



PRODUCT SELECTION DATA

Versatile unit meeting all buildingspecific constraints

Energy and ecodesign performance.

Improved occupant comfort, very low sound level

Innovative design ensuring easy installation and simplified maintenance

42N 42NC-42NR-42ND-42NI-42NU

Total cooling capacity 0,7– 8,7kW Nominal heating capacity 1,0– 9,15kW

Designed for heating and cooling, the new 42N is available in 2 models (cased or uncased).

The versatility of the new 42N, thanks to its different assembly options and range of accessories, means it can be adapted to any type of installation.

In Europe, it has become a benchmark solution for renovations of large office blocks and hotel chains and restoration of buildings, etc.

Modern aesthetic lines, excellent sound levels and optimised thermal performance. With its new 42N range, CARRIER offers a comfort solution which is both economical and quick to set up.



MORPHO CODES

| Range & Size | Coil efficency | motor type | Coil Type | Control | Valve | Electrical heater | Actuators | Supply Rect. flange | Sensors | Drain pump |
|---|--|---|-----------------------------|-----------------|---------------------|---|-------------------------------|---|--|---|
| 4 2 N C 1 | 2 | 9 | F | Α | G | Α | A | - | - | - |
| 1 2 3 4 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 2 mediu 3 standa | abinet necealed with with with Digit 6 ficency m efficency and efficency fficency ff | = 2 pipes = 2 pipes = 2 pipes = 4 pipes = 4 pipes | igit 8 - Left har - Right h | and nd | - | Digit - = No electric A = Electrical HIGH CAPACI B = Electrical HLOW CAPACI | al heater Heater TY Heater TY | for digit S B = Char (only for = V/W, d C = Air re sensor (o digit 9 = v - = Wi P = Wi vertica Q = W horizor | Digit 18 thout th drain pu I installatio igit 13 | ensor G, digit 9 Inge over t 8 = F/G, =H) |
| - = NO CONTROL | | git 9 | | | | | Sans ON/OFF 230V | ACTUATOR | | |
| K = NTC Controller A | QUASMART E | VOLUTIO | N®) withou | ut user interfa | ace | B = | ON/OFF 24V A | ACTUATOR (Ma | andatory di | git 9 = -) |
| L = WTC Lon without | out user interfa | ace | | | | | | RTIONAL 3-PO | INTS ACT | JATOR |
| M = WTC BACnet without user interface V = 33TZ Thermostat built-in for Cabinet version (fitted) (only 42NC | | | | | NC | (Mandatory digit 9 = - or K/L/M) D = 24V PROPORTIONAL 3-POINTS ACTUATOR (Mandatory digit 9 = -) | | | | ATOR |
| & 42NR) W = 33TZ Thermos | at wall version | n (not fitte | d) | | | | | ΓOR (Mandator | y digit 9 = - |) |
| T = 3-speed contro | | , , , , , , , , , | , | | | | | | | |
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- = No valve

G = 2 ways valve

H = 4 ways (3 ways valve with by-pass)

L = 2 ways Auto balancing valve without pressure port

T = 2 ways Auto balancing valve with pressure drop

Nota:
(1) Only available in Sizes 2 & 3

TECHNICAL DESCRIPTION

Casing

- Single-unit casing and side members in ABS
- Front/rear panel in galvanised steel with mounting holes for easy fixing.

Casing for cabinet model

Bi-material casing in two colours:

- Flange, side member and supply air grille in RAL 7035 grey ABS
- Front pressed metal panel painted RAL 9010 white and front mounted return air grille (42NR) in RAL 7035 grey
- Central access point for housing 33TZ thermostat.

Water coil

- High performance coil concept
- Coil casing in galvanised panels.
- Copper pipes, aluminium louvre or non-louvre fins, patented.
- Water coil tap on the left or right of the unit from the front of the supply air (to be specified when ordering).
- 2 or 4-pipe main coil fitted with ½" or ¾" rotary couplings with air purge and drain screw.
- Additional coil for 4 pipes fitted with .½" rotary couplings with 40 mm centre-to-centre distance.
- Nominal pressure of 16 bar (at 20°C)
- Test pressure 18 bar.
- Maximum hot water inlet temperature:
 - 4-pipe application: 90°C
 - 2-pipe application: 90°C
 - 2-pipe/2-wire application: 55°C (min. air flow: 200 m³/h)

Electric heater

- Single pipe 230V single phase 50/60 Hz electrical elements inserted into the aluminium housing.
- Two capillary tube temperature limiters with manual and automatic reset inserted in the aluminium housing.

Condensate drain pan

- Pan in ABS PC 10% fibreglass with M1 class reinforced EPS insulation (20 mm thick).
- Reinforced insulation for all climates, M1 class EPS panel (20 mm thick).
- Auxiliary drain pan in ABS.
- 22 mm external Ø raised condensate outlet.

Fan motor assembly

■ Fan(s)

Impeller(s) in ABS in split units for total accessibility of the different parts of the fan motor assembly.

160 mm impeller(s), with exclusive airfoil blades in self-extinguishable HB ABS.

■ EC motor

High energy efficiency motor enabling a reduction of up to 85% in electricity consumption.

