 | |
| | 06 | | Hi | 1279 | 1241 | 55 | 116 | 109 | 0.48 | 0.51 | |
| | | | Med | 1166 | 1106 | | 106 | 98 | 0.43 | 0.47 | |
| | | | Low | 1075 | 1000 | | 84 | 81 | 0.36 | 0.38 | |
| | 07 | | Hi | 1309 | 1291 | 72 | 141 | 139 | 0.61 | 0.62 | |
| | | | Med | 1156 | 1129 | | 116 | 115 | 0.52 | 0.52 | |
| | | | Low | 1049 | 1016 | | 97 | 96 | 0.44 | 0.44 | |
| | 08 * | | Hi | 1183 | 1152 | 34(x2) | 164 | 163 | 0.72 | 0.72 | |
| | | | Med | 1067 | 1032 | | 143 | 142 | 0.64 | 0.64 | |
| | | | Low | 960 | 957 | | 120 | 119 | 0.55 | 0.55 | |
| | 10 * | | Hi | 1304 | 1310 | 48 (x2) | 197 | 195 | 0.87 | 0.86 | |
| | | | Med | 1151 | 1151 | | 174 | 168 | 0.77 | 0.74 | |
| | | | Low | 1060 | 1040 | | 146 | 145 | 0.65 | 0.65 | |
| 12 * | Hi | 1324 | 1323 | 62 (x2) | 245 | 241 | 1.06 | 1.08 | | | |
| | Med | 1212 | 1205 | | 217 | 214 | 0.94 | 0.95 | | | |
| | Low | 1098 | 1071 | | 192 | 190 | 0.84 | 0.85 | | | |
| 14 * | Hi | 1363 | 1358 | 83 (x2) | 326 | 324 | 1.60 | 1.60 | | | |
| | Med | 1232 | 1220 | | 262 | 265 | 1.15 | 1.16 | | | |
| | Low | 1106 | 1104 | | 225 | 223 | 0.98 | 0.99 | | | |

Based on 50PA

42CT-/CTL 3R & 4R- Dry Coil CFM

ELECTRICAL DATA (cont')

42CT-/CTL MOTOR DATA (BLDC)

