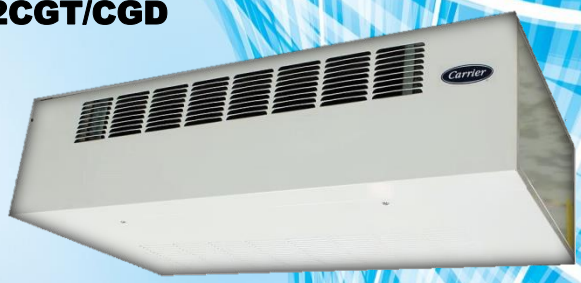
Carrier

42CT/CTL

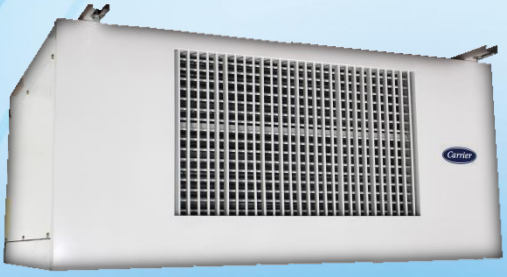
42DC/DCD

42DE/DED

42CGT/CGD



42DF/DFD



42C/D SERIES [300 to 2000 CFM]

Chilled Water Fan Coil Units for Chiller (Standard ΔT) & District Cooling Application

Ducted/ Decorative

QUALITY SYSTEM SIRIM UKAS QUALITY MANAGEMENT 674 - A

MS ISO 9001 REG. NO. AR 0239

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 42C/D FAN COIL UNITS

42C/D series fan coil units are manufactured in ISO Certified Carrier Malaysia facility under Carrier Corporation USA. These units are produced and designed with latest technology.

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.

TABLE OF CONTENTS PAGE

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 42 series fan coil units, you can select furred-in style, in capacities from 300 to 2,000 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 42 series fan coils give you design and equipment location flexibility

- Wide range of popular capacities, 300 – 2000 cfm
- Available up to 24 sizes.
- Furred-in units
- Select 3 row coils (42CT), 4 row coils (42CT,CTL CGT, DC, DE & DF)
- Accommodates 2 pipe systems
- Fully or partially 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,DC/DCD) - optional
- 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 filters
- Long life, heavy duty bearings
- Quick clip filter removal for rear side access - optional
- Foldable filter media for larger length filter (rear-bottom removal type) - optional
- Threaded in/ out water connection - optional


CERTIFICATE

CARRIER INTERNATIONAL SDN. BHD.
LOT 4, JALAN P/8
43650 BANDAR BARU BANGI
SELANGOR DARUL EHSAN
MALAYSIA

ISO 9001 : 2015

1) DESIGN AND MANUFACTURE OF AIR-CONDITIONING SYSTEMS FOR COMMERCIAL AND INDUSTRIAL USE.
2) MANUFACTURE OF REFRIGERATION COMPONENTS.

ISO 9001 Certificate


CERTIFICATE

CARRIER INTERNATIONAL SDN. BHD.
LOT 4, JALAN P/8
43650 BANDAR BARU BANGI
SELANGOR DARUL EHSAN
MALAYSIA

QUALITY MANAGEMENT SYSTEM

1) DESIGN AND MANUFACTURE OF AIR-CONDITIONING SYSTEMS FOR COMMERCIAL AND INDUSTRIAL USE.
2) MANUFACTURE OF REFRIGERATION COMPONENTS.

ISO 9001 : 2015

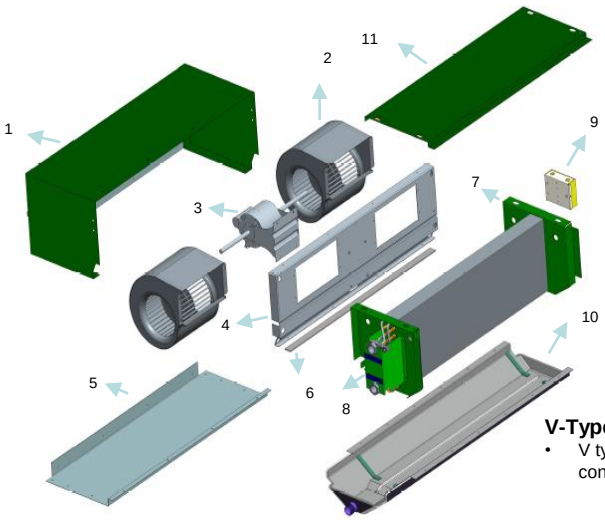
IQ Net Certificate

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

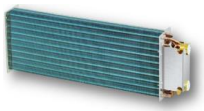
No	Components
1	Top Plenum
2	Blower
3	Motor
4	Fan Deck
5	Bottom Plenum
6	Insulation Strip
7	Tube Sheet
8	Header Support
9	Control Box
10	Drain Pan
11	Top Panel

Filter
6 mm Nylon Filter

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.

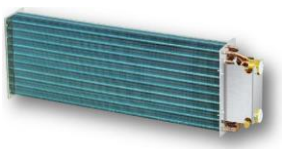
V-Type Drain Pan
- V type drain pan for better condensate flow.

AC/BLDC Motor Options

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

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

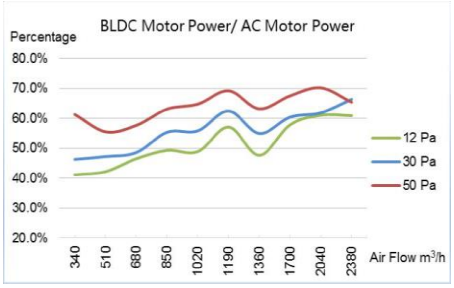
- 42CT/CTL unit series are equipped with a wide diameter impeller and a low speed forward multi-blade. The fan casing is strengthtened with reinforcing ribs that provides additional structure strength.
- It adopts NSK bearings which ensuring small vibration and low noise during operation.

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.

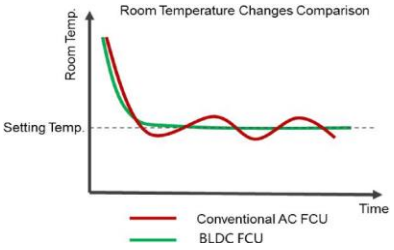
Significant Energy Saving

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.



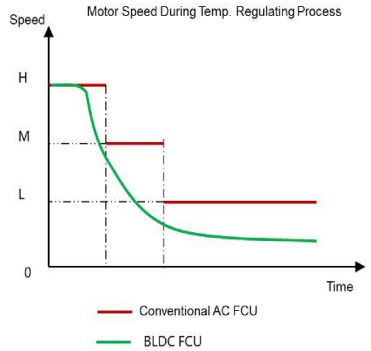
Excellent Comfort

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℃. 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.
Furthemore, 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..

External Driver 42CT/CTL

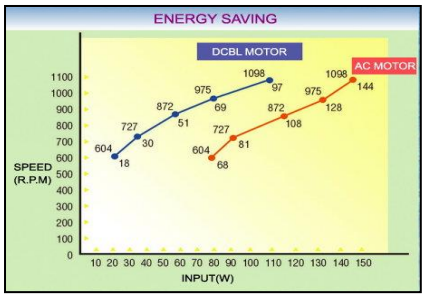
Flexible Control

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

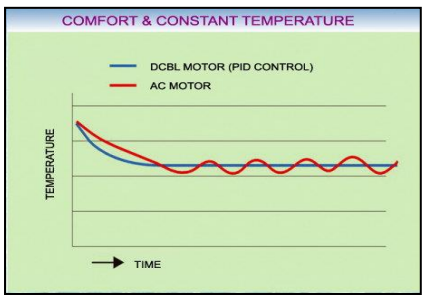
Significant Energy Saving

By using 42DC/DCD BLDC FCU unit, customer can achieve an average of **34%** energy saving when compared to conventional AC motor unit. This energy saving are one of the key advantage of using BLDC motor over an AC motor.



Comfort & Constant Temperature

42DC/DCD BLDC motor FCU have a stepless speed function using PID control that can give a constant air flow. This BLDC system can be designed to regulate the set point temperature by constantly interconnect with modulating water valve (optional). 42DC/DCD BLDC motor also provide a better airflow at a higher external static pressure with a significantly lower power input when compare to conventional 42DC/DCD AC motor. This in turn will give a higher energy saving advantage.



Efficient and Reliable

This 42DC/DCD BLDC motor will have a higher efficiency and reliability as well as a longer lifetime due to no brush erosion. This Brushless DC motor operates in synchronous mode and has lower thermal resistance which make it able to operate in wider temperature. This motor utilizes a simple rugged motor construction and operates using electrical inverter that commutates the stator magnetic fields.

BLDC Motor

External Driver 42DC/DCD

Convenient Application

CISB BLDC Thermostat is compatible with the Building Management System (BMS) connection (Modbus Protocol). There are two types of thermostat offer which are 42CE0E0004 for standard application using electrical valve and 42CE0E0006 for thermostat application with modulating valve control. This thermostat provides a high control accuracy (+/-0.5℃) that will ensure customer satisfaction for a comfort application .

PN	Part Name
42CE0E0004	Thermostat (2 pipe)
42CE0E0006	Thermostat (2 pipe) Modulating Valve Control

MODEL
42CT/CTL (AC Motor)

4 2 C T - 0 3 4 - - - 3 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
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)

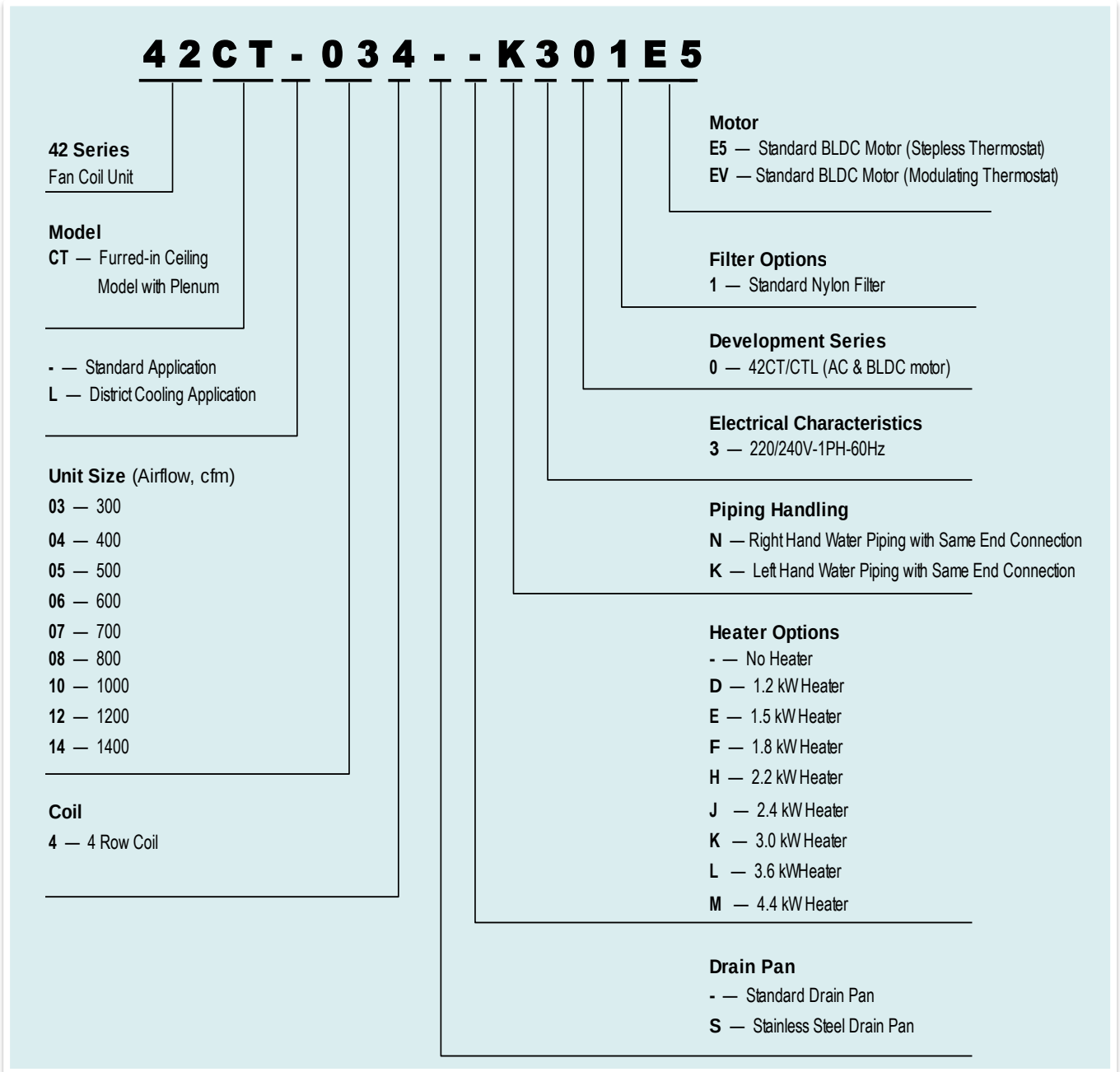
Electrical Characteristics
3 — 220/240V-1PH-60Hz