- Brushless technology.
- Sealed type, tropicalised with protected shaft.
- Progressive control with 0-10V control signal.
- Internal normally closed series automatic overload protection on the windings.
- Mounted on anti-vibration mounts.
- Supply 230V±10%/1-Ph/50-60 Hz.

Note: The minimum voltage to start up the motor is 2V.

- Asynchronous motor
 - 5 factory-fitted wired speeds (connected and available at the terminal) for customised adjustment.
 - Sealed, tropicalised type, class F with protected shaft.
 - Permanent capacitor.
 - Ball bearings.
 - Automatic overload protection as standard on winding.
 - Resilient mounts.
 - 230V single-phase 50/60 Hz power supply, reduced consumption.
 - 3-speed asynchronous motor available on sizes 2 and 3.

TECHNICAL DESCRIPTION

Electrics box

- Box incorporated on the side of the base opposite the hydraulics.
- Fully encased in an enclosure in PP 20% Talc.
- Electrical connection terminal on DIN rail in compliance with EN 50022, 7,5 mm deep.
- Wire clamps for customer connection.

Air filter

- Flexible filter medium made of regenerative polyester fibre, on rigid frame.
- Efficiency class EN 779: G3.
- Fire rating: M1.
- Mounted on pivoting runners for easy maintenance

Packaging

 Delivered in individual boxes on pallets protected by stretch wrap film.

Controls

- Electronic thermostat: 33TZ (built-in thermostat for vertical model with or without casing or available in wall mounted for all models) & 33TA/B/C/D (availble from ERCD in wall mounted only).
- Networked electronic range (CCN): NTC.
- Networked electronic range (LON or BacNET): WTC.

Factory-fitted options

- Condensate drain pump.
- Rectangular supply air sleeve for direct distribution in soffit.
- Supply and return air plenum: in line for model 42NI and lateral U for model 42NU for sizes 2 to 4.
- Hydraulic coil with blades protected for use in harmful/ corrosive atmospheres (coastal locations, or areas close to chemical industries).
- 3-speed EC motor for subsequent integration (on-site not factory-fitted) of a 33TZ thermostat or for operation with a thermostat or a 3-speed control.

Accessories supplied separately

- Support feet or base
- Return air grille between feet
- Rear skirting support and rear painted panel
- Single- or dual-deflection diffusion grille
- Supply air plenum in kit for sizes 1 to 6 diameter 200 mm or 160 mm for sizes 1 to 5
- Resilients mounts (lot of 4 pcs)

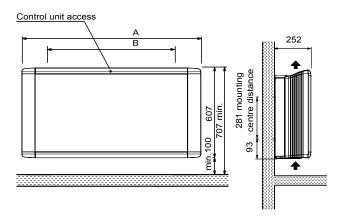
Note: refer to the technical manual and the instruction manual for more information.

ASSEMBLY AND DIMENSIONS – CABINET MODEL (VERTICAL APPLICATION)

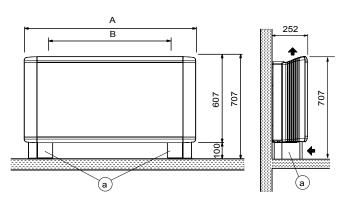
42NR: Unit with return on front

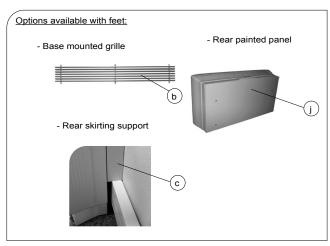
Control unit access В 607

42NC: Basic unit with return underneath



42NC + feet: Basic unit with feet





Accessories for assembly configurations (supplied separately)

- Support feet
 Aluminium return air grille between feet b:
- Painted rear skirting support Rear painted panel RAL 7035

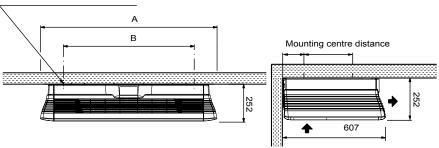
| Sizes | А | B mounting centre distance | Weight (kg) ⁽¹⁾ |
|-------|------|-------------------------------|----------------------------|
| 1 | 840 | 505 | 20 |
| 2 | 1000 | 665 | 23 |
| 3 | 1200 | 865 | 28 |
| 4 | 1400 | 1065 | 34 |
| 5 | 1600 | 1265 | 39 |
| 6 | 1800 | 1465 | 44 |

⁽¹⁾ Weight of the unit in 4-pipe version (without valves)

ASSEMBLY AND DIMENSIONS – CABINET MODEL (HORIZONTAL APPLICATION)

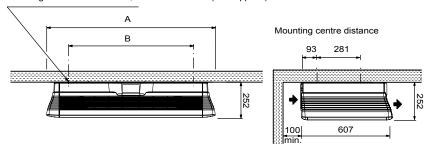
42NR: Unit with return on front

Mounting: 4 sealed M6 shafts, nuts and washers (not supplied)



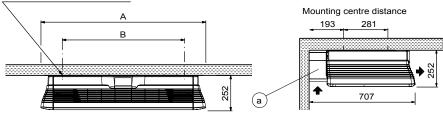
42NC: Basic unit

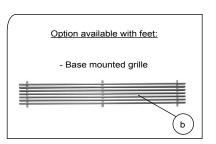
Mounting: 4 sealed M6 shafts, nuts and washers (not supplied)



42NC + feet: Basic unit with feet

Mounting: 4 sealed M6 shafts, nuts and washers (not supplied)





Accessories for assembly configurations (supplied separately)

- a: Support feet
- b: Aluminium internal return air grille between feet

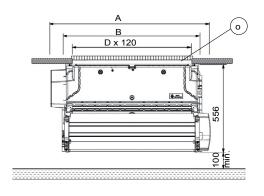
Note: with feet the condensate drain pump must be used.