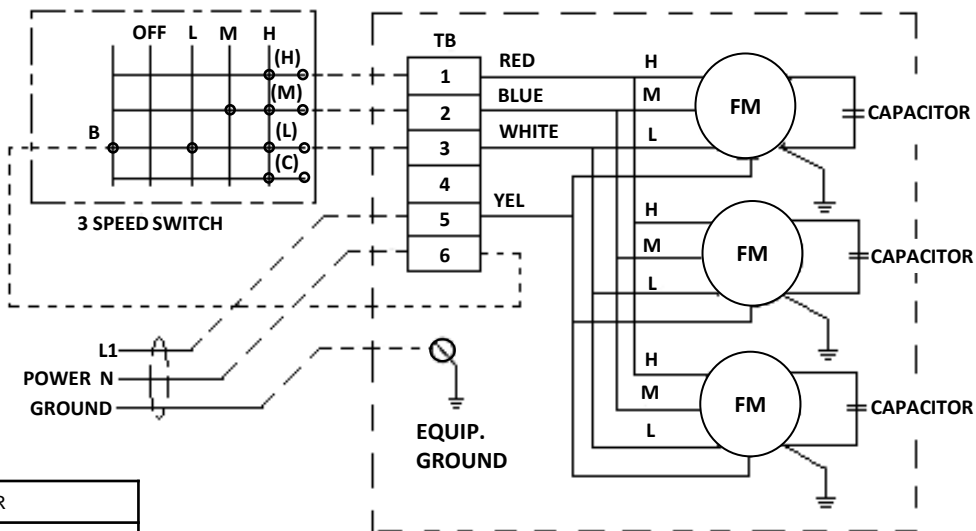
| Model | Unit Size | Power Supply (V-Ph-Hz) | Fan Speed | Fan Speed (rpm) | Fan Speed (rpm) | Nominal Power Output (W) | Power Input (W) | Power Input (W) | Running Amps | | Remarks |
|-----------------|-----------|------------------------|-----------|-----------------|-----------------|--------------------------|-----------------|-----------------|--------------|--------|---|
| | | | | 3 Row | 4 Row | | 3 Rows | 4 Rows | 3 rows | 4 rows | |
| 42CT- /42CTL | 03 | 230-1-50 | Hi | 1119 | 1131 | 50 | 36 | 35 | 0.35 | 0.37 | * Total motor amps and watts shown for units with 2 motors (size 08 to 14). |
| | | | Med | 1055 | 1079 | | 29 | 28 | 0.29 | 0.29 | |
| | | | Low | 998 | 1020 | | 21 | 20 | 0.22 | 0.22 | |
| | 04 | | Hi | 1154 | 1159 | 50 | 49 | 47 | 0.45 | 0.49 | |
| | | | Med | 1088 | 1102 | | 38 | 37 | 0.38 | 0.39 | |
| | | | Low | 1030 | 1049 | | 28 | 26 | 0.27 | 0.28 | |
| | 05 | | Hi | 1243 | 1254 | 105 | 64 | 63 | 0.59 | 0.62 | |
| | | | Med | 1165 | 1167 | | 49 | 48 | 0.45 | 0.49 | |
| | | | Low | 1093 | 1083 | | 36 | 35 | 0.33 | 0.35 | |
| | 06 | | Hi | 1237 | 1201 | 105 | 71 | 69 | 0.67 | 0.66 | |
| | | | Med | 1149 | 1110 | | 54 | 53 | 0.52 | 0.55 | |
| | | | Low | 1067 | 1043 | | 40 | 39 | 0.39 | 0.38 | |
| | 07 | | Hi | 1267 | 1303 | 105 | 94 | 92 | 0.86 | 0.90 | |
| | | | Med | 1204 | 1205 | | 70 | 69 | 0.64 | 0.70 | |
| | | | Low | 1093 | 1146 | | 51 | 47 | 0.49 | 0.51 | |
| | 08 * | | Hi | 1167 | 1159 | 50 (X2) | 97 | 96 | 0.80 | 0.79 | |
| | | | Med | 1099 | 1120 | | 79 | 78 | 0.64 | 0.66 | |
| | | | Low | 1034 | 1032 | | 56 | 55 | 0.47 | 0.47 | |
| | 10 * | | Hi | 1292 | 1248 | 105 (X2) | 128 | 124 | 1.07 | 1.01 | |
| | | | Med | 1235 | 1159 | | 110 | 98 | 0.90 | 0.79 | |
| | | | Low | 1138 | 1051 | | 78 | 68 | 0.64 | 0.57 | |
| | 12 * | | Hi | 1299 | 1286 | 105 (X2) | 159 | 154 | 1.33 | 1.26 | |
| | | | Med | 1238 | 1190 | | 132 | 121 | 1.11 | 1.00 | |
| | | | Low | 1143 | 1098 | | 93 | 84 | 0.78 | 0.69 | |
| 14 * | Hi | 1378 | 1342 | 105 (X2) | 194 | 189 | 1.58 | 1.54 | | | |
| | Med | 1301 | 1252 | | 157 | 149 | 1.27 | 1.22 | | | |
| | Low | 1179 | 1129 | | 111 | 99 | 0.91 | 0.84 | | | |

Based on 50PA

42CT-/CTL 3R & 4R- Dry Coil CFM

WIRING DIAGRAM

42CT-/CTL Series Wiring Diagram (AC Motor)

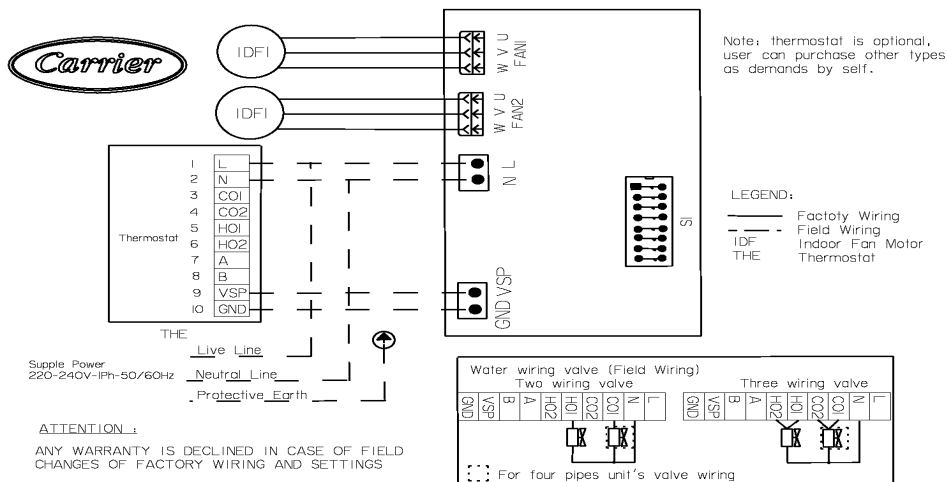


| | |
|----|----------------|
| FM | MOTOR |
| TB | TERMINAL BLOCK |

NOTE:

1. Caution – Disconnect power before servicing.
2. Use 14 AWG, 75°C MIN, copper conductor.
3. Motor(s) thermally protected.
4. Provide disconnect means and over current protection as required.
5. 42CT-/CTL/CGT 003 to 006 are single motor; 42CET008 to 014 are double motors. Whereas 42CGT008 to 010 are double motor & 012 is three fan motors.
6. Snap apart carefully at hinge to separate cover from the control box.