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

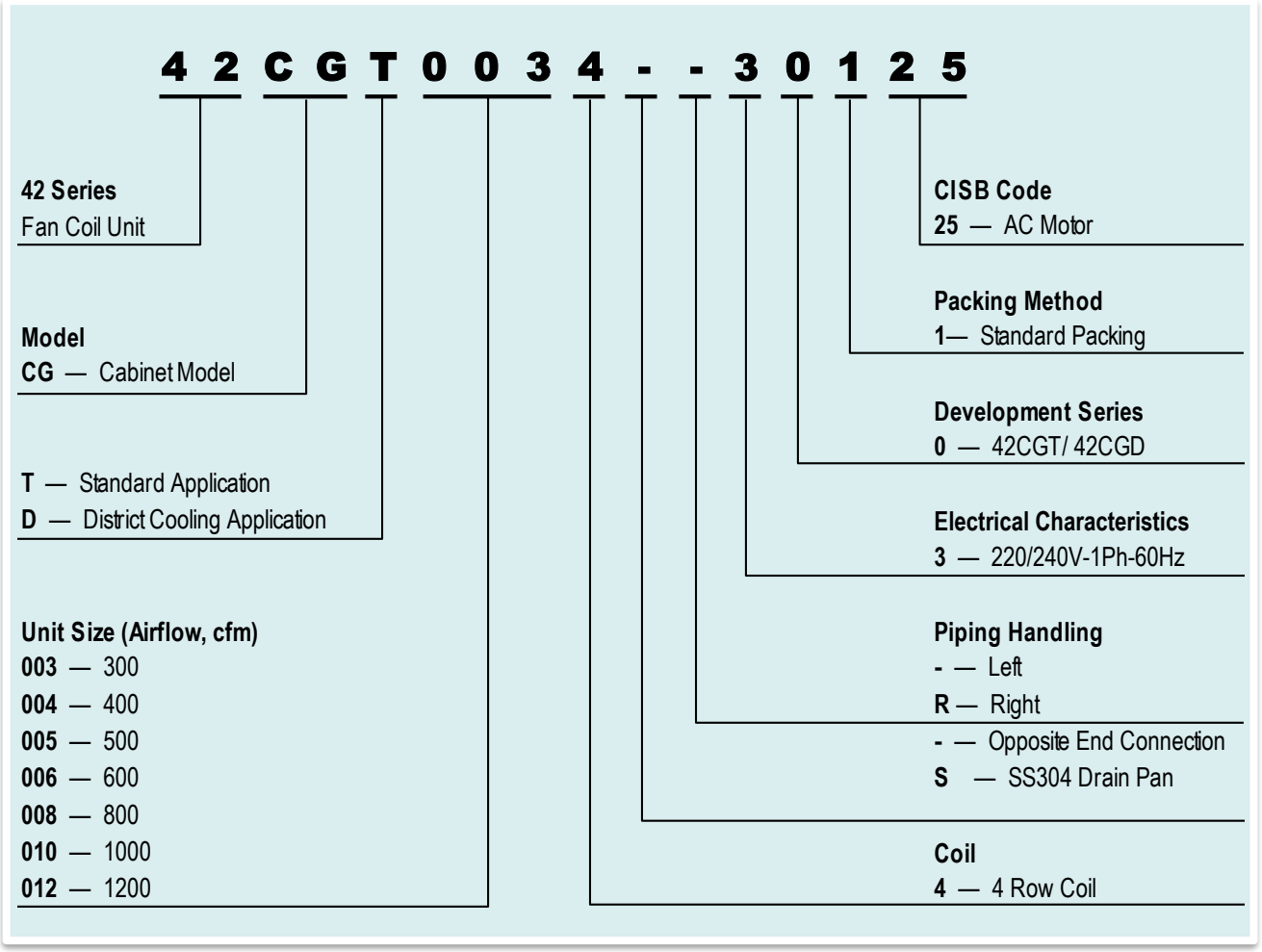
Heater Options
- — No Heater
D — 1.2 kW Heater
E — 1.5 kW Heater
F — 1.8 kW Heater
H — 2.2 kW Heater
J — 2.4 kW Heater
K — 3.0 kW Heater
L — 3.6 kWHeater
M — 4.4 kW Heater

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

MODEL
42CT/CTL (BLDC Motor)

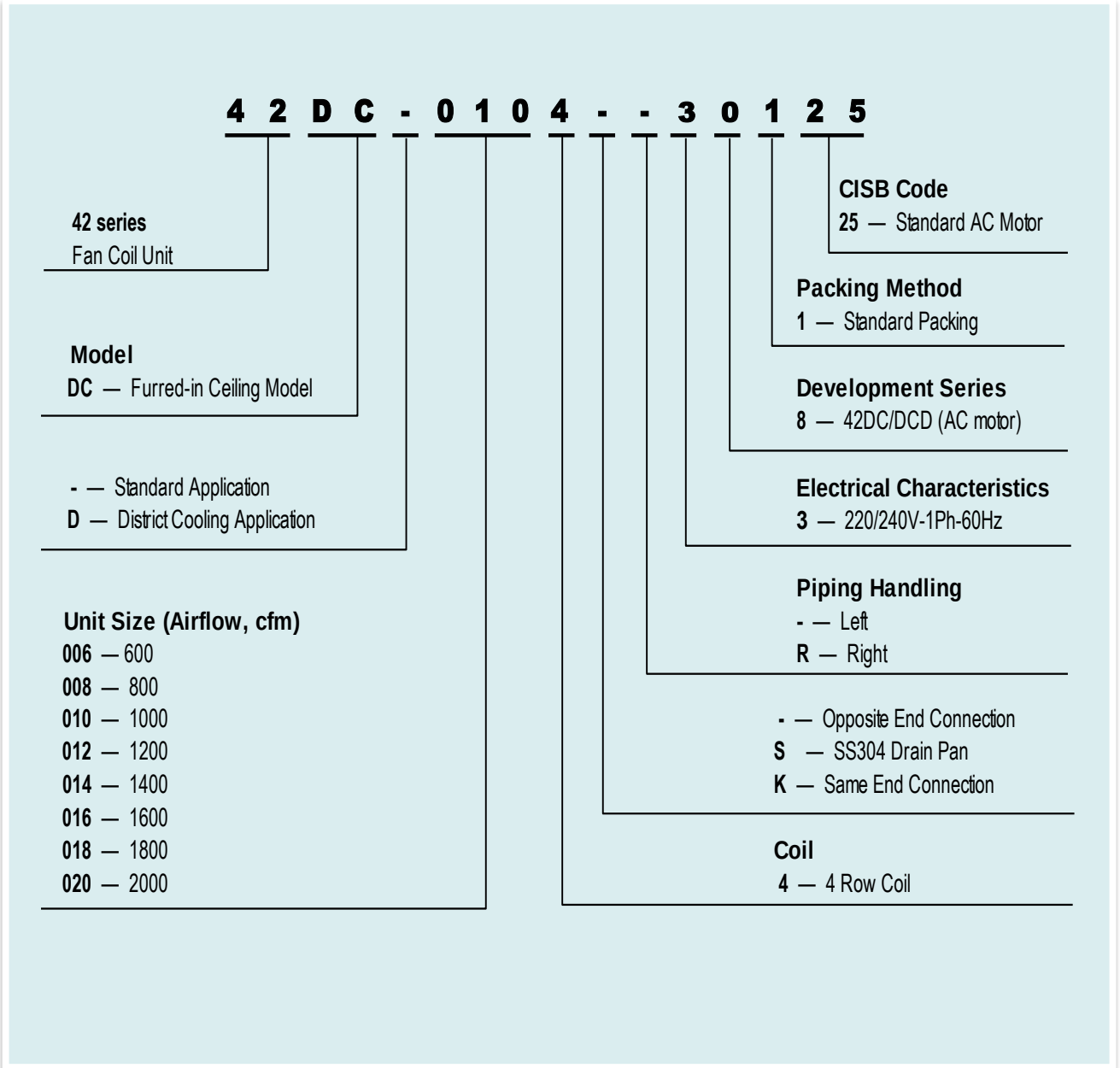


MODEL
42CGT/CGD



NOTE:
•

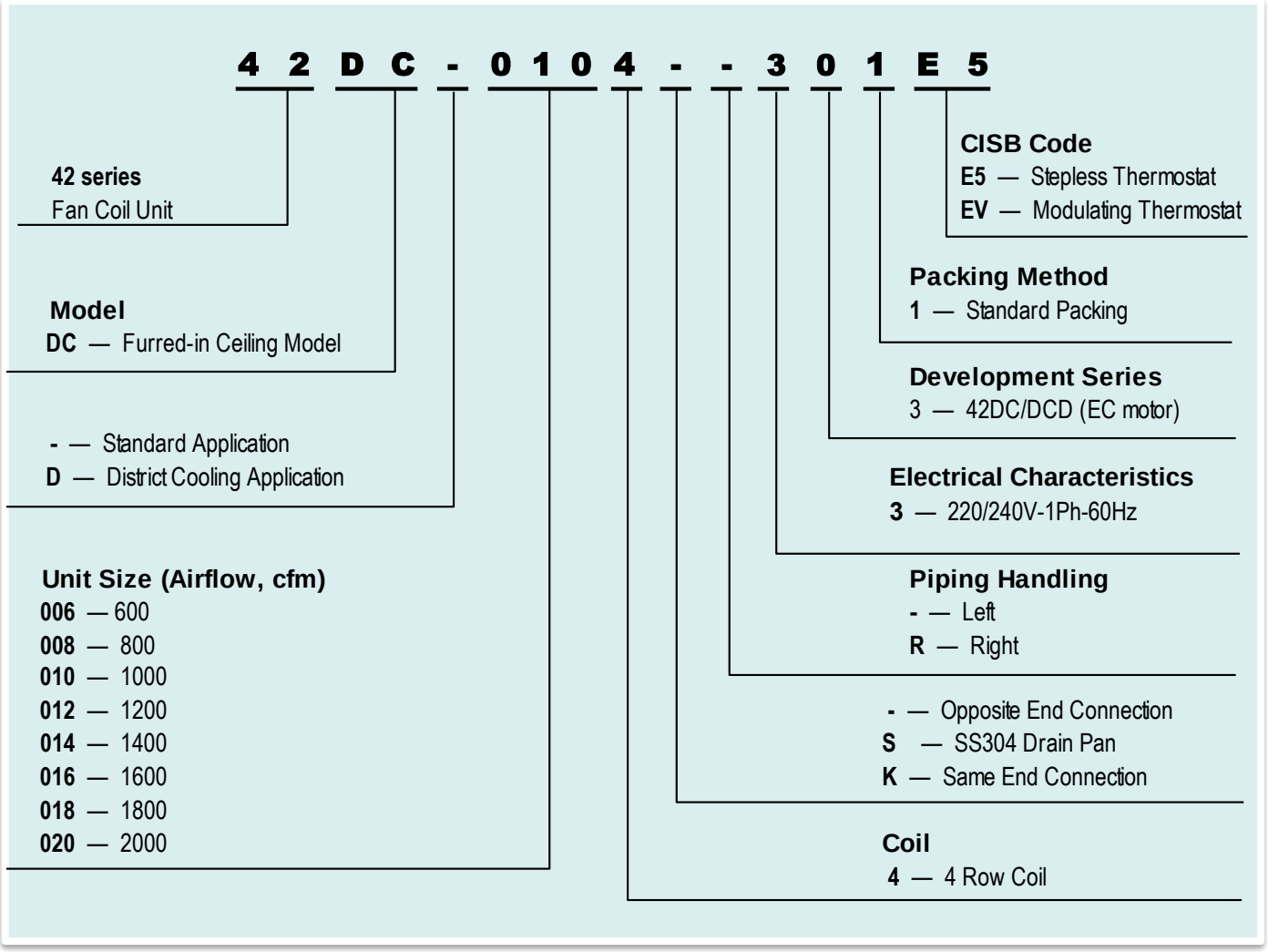
MODEL
42DC/DCD



NOTE:
- For optional accessories (ie: Heater), refer factory for correct nomenclature.

MODEL NUMBER NOMENCLATURE

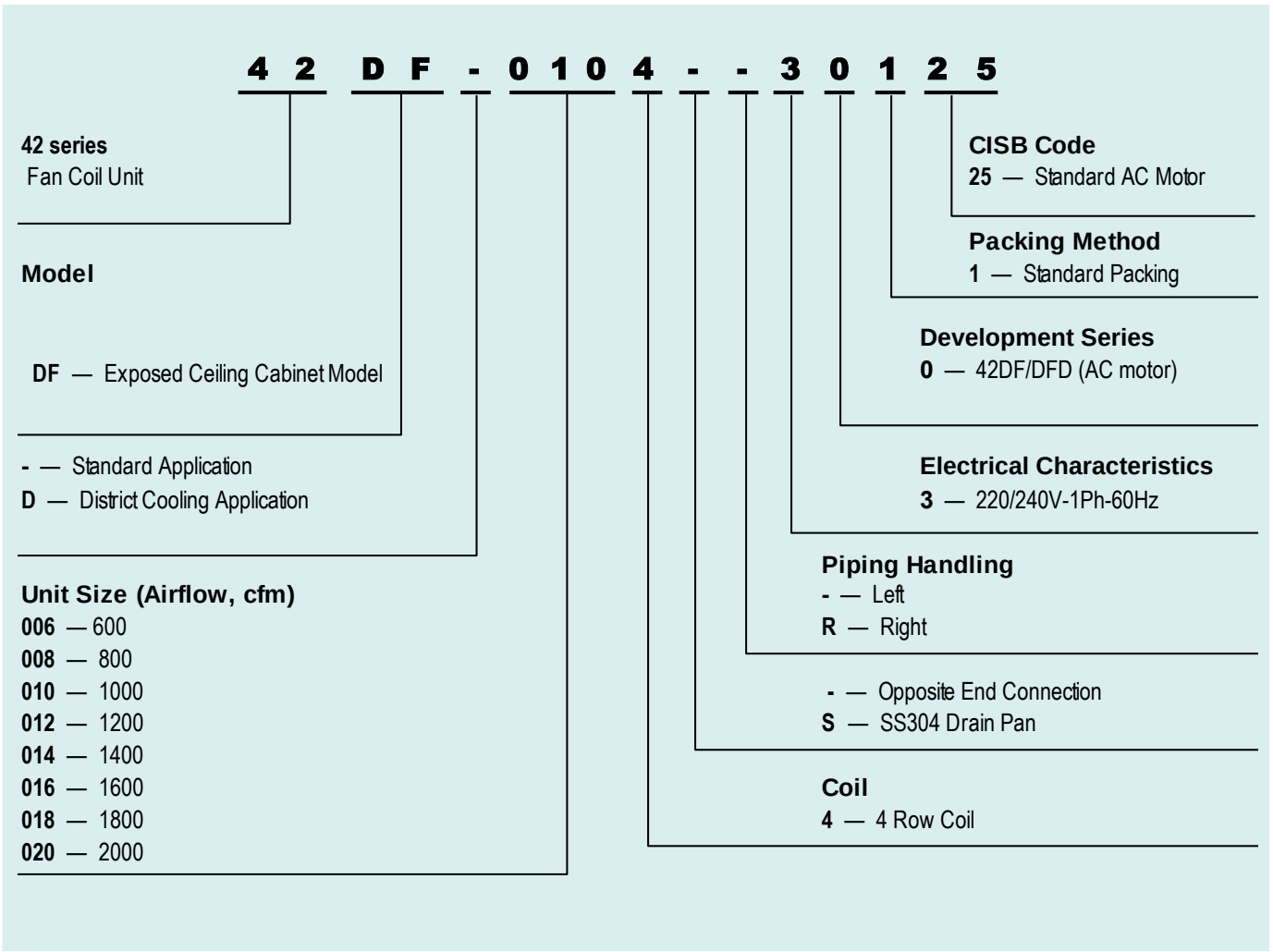
MODEL
42DC/DCD (EC MOTOR)



NOTE:
- For optional accessories (ie: Heater), refer factory for correct nomenclature.

MODEL NUMBER NOMENCLATURE

MODEL
42DF/DFD



NOTE:
- For optional accessories (ie: Heater), refer factory for correct nomenclature.