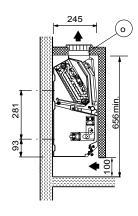
| Sizes | А | B mounting centre distance | Weight (kg) ⁽¹⁾ |
|-------|------|-------------------------------|----------------------------|
| 1 | 840 | 505 | 20 |
| 2 | 1000 | 665 | 23 |
| 3 | 1200 | 865 | 28 |
| 4 | 1400 | 1065 | 34 |
| 5 | 1600 | 1265 | 39 |
| 6 | 1800 | 1465 | 44 |

⁽¹⁾ Weight of heaviest unit in 4-pipe configuration

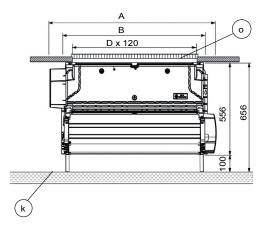
ASSEMBLY AND DIMENSIONS – CONCEALED MODEL (VERTICAL APPLICATION)

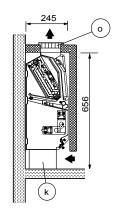
42ND: Basic unit with bottom-mounted return





42ND + support: Basic unit with support base







Accessories for assembly configurations (supplied separately)

- k: Support base
- o: Aluminium single deflection diffusion or return air grille with sealing frame (without hatch).

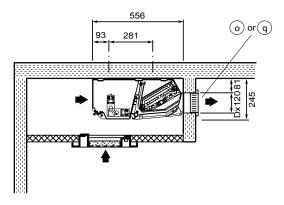
Note: this grille can be used for both return and supply air.

| Sizes | А | B mounting centre distance | D grille space | Weight (kg) ⁽¹⁾ |
|-------|------|-------------------------------|-------------------|----------------------------|
| 1 | 652 | 505 | 355 | 15 |
| 2 | 812 | 665 | 515 | 18 |
| 3 | 1012 | 865 | 715 | 22 |
| 4 | 1212 | 1065 | 915 | 28 |
| 5 | 1412 | 1265 | 1115 | 32 |
| 6 | 1612 | 1465 | 1315 | 36 |

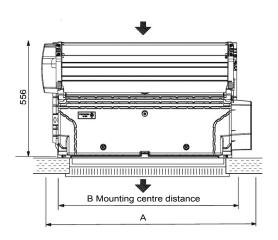
(1) Weight of the unit in 4-pipe version (without valves)

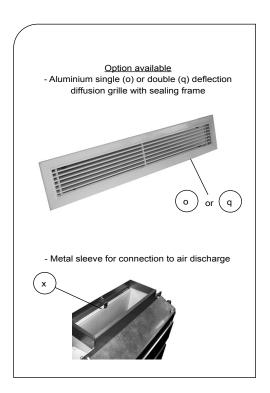
ASSEMBLY AND DIMENSIONS - HORIZONTAL CONCEALED MODEL

42ND: Unit with return on front



View from beneath





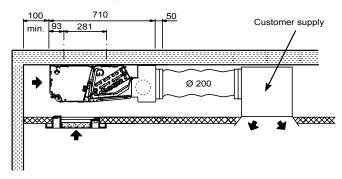
Accessories for assembly configurations (supplied separately) o: Aluminium single deflection diffusion grille with sealing frame. q: Aluminium double deflection diffusion grille with sealing frame x: Metal sleeve connecting rectangular sleeve to supply air

| Size | A | B mounting centre distance | D grille space | Weight (kg) ⁽¹⁾ |
|------|------|-------------------------------|-------------------|----------------------------|
| 1 | 652 | 505 | 355 | 15 |
| 2 | 812 | 665 | 515 | 18 |
| 3 | 1012 | 865 | 715 | 22 |
| 4 | 1212 | 1065 | 915 | 28 |
| 5 | 1412 | 1265 | 1115 | 32 |
| 6 | 1612 | 1465 | 1315 | 36 |

(1) Weight of the unit in 4-pipe version (without valves)

ASSEMBLY AND DIMENSIONS - HORIZONTAL CONCEALED MODEL

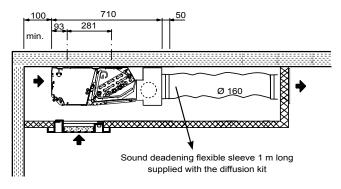
42ND + kit supply plenum Ø 200 mm:



| Size | Number of collars | Ø of collars |
|------|-------------------|--------------|
| 1 | 1 | 200 |
| 2 | 1 | 200 |
| 3 | 2 | 200 |
| 4 | 3 | 200 |
| 5 | 3 | 200 |
| 6 | 3 | 200 |

