



42CT/CTL

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 Eurovent 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

42CT-/CTL 4 Row Ducted Unit are Eurovent Certified

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 (42CT-/CTL), 3 row coils (Non-Eurovent)
- 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) option
- 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



Eurovent Certificate



IQ Net Certificate

MODEL NUMBER NOMENCLATURE

MODEL 42CT-/CTL

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

*Only available for AC motor

** Available for AC and BLDC Motor

CISB Code

5 — Factory Code + Standard Packing

Motor

2 — Standard (AC Motor)
E — Standard (BLDC 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

42CT 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 |

Integrated Return Air Plenum

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

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.

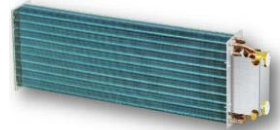
Filter
6 mm Nylon Filter

AC/BLDC Motor Options

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

High Efficiency

- 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 hydrophilic aluminum fin will provide sufficient heat transfer channel for an efficient heat exchange. Furthermore, 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 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 in operation.



High Strength V Type Drain Pan

- 42CT 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.



TECHNICAL DATA

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

| PERFORMANCE | | | MODEL: 42CT | | | | | | | | |
|------------------------------------|-----------------------------|-------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | 034 | 044 | 054 | 064 | 074 | 084 | 104 | 124 | 144 |
| Air Volume | Nominal# | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1,000 | 1,200 | 1,400 |
| | High | m ³ /h | 369 | 491 | 646 | 826 | 925 | 1,029 | 1,284 | 1,487 | 1,718 |
| | | l/s | 103 | 136 | 179 | 229 | 257 | 286 | 357 | 413 | 477 |
| Cooling Capacity (Fluid)* | | kW | 3.30 | 3.80 | 4.7 | 5.8 | 6.6 | 7.7 | 9.6 | 10.4 | 12.1 |
| | | BTU/hr | 11,270 | 12,978 | 16,051 | 19,808 | 22,540 | 26,297 | 32,786 | 35,518 | 41,324 |
| Motor 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) | 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 | 0.22 | 0.28 | 0.31 | 0.37 | 0.46 | 0.50 | 0.58 |
| Water Pressure Drop | | kPa | 17.00 | 14.00 | 14.50 | 18.40 | 23.50 | 21.70 | 28.1 | 23.90 | 33.60 |
| Fan Type | | | Centrifugal Forward-curved blades | | | | | | | | |
| Motor Type | | | Permanent Split Capacitor | | | | | | | | |
| Coil | No. of Row(s) | | 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 | 1,001 | 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 | 17.2 | 18.1 | 20.3 | 22.9 | 24.3 | 31.3 | 33.4 | 36.9 | 39.4 |

NOTE:
 #Nominal volume value is for indication purposes only (not Eurovent-Certified data).
 Based on motor at high speed, standard air and dry coil operation; 5.0°C water temperature rise; entering air temperature 27.0°C DB; 19.0°C WB; Entering water temperature 7.0°C (EUROVENT CONDITION)
 **Sound pressure value is not Eurovent-Certified data but 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
Eurovent Certified**



TECHNICAL DATA (cont')