42CT Ceiling Suspended Ducted Unit with Plenum- Standard ΔT
4 Rows

PERFORMANCE			MODEL: 42CT								
			03	04	05	06	07	08	10	12	14
Nominal 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	2.80	3.10	3.70	4.50	5.10	6.10	7.60	8.00	9.30
		Btu/hr	9,554	10,578	12,625	15,355	17,402	20,814	25,932	27,297	31,733
Motor power output		W	24	30	51	55	72	34 x 2	48 x 2	62 x 2	83 x 2
Motor current		Amp	- Refer to page 41 -								
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	0.12	0.13	0.16	0.19	0.22	0.26	0.32	0.34	0.40
Water Pressure Drop		kPa	9.9	7.2	7.3	8.9	11.8	10.8	15.3	11.8	17.3
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	1,101	1,181	1,421	1,471	1671	1,831
Casing Material / Thickness			Galvanized Steel/ up to 1.0mm								
Casing Treatment / External Finish			Galvanized Steel								
Net Weight		kg	17.2	18.1	20.3	22.9	24.3	31.3	33.4	36.9	39.4

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C ; ESP 50 Pa

** 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 - -

42CTL Ceiling Suspended Ducted Unit with Plenum- District Cooling
4 Rows

PERFORMANCE			MODEL: 42CTL (District Cooling Application)								
			03	04	05	06	07	08	10	12	14
Nominal 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	11.20
		Btu/hr	8,189	9,895	13,307	16,719	18,426	23,203	27,638	35,486	38,216
Motor nominal power output		W	24	30	51	55	72	34 x 2	48 x 2	62 x 2	83 x 2
Motor current		Amp	- Refer to page 41 -								
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	44.6	20.7	40.4	30.5	34.8	38.3	44.4	46.0	57.0
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	1,101	1,181	1,421	1,471	1671	1,831
Casing Material / Thickness			Galvanized Steel/ up to 1.0mm								
Casing Treatment / External Finish			Galvanized Steel								
Net Weight		kg	17.2	18.1	20.3	22.9	24.3	31.3	33.4	36.9	39.4

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 ; ESP 50Pa

** 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 - -

42CT Ceiling Suspended Ducted unit with Plenum-Standard ΔT
3 Rows (BLDC)

PERFORMANCE			MODEL: 42CT (BLDC)								
			03	04	05	06	07	08	10	12	14
			-K701E5 & -N701E5								
Nominal 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	3.00	3.80	4.20	5.00	6.10	7.00	7.90	8.70
		Btu/hr	8,189	10,236	12,966	14,331	17,061	20,814	23,885	26,956	29,686
Motor power output		W	50	50	105	105	105	50x2	105x2	105x2	105x2
Motor current		Amp	- Refer to page 42 -								
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	0.10	0.13	0.16	0.18	0.21	0.26	0.30	0.34	0.37
Water Pressure Drop		kPa	11.4	9.1	15.8	12.4	12.0	15.9	18.0	18.7	17.8
Fan Type			Centrifugal Forward-curved blades								
Motor Type			Electronically Commutated motor								
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/ up to 1.0mm								
Casing Treatment / External Finish			Galvanized Steel								
Net Weight		kg	17.7	18.6	20.6	23.2	24.6	31.5	33.6	36.9	39.6

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 50Pa

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

BLDC Motor

THT420 Thermostat

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

42CT Ceiling Suspended Ducted unit with Plenum-Standard ΔT 4 Rows (BLDC)

PERFORMANCE			MODEL: 42CT (BLDC)								
			03	04	05	06	07	08	10	12	14
			-K701E5 & -N701E5								
Nominal 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	2.80	3.10	3.70	4.50	5.10	6.10	7.60	8.00	9.30
		Btu/hr	9,554	10,578	12,625	15,355	17,402	20,814	25,932	27,297	31,733
Motor power output		W	50	50	105	105	105	50x2	105x2	105x2	105x2
Motor current		Amp	- Refer to page 42 -								
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	0.12	0.13	0.16	0.19	0.22	0.26	0.32	0.34	0.40
Water Pressure Drop		kPa	9.9	7.2	7.3	8.9	11.8	10.8	15.3	11.8	17.3
Fan Type			Centrifugal Forward-curved blades								
Motor Type			Electronically Commutated motor								
Coil	No. of Row		4								
	Working Pressure		1.72 MPa								
	Face Area (m²)		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/ up to 1.0mm								
Casing Treatment / External Finish			Galvanized Steel								
Net Weight		kg	18.2	19.1	21.3	23.9	25.3	32.3	34.4	37.9	40.4

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 50Pa

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

BLDC Motor

THT420 Thermostat

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

42CTL Ceiling Suspended Ducted unit with Plenum-Standard ΔT 4 Rows (BLDC)

PERFORMANCE			MODEL: 42CTL (BLDC)								
			03	04	05	06	07	08	10	12	14
			-K701E5 & -N701E5								
Nominal 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	11.20
		Btu/hr	8,189	9,895	13,307	16,719	18,426	23,203	27,638	35,486	38,216
Motor power output		W	50	50	105	105	105	50x2	105x2	105x2	105x2
Motor current		Amp	- Refer to page 42 -								
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	44.6	20.7	40.4	30.5	34.8	38.3	44.4	46.0	57.0
Fan Type			Centrifugal Forward-curved blades								
Motor Type			Electronically Commutated motor								
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/ up to 1.0mm								
Casing Treatment / External Finish			Galvanized Steel								
Net Weight		kg	18.2	19.1	21.3	23.9	25.3	32.3	34.4	37.9	40.4

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; ESP 50Pa

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

BLDC Motor

THT420 Thermostat

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

42CGT Ceiling Suspended Decorative Cabinet Unit with Plenum- Standard ΔT
4 Rows

PERFORMANCE			MODEL: 42CGT						
			003	004	005	006	008	010	012
Air Volume	High	CFM	293	386	462	538	697	930	1073
		ℓ/s	138	182	218	254	329	439	506
Cooling Capacity (Fluid)*		kW	2.4	3.4	4.2	4.4	6.1	8.5	9.6
		Btu/hr	8,189	11,601	14,331	15,013	20,814	29,003	32,757
Motor nominal power output		W	35	48	68	75	58 (x2)	75 (x2)	78 (x3)
Motor current		Amp	- Refer to page 43 -						
Sound Pressure **	High	dB(A)	44.3	43.6	44.5	46.0	49.1	49.5	50.1
	Med		42.3	41.5	41.7	41.0	45.5	45.6	48.4
	Low		40.2	39.0	38.6	35.5	41.8	40.2	44.3
Water Flow		ℓ/s	0.10	0.15	0.18	0.19	0.26	0.36	0.41
Water Pressure Drop		kPa	7.1	14.0	28.6	4.7	13.4	28.4	30.0
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)		0.123	0.149	0.167	0.21	0.262	0.288	0.339
	Water Volume (ℓ)		0.9	1.0	1.1	1.4	1.7	1.9	2.2
Connections	In-Out (Sweat)/ Material		3/4"/ Copper (Non-Threaded Connections)						
	Condensate Drain/ Material		7/8" PVC Flexible pipe (Non-Threaded Connections)						
Cabinet Size	Height	mm	310						
	Width	mm	582						
	Length	mm	1,030	1,150	1,230	1,350	1,670	2,030	2,270
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0 mm						
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010						
Net Weight		kg	40.0	45.0	47.0	51.0	65.0	80.0	91.0

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 0Pa

** 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 - -

42CGD Ceiling Suspended Decorative Cabinet Unit with Plenum- District Cooling 4 Rows

PERFORMANCE			MODEL: 42CGD (District Cooling Application)						
			003	004	005	006	008	010	012
Air Volume	High	CFM	293	386	462	538	697	930	1073
		ℓ/s	138	182	218	254	329	439	506
Cooling Capacity (Fluid)*		kW	2.6	3.5	4.2	4.7	6.4	8.6	9.2
		Btu/hr	8,872	11,942	14,331	16,037	21,838	29,344	31,392
Motor nominal power output		W	35	48	68	75	58 (x2)	75 (x2)	78 (x3)
Motor current		Amp	- Refer to page 43 -						
Sound Pressure **	High	dB(A)	44.3	43.6	44.5	46.0	49.1	49.5	50.1
	Med		42.3	41.5	41.7	41.0	45.5	45.6	48.4
	Low		40.2	39.0	38.6	35.5	41.8	40.2	44.3
Water Flow		ℓ/s	0.07	0.09	0.11	0.13	0.17	0.23	0.25
Water Pressure Drop		kPa	12.9	25.8	37.5	12.5	33.2	27.2	24.7
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)		0.123	0.149	0.167	0.21	0.262	0.288	0.339
	Water Volume (ℓ)		0.9	1.0	1.1	1.4	1.7	1.9	2.2
Connections	In-Out (Sweat)/ Material		3/4"/ Copper (Non-Threaded Connections)						
	Condensate Drain/ Material		7/8" / PVC Flexible pipe (Non-Threaded Connections)						
Cabinet Size	Height	mm	310						
	Width	mm	582						
	Length	mm	1,030	1,150	1,230	1,350	1,670	2,030	2,270
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0 mm						
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010						
Net Weight		kg	40.0	45.0	47.0	51.0	65.0	80.0	91.0

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; ESP 0Pa

** 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 - -

42DC Ceiling Suspended Ducted Unit with Plenum- Standard ΔT
4 Rows

PERFORMANCE			MODEL: 42DC							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	674	792	1061	1209	1616	1787	1929	2028
		ℓ/s	319	374	501	571	763	844	911	958
Cooling Capacity (Fluid)*		kW	4.6	5.7	6.9	8.0	10.7	12.2	13.8	14.9
		Btu/hr	15,696	19,449	23,544	27,298	36,510	41,629	47,088	50,841
Motor nominal power output		W	120		200	120 (x2)	300	450		
Motor current		Amp	- Refer to page 44 -							
Sound Pressure **	High	dB(A)	40.3	42.0	48.4	47.2	49.2	48.6	48.9	49.7
	Med		38.3	38.9	44.8	43.1	46.4	46.9	47.6	48.1
	Low		35.5	36.5	38.6	39.8	44.6	44.8	44.7	45.6
Water Flow		ℓ/s	0.19	0.24	0.29	0.34	0.46	0.52	0.59	0.64
Water Pressure Drop		kPa	15.0	19.9	12.3	14.9	15.5	15.0	20.5	23.3
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Female BSP)/ Material		3/4"/ Brass (Threaded Connections)				1"/ Brass (Threaded Connections)			
	Condensate Drain/ Material		7/8"/ GI Steel (Threaded Connections)							
Cabinet Size	Height	mm	420							
	Width	mm	764							
	Length	mm	597	724	826	953	1080	1206	1333	1435
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Galvanized Steel							
Net Weight		kg	29.0	35.0	39.0	51.0	52.0	58.0	61.0	63.0

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 50Pa

** 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 - -

42DC Ceiling Suspended Ducted Unit with Plenum- Standard ΔT
4 Rows (BLDC Motor)

PERFORMANCE			MODEL: 42DC (BLDC)							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	707	788	1088	1206	1591	1800	1941	2019
		ℓ/s	334	372	514	570	751	850	917	953
Cooling Capacity (Fluid)*		kW	4.8	5.9	7.0	7.9	10.7	12.4	14.3	15.4
		Btu/hr	16,379	20,132	23,885	26,956	36,510	42,311	48,794	52,547
Motor nominal power output		W	120		200	120 (x2)	300	450		
Motor current		Amp	- Refer to page 45 -							
Sound Pressure **	High	dB(A)	40.3	42.0	48.4	47.2	49.2	48.6	48.9	49.7
	Med		38.3	38.9	44.8	43.1	46.4	46.9	47.6	48.1
	Low		35.5	36.5	38.6	39.8	44.6	44.8	44.7	45.6
Water Flow		ℓ/s	0.16	0.19	0.30	0.26	0.35	0.41	0.47	0.50
Water Pressure Drop		kPa	9.7	12.3	12.8	8.7	9.2	9.2	12.9	14.6
Fan Type			Centrifugal Forward-curved blades							
Motor Type			Electronically Commutated motor							
Coil	No. of Row		4							
	Working Pressure		1.72 MPa							
	Face Area (m^2)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Female BSP)/ Material		3/4"/ Brass (Threaded Connections)				1"/ Brass (Threaded Connections)			
	Condensate Drain/ Material		7/8"/ GI Steel (Threaded Connections)							
Cabinet Size	Height	mm	420							
	Width	mm	764							
	Length	mm	597	724	826	953	1080	1206	1333	1435
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Galvanized Steel							
Net Weight		kg	29.0	35.0	39.0	51.0	52.0	58.0	61.0	63.0

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 50Pa

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

BLDC Motor

42CE0E0004 Thermostat

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

42DCD Ceiling Suspended Ducted Unit with Plenum- District Cooling
4 Rows

PERFORMANCE			MODEL: 42DCD (District Cooling Application)							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	674	792	1061	1209	1616	1787	1929	2028
		ℓ/s	319	375	501	571	763	844	911	958
Cooling Capacity (Fluid)*		kW	5.0	5.6	7.1	8.6	10.6	11.7	12.9	13.7
		Btu/hr	17,061	19,108	24,227	29,345	36,169	39,923	44,017	46,747
Motor nominal power output		W	120		200	120 (x2)	300	450		
Motor current		Amp	- Refer to page 44 -							
Sound Pressure **	High	dB(A)	40.3	42.0	48.4	47.2	49.2	48.6	48.9	49.7
	Med		38.3	38.9	44.8	43.1	46.4	46.9	47.6	48.1
	Low		35.5	36.5	38.6	39.8	44.6	44.8	44.7	45.6
Water Flow		ℓ/s	0.13	0.15	0.19	0.23	0.28	0.31	0.34	0.37
Water Pressure Drop		kPa	28.4	13.7	14.3	22.3	12.4	19.0	16.8	18.3
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Female BSP)/ Material		3/4"/ Brass (Threaded Connections)				1"/ Brass (Threaded Connections)			
	Condensate Drain/ Material		7/8"/ GI Steel (Threaded Connections)							
Cabinet Size	Height	mm	420							
	Width	mm	764							
	Length	mm	597	724	826	953	1080	1206	1333	1435
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Galvanized Steel							
Net Weight		kg	29.0	35.0	39.0	51.0	52.0	58.0	61.0	63.0

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; ESP 50Pa

** 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 - -

42DCD Ceiling Suspended Ducted Unit with Plenum- Standard ΔT 4 Rows (EC Motor)

PERFORMANCE			MODEL: 42DCD (BLDC)							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	707	788	1088	1206	1591	1800	1941	2019
		ℓ/s	334	372	514	570	751	850	917	953
Cooling Capacity (Fluid)*		kW	5.1	5.6	7.2	8.6	10.5	12.9	14.1	13.7
		Btu/hr	17,402	19,108	24,568	29,345	35,828	44,017	48,112	46,747
Motor nominal power output		W	120	200		120 (x2)	300	450		
Motor current		Amp	- Refer to page 45 -							
Sound Pressure **	High	dB(A)	40.3	42.0	48.4	47.2	49.2	48.6	48.9	49.7
	Med		38.3	38.9	44.8	43.1	46.4	46.9	47.6	48.1
	Low		35.5	36.5	38.6	39.8	44.6	44.8	44.7	45.6
Water Flow		ℓ/s	0.14	0.15	0.19	0.23	0.28	0.35	0.60	0.37
Water Pressure Drop		kPa	30.2	13.6	14.7	22.2	12.1	16.9	47.0	18.2
Fan Type			Centrifugal Forward-curved blades							
Motor Type			Electronically Communicated motor							
Coil	No. of Row		4							
	Working Pressure		1.72 MPa							
	Face Area (m^2)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Female BSP)/ Material		3/4"/ Brass (Threaded Connections)				1"/ Brass (Threaded Connections)			
	Condensate Drain/ Material		7/8"/ GI Steel (Threaded Connections)							
Cabinet Size	Height	mm	420							
	Width	mm	764							
	Length	mm	597	724	826	953	1080	1206	1333	1435
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Galvanized Steel							
Net Weight		kg	29.0	35.0	39.0	51.0	52.0	58.0	61.0	63.0