Supply air plenum delivered not fitted. Available for sizes 1 to 6

42ND + kit supply plenum Ø 160 mm:

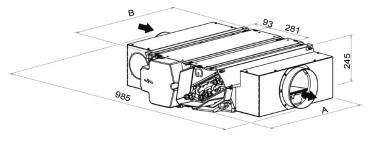


| Size | Number of collars | Ø of collars |
|------|-------------------|--------------|
| 1 | 1 | 160 |
| 2 | 1 | 160 |
| 3 | 2 | 160 |
| 4 | 3 | 160 |
| 5 | 3 | 160 |

Supply air plenum delivered not fitted. Available for sizes 1 to 5

42NI:

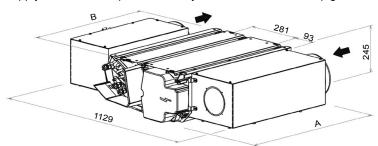
Supply and return air plenum factory-fitted with \varnothing 200 mm spigots available for sizes 2 to 4



| Size | Α | В | Number of collars |
|------|------|------|-------------------|
| 2 | 760 | 665 | 1 |
| 3 | 960 | 865 | 2 |
| 4 | 1160 | 1065 | 3 |

42NU:

Supply and return air plenum factory-fitted with Ø 200 mm spigots available for sizes 2 to 4



| Size | Α | В | Number of collars |
|------|------|------|-------------------|
| 2 | 770 | 665 | 1 |
| 3 | 970 | 865 | 1 |
| 4 | 1170 | 1065 | 1 |

PERFORMANCE - 2-PIPES SYSTEM

Eurovent conditions

Cooling mode: water temperature: 7/12 °C, inlet air temperature: 27 °C - 19 °C (WB)

Heating operation: water temperature: 45/40 °C, inlet air temperature: 20 °C

| | AC EC motor | | Air Flow | | ng cap. V | Heating | Sound | | tric ption W | Electric | heater |
|--------------------------|----------------|----------------|---------------------|-------|--------------|---------------|-------------------|-------------|-----------------|----------------------|-----------------------|
| Sizes | Motor speed | Voltage (V) | (m ³ /h) | Total | Sensible | capacity W | power LW dB(A) | AC Motor | EC Motor | Low capacity W | High capacity W |
| 4011 445510 | V4 | 4,6 | 265 | 1 040 | 990 | 1 530 | 46 | 24 | 10 | | |
| 42N-115F/G 42N-119F/G | V3 | 3,9 | 225 | 880 | 830 | 1 360 | 41 | 19 | 6 | 300 | 600 |
| 12.11 1.101.70 | V1 | 2,8 | 165 | 710 | 660 | 1 030 | 33 | 12 | 5 | | |
| 4011 4055/0 | V4 | 5 | 265 | 1 390 | 1 130 | 1 880 | 46 | 25 | 11 | | |
| 42N-135F/G 42N-139F/G | V3 | 4,2 | 225 | 1 200 | 970 | 1 600 | 42 | 19 | 8 | 300 | 600 |
| 1211 100170 | V1 | 2,9 | 165 | 850 | 670 | 1 160 | 36 | 11 | 5 | | |
| | V4 | 4,8 | 415 | 1 760 | 1 690 | 2 500 | 50 | 42 | 15 | | |
| 42N-215F/G 42N-219F/G | V3 | 4,3 | 370 | 1 620 | 1 540 | 2 330 | 47 | 40 | 12 | 500 | 1000 |