42CT-/CTL Series Wiring Diagram (BLDC Motor)



ATTENTION:
ANY WARRANTY IS DECLINED IN CASE OF FIELD CHANGES OF FACTORY WIRING AND SETTINGS

NOTE:

1. Caution – Disconnect power before servicing.
2. Use 14 AWG, 75°C MIN, copper conductor.
3. Motor(s) thermally protected.
4. Provide disconnect means and over current protection as required.
5. 42CT-/CTL 003 to 006 are single motor; 42CT/CTL 008 to 014 are double motors.
6. Snap apart carefully at hinge to separate cover from the control box.

WIRING DIAGRAM (cont')

Electrical Data (BLDC Motor DIP Switch Setting)

| DIP6 | ON | 105W | OFF | 50W | DIP SWITCH | | |
|-----------------|------|------|-------|-------|------------|-------|-------|
| UNIT | ESP | RPM | DIP 1 | DIP 2 | DIP 3 | DIP 4 | DIP 5 |
| Factory Setting | | 300 | OFF | OFF | OFF | OFF | OFF |
| 42CT003 | 12Pa | 760 | OFF | OFF | ON | OFF | OFF |
| | 30Pa | 920 | ON | OFF | ON | OFF | OFF |
| | 50Pa | 1080 | OFF | ON | ON | OFF | OFF |
| 42CT004 | 12Pa | 860 | ON | ON | ON | OFF | OFF |
| | 30Pa | 970 | OFF | OFF | OFF | ON | OFF |
| | 50Pa | 1120 | ON | OFF | OFF | ON | OFF |
| 42CT005 | 12Pa | 910 | OFF | ON | OFF | ON | OFF |
| | 30Pa | 1010 | ON | ON | OFF | ON | OFF |
| | 50Pa | 1160 | OFF | OFF | ON | ON | OFF |
| 42CT006 | 12Pa | 940 | ON | OFF | ON | ON | OFF |
| | 30Pa | 1050 | OFF | ON | ON | ON | OFF |
| | 50Pa | 1180 | ON | ON | ON | ON | OFF |
| 42CT007 | 12Pa | 1030 | OFF | OFF | OFF | OFF | ON |
| | 30Pa | 1130 | ON | OFF | OFF | OFF | ON |
| | 50Pa | 1230 | OFF | ON | OFF | OFF | ON |
| 42CT008 | 12Pa | 910 | ON | ON | OFF | OFF | ON |
| | 30Pa | 1020 | OFF | OFF | ON | OFF | ON |
| | 50Pa | 1160 | ON | OFF | ON | OFF | ON |
| 42CT010 | 12Pa | 1020 | OFF | ON | ON | OFF | ON |
| | 30Pa | 1130 | ON | ON | ON | OFF | ON |
| | 50Pa | 1250 | OFF | OFF | OFF | ON | ON |
| 42CT012 | 12Pa | 1030 | ON | OFF | OFF | ON | ON |
| | 30Pa | 1150 | OFF | ON | OFF | ON | ON |
| | 50Pa | 1250 | ON | ON | OFF | ON | ON |
| 42CT014 | 12Pa | 1120 | OFF | OFF | ON | ON | ON |
| | 30Pa | 1230 | ON | OFF | ON | ON | ON |
| | 50Pa | 1310 | OFF | ON | ON | ON | ON |

GUIDE SPECIFICATIONS

HVAC GUIDE SPECIFICATIONS

Size Range: 300 to 1400 Nominal Cfm

42CT-/CTL Models

Standard base unit shall be equipped with a 3-row or 4-row coil for installation in a 2-pipe system. Coils shall have 7mm copper tubes, aluminium blue fins bonded to the tubes by mechanical expansion. Each coil shall have a manual air vent and threaded connections field piping (refer to Technical Data). Working pressure 1.72 MPa, 0.105mm fin thickness and 0.24mm tube wall thickness.

PART 1 – GENERAL

1.1 System Description

Horizontal, room fan coil unit with furred-in, above ceiling for ducting, or with cabinet for exposed ceiling installations.