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

| PERFORMANCE | | | MODEL: 42CTL (District Cooling Application) | | | | | | | | |
|------------------------------------|-----------------------------|-------------------|---|-------|--------|--------|--------|--------|--------|--------|--------|
| | | | 034 | 044 | 054 | 064 | 074 | 084 | 104 | 124 | 144 |
| Air Volume | Nominal# | CFM | 300 | 400 | 500 | 600 | 700 | 800 | 1,000 | 1,200 | 1,400 |
| | High | m ³ /h | 372 | 487 | 640 | 807 | 895 | 1,019 | 1,252 | 1,488 | 1,748 |
| | | l/s | 103 | 135 | 178 | 224 | 249 | 283 | 348 | 413 | 486 |
| Cooling Capacity (Fluid)* | | kW | 2.40 | 2.80 | 3.80 | 4.23 | 5.30 | 6.70 | 7.22 | 8.66 | 10.2 |
| | | BTU/hr | 8,196 | 9,563 | 12,978 | 14,445 | 18,100 | 22,882 | 24,656 | 29,574 | 34,833 |
| Motor 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) | 36.7 | 38.9 | 39.6 | 40.5 | 41.3 | 42.1 | 42.3 | 42.5 | 44.0 |
| | Medium | | 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 | 0.06 | 0.07 | 0.10 | 0.13 | 0.14 | 0.18 | 0.21 | 0.28 | 0.30 |
| Water Pressure Drop | | kPa | 40.60 | 19.00 | 37.80 | 29.20 | 33.70 | 37.50 | 42.10 | 46.50 | 58.40 |
| Fan Type | | | Centrifugal Forward-curved blades | | | | | | | | |
| Motor Type | | | Permanent Split Capacitor | | | | | | | | |
| 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 | 1,001 | 1,181 | 1,421 | 1,471 | 1,671 | 1,831 |
| Casing Material / Thickness | | | Galvanized Steel/ 0.8 & 1.0mm | | | | | | | | |
| Casing Treatment / External Finish | | | G60 Galvanized Steel (Z180 Zinc Coating) | | | | | | | | |
| Net Weight | | kg | 17.2 | 18.1 | 20.3 | 22.9 | 24.3 | 31.3 | 33.4 | 36.9 | 39.4 |

NOTE:

#Nominal volume value is for indication purposes only (not Eurovent-Certified data).

*Based on motor at high speed, standard air and dry coil operation, 9°C water temperature rise; entering air temperature 24.0°C DB; 18.0°C WB; entering water temperature 5.5°C (Eurovent Conditions).

**Sound pressure value is not Eurovent-Certified data but in accordance with JIS8616-2006 Standard (1.5m below the unit bottom).

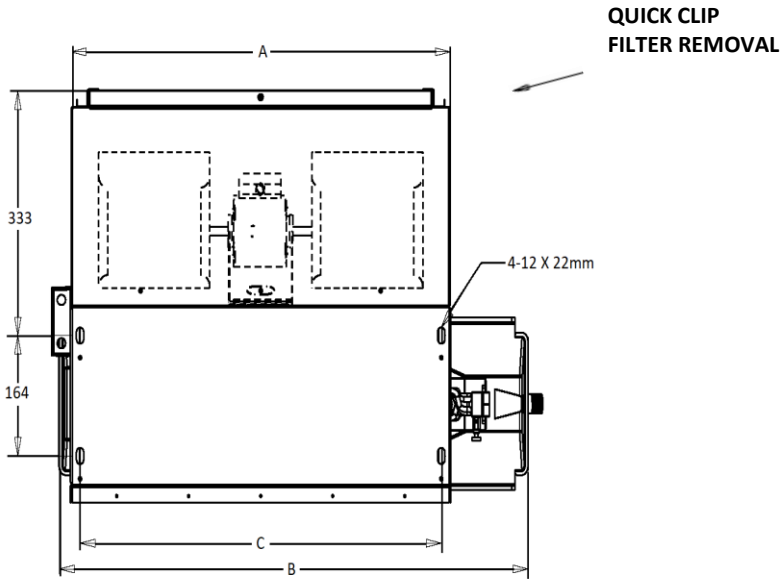
-- For other design conditions, please apply the selection program to finalize your applications --

**Performance Assurance
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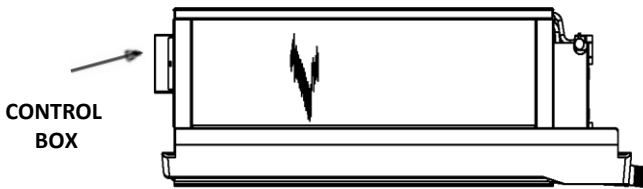


UNIT DIMENSIONS AND WEIGHT

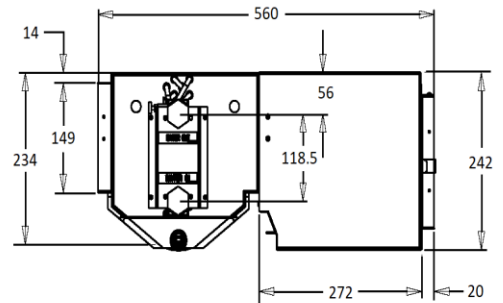
42CT-/CTL Furred-in Ceiling FCU with Plenum