| 42IV 21017G | V1 | 2,7 | 230 | 1 150 | 1 050 | 1 550 | 36 | 33 | 5 | | |
| | V4 | 4,8 | 410 | 2 140 | 1 800 | 2 690 | 50 | 42 | 15 | | |
| 42N-235F/G 42N-239F/G | V3 | 4,3 | 365 | 1 910 | 1 640 | 2 430 | 46 | 40 | 12 | 500 | 1000 |
| 42IN-200170 | V1 | 2,7 | 225 | 1 320 | 1 120 | 1 670 | 35 | 33 | 5 | | |
| | V3 | - | 788 | 4 170 | 3 310 | 4 980 | 65 | 98 | - | | |
| 42N-236F/G | V2 | - | 532 | 3 190 | 2 440 | 3 650 | 57 | 82 | - | 500 | 1000 |
| | V1 | - | 367 | 2 420 | 1 800 | 2 670 | 47 | 59 | - | | |
| | V4 | 4,8 | 410 | 2 420 | 1 960 | 2 960 | 50 | 42 | 15 | | |
| 42N-245F/G 42N-249F/G | V3 | 4,3 | 365 | 2 190 | 1 770 | 2 650 | 47 | 40 | 12 | | |
| 4211-243170 | V1 | 2,7 | 225 | 1 480 | 1 150 | 1 740 | 36 | 33 | 5 | | |
| | V4 | 5,3 | 645 | 2 720 | 2 150 | 3 410 | 53 | 53 | 26 | | 1600 |
| 42N-315F/G 42N-319F/G | V3 | 4,4 | 535 | 2 390 | 1 870 | 2 960 | 47 | 47 | 17 | 800 | |
| 42N-319F/G | V1 | 2,2 | 230 | 1 380 | 1 030 | 1 670 | 29 | 36 | 4 | | |
| | V4 | 5,3 | 645 | 3 160 | 2 620 | 3 840 | 53 | 53 | 26 | | |
| 42N-325F/G 42N-329F/G | V3 | 4,4 | 535 | 2 760 | 2 250 | 3 180 | 47 | 47 | 17 | | |
| 42N-329F/G | V1 | 2,2 | 230 | 1 300 | 1 080 | 1 680 | 29 | 36 | 4 | | |
| | V4 | 5,3 | 620 | 3 510 | 2 700 | 4 280 | 53 | 53 | 26 | | |
| 42N-335F/G 42N-339F/G | V3 | 4,4 | 505 | 3 050 | 2 340 | 3 590 | 47 | 47 | 17 | 800 | 1600 |
| 42N-339F/G | V1 | 2,2 | 220 | 1 370 | 1 060 | 1 690 | 29 | 36 | 4 | | |
| | V3 | - | 1062 | 5 210 | 4 230 | 6 410 | 64 | 117 | - | | |
| 42N-336F/G | V2 | - | 777 | 4 250 | 3 350 | 5 040 | 57 | 91 | - | 800 | 1600 |
| | V1 | - | 558 | 3 360 | 2 580 | 3 840 | 49 | 66 | - | | |
| | V4 | 6,8 | 1030 | 5 750 | 4 480 | 6 310 | 60 | 102 | 59 | | |
| 42N-435F/G 42N-439F/G | V3 | 5,4 | 805 | 4 740 | 3 590 | 5 150 | 55 | 87 | 31 | 1200 | 2400 |
| 42N-438F/G | V1 | 3,2 | 445 | 2 910 | 2 160 | 3 170 | 41 | 68 | 10 | | |
| | V4 | 7,1 | 1120 | 6 150 | 4 840 | 6 950 | 60 | 94 | 60 | | |
| 42N-535F/G | V3 | 5,8 | 910 | 5 350 | 4 100 | 5 740 | 55 | 80 | 35 | 1600 3200 | 3200 |
| 42N-539F/G | V1 | 3,6 | 535 | 3 440 | 2 620 | 3 660 | 42 | 64 | 11 | | 3200 |
| | V4 | 7,8 | 1350 | 7 990 | 5 970 | 8 590 | 63 | 122 | 87 | | |
| 42N-645F/G | V3 | 7,1 | 1210 | 7 420 | 5 550 | 7 870 | 61 | 118 | 65 | | |
| 42N-649F/G | V1 | 4,4 | 730 | 5 070 | 3 770 | 5 230 | 49 | 105 | 18 | | |