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; ESP 50Pa

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

BLDC Motor

42CE0E0004 Thermostat

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

42DF Ceiling Suspended Decorative Cabinet Unit with Plenum- Standard ΔT
4 Rows

PERFORMANCE			MODEL: 42DF							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	509	651	824	1035	1186	1358	1643	1848
		ℓ/s	240	307	389	488	560	641	775	872
Cooling Capacity (Fluid)*		kW	3.8	5.3	6.7	8.1	9.6	11.1	13.3	15.0
		Btu/hr	12,966	18,084	22,861	27,638	32,757	37,875	45,381	51,182
Motor nominal power output		W	80		120	80 (x2)		120 (x2)		200 (x2)
Motor current		Amp	- Refer to page 46 -							
Sound Pressure **	High	dB(A)	44.1	41.1	47.6	47.6	47.6	54.3	51.8	52.1
	Med		41.2	38.5	45.5	44.5	44.8	52.8	49.5	49.4
	Low		37.6	34.8	40.6	42.4	41.0	47.6	45.3	45.2
Water Flow		ℓ/s	0.16	0.23	0.29	0.35	0.41	0.47	0.57	0.64
Water Pressure Drop		kPa	3.3	7.9	14.5	23.3	23.1	33.0	19.2	25.3
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.6	3.2
Connections	In-Out (Sweat)/ Material		5/8"/ Copper		7/8"/ Copper			1 1/8"/ Copper		
	Condensate Drain/ Material		7/8" / PVC Flexible pipe (Non-Threaded Connections)							
Cabinet Size	Height	mm	460							
	Width	Mm	965							
	Length	mm	788	916	1,017	1,144	1,271	1,398	1,525	1,627
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010							
Net Weight		kg	50.0	58.0	62.0	75.0	80.0	87.0	93.0	100.0

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2˚C WB; Entering water temperature 7.2˚C; ESP 0Pa

** 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 - -

42DFD Ceiling Suspended Decorative Cabinet Unit with Plenum- District Cooling 4 Rows

PERFORMANCE			MODEL: 42DFD (District Cooling Application)							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	509	651	824	1035	1186	1358	1643	1848
		ℓ/s	240	307	389	488	560	641	775	872
Cooling Capacity (Fluid)*		kW	4.2	5.9	7.2	8.4	10.0	11.8	13.9	15.2
		Btu/hr	14,331	20,132	24,567	28,662	34,121	40,263	47,429	51,865
Motor nominal power output		W	80		120	80 (x2)		120 (x2)		200 (x2)
Motor current		Amp	- Refer to page 46 -							
Sound Pressure **	High	dB(A)	44.1	41.1	47.6	47.6	47.6	54.3	51.8	52.1
	Med		41.2	38.5	45.5	44.5	44.8	52.8	49.5	49.4
	Low		37.6	34.8	40.6	42.4	41.0	47.6	45.3	45.2
Water Flow		ℓ/s	0.11	0.16	0.19	0.23	0.27	0.32	0.37	0.41
Water Pressure Drop		kPa	11.2	25.6	41.8	15.6	24.2	35.9	53.1	40.6
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Sweat)/ Material		5/8"/ Copper		7/8"/ Copper			1 1/8"/ Copper		
	Condensate Drain/ Material		7/8" / PVC Flexible pipe (Non-Threaded Connections)							
Cabinet Size	Height	mm	460							
	Width	mm	965							
	Length	mm	788	916	1,017	1,144	1,271	1,398	1,525	1,627
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010							
Net Weight		kg	50.0	58.0	62.0	75.0	80.0	87.0	93.0	100.0

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; ESP 0Pa

** 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 - -

42DE Ceiling Suspended Ducted Double Skin Unit with Plenum- Standard ΔT
4 Rows

PERFORMANCE			MODEL: 42DE							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	642	742	964	1256	1579	1746	1971	1981
		ℓ/s	303	351	455	593	746	825	931	935
Cooling Capacity (Fluid)*		kW	4.4	5.9	7.5	9.2	11.7	13.1	15.1	15.7
		Btu/hr	15,014	20,132	25,592	31,392	39,923	44,700	51,523	53,571
Motor nominal power output		W	120		200	120 (x2)	300	450		
Motor current		Amp	- Refer to page 44 -							
Sound Pressure **	High	dB(A)	44.1	41.1	47.6	47.6	47.6	54.3	51.8	52.1
	Med		41.2	38.5	45.5	44.5	44.8	52.8	49.5	49.4
	Low		37.6	34.8	40.6	42.4	41.0	47.6	45.3	45.2
Water Flow		ℓ/s	0.19	0.25	0.32	0.39	0.50	0.56	0.64	0.67
Water Pressure Drop		kPa	4.6	10.3	17.9	30.3	33.9	46.5	25.0	28.7
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.6	3.2
Connections	In-Out (Sweat)/ Material		5/8"/ Copper		7/8"/ Copper			1 1/8"/ Copper		
	Condensate Drain/ Material		7/8" / PVC Flexible pipe (Non-Threaded Connections)							
Cabinet Size	Height	mm	460							
	Width	mm	965							
	Length	mm	788	916	1,017	1,144	1,271	1,398	1,525	1,627
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010							
Net Weight		kg	67.0	71.0	79.0	92.0	100.0	105.0	114.0	122.0

NOTE:

* Based on motor at high speed, standard air and wet coil operation; 5.6˚C water temperature rise; entering air temperature 24.4˚C DB; 17.2°C WB; Entering water temperature 7.2˚C; ESP 50Pa

** 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 - -

42DED Ceiling Suspended Ducted Double Skin Unit with Plenum- District Cooling 4 Rows

PERFORMANCE			MODEL: 42DED (District Cooling Application)							
			006	008	010	012	014	016	018	020
Air Volume	High	CFM	642	742	964	1256	1579	1746	1971	1981
		ℓ/s	303	351	455	593	746	825	931	935
Cooling Capacity (Fluid)*		kW	4.4	6.5	8.0	9.5	12.1	13.8	15.1	15.9
		Btu/hr	15,014	22,179	27,298	32,416	41,287	47,088	51,524	54,254
Motor nominal power output		W	120		200	120 (x2)	300	450		
Motor current		Amp	- Refer to page 44 -							
Sound Pressure **	High	dB(A)	44.1	41.1	47.6	47.6	47.6	54.3	51.8	52.1
	Med		41.2	38.5	45.5	44.5	44.8	52.8	49.5	49.4
	Low		37.6	34.8	40.6	42.4	41.0	47.6	45.3	45.2
Water Flow		ℓ/s	0.12	0.18	0.22	0.25	0.32	0.37	0.40	0.43
Water Pressure Drop		kPa	12.1	30.6	50.6	19.2	33.6	47.5	61.4	43.8
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)		0.148	0.197	0.237	0.287	0.336	0.385	0.434	0.474
	Water Volume (ℓ)		1.1	1.4	1.6	2.0	2.3	2.6	2.9	3.2
Connections	In-Out (Sweat)/ Material		5/8"/ Copper		7/8"/ Copper			1 1/8"/ Copper		
	Condensate Drain/ Material		7/8" / PVC Flexible pipe (Non-Threaded Connections)							
Cabinet Size	Height	mm	460							
	Width	mm	965							
	Length	mm	788	916	1,017	1,144	1,271	1,398	1,525	1,627
Casing Material/ Thickness			Galvanized Steel/ Up to 1.0mm							
Casing Treatment/ External Finish			Powder Painted/ Morning Mist Equivalent to RAL9010							
Net Weight		kg	67.0	71.0	79.0	92.0	100.0	105.0	114.0	122.0

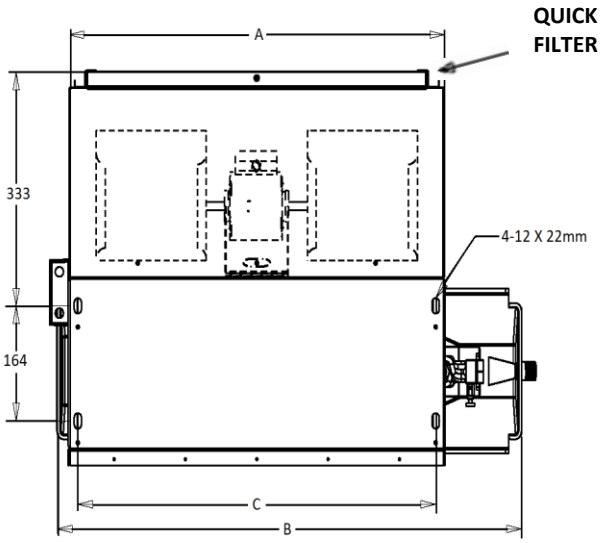
NOTE:

* 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; ESP 50Pa

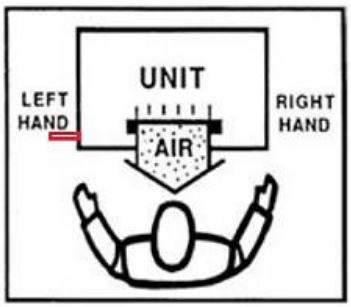
** Sound measurement in accordance with Standard JIS8616-2006 (1.5m below the unit bottom).

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

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

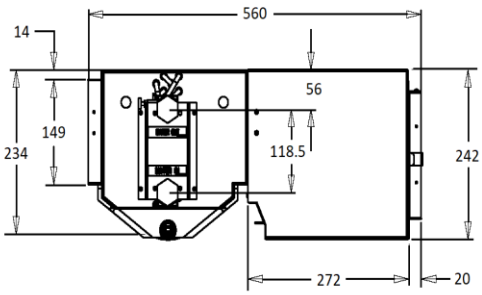


TOP VIEW



UNIT HANDLING

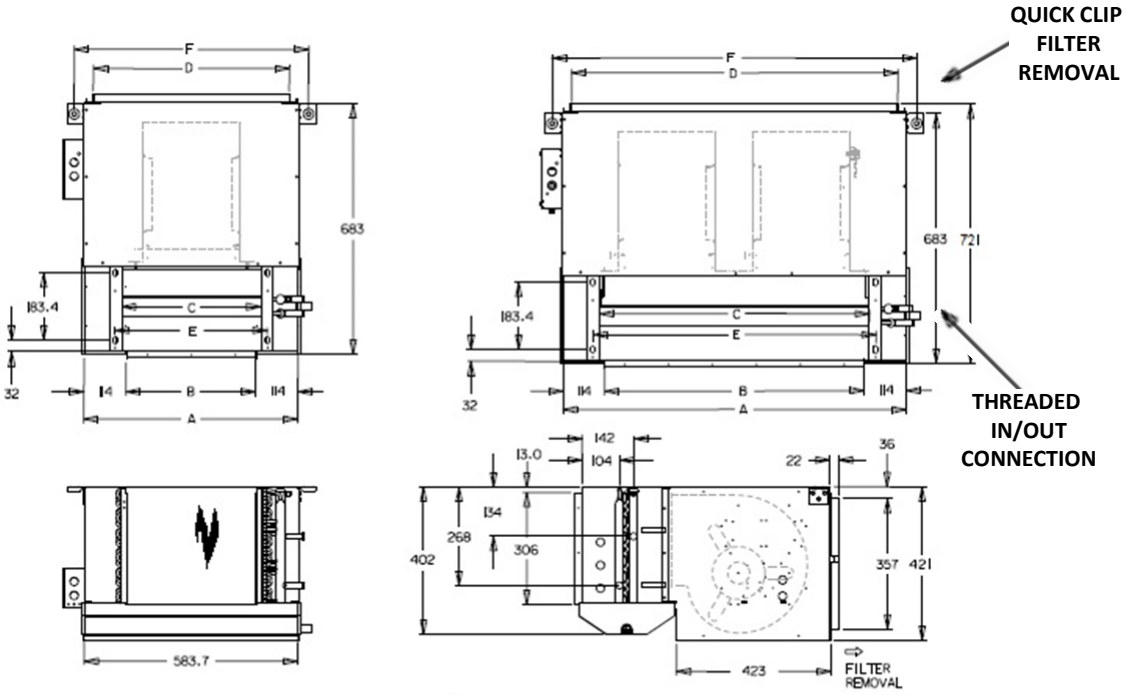
FRONT VIEW

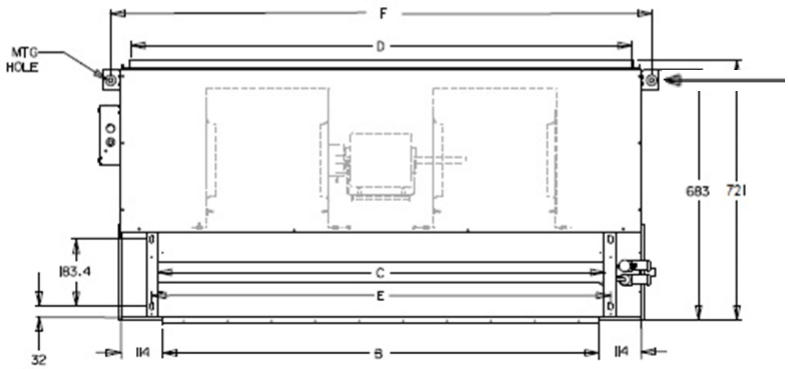


HEADER VIEW

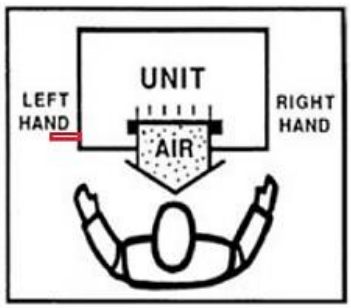
MODEL 42CT-/CTL	DIMENSIONS (mm)			NET WEIGHT (kg)		
	A	B	C	3 Rows (BLDC Motor)	4 Rows (AC Motor)	4 Rows (BLDC Motor)
03	632	781	602	17.7	17.2	18.2
04	712	861	682	18.6	18.1	19.1
05	792	941	762	20.6	20.3	21.3
06	952	1101	922	23.2	22.9	23.9
07	1032	1181	1002	24.6	24.3	25.3
08	1272	1421	1242	31.5	31.3	32.3
10	1322	1471	1292	33.6	33.4	34.4
12	1522	1671	1492	36.9	36.9	37.9
14	1682	1831	1652	39.6	39.4	40.4

42DC/DCD Furred-in Ceiling FCU with Plenum





Top View Double Shaft Model
(Size 14 to 20)

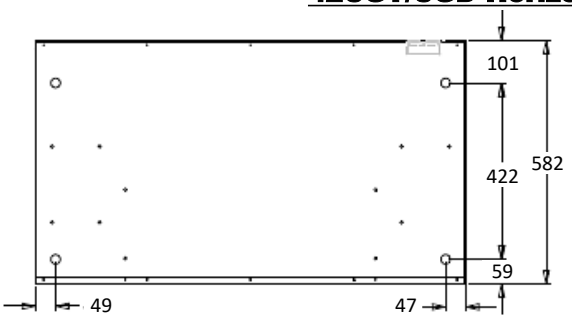


UNIT HANDLING

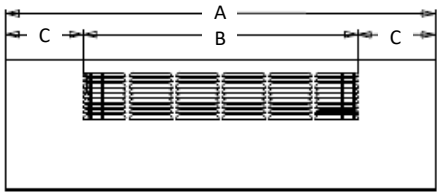
UNIT SIZE 42DC/DCD	DIMENSION (mm)						NET WEIGHT (kg)
	A	B	C	D	E	F	
006	597	356	381	536	417	641	29.0
008	724	483	508	663	544	768	35.0
010	826	584	610	765	646	870	39.0
012	953	711	737	892	773	997	51.0
014	1080	838	864	1019	900	1124	52.0
016	1206	965	991	1146	1027	1251	58.0
018	1333	1092	1178	1273	1214	1378	61.0
020	1435	1194	1219	1374	1255	1479	63.0

* Applicable for 42DC/42DCD ECM option.