TOP VIEW



FRONT VIEW



HEADER VIEW

| MODEL 42CT-/CTL | DIMENSIONS (mm) | | | NET WEIGHT (kg) |
|--------------------|-----------------|------|------|-----------------|
| | A | B | C | 4 Rows |
| 03 | 632 | 781 | 602 | 18.2 |
| 04 | 712 | 861 | 682 | 19.1 |
| 05 | 792 | 941 | 762 | 21.3 |
| 06 | 952 | 1001 | 922 | 23.9 |
| 07 | 1032 | 1181 | 1002 | 25.3 |
| 08 | 1272 | 1421 | 1242 | 32.3 |
| 10 | 1322 | 1471 | 1292 | 34.4 |
| 12 | 1522 | 1671 | 1492 | 37.9 |
| 14 | 1682 | 1831 | 1652 | 40.4 |

PERFORMANCE RATING

42CT Furred-in Ceiling Model (4-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 | | |
| 03 | High | 50 | 255 | 3.8 | 2.4 | 10.8 | 10.4 | 0.18 | 22.2 |
| | Medium | | 187 | 2.9 | 1.8 | 10.1 | 9.5 | 0.14 | 13.3 |
| | Low | | 104 | 1.7 | 1.1 | 9.1 | 8.5 | 0.08 | 4.7 |
| 04 | High | 50 | 328 | 4.2 | 2.8 | 12.2 | 11.7 | 0.20 | 16.9 |
| | Medium | | 269 | 3.6 | 2.4 | 11.5 | 11.0 | 0.17 | 12.5 |
| | Low | | 166 | 2.4 | 1.6 | 10.5 | 9.7 | 0.12 | 5.7 |
| 05 | High | 50 | 430 | 5.1 | 3.5 | 12.9 | 12.3 | 0.24 | 17.1 |
| | Medium | | 333 | 4.3 | 2.8 | 12.1 | 11.4 | 0.20 | 12.0 |
| | Low | | 249 | 3.4 | 2.2 | 11.2 | 10.5 | 0.16 | 7.7 |
| 06 | High | 50 | 529 | 6.2 | 4.2 | 13.1 | 12.4 | 0.29 | 20.4 |
| | Medium | | 426 | 5.3 | 3.6 | 12.3 | 11.7 | 0.25 | 15.5 |
| | Low | | 263 | 3.6 | 2.4 | 11.1 | 10.4 | 0.17 | 7.4 |
| 07 | High | 50 | 590 | 7.0 | 4.7 | 12.9 | 12.3 | 0.33 | 25.9 |
| | Medium | | 451 | 5.8 | 3.8 | 12.0 | 11.4 | 0.28 | 18.4 |
| | Low | | 306 | 4.3 | 2.8 | 11.0 | 10.3 | 0.20 | 10.3 |
| 08 | High | 50 | 675 | 8.3 | 5.5 | 12.6 | 12.0 | 0.40 | 24.1 |
| | Medium | | 506 | 6.8 | 4.4 | 11.6 | 11.0 | 0.32 | 16.6 |
| | Low | | 323 | 4.7 | 3.0 | 10.5 | 9.8 | 0.22 | 8.2 |
| 10 | High | 50 | 832 | 10.2 | 6.8 | 12.6 | 12.0 | 0.49 | 31.5 |
| | Medium | | 653 | 8.6 | 5.7 | 11.7 | 11.1 | 0.41 | 23.5 |
| | Low | | 469 | 6.7 | 4.3 | 10.8 | 10.1 | 0.32 | 15.0 |
| 12 | High | 50 | 933 | 10.9 | 7.4 | 13.1 | 12.4 | 0.52 | 25.5 |
| | Medium | | 757 | 9.4 | 6.3 | 12.3 | 11.7 | 0.45 | 19.7 |
| | Low | | 569 | 7.6 | 5 | 11.4 | 10.7 | 0.36 | 13.4 |
| 14 | High | 50 | 1084 | 12.6 | 8.6 | 13.1 | 12.4 | 0.60 | 36.4 |
| | Medium | | 912 | 11.2 | 7.6 | 12.4 | 11.7 | 0.54 | 29.7 |
| | Low | | 713 | 9.4 | 6.3 | 11.6 | 10.9 | 0.45 | 21.8 |