1.2 Quality Assurance

- A. Unit insulation to be MVSS 302 compliance and drain pan insulation to be UL94 compliance.
- B. Carrier fan coil unit is completely insulated in fan section as well as coil section.
- C. Unit cabinet material to be galvanized steel sheet complying to ASTM A653 standard.
- D. Each coils are tested with Nitrogen (N2) under water at 400 psig while submerged in water.
- E. Factory shall be ISO-9001:2015 certified.

1.3 Delivery Storage and Handling

Each unit shall be individually packaged from point of manufacture. Unit shall be handled and stored in accordance with the manufacturer’s instructions.

PART 2 - PRODUCTS

EQUIPMENT

2.1 General

Factory assembled, horizontal, blow-thru type fan coil for furred-in, exposed ceiling or ducted installations. Unit shall be complete with water coil(s), fan(s), motor(s), drain pan, filters and all required wiring, collars for ducted units. Carrier fan coil unit casing is manufactured from heavy gauge galvanized steel sheet as per ASTM A653 standard. Unit inner surfaces for the cooling coil section are insulated for better thermal & sound performance.

2.2 42CT-, CTL Furred-in Units

Base 42CT, CTL unit with factory installed plenum section and cleanable filter as shown on equipment drawings. The plenum shall be rear air return. Shall enclose the fan/motor assemblies. Units have 10mm thick PU insulation on coil top panel and ¼” PE insulation 28.6kg/m³ density on the drain pan. Unit shall have a removable panel to provide access to fan/motor assemblies and unit identification label. Filter track with quick clip permanent Nylon filter and 18 mm supply collar for duct connection.

2.3 Fan

Direct driven, double width fan wheels with forward curved blades shall be statically and dynamically balanced. Fan scrolls and wheels shall be constructed of galvanized steel.

GUIDE SPECIFICATIONS (cont')

2.4 Coils

Standard base unit shall be equipped with a 3-row or 4-row coil for installation in a 2 pipe system. All coils shall have 7mm seamless copper tubes and “dual sine wave” corrugated aluminum fin plates. Coil fins are mechanically bonded to tube joints. All coils are tested with Nitrogen (N2) underwater at 400psi while submerged in water. Coils performance shall be rated in accordance to AHRI410 Standard (refer to Technical Data for more detail information). Working pressure 1.72 MPa, 0.105 mm fin thickness and 0.24 mm tube wall thickness for 7 mm tube or 0.28 mm tube wall thickness for 3/8” tube.

2.5 Drain Pan

Galvanized drain pan covers entire length & width of coil till the headers. Drain pan is powder coated and is insulated with ¼” closed cell PE insulation on the outside. The drain pan is with ¾” male pipe thread connection

2.6 Operating Characteristics

A one coil unit installed in a 2-pipe system shall be capable of providing cooling as determined by the operating mode of the central water supply system.

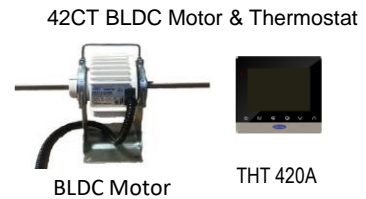
2.7 Electrical Requirements

Standard unit shall operate on 220V/240v, single phase, 50Hz electric power. All internal wiring shall be in flexible conduit.

2.8 Motor(s)

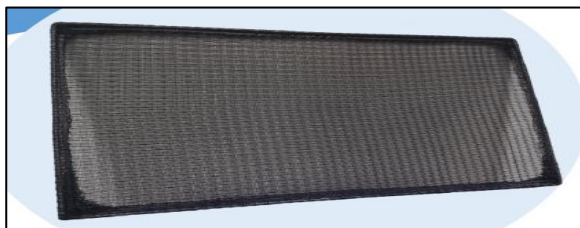
Fan motors shall be 3-speed, 230V (42CT Series), single phase, 50Hz, permanent split capacitor type, with ball type bearings and oversized oil reservoirs to ensure lubrication. The fan motor(s) shall be equipped with integral automatic temperature reset for motor protection.

| Model | Type | Unit Size | Motor Insulation Class | End Closure Type |
|----------|------|-----------|------------------------|------------------|
| 42CT/CTL | AC | All | B | Open Drip Proof |
| 42CT/CTL | ECM | All | B | |



2.9 Filter

Permanent washable Nylon filters (Honeycomb Polyolefin Network) with 6mm thickness and Ø4 frame material hard steel wire (BS EN10244 Class D or JIS G3532 class 2).



- Filter access by rear bottom removal.
- Aluminum Filter MERV 2, G2 filter class are available as a customization option upon request.



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| | |
|--|-------------|
| 42CT-&CTL/NON- EUROVENT | NIL |
| NOV | 2020 |