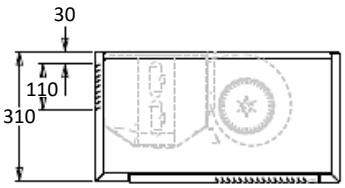
42CGT/CGD Horizontal Cabinet Unit



TOP PANEL

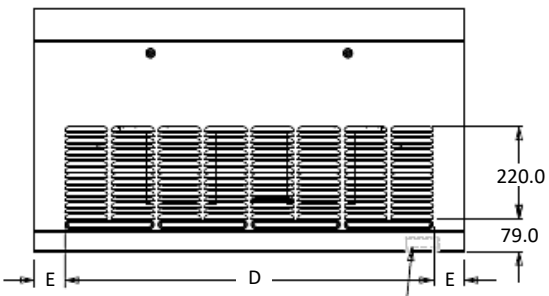


FRONT VIEW



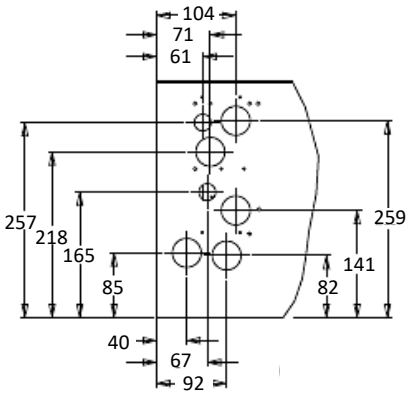
RIGHT SIDE VIEW

BACK VIEW



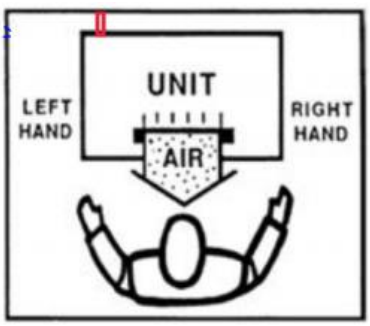
BOTTOM VIEW OF ACCESS PANEL

CONTROL BOX



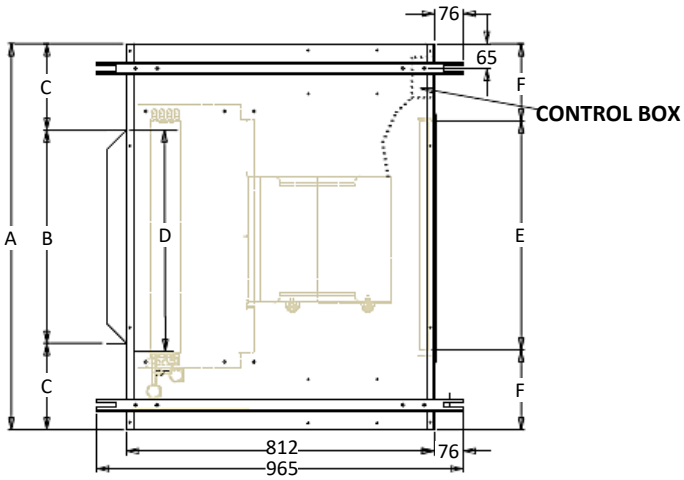
BACK PANEL DETAIL
(TYPICAL BOTH SIDES)

UNIT HANDLING

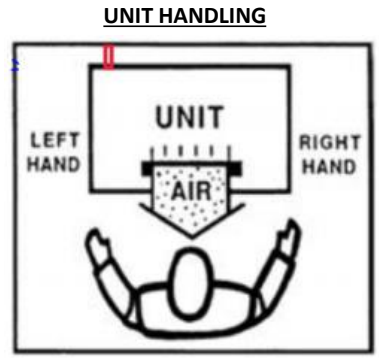


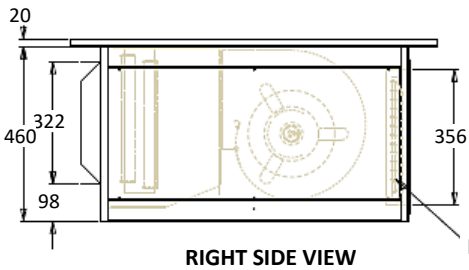
UNIT SIZE 42CGT	DIMENSIONS (mm)					NET WEIGHT (kg)
	A	B	C	D	G	
003	1030	658	186	881	74	40.0
004	1150	769	190	881	134	45.0
005	1230	880	175	881	174	47.0
006	1350	992	179	1102	123	51.0
008	1670	1325	172	1325	172	65.0
010	2030	1659	185	1325	352	80.0
012	2270	1882	193	1548	360	91.0

42DF/DFD Furred-in Ceiling FCU with Plenum



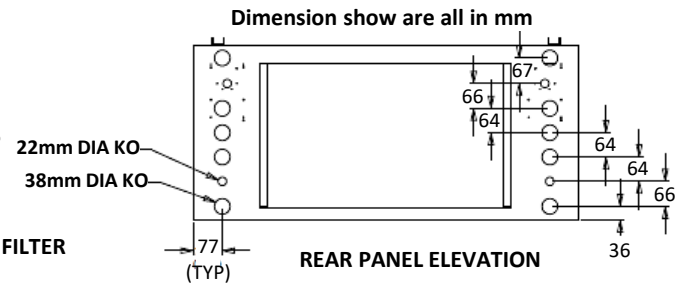
TOP VIEW





RIGHT SIDE VIEW

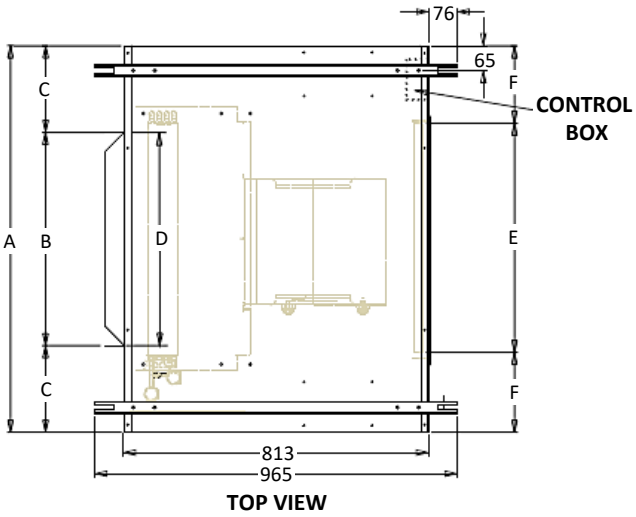
Dimension show are all in mm

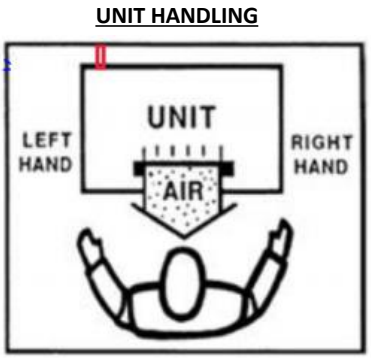


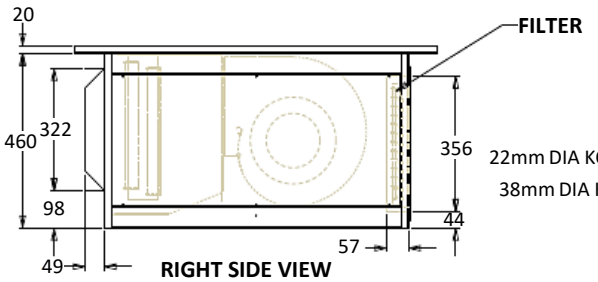
REAR PANEL ELEVATION

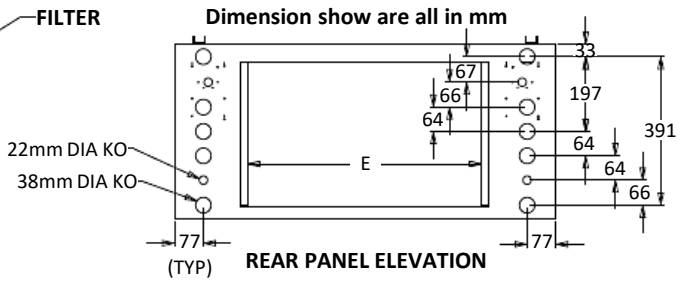
UNIT SIZE 42DF/DFD	DIMENSIONS (mm)						NET WEIGHT (kg)
	A	B	C	D	E	F	
006	787	343	222	381	356	216	50.0
008	914	470	222	508	508	203	58.0
010	1016	572	222	610	610	203	62.0
012	1143	699	222	737	737	216	75.0
014	1270	826	222	864	864	203	80.0
016	1397	953	222	991	991	216	87.0
018	1524	1078	222	1118	1118	203	93.0
020	1626	1181	222	1219	1219	203	100.0

42DE/DED Furred-in Ceiling FCU with Plenum









UNIT SIZE 42DE/DED	DIMENSIONS (mm)						NET WEIGHT (kg)
	A	B	C	D	E	F	
006	787	381	203	381	381	203	67.0
008	914	508	203	508	508	203	71.0
010	1016	610	203	610	610	203	79.0
012	1143	737	203	737	737	203	92.0
014	1270	837	203	837	837	203	100.0
016	1397	991	203	991	991	203	105.0
018	1524	1118	203	1118	1118	203	114.0
020	1626	1219	203	1219	1219	203	122.0

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		
034	High	50	258	2.8	2.0	11.0	10.6	0.12	9.9
	Medium		189	2.2	1.5	10.4	9.9	0.09	6.0
	Low		105	1.3	0.9	9.5	9.0	0.06	2.4
044	High	50	331	3.1	2.3	12.3	11.7	0.13	7.2
	Medium		272	2.6	2.0	11.7	11.2	0.11	5.3
	Low		167	1.8	1.3	10.9	10.3	0.08	2.5
054	High	50	434	3.7	2.9	12.8	12.1	0.16	7.3
	Medium		336	3.1	2.3	12.2	11.5	0.13	5.0
	Low		252	2.5	1.9	11.5	10.9	0.10	3.2
064	High	50	533	4.5	3.5	13.0	12.2	0.19	8.9
	Medium		430	3.8	3.0	12.3	11.7	0.16	6.5
	Low		265	2.7	2.0	11.3	10.7	0.11	3.1
074	High	50	595	5.1	3.9	12.8	12.1	0.22	11.8
	Medium		455	4.2	3.2	12.1	11.5	0.18	8.0
	Low		308	3.1	2.3	11.2	10.6	0.13	4.4
084	High	50	681	6.1	4.6	12.5	11.9	0.26	10.8
	Medium		511	4.9	3.7	11.8	11.2	0.21	7.0
	Low		326	3.5	2.5	10.9	10.3	0.15	3.5
104	High	50	839	7.6	5.7	12.5	11.8	0.32	15.3
	Medium		659	6.3	4.7	11.8	11.2	0.27	10.7
	Low		473	4.9	3.6	11.1	10.4	0.21	6.5
124	High	50	941	8.0	6.2	12.9	12.2	0.34	11.8
	Medium		763	6.9	5.3	12.3	11.6	0.29	8.8
	Low		574	5.5	4.2	11.6	11.0	0.24	5.7
144	High	50	1094	9.3	7.2	12.9	12.2	0.40	17.3
	Medium		920	8.3	6.3	12.4	11.7	0.35	13.9
	Low		720	6.9	5.2	11.7	11.0	0.29	9.7

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

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		
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 - -

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	258	2.8	2.0	11.0	10.6	0.12	9.9
	Medium		189	2.2	1.5	10.4	9.9	0.09	6.0
	Low		105	1.3	0.9	9.5	9.0	0.06	2.4
044	High	50	331	3.1	2.3	12.3	11.7	0.13	7.2
	Medium		272	2.6	2.0	11.7	11.2	0.11	5.3
	Low		167	1.8	1.3	10.9	10.3	0.08	2.5
054	High	50	434	3.7	2.9	12.8	12.1	0.16	7.3
	Medium		336	3.1	2.3	12.2	11.5	0.13	5.0
	Low		252	2.5	1.9	11.5	10.9	0.10	3.2
064	High	50	533	4.5	3.5	13.0	12.2	0.19	8.9
	Medium		430	3.8	3.0	12.3	11.7	0.16	6.5
	Low		265	2.7	2.0	11.3	10.7	0.11	3.1
074	High	50	595	5.1	3.9	12.8	12.1	0.22	11.8
	Medium		455	4.2	3.2	12.1	11.5	0.18	8.0
	Low		308	3.1	2.3	11.2	10.6	0.13	4.4
084	High	50	681	6.1	4.6	12.5	11.9	0.26	10.8
	Medium		511	4.9	3.7	11.8	11.2	0.21	7.0
	Low		326	3.5	2.5	10.9	10.3	0.15	3.5
104	High	50	839	7.6	5.7	12.5	11.8	0.32	15.3
	Medium		659	6.3	4.7	11.8	11.2	0.27	10.7
	Low		473	4.9	3.6	11.1	10.4	0.21	6.5
124	High	50	941	8.0	6.2	12.9	12.2	0.34	11.8
	Medium		763	6.9	5.3	12.3	11.6	0.29	8.8
	Low		574	5.5	4.2	11.6	11.0	0.24	5.7
144	High	50	1094	9.3	7.2	12.9	12.2	0.40	17.3
	Medium		920	8.3	6.3	12.4	11.7	0.35	13.9
	Low		720	6.9	5.2	11.7	11.0	0.29	9.7