NOTE: Air Conditions: EDB/EWB 27.0/19.0°C

Water Conditions: EWT/LWT 7.0/12.0°C

ΔT: 5.0°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

| 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 | | |
| 03 | High | 50 | 258 | 2.6 | 1.7 | 12.5 | 12 | 0.07 | 50.7 |
| | Medium | | 189 | 2.1 | 1.3 | 11.6 | 11.1 | 0.06 | 32.9 |
| | Low | | 105 | 1.3 | 0.8 | 10.2 | 9.7 | 0.04 | 13.3 |
| 04 | High | 50 | 332 | 3.1 | 2.1 | 13.1 | 12.6 | 0.08 | 23.1 |
| | Medium | | 272 | 2.7 | 1.8 | 12.5 | 12 | 0.07 | 17.7 |
| | Low | | 168 | 1.9 | 1.2 | 11.3 | 10.8 | 0.05 | 8.8 |
| 05 | High | 50 | 435 | 4.1 | 2.7 | 13 | 12.5 | 0.11 | 44.1 |
| | Medium | | 337 | 3.5 | 2.3 | 12.2 | 11.7 | 0.09 | 32.4 |
| | Low | | 252 | 2.8 | 1.8 | 11.4 | 10.8 | 0.08 | 21.5 |
| 06 | High | 50 | 534 | 5.2 | 3.4 | 12.8 | 12.3 | 0.14 | 34.1 |
| | Medium | | 431 | 4.5 | 2.9 | 12.1 | 11.7 | 0.12 | 25.5 |
| | Low | | 266 | 3.2 | 2 | 10.9 | 10.4 | 0.08 | 12.6 |
| 07 | High | 50 | 596 | 5.8 | 3.8 | 12.9 | 12.4 | 0.15 | 37.8 |
| | Medium | | 455 | 4.8 | 3.1 | 12.1 | 11.6 | 0.13 | 27.6 |
| | Low | | 309 | 3.6 | 2.3 | 11 | 10.5 | 0.1 | 15.7 |
| 08 | High | 50 | 682 | 7.3 | 4.6 | 12 | 11.7 | 0.19 | 42.5 |
| | Medium | | 511 | 6 | 3.7 | 11.1 | 10.7 | 0.16 | 29.9 |
| | Low | | 326 | 4.3 | 2.6 | 10 | 9.5 | 0.11 | 15.1 |
| 10 | High | 50 | 840 | 8.6 | 5.5 | 12.5 | 12 | 0.23 | 48.6 |
| | Medium | | 660 | 7.3 | 4.6 | 11.6 | 11.2 | 0.19 | 37 |
| | Low | | 474 | 5.8 | 3.6 | 10.7 | 10.1 | 0.15 | 24.2 |
| 12 | High | 50 | 942 | 11.2 | 6.9 | 11.2 | 10.9 | 0.3 | 50.9 |
| | Medium | | 764 | 9.6 | 5.9 | 10.5 | 10.2 | 0.25 | 39 |
| | Low | | 575 | 7.7 | 4.7 | 9.7 | 9.2 | 0.2 | 27 |
| 14 | High | 50 | 1095 | 12 | 7.5 | 11.9 | 11.6 | 0.32 | 62.8 |
| | Medium | | 921 | 10.6 | 6.7 | 11.3 | 10.9 | 0.28 | 51.2 |
| | Low | | 721 | 8.9 | 5.5 | 10.6 | 10.1 | 0.23 | 37.5 |