Important: the air supply temperature should not exceed 65°C (CARRIER recommendation). CARRIER participates in the ECP program for Fan Coil Units:

The certified values are: Input voltage for variable speed units only, Total cooling Capacity, Sensible Capacity, Total heating capacity, Water Pressure Drop, Electric Motor Consumption, Lw (inlet+radiated) and Lw (outlet) for ducted units, Lw (overall) for non-ducted units and Air Flow Rate and External Static Pressure for ducted units only.

PERFORMANCE – 4 PIPES SYSTEM

Eurovent conditions

Cooling operation: water temperature: 7/12°C, inlet air temperature: 27°C - 19°C (WB)

Heating operation: water temperature: 65/55°C, inlet air temperature: 20°C

| Sizes | AC motor | EC motor Voltage | Air Flow | | ng cap. V | Heating capacity | Sound power LW | Electric con | sumption W |
|--------------------------|-------------|---------------------|----------|-------|--------------|------------------|-------------------|--------------|------------|
| 0.200 | Motor speed | (V) | (m³/h) | Total | Sensible | W | dB(A) | AC Motor | EC Motor |
| | V4 | 5,0 | 260 | 1 390 | 1 130 | 1 130 | 46 | 25 | 11 |
| 42N-135C/D 42N-139C/D | V3 | 4,2 | 215 | 1 200 | 970 | 1 030 | 42 | 19 | 8 |
| 4211 1000/2 | V1 | 2,9 | 140 | 850 | 670 | 850 | 36 | 11 | 5 |
| | V4 | 4,8 | 410 | 2 130 | 1 850 | 1 860 | 50 | 42 | 15 |
| 42N-235C/D 42N-239C/D | V3 | 4,3 | 365 | 1 940 | 1 660 | 1 760 | 46 | 40 | 12 |
| 42IV 2000/B | V1 | 2,7 | 225 | 1 320 | 1 120 | 1 390 | 35 | 33 | 5 |
| | V3 | - | 788 | 3 900 | 3 200 | 2 500 | 65 | 98 | - |
| 42N-236C/D | V2 | - | 532 | 3 000 | 2 300 | 2 000 | 57 | 82 | - |
| | V1 | - | 367 | 2 200 | 1 700 | 1 400 | 47 | 59 | - |
| | V4 | 4,8 | 410 | 1 910 | 1 740 | 3 420 | 50 | 42 | 15 |
| 42N-245C/D 42N-249C/D | V3 | 4,3 | 365 | 1 720 | 1 560 | 3 250 | 46 | 40 | 12 |
| 42IV-243C/D | V1 | 2,7 | 225 | 1 200 | 1 090 | 2 470 | 35 | 33 | 5 |
| | V4 | 5,3 | 620 | 3 310 | 2 690 | 2 980 | 53 | 53 | 26 |
| 42N-335C/D 42N-339C/D | V3 | 4,4 | 505 | 2 790 | 2 280 | 2 650 | 47 | 47 | 17 |
| 42IV-333C/D | V1 | 2,2 | 220 | 1 200 | 1 040 | 1 540 | 29 | 36 | 4 |
| | V3 | - | 1062 | 5 210 | 4 000 | 6 100 | 64 | 117 | - |
| 42N-336C/D | V2 | - | 777 | 4 700 | 3 700 | 5 200 | 57 | 91 | - |
| | V1 | - | 558 | 3 800 | 3 100 | 4 200 | 49 | 66 | - |
| | V4 | 5,3 | 620 | 2 930 | 2 390 | 4 730 | 53 | 53 | 26 |
| 42N-345C/D 42N-349C/D | V3 | 4,4 | 505 | 2 550 | 2 040 | 4 150 | 47 | 47 | 17 |
| 42N-349C/D | V1 | 2,2 | 220 | 1 180 | 960 | 2 130 | 29 | 36 | 4 |
| | V4 | 6,8 | 1030 | 5 480 | 4 300 | 4 110 | 60 | 102 | 59 |
| 42N-435C/D 42N-439C/D | V3 | 5,4 | 805 | 4 650 | 3 570 | 3 600 | 55 | 87 | 31 |
| 42N-439C/D | V1 | 3,2 | 445 | 2 940 | 2 190 | 2 610 | 41 | 68 | 10 |
| | V4 | 6,8 | 1030 | 4 910 | 4 080 | 5 720 | 60 | 102 | 59 |
| 42N-445C/D 42N-449C/D | V3 | 5,4 | 805 | 4 150 | 3 380 | 4 990 | 55 | 87 | 31 |
| 42N-443C/D | V1 | 3,2 | 445 | 2 650 | 2 070 | 3 600 | 41 | 68 | 10 |
| | V4 | 7,1 | 1120 | 5 880 | 4 810 | 5 770 | 60 | 94 | 60 |
| 42N-535C/D 42N-539C/D | V3 | 5,8 | 910 | 4 980 | 4 070 | 5 090 | 55 | 80 | 35 |
| 7214-009O/D | V1 | 3,6 | 535 | 3 330 | 2 590 | 3 790 | 42 | 64 | 11 |
| | V4 | 7,8 | 1250 | 8 150 | 6 040 | 9 150 | 64 | 120 | 82 |
| 42N-635C/D 42N-639C/D | V3 | 7,1 | 1120 | 7 460 | 5 550 | 8 160 | 62 | 117 | 61 |
| 72N-033C/D | V1 | 4,5 | 680 | 4 960 | 3 670 | 6 270 | 50 | 105 | 19 |

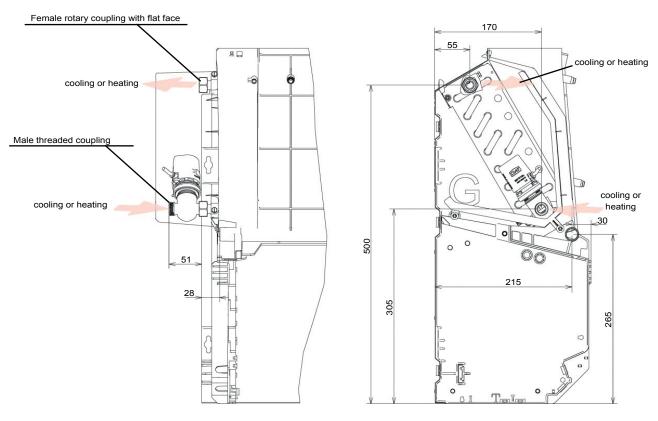
CARRIER participates in the ECP program for Fan Coil Units:

The certified values are: Input voltage for variable speed units only, Total cooling Capacity, Sensible Capacity, Total heating capacity, Water Pressure Drop, Electric Motor Consumption, Lw (inlet+radiated) and Lw (outlet) for ducted units, Lw (overall) for non-ducted units and Air Flow Rate and External Static Pressure for ducted units only.

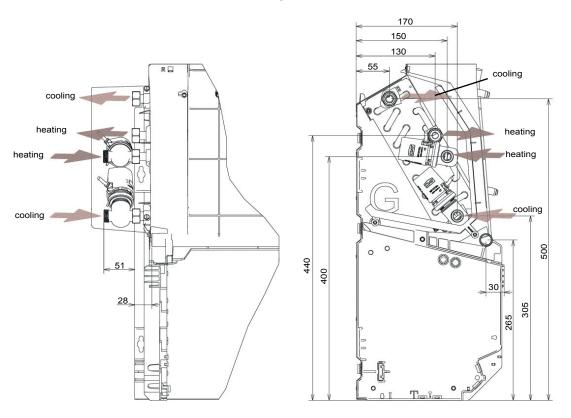
HYDRAULIC CONNECTIONS WITH FITTED VALVES