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42CT- Furred-in Ceiling Model (3-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		
033	High	50	269	2.4	1.8	12.4	11.8	0.10	11.4
	Medium		208	2.0	1.5	11.7	11.2	0.09	7.7
	Low		115	1.2	0.9	10.7	10.2	0.05	3.0
043	High	50	355	3.0	2.3	12.8	12.2	0.13	9.1
	Medium		278	2.5	1.9	12.1	11.6	0.11	6.5
	Low		179	1.8	1.3	11.3	10.7	0.08	3.3
053	High	50	456	3.8	3.0	13.0	12.3	0.16	15.8
	Medium		348	3.1	2.4	12.3	11.6	0.13	10.9
	Low		257	2.5	1.9	11.5	10.9	0.11	7.0
063	High	50	540	4.2	3.4	13.5	12.6	0.18	12.4
	Medium		435	3.6	2.9	12.8	12.1	0.15	9.2
	Low		275	2.6	2.0	11.8	11.2	0.11	4.6
073	High	50	605	5.0	3.9	13.0	12.3	0.21	12.0
	Medium		478	4.2	3.3	12.4	11.7	0.18	8.6
	Low		344	3.3	2.5	11.6	11.0	0.14	5.2
083	High	50	725	6.1	4.8	12.9	12.2	0.26	15.9
	Medium		556	5.0	3.9	12.2	11.6	0.21	11.0
	Low		357	3.6	2.7	11.3	10.7	0.15	5.6
103	High	50	868	7.0	5.5	13.2	12.4	0.30	18.0
	Medium		672	5.8	4.5	12.5	11.9	0.25	12.7
	Low		476	4.5	3.4	11.7	11.1	0.19	7.8
123	High	50	1002	7.9	6.3	13.3	12.5	0.34	18.7
	Medium		821	6.9	5.5	12.7	12	0.29	14.5
	Low		611	5.6	4.3	12	11.4	0.24	9.6
143	High	50	1148	8.7	7.0	13.7	12.7	0.37	17.8
	Medium		953	7.7	6.2	13.1	12.2	0.33	14.3
	Low		725	6.4	5.0	12.3	11.6	0.27	10.0

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

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 - -

42CGT Ceiling Suspended Decorative Cabinet Unit with Plenum- Standard ΔT (4 Rows)

Model 42CGT	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
003	High	0	293	2.4	1.9	13.2	12.4	0.10	7.1
	Medium		282	2.4	1.8	13.1	12.3	0.10	6.7
	Low		238	2.1	1.6	12.9	12.1	0.09	5.1
004	High	0	386	3.4	2.5	12.8	12.0	0.15	14.0
	Medium		334	3.1	2.2	12.6	11.9	0.13	11.4
	Low		273	2.6	1.9	12.3	11.6	0.11	8.3
005	High	0	462	4.2	3.1	12.6	11.9	0.18	28.6
	Medium		375	3.6	2.6	12.3	11.6	0.15	21.7
	Low		296	3.0	2.1	12.0	11.3	0.13	15.2
006	High	0	538	4.4	3.4	13.4	12.5	0.19	4.7
	Medium		417	3.6	2.7	13.0	12.2	0.15	3.2
	Low		319	2.9	2.1	12.7	12.0	0.12	2.0
008	High	0	697	6.1	4.6	12.9	12.1	0.26	13.4
	Medium		571	5.2	3.9	12.6	11.9	0.22	10.2
	Low		429	4.1	3.0	12.3	11.6	0.18	6.4
010	High	0	930	8.5	6.3	12.6	11.9	0.36	28.4
	Medium		775	7.3	5.3	12.3	11.7	0.31	22.0
	Low		618	6.1	4.3	12.1	11.4	0.26	15.7
012	High	0	1073	9.6	7.1	12.7	12.0	0.41	30.0
	Medium		919	8.5	6.2	12.5	11.8	0.36	24.2
	Low		814	7.7	5.6	12.3	11.7	0.30	20.4

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42CGD Ceiling Suspended Decorative Cabinet Unit with Plenum- District Cooling (4 Rows)

Model 42CGD	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
003	High	0	293	2.6	1.9	12.9	12.1	0.07	12.9
	Medium		282	2.5	1.9	12.8	12.1	0.07	12.1
	Low		238	2.2	1.6	12.6	11.9	0.06	9.2
004	High	0	386	3.5	2.6	12.7	11.9	0.09	25.8
	Medium		334	3.1	2.3	12.5	11.8	0.08	20.9
	Low		273	2.6	1.9	12.2	11.5	0.07	15.1
005	High	0	462	4.2	3.1	12.6	11.9	0.11	37.5
	Medium		375	3.6	2.6	12.3	11.6	0.10	28.5
	Low		296	3.0	2.1	11.9	11.3	0.08	19.9
006	High	0	538	4.7	3.5	12.9	12.1	0.13	12.5
	Medium		417	3.8	2.8	12.6	11.8	0.10	8.3
	Low		319	3.1	2.2	12.2	11.6	0.08	5.4
008	High	0	697	6.4	4.7	12.6	11.9	0.17	33.2
	Medium		571	5.5	3.9	12.3	11.6	0.15	25.8
	Low		429	4.3	3.1	11.9	11.2	0.12	16.6
010	High	0	930	8.6	6.3	12.5	11.8	0.23	27.2
	Medium		775	7.5	5.4	12.2	11.5	0.20	21.5
	Low		618	6.3	4.4	11.9	11.2	0.17	15.6
012	High	0	1073	9.2	6.9	13.0	12.2	0.25	24.7
	Medium		919	8.2	6.1	12.8	12.0	0.22	19.8
	Low		814	7.4	5.4	12.7	11.9	0.20	16.3

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 - -

42DC Ceiling Suspended Ducted Unit with Plenum- Standard ΔT (4 Rows)

Model 42DC	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	674	4.6	3.8	14.5	13.4	0.19	15.0
	Medium		563	4.1	3.3	14.1	13.1	0.17	11.9
	Low		442	3.4	2.7	13.5	12.7	0.15	8.6
008	High	50	792	5.7	4.7	14.1	13.1	0.24	19.9
	Medium		619	4.9	3.9	13.5	12.7	0.21	14.3
	Low		440	3.8	2.9	12.7	12.2	0.16	8.9
010	High	50	1061	6.9	5.8	14.7	13.5	0.29	12.3
	Medium		913	6.2	5.2	14.4	13.3	0.27	10.1
	Low		677	5.0	4.1	13.7	12.9	0.21	6.6
012	High	50	1209	8.0	6.7	14.6	13.5	0.34	14.9
	Medium		1047	7.2	6.0	15.7	13.3	0.31	12.3
	Low		838	6.2	5.1	15.2	13.0	0.26	9.1
014	High	50	1616	10.7	9.0	14.7	13.4	0.46	15.5
	Medium		1295	9.3	7.6	14.1	13.1	0.39	11.6
	Low		1177	8.7	7.0	13.9	13.0	0.37	10.2
016	High	50	1787	12.2	10.1	14.4	13.3	0.52	15.0
	Medium		1597	11.3	9.3	14.2	13.2	0.48	12.9
	Low		1432	10.5	8.6	13.9	13.0	0.45	11.2
018	High	50	1929	13.8	11.3	14.1	13.1	0.59	20.5
	Medium		1801	13.2	10.7	14.0	13.0	0.56	18.8
	Low		1423	11.3	8.9	13.4	12.6	0.48	13.7
020	High	50	2028	14.9	12.0	14.0	13.0	0.64	23.3
	Medium		1863	14.1	11.3	13.8	12.9	0.60	20.9
	Low		1449	11.9	9.3	13.1	12.4	0.51	14.9

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42DCD Ceiling Suspended Ducted Unit with Plenum- District Cooling (4 Rows)

Model 42DCD	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	674	5.0	3.9	14.4	13.0	0.13	28.4
	Medium		565	4.4	3.4	13.9	12.7	0.12	22.7
	Low		442	3.8	3.8	13.3	12.3	0.10	16.5
008	High	50	792	5.6	4.4	14.6	13.2	0.15	13.7
	Medium		619	4.8	3.7	14.0	12.8	0.13	9.9
	Low		440	3.8	2.8	13.2	12.2	0.10	6.3
010	High	50	1061	7.1	5.9	14.6	13.4	0.19	14.3
	Medium		913	6.5	5.3	14.3	13.2	0.17	11.8
	Low		677	5.3	4.2	13.5	12.7	0.14	7.9
012	High	50	1209	8.6	7.0	14.3	13.1	0.23	22.3
	Medium		1047	7.9	6.3	13.9	12.9	0.21	18.5
	Low		838	6.8	5.3	13.3	12.5	0.18	13.7
014	High	50	1616	10.6	8.8	14.8	13.5	0.28	12.4
	Medium		1295	9.2	7.5	14.3	13.2	0.25	9.3
	Low		1177	8.6	7.0	14.0	13.0	0.23	8.2
016	High	50	1787	11.7	9.7	14.8	13.5	0.31	19.0
	Medium		1597	10.9	9.0	14.6	13.3	0.29	16.4
	Low		1432	10.1	8.3	14.3	13.2	0.27	14.2
018	High	50	1929	12.9	10.6	14.7	13.4	0.34	16.8
	Medium		1801	12.3	10.1	14.5	13.3	0.33	15.4
	Low		1423	10.5	8.5	14.0	13.0	0.28	11.2
020	High	50	2028	13.7	11.3	14.6	13.4	0.37	18.3
	Medium		1863	13.0	10.6	14.4	13.2	0.35	16.4
	Low		1449	11.0	8.8	13.8	12.9	0.29	11.7

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 - -

42DC Ceiling Suspended Ducted Unit with Plenum- Standard ΔT (4 Rows) – BLDC Motor

Model 42DC	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	707	4.7	4.0	14.6	13.4	0.20	16.0
	Medium		562	4.1	3.3	14.0	13.1	0.17	11.8
	Low		446	3.5	2.8	13.5	12.8	0.15	8.7
008	High	50	788	5.7	4.6	14.1	13.1	0.24	19.7
	Medium		621	4.9	3.9	13.5	12.7	0.21	14.4
	Low		428	3.7	2.9	12.7	12.1	0.16	8.6
010	High	50	1088	7.0	6.0	14.8	13.6	0.30	12.8
	Medium		933	6.3	5.3	14.4	13.4	0.27	10.4
	Low		715	5.3	4.3	13.8	13.0	0.22	7.2
012	High	50	1206	8.0	6.7	14.6	13.5	0.34	14.9
	Medium		1061	7.3	6.1	14.3	13.3	0.31	12.6
	Low		816	6.1	5.0	13.7	12.9	0.26	8.7
014	High	50	1591	10.6	8.9	14.6	13.4	0.45	15.2
	Medium		1261	9.1	7.4	14.1	13.1	0.39	11.2
	Low		1189	8.7	7.1	13.9	13.0	0.37	10.3
016	High	50	1800	12.2	10.2	14.5	13.3	0.52	15.1
	Medium		1595	11.3	9.3	14.2	13.2	0.48	12.9
	Low		1400	10.4	8.4	13.9	13.0	0.44	10.9
018	High	50	1941	13.9	11.3	14.2	13.1	0.59	20.7
	Medium		1839	13.4	10.9	14.0	13.0	0.57	19.3
	Low		1422	11.3	8.9	13.4	12.6	0.48	13.7
020	High	50	2019	14.9	12.0	14.0	13.0	0.63	23.2
	Medium		1894	14.3	11.4	13.8	12.9	0.61	21.3
	Low		1481	12.1	9.4	13.2	12.5	0.52	15.4

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42DCD Ceiling Suspended Ducted Unit with Plenum- District Cooling (4 Rows) – BLDC Motor

Model 42DCD	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	707	5.1	4.1	14.2	13.1	0.14	30.2
	Medium		562	4.4	3.5	13.6	12.7	0.12	22.6
	Low		446	3.8	2.9	13.0	12.3	0.10	16.7
008	High	50	788	5.6	4.4	14.6	13.2	0.15	13.6
	Medium		621	4.8	3.7	14.0	12.8	0.13	10.0
	Low		428	3.7	2.8	13.1	12.2	0.10	6.0
010	High	50	1088	7.2	6.0	14.7	13.4	0.19	14.7
	Medium		933	6.5	5.4	14.3	13.2	0.18	12.1
	Low		715	5.5	4.4	13.5	12.8	0.15	8.5
012	High	50	1206	8.6	6.8	14.6	13.1	0.23	22.2
	Medium		1061	7.9	6.1	14.2	12.9	0.21	18.8
	Low		816	6.6	5.0	13.6	12.5	0.18	13.3
014	High	50	1591	10.5	8.7	14.8	13.5	0.28	12.1
	Medium		1261	9.0	7.3	14.2	13.1	0.24	9.0
	Low		1189	8.7	7.0	14.0	13.0	0.23	8.3
016	High	50	1800	12.9	10.7	14.7	13.4	0.35	16.9
	Medium		1595	12.5	10.3	14.6	13.4	0.33	15.8
	Low		1400	10.5	8.5	14.0	13.0	0.28	11.2
018	High	50	1941	14.1	11.4	14.1	13.0	0.60	47.0
	Medium		1839	13.6	11.0	13.9	13.0	0.58	44.2
	Low		1422	11.5	9.0	13.3	12.5	0.49	33.0
020	High	50	2019	13.7	11.3	14.6	13.3	0.37	18.2
	Medium		1894	13.2	10.7	14.4	13.3	0.35	16.8
	Low		1481	11.2	8.9	13.8	12.9	0.30	12.1

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 - -

42DE Ceiling Suspended Ducted Double Skin Unit with Plenum- Standard ΔT (4 Rows)

Model 42DE	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	642	4.4	3.7	14.2	13.3	0.19	4.6
	Medium		505	3.7	3.1	13.8	13.1	0.16	3.2
	Low		378	2.9	2.4	13.3	12.7	0.13	2.1
008	High	50	742	5.9	4.6	13.5	12.6	0.25	10.3
	Medium		563	4.8	3.7	13.0	12.2	0.21	6.9
	Low		404	3.8	2.7	12.5	11.8	0.16	4.2
010	High	50	964	7.5	6.0	13.5	12.8	0.32	17.9
	Medium		823	6.7	5.3	13.1	12.5	0.28	15.1
	Low		568	5.1	3.9	12.4	12.0	0.22	8.8
012	High	50	1256	9.2	7.5	13.9	13.0	0.39	30.3
	Medium		1023	8.1	6.4	13.4	12.7	0.34	24.1
	Low		723	6.3	4.9	12.6	12.1	0.27	15.8
014	High	50	1579	11.7	9.5	13.8	13.0	0.50	33.9
	Medium		1268	10.1	8.0	13.3	12.6	0.43	26.5
	Low		1246	10.0	7.9	13.2	13.0	0.43	25.9
016	High	50	1746	13.1	10.6	13.7	12.9	0.56	46.5
	Medium		1542	12.1	9.6	13.4	12.7	0.52	40.5
	Low		1387	11.3	8.9	13.2	12.5	0.48	35.9
018	High	50	1971	15.1	12.2	13.5	12.8	0.64	25.0
	Medium		1740	13.9	11.1	13.2	12.6	0.59	21.7
	Low		1393	12.0	9.3	12.7	12.2	0.51	16.7
020	High	50	1981	15.7	12.1	13.7	12.7	0.67	28.7
	Medium		1793	14.7	11.2	13.4	12.5	0.62	25.6
	Low		1395	12.3	9.2	12.9	12.1	0.53	19.0