NOTE: Air Conditions: EDB/EWB 24.0/18.0°C

Water Conditions: EWT/LWT 5.5/14.5°C

ΔT: 9.0°C

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



ELECTRICAL DATA

42CT-/CTL MOTOR DATA

| Model | Unit Size | Power Supply (V-Ph-Hz) | Fan Speed | Fan Speed (rpm) | Nominal Power Output (W) | Power Input (W) | Running Amps 42CT-/CTL 4 rows | Remarks |
|-------------|-----------|------------------------|-----------|-----------------|--------------------------|-----------------|-------------------------------|---|
| 42CT-/42CTL | 03 | 230-1-50 | Hi | 1140 | 24 | 69 | 0.300 | * Total motor amps and watts shown for units with 2 motors (size 08 to 14). |
| | | | Med | 1065 | | 59 | 0.270 | |
| | | | Low | 974 | | 48 | 0.230 | |
| | 04 | | Hi | 1185 | 30 | 74 | 0.324 | |
| | | | Med | 1080 | | 68 | 0.303 | |
| | | | Low | 988 | | 56 | 0.256 | |
| | 05 | | Hi | 1256 | 51 | 99 | 0.431 | |
| | | | Med | 1134 | | 84 | 0.385 | |
| | | | Low | 1037 | | 76 | 0.353 | |
| | 06 | | Hi | 1241 | 55 | 116 | 0.506 | |
| | | | Med | 1106 | | 107 | 0.468 | |
| | | | Low | 1000 | | 85 | 0.379 | |
| | 07 | | Hi | 1291 | 72 | 141 | 0.620 | |
| | | | Med | 1129 | | 115 | 0.520 | |
| | | | Low | 1016 | | 96 | 0.440 | |
| | 08* | | Hi | 1152 | 34 (x2) | 164 | 0.720 | |
| | | | Med | 1032 | | 142 | 0.640 | |
| | | | Low | 957 | | 119 | 0.550 | |
| | 10* | | Hi | 1310 | 48 (x2) | 196 | 0.860 | |
| | | | Med | 1151 | | 169 | 0.740 | |
| | | | Low | 1040 | | 148 | 0.650 | |
| | 12* | | Hi | 1323 | 62 (x2) | 245 | 1.080 | |
| | | | Med | 1205 | | 218 | 0.950 | |
| | | | Low | 1071 | | 191 | 0.850 | |
| 14* | Hi | 1358 | 83 (x2) | 325 | 1.600 | | | |
| | Med | 1220 | | 266 | 1.160 | | | |
| | Low | 1104 | | 226 | 0.990 | | | |

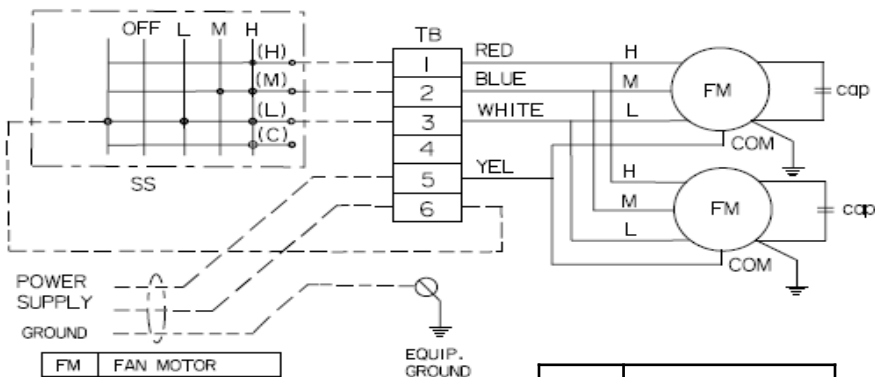
Based on 50PA
42CT-/CTL 4R – Dry Coil CFM

WIRING DIAGRAM

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



Wiring Diagram



| | |
|------|----------------|
| FM | FAN MOTOR |
| SS | SELECT SWITCH |
| TB | TERMINAL BLOCK |
| cap | CAPACITOR |
| — | FACTORY WIRING |
| ---- | FIELD WIRING |

| | |
|----|----------------|
| 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 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.

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

Unit shall be tested in accordance with Eurovent standard. Each coil shall be factory tested for leakage at 400 psig air pressure with coil submerged in water. Factory is ISO-9001 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. Unit insulation are UL94 compliance.

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 12mm 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.

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

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 blue 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 Eurovent Standard.

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 230V (42CT Series), 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 | Unit Size | Motor Insulation Class | End Closure Type |
|-------------|-----------|------------------------|------------------|
| 42CT Series | All | B | Open Drip Proof |

42CT ECM Motor & Thermostat



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).





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| | |
|-------------------------------|-------------|
| 42CT-&CTL/EUROVENT | NIL |
| JAN | 2025 |