With assembly of 2-way valves

2 PIPES



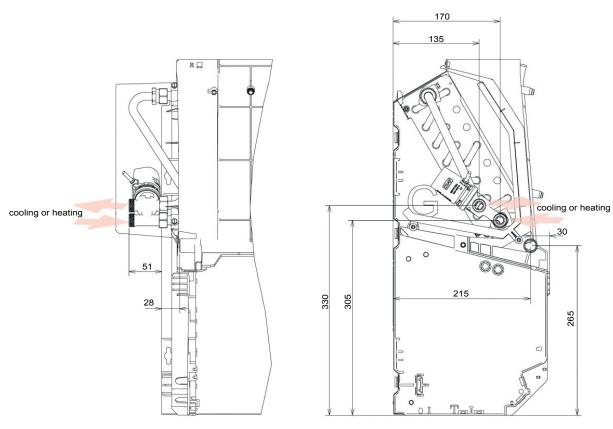
4 PIPES



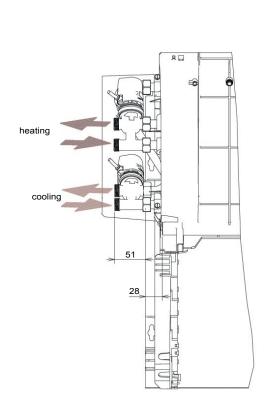
HYDRAULIC CONNECTIONS WITH FITTED VALVES

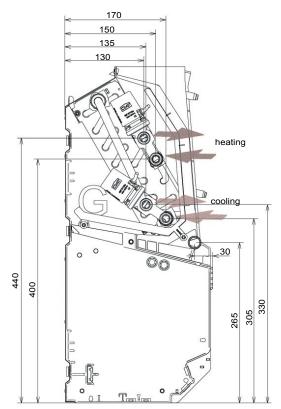
With 3-way valves + bypass fitted (centre to centre distance 40 mm)

2 PIPES



4 PIPES





TECHNICAL CHARACTERISTICS

Coil capacity (litres)

| | | 115/119 | 135/139 | 215/219 | 235/239 | 245/249 | 315/319 | 325/329 | 335/339 | 435/439 | 535/539 | 645/649 |
|---------------|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2-pipe system | Hot or cold water coil | 0,23 | 0,33 | 0,30 | 0,45 | 0,53 | 0,40 | 0,47 | 0,63 | 0,84 | 1,03 | 1,33 |

| | | 135/139 | 235/239 | 245/249 | 335/339 | 345/349 | 435/439 | 445/449 | 535/539 | 635/639 |
|---------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 4-pipe system | Cold water coil | 0,33 | 0,45 | 0,36 | 0,60 | 0,52 | 0,71 | 0,72 | 1,11 | 1,32 |
| | Hot water coil | 0,075 | 0,098 | 0,19 | 0,13 | 0,21 | 0,22 | 0,24 | 0,274 | 0,47 |

Coil connection diameters

- Coil connection type: rotary couplings with flat face;
- Valve connection type: install flush fit male threaded unions.

| | | 115/119 | 135/139 | 215/219 | 235/239 | 245/249 | 315/319 | 325/329 | 335/339 | 435/439 | 535/539 | 645/649 |
|---------------|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2-pipe system | Hot or cold water coil | G1/2" | G3/4" | G3/4" |

| | | 135/139 | 235/239 | 245/249 | 335/339 | 345/349 | 435/439 | 445/449 | 535/539 | 635/639 |
|---------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 4-pipe system | Cold water coil | G1/2" | G1/2" | G1/2" | G1/2" | G1/2" | G1/2" | G3/4" | G3/4" | G3/4" |
| | Hot water coil | G1/2" |

Motor specifications

| | Motor speed | | AC N | lotor A | synchr | onous (| 230V/5 | 0Hz) | | EC Motor Brushless (230V/50Hz) | | | | | |
|----------------------------------|----------------|-------------|---------------------|---------|-----------------------------|---------|-------------|-------------|-------------|---------------------------------|---------------------|-----------------------------|-------------|------|-------------|
| | | 115/ 135 | 215/ 235/ 245 | 236 | 315/ 325/ 335/ 345 | 336 | 435/ 445 | 535/ 545 | 635/ 645 | 119/ 139 | 219/ 239/ 249 | 319/ 329/ 339/ 349 | 439/ 449 | 539 | 639/ 649 |
| | V5 | 33 | 58 | - | 88 | - | 106 | 108 | 135 | 11 | 25 | 32 | 77 | 90 | 100 |
| | V4 | 31 | 41 | - | 67 | - | 93 | 94 | 114 | 9 | 15 | 22 | 63 | 80 | 75 |
| Power input during operation (W) | V3 | 29 | 36 | 98 | 52 | 117 | 80 | 79 | 99 | 6 | 11 | 13 | 36 | 42 | 55 |
| operation (11) | V2 | 27 | 31 | 82 | 42 | 91 | 72 | 72 | 88 | 5 | 8 | 7 | 21 | 26 | 32 |
| | V1 | 26 | 27 | 59 | 35 | 66 | 63 | 63 | 77 | 4 | 5 | 3 | 11 | 13 | 16 |
| | V5 | 0,14 | 0,25 | - | 0,38 | - | 0,46 | 0,47 | 0,59 | 0,11 | 0,2 | 0,29 | 0,62 | 0,71 | 0,74 |
| | V4 | 0,13 | 0,18 | - | 0,29 | - | 0,4 | 0,41 | 0,5 | 0,09 | 0,13 | 0,2 | 50 | 0,62 | 0,67 |
| Max. absorbed current (A) | V3 | 0,13 | 0,16 | 0,42 | 0,23 | 0,5 | 0,35 | 0,34 | 0,43 | 0,07 | 0,11 | 0,13 | 0,3 | 0,35 | 0,44 |
| current (A) | V2 | 0,12 | 0,13 | 0,35 | 0,18 | 0,39 | 0,31 | 0,31 | 0,38 | 0,06 | 0,09 | 0,08 | 0,19 | 0,21 | 0,27 |
| | V1 | 0,11 | 0,12 | 0,26 | 0,15 | 0,28 | 0,27 | 0,27 | 0,33 | 0,06 | 0,06 | 0,06 | 0,11 | 0,13 | 0,16 |