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42DED Ceiling Suspended Ducted Double Skin Unit with Plenum- District Cooling (4 Rows)

Model 42DED	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	50	642	4.4	3.7	14.3	13.3	0.12	12.1
	Medium		505	3.7	3.1	13.8	13.0	0.10	8.8
	Low		378	3.0	2.4	13.2	12.6	0.08	5.9
008	High	50	742	6.5	4.8	13.0	12.1	0.18	30.6
	Medium		563	5.4	3.9	12.3	11.6	0.14	22.3
	Low		404	4.2	2.9	11.7	11.0	0.11	13.6
010	High	50	964	8.0	6.0	13.4	12.4	0.22	50.6
	Medium		823	7.3	5.3	13.0	12.1	0.19	42.2
	Low		568	5.6	4.0	12.2	11.4	0.15	26.9
012	High	50	1256	9.5	7.4	14.0	12.9	0.25	19.2
	Medium		1023	8.3	6.3	13.5	12.5	0.22	15.1
	Low		723	6.5	4.8	12.8	12.0	0.17	9.3
014	High	50	1579	12.1	9.4	13.9	12.8	0.32	33.6
	Medium		1268	10.5	8.0	13.4	12.4	0.28	26.4
	Low		1246	10.4	7.8	13.4	12.4	0.28	25.9
016	High	50	1746	13.8	10.6	13.8	12.6	0.37	47.5
	Medium		1542	12.8	9.6	13.4	12.4	0.34	41.4
	Low		1387	11.9	8.9	13.2	12.2	0.32	36.8
018	High	50	1971	15.1	11.7	14.0	12.8	0.40	61.4
	Medium		1740	14.0	10.6	13.7	12.6	0.37	53.6
	Low		1393	12.1	8.9	13.1	12.2	0.32	41.8
020	High	50	1981	15.9	12.1	13.7	12.6	0.43	43.8
	Medium		1793	14.9	11.2	13.4	12.4	0.40	39.2
	Low		1395	12.6	9.2	12.8	11.9	0.34	29.4

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 - -

42DF Ceiling Suspended Decorative Cabinet Unit with Plenum- Standard ΔT (4 Rows)

Model 42DF	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	0	509	3.8	3.1	13.6	12.9	0.16	3.3
	Medium		460	3.5	2.9	13.4	12.8	0.15	2.9
	Low		383	3.1	2.5	13.1	12.6	0.13	2.2
008	High	0	651	5.3	4.1	13.4	12.5	0.23	7.9
	Medium		551	4.7	3.6	13.1	12.3	0.20	6.2
	Low		441	4.0	2.9	12.7	12.0	0.17	4.5
010	High	0	824	6.7	5.1	13.4	12.5	0.29	14.5
	Medium		643	5.6	4.2	13.0	12.1	0.24	10.1
	Low		482	4.5	3.3	12.5	11.8	0.19	6.6
012	High	0	1035	8.1	6.3	13.7	12.7	0.35	23.3
	Medium		881	7.3	5.5	13.4	12.4	0.31	19.3
	Low		780	6.7	5.0	13.1	12.2	0.29	16.9
014	High	0	1186	9.6	7.4	13.5	12.5	0.41	23.1
	Medium		1006	8.6	6.5	13.1	12.2	0.37	19.1
	Low		886	7.9	5.8	12.9	12.0	0.33	16.2
016	High	0	1358	11.1	8.4	13.5	12.5	0.47	33.0
	Medium		1086	9.5	7.1	13.0	12.1	0.40	25.3
	Low		926	8.5	6.2	12.7	11.9	0.36	20.8
018	High	0	1643	13.3	10.2	13.5	12.5	0.57	19.2
	Medium		1397	11.9	9.0	13.1	12.2	0.51	15.8
	Low		1103	10.0	7.4	12.7	11.9	0.43	11.6
020	High	0	1848	15.0	11.5	13.5	12.5	0.64	25.3
	Medium		1561	13.4	10.0	13.1	12.2	0.57	20.8
	Low		1223	11.2	8.2	12.6	11.8	0.48	15.6

NOTE: Air Conditions: EDB/EWB 24.4/17.2°C * Water Conditions: EWT/LWT 7.2/12.8˚C ΔT: 5.6˚C

42DFD Ceiling Suspended Decorative Cabinet Unit with Plenum- District Cooling (4 Rows)

Model 42DFD	Speed	ESP Pa	Air Flow (CFM)	Capacity (kW)		Air off FCU (°C)		Water Flow (ℓ/s)	Water Pressure (kPa)
				Total	Sensible	DB	WB		
006	High	0	509	4.2	3.2	13.3	12.4	0.11	11.2
	Medium		460	3.9	3.0	13.1	12.2	0.11	9.7
	Low		383	3.4	2.5	12.8	12.0	0.09	7.5
008	High	0	651	5.9	4.3	12.7	11.9	0.16	25.6
	Medium		551	5.3	3.8	12.4	11.6	0.14	21.1
	Low		441	4.4	3.1	12.0	11.3	0.12	15.2
010	High	0	824	7.2	5.3	13.1	12.1	0.19	41.8
	Medium		643	6.1	4.4	12.5	11.7	0.16	31.1
	Low		482	4.9	3.4	11.9	11.2	0.13	21.5
012	High	0	1035	8.4	6.4	13.5	12.5	0.23	15.6
	Medium		881	7.5	5.6	13.2	12.3	0.20	12.5
	Low		780	6.9	5.1	12.9	12.1	0.18	10.5
014	High	0	1186	10.0	7.5	13.3	12.3	0.27	24.2
	Medium		1006	9.0	6.6	12.9	12.0	0.24	20.3
	Low		886	8.2	5.9	12.6	11.8	0.22	16.9
016	High	0	1358	11.8	8.7	13.1	12.2	0.32	35.9
	Medium		1086	10.1	7.3	12.6	11.8	0.27	27.6
	Low		926	9.0	6.4	12.3	11.5	0.24	23.1
018	High	0	1643	13.9	10.4	13.3	12.3	0.37	53.1
	Medium		1397	12.5	9.1	12.9	12.0	0.33	44.1
	Low		1103	10.6	7.6	12.4	11.6	0.28	33.3
020	High	0	1848	15.2	11.5	13.5	12.5	0.41	40.6
	Medium		1561	13.6	10.1	13.1	12.1	0.36	33.5
	Low		1223	11.5	8.3	12.5	11.7	0.31	25.1

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 - -

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	Motor Pole	Running Amps		Remarks
										3 rows	4 rows	
42CT-/42CTL	03	220~240-1-60	Hi	1126	1140	24	70	69	4	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	4	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	4	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	4	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	4	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	4	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	4	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	4	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	4	1.60	1.60	
			Med	1232	1220		262	265		1.15	1.16	
			Low	1106	1104		225	223		0.98	0.99	

Note: Dry Coil CFM at **50Pa**
Motor nameplate amps may vary.

42CT-/CTL MOTOR DATA (BLDC)

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	220~240-1-60	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	

Note: Dry Coil CFM at **50Pa**
Motor nameplate amps may vary.

42CGT/CGD MOTOR DATA

Model	Unit Size	Power Supply (V-Ph-Hz)	Fan Speed	Fan Speed (rpm)	Nominal Power Output (W)	Power Input (W)	Motor Pole	Running Amps	Remarks
42CGT 42CGD	003	220~240-1-60	Hi	1,320	35	67	4	0.31	* Total motor amps and watts shown for units with 2 motors (size 008 to 010). ** Total motor amps and watts shown for units with 3 motors (size 012).
			Med	1,190		62		0.27	
			Low	1,080		57		0.24	
	004		Hi	1,320	48	83	4	0.37	
			Med	1,190		77		0.35	
			Low	1,080		71		0.33	
	005		Hi	1,320	68	103	4	0.45	
			Med	1,190		89		0.40	
			Low	1,080		81		0.38	
	006		Hi	1,320	75	122	4	0.55	
			Med	1,190		101		0.44	
			Low	1,080		91		0.40	
	008 *		Hi	1,320	58 (x2)	185	4	0.82	
			Med	1,190		160		0.71	
			Low	1,080		145		0.65	
	010 *		Hi	1,320	75 (x2)	238	4	1.07	
			Med	1,190		196		0.87	
			Low	1,080		181		0.80	
	012 **		Hi	1,320	78 (x3)	322	4	1.49	
			Med	1,190		251		1.15	
			Low	1,080		246		1.10	

Note: Dry Coil CFM at **0 Pa**
Motor nameplate amps may vary.

42DC/DCD/DE/DED MOTOR DATA

Model	Unit Size	Power Supply (V / Ph / Hz)	Fan Speed	Fan Speed (rpm)	Nominal Power Output (W)	Power Input (W)	Motor Pole	Running Amps	Remarks
42DC/DCD	006	220~240/1/60	Hi	1,000	120	239	4	1.13	* Total motor amps and watts shown for units with 2 motors (size 012).
			Med	870		150		0.68	
			Low	750		116		0.52	
	008		Hi	1,000	120	257	4	1.21	
			Med	870		170		0.75	
			Low	750		127		0.57	
	010		Hi	1,000	200	480	6	2.02	
			Med	870		399		1.65	
			Low	750		254		1.14	
	012 *		Hi	1,000	120 (x2)	484	4	2.27	
			Med	870		435		1.33	
			Low	750		298		1.04	
	014		Hi	1,000	300	638	4	2.96	
			Med	870		467		2.14	
			Low	750		410		1.88	
	016		Hi	1,000	450	723	4	3.29	
			Med	870		610		2.77	
			Low	750		516		2.36	
	018		Hi	1,000	450	819	4	3.68	
			Med	870		719		3.29	
			Low	750		519		2.35	
	020		Hi	1,000	450	836	4	3.69	
			Med	870		729		3.27	
			Low	750		523		2.36	
42DE/DED	006	220~240/1/60	Hi	1,000	120	220	4	1.13	* Total motor amps and watts shown for units with 2 motors (size 012).
			Med	870		138		0.68	
			Low	750		108		0.52	
	008		Hi	1,000	120	241	4	1.21	
			Med	870		153		0.75	
			Low	750		110		0.57	
	010		Hi	1,000	200	432	6	2.02	
			Med	870		266		1.65	
			Low	750		207		1.14	
	012 *		Hi	1,000	120 (x2)	444	4	2.27	
			Med	870		361		1.33	
			Low	750		243		1.04	
	014		Hi	1,000	300	654	4	2.96	
			Med	870		436		2.14	
			Low	750		359		1.88	
	016		Hi	1,000	450	664	4	3.29	
			Med	870		534		2.77	
			Low	750		443		2.36	
	018		Hi	1,000	450	780	4	3.68	
			Med	870		662		3.29	
			Low	750		449		2.35	
	020		Hi	1,000	450	791	4	3.69	
			Med	870		677		3.27	
			Low	750		464		2.36	

Note: Dry Coil CFM at **50Pa**
Motor nameplate amps may vary.

42DC/DCD BLDC MOTOR DATA

Model	Unit Size	Power Supply (V / Ph / Hz)	Fan Speed	Fan Speed (rpm)	Nominal Power Output (W)	Power Input (W)	Running Amps	Remarks
42DC/DCD	006	220~240/1/60	Hi	900	120	161	1.54	* Total motor amps and watts shown for units with 2 motors (size 012).
			Med	820		96	0.96	
			Low	720		58	0.63	
	008		Hi	895	200	179	1.31	
			Med	749		105	0.86	
			Low	560		66	0.54	
	010		Hi	1,022	200	273	2.27	
			Med	940		182	1.62	
			Low	780		99	0.95	
	012 *		Hi	900	120 (x2)	282	2.22	
			Med	820		205	1.71	
			Low	720		133	1.14	
	014		Hi	960	300	356	2.92	
			Med	840		210	1.72	
			Low	800		189	1.54	
	016		Hi	940	450	404	3.34	
			Med	860		298	2.55	
			Low	800		223	1.96	
	018		Hi	960	450	477	4.01	
			Med	840		376	3.37	
			Low	800		224	1.83	
	020		Hi	970	450	509	3.82	
			Med	910		423	2.94	
			Low	800		239	1.87	

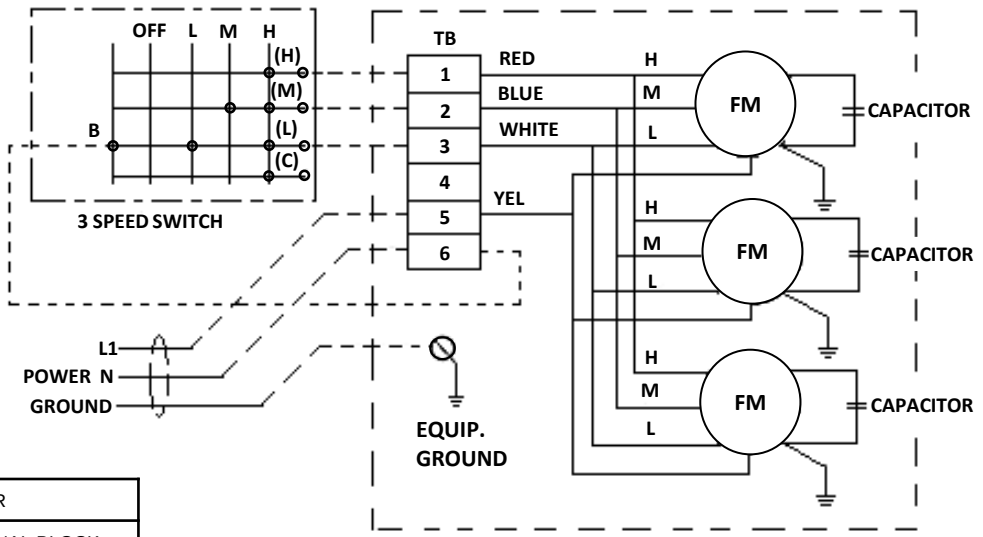
Note: Dry Coil CFM at **50Pa**
Motor nameplate amps may vary.

42DF/DFD MOTOR DATA

Model	Unit Size	Power Supply (V / Ph / Hz)	Fan Speed	Fan Speed (rpm)	Nominal Power Output (W)	Power Input (W)	Motor Pole	Running Amps	Remarks
42DF/DFD	006	220~240/1/60	Hi	1,000	80	155	6	0.72	* Total motor amps and watts shown for units with 2 motors (size 012 to 020).
			Med	870		115		0.54	
			Low	750		90		0.42	
	008		Hi	1,000	80	172	6	0.77	
			Med	870		126		0.57	
			Low	750		96		0.44	
	010		Hi	1,000	120	243	4	1.22	
			Med	870		164		0.82	
			Low	750		127		0.63	
	012 *		Hi	1,000	80 (x2)	308	6	1.39	
			Med	870		230		1.02	
			Low	750		180		0.81	
	014 *		Hi	1,000	80 (x2)	318	6	1.45	
			Med	870		235		1.06	
			Low	750		182		0.82	
	016 *		Hi	1,000	120 (x2)	460	4	2.27	
			Med	870		310		1.46	
			Low	750		243		1.15	
	018 *		Hi	1,000	120 (x2)	485	4	2.37	
			Med	865		331		1.55	
			Low	760		251		1.22	
	020 *		Hi	1,000	200 (x2)	871	6	3.92	
			Med	870		731		3.31	
			Low	750		501		2.27	

Note: Dry Coil CFM at **0 Pa**
Motor nameplate amps may vary.

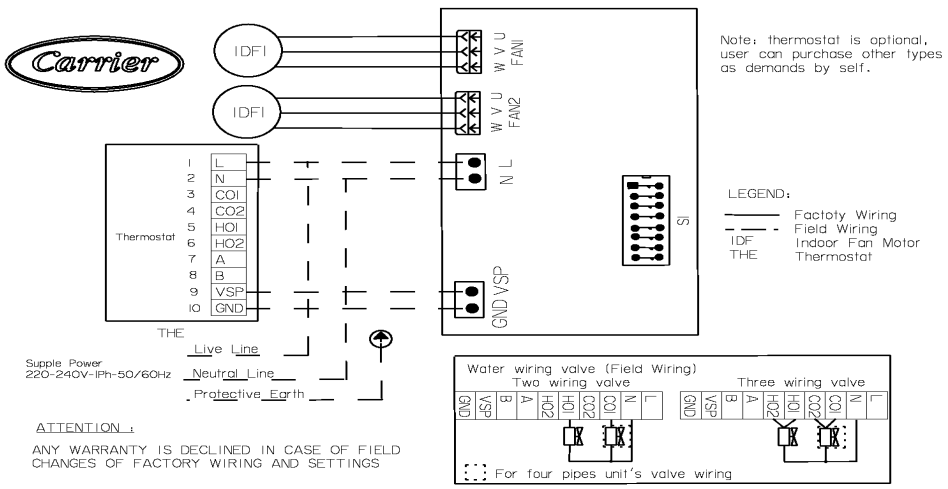
42CT-/CTL/CGT/CGD Series Wiring Diagram (AC Motor)



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 03 to 06 are single motor; 42CT-/CTL/08 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)



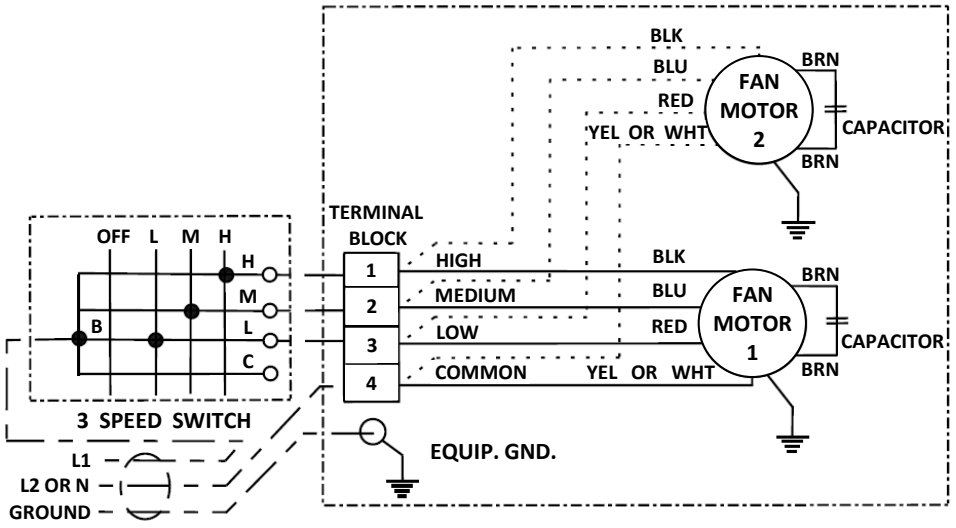
NOTE:

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.

Electrical Data (42CT 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	O N	OFF	OFF
	30Pa	920	O N	OFF	O N	OFF	OFF
	50Pa	1080	OFF	O N	O N	OFF	OFF
42CT004	12Pa	860	O N	O N	O N	OFF	OFF
	30Pa	970	OFF	OFF	OFF	O N	OFF
	50Pa	1120	O N	OFF	OFF	O N	OFF
42CT005	12Pa	910	OFF	O N	OFF	O N	OFF
	30Pa	1010	O N	O N	OFF	O N	OFF
	50Pa	1160	OFF	OFF	O N	O N	OFF
42CT006	12Pa	940	O N	OFF	O N	O N	OFF
	30Pa	1050	OFF	O N	O N	O N	OFF
	50Pa	1180	ON	O N	O N	O N	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

42DC/DCD/DE/DED 006~012 and 42DF/DFD 006~020 Wiring Diagram (AC Motor)

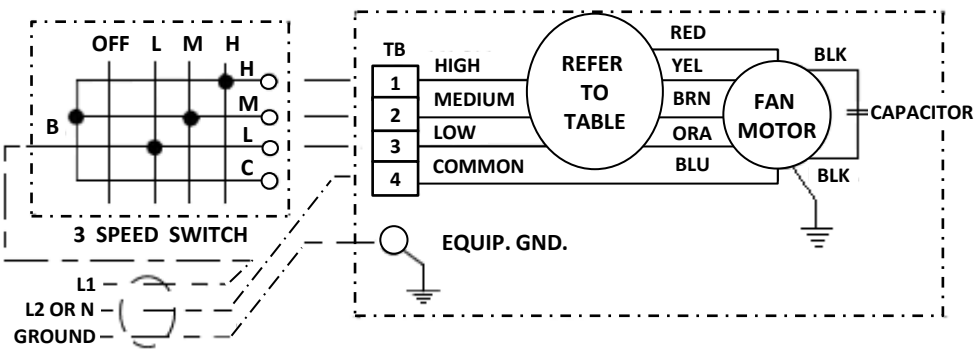


NOTE:
1. Caution – disconnect power before servicing.
2. Use 14 AWG, 75˚C MIN, copper conductor.
3. Motor(s) thermally protected.
4. Provide disconnect means & over current protection as required.
5. Unit 42DC/DCD 012 has 2 fan motors, the rest are single motor.
6. Unit 42DF/DFD 006-010 has 1 Fan motor, the rest are with 2 Fan motors.

LEGEND:

FIELD WIRING
FACTORY WIRING IF REQUIRED
FACTORY WIRING

42DC/DCD & 42DE/DED 014~020 Wiring Diagram (AC Motor)



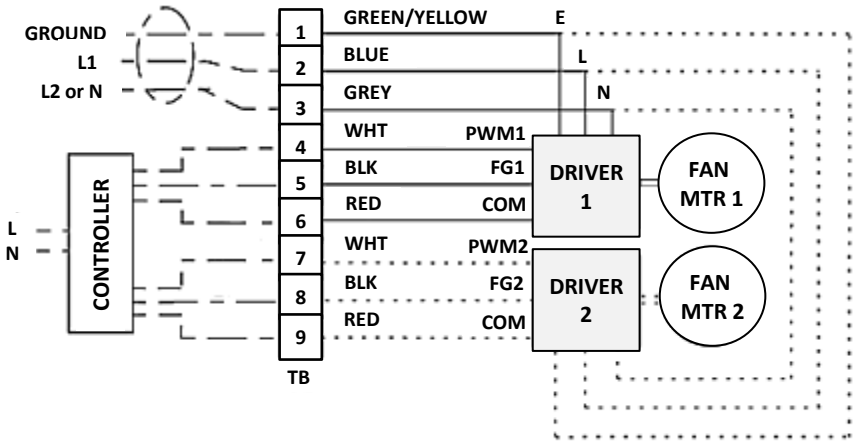
MODEL	FAN MOTOR SPEED USED / COLOR			
	HI	MED	LOW	UNUSED
42DC/DCD014 & 42DE/DED014	RED	BROWN	ORANGE	YELLOW
42DC/DCD016 & 42DE/DED016	YELLOW	BROWN	ORANGE	RED
42DC/DCD018 & 42DE/DED018	RED	YELLOW	ORANGE	BROWN
42DC/DCD020 & 42DE/DED020	RED	YELLOW	ORANGE	BROWN

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 & over current protection as required.

LEGEND:

FIELD WIRING
FACTORY WIRING IF REQUIRED
FACTORY WIRING

42DC/DCD006~020 Wiring Diagram (BLDC Motor)



LEGEND:

– —— – ——	FIELD WIRING
- - - - - - - - - - - -	FACTORY WIRING IF REQUIRED
————————	FACTORY WIRING

NOTE:

1. Caution – disconnect power before servicing, wait for at least 20 sec to allow current completely drain off from driver.
2. Use 14 AWG, 75˚C MIN, copper conductor.
3. Motor(s) thermally protected.
4. Provide disconnect means & over-current protection as required.
5. All models use 6 pole terminal block except 42DC-012 with 2 fan motors uses 9 pole terminal block.
6. Use cable wire "UL2464"specification to ensure transmission reliability for motor to FCU controller.

HVAC GUIDE SPECIFICATIONS
Size range: 300 to 2000 Nominal Cfm

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. Carrier fan coil units (60Hz models) are rated in accordance with AHRI 440 Standard.
B. Unit insulation to be MVSS 302 compliance and drain pan insulation to be UL94 compliance.
C. Carrier fan coil unit is completely insulated in fan section as well as coil section.
D. Unit cabinet material to be galvanized steel sheet complying to ASTM A653 standard.
E. Each coils are tested with Nitrogen (N2) under water at 400 psig while submerged in water.
F. 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 and entire return air plenum section (42CGT/CGD,42DC/DCD/42DE/DED and 42DF/DFD) 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 42CGT/CGD Horizontal Cabinet Unit for Exposed Installation

Unit shall be constructed of galvanized steel with morning mist baked enamel finish. Units are with stamped supply grille, removable bottom access panel with stamped return air grille, filter track and filter. The panel shall be fastened with slotted head, positive-locking quarter-turn fasteners. Units have 12.7mm PU insulation on chassis and 10mm PU insulation on coil top panel with 20kg/m³, and 6.0mm PE insulation 28.6kg/m³ density on the drain pan. Both supply and return grille are galvanized powder painted.

2.4 42DC/DCD Horizontal Base Unit with Plenum for Concealed Installation

Unit have a factory installed, galvanized steel plenum section and one-in permanent filter. The plenum shall be rear return, lined with 12.7mm PU insulation 20kg/m³ density and plenum box and 6.0mm PE insulation 28.6kg/m³ density on the drain pan, and include a removable bottom panel to provide access to the fan/motor assembly. Filter track with quick clip permanent aluminium filter and 18 mm supply collar for duct connection.

2.5 42DE/DED Horizontal Painted Cabinet Unit for Concealed Installation

Unit shall be double skin construction for ducted application with removable panels for access to internal components. The outer panel is constructed of galvanized steel with morning mist baked enamel finish and inner panel is with galvanized steel finish. Units have 12.7mm PU insulation 20kg/m³ density on chassis and plenum box and 6.0mm PE insulation 28.6kg/m³ density on the drain pan. Filter track with one-in permanent filter and 50 mm supply collar for duct connection.

2.6 42DF/DFD Horizontal Cabinet Unit for Exposed Installation

Unit shall be constructed of steel with morning mist baked enamel finish. Cabinet shall be lined with 12.7mm PU insulation 20kg/m³ density on chassis and plenum box and 6.0mm PE insulation 28.6kg/m³ density on the drain pan and have removable bottom access panel. Unit shall include hinged bar type return air grille on rear of unit with one-in permanent filter and integral double deflection supply grille. The return grille is made of aluminum and the supply grill is galvanized powder painted.

2.7 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.

2.8 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 (42CT/CTL/DC/DCD) and 9.5mm (42CGT/CGD/DE/DED/DF/DFD) 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 (N_2) 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.

2.9 Drain Pan

Galvanized drain pan covers entire length & width of coil till the headers. Drain pan is powder coated and insulated with ¼" closed cell PE insulation on the outside. The drain pan is with ¾" and $^{7}/_{8}$" male pipe thread connection for 42C ducted series and 42D ducted series furred in model respectively and $^{7}/_{8}$" PVC flexible pipe (Non-Threaded connection) for Cabinet model (42CGT/CGD/42DE/DED and 42DF/DFD).

3.0 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.

3.1 Electrical Requirements

Standard unit shall operate on 220/240v, single phase, 50Hz electric power.42C series internal wiring shall be in flexible metal conduit and 42D series internal wiring shall be in PVC sleeve wire covering.

3.2 Motor(s)

Fan motors shall be 3-speed, 220~240v, 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 thermal overload protection.

Model	Type	Unit Size	Motor Insulation Class	End Closure Type
42CT/CTL	AC	All	B	Open Drip Proof
42CT/CTL	ECM	All	B	
42CGT/CGD	AC	All	B	
42DC/DCD	ECM	All	E	Open
	AC	All	E	
42DE/DED	AC	All	E	
42DF/DFD	AC	All	E	

42CT/CTL ECM Motor & Thermostat

BLDC Motor

THT 420A

42DC/DCD ECM Motor & Thermostat

BLDC Motor

42CE0E0004 Thermostat

** BLDC Motor is available as option (42CT/CTL & 42DC/DCD), refer factory for BLDC motor data.*

3.3 Filter

42CGT/DC/DCD/DE/DF

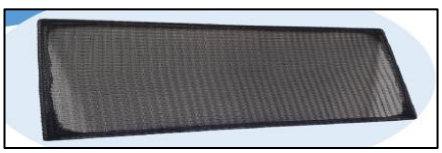
Permanent washable aluminum filters with 21mm thick and 70% gravimetric efficiency as per EN779 Standard.

Arrestance or Dust Spot Efficiency	US Ashrae 52.2	European Union EN779 Class	
AFI 65% - 70%	MERV 2	G2	65%≤Am≤85%

-Refer to factory for MERV 2, G2 efficiency of synthetic fiber filter option.
- Filter access by rear bottom removal.

42CT/CTL

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.

Carrier International Sdn. Bhd. (3385-T)
Lot 4, Jalan P/6, 43650 Bandar Baru Bangi,
Selangor Darul Ehsan, Malaysia.
Tel: 03-8913 7600

42CT&DD/EUROVENT	**NIL**
NOV	**2020**

42CT&DD/EUROVENT-K20-3PD SUPERSEDE 42CETT&DD/Eurovent-C19-2PD