Note: Specifications determined for 230V +/-10% - 50Hz supply.

For operation at 60 Hz, the power input and rotation speed values are generally higher. Motor operating range:

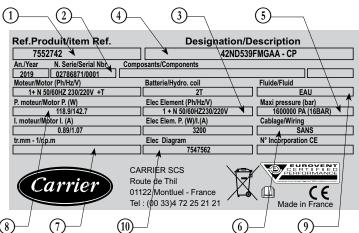
minimum return T°C: 0°C, maximum return T°: 40°C

TECHNICAL CHARACTERISTICS

Unit information plate

The information plate shows all the information needed to identify the unit and its configuration. This plate is located on the condensate pan, on the electrical connection side.

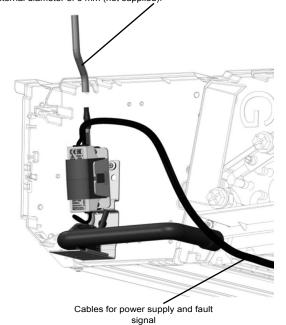
- (1) Code
- (2) Serial number
- (3) Description of the unit
- (4) Nominal motor output
- (5) Motor rotation speed
- 6 Coil type
- (7) Wiring diagram reference
- 8 Motor speed wiring
- Maximum operating pressure
- (10) Electrical heater specifications (if fitted)



CONDENSATE DRAIN PUMP

Technical characteristics

The pump outlet must be connected to the wastewater pipe by a flexible tube with an internal diameter of 6 mm (not supplied).



| Maximum flow rate | 10,4 l/h |
|--|--|
| Maximum discharge height | 7 m (flow rate = 4 l/h) |
| Maximum pressure | 10 m (flow rate = 0 l/h) |
| Sound level at 1 m in accordance with EN ISO 3744 and 4871 (Measurement taken at LNE, pump in water, outside of application) | 20,2 dBA |
| Power supply | 230 V +10%/-15% - 50/60 Hz - 19 W |
| Electrical insulation class | Class 1 |
| Detection levels | ON: 14,7 mm, OFF: 10,7 mm, AL: 17 mm |
| Safety switch | NF: 5 A resistance – 250 V Contacts made from AgNI 90/10, gold-plated. |
| Thermal protection (overheating) | 70°C (automatic restart) |
| Operating cycle (duty factor) | 100% |
| Protection (according to NF EN 60529) | IP64 |
| Safety standard | CE |
| RoHS directive | Compliant |
| WEEE directive | Compliant |

Pump performance: Water flow rate in litres per hour (-15 %/+20 %)

| Discharge | Horizontal length of the discharge pipe | | | | | | | | | | |
|-----------|---|-----------|-----------|-----------|--|--|--|--|--|--|--|
| height | 5 metres | 10 metres | 20 metres | 30 metres | | | | | | | |
| 1 metre | 10,4 | 9,1 | 8,3 | 7,3 | | | | | | | |
| 2 metres | 8,5 | 7,8 | 7 | 6,4 | | | | | | | |
| 3 metres | 7,9 | 7,1 | 6,3 | 5,8 | | | | | | | |
| 4 metres | 7 | 6 | 5,3 | 4,9 | | | | | | | |

Operating limit:

Drainage: → 6 mm int. flexible pipe,

→ 8,8 mm end piece. This accessory must be paired with a valve control to allow the upper safety limit to control the valve's closure (stop condensate).

Condensate flow rate (I/h) =

Total capacity - Sensible capacity (W) 680

OPTIONS (FACTORY FITTED)

| 42NC/42NR | 42ND/42NI/42NU | Figures | Digit number | Description |
|-----------|----------------|---------|--------------|---|
| • | • | A | 14 | Condensate drain pump fitted to unit with high safety device. |
| | • | | 13 | Metal sleeve for connection to air discharge |

FACTORY ACCESSORIES (DELIVERED SEPARATELY)

| Figures | Description | | SIZE 1 | SIZE 2 | SIZE 3 | SIZE 4 | SIZE 5 | SIZE 6 | | | |
|---------|---|--------------|---------|---------|---------|---------|---------|---------|--|--|--|
| | Support feet for cased model | Code | 7242933 | | | | | | | | |
| | Internal return air grille between feet | Code | 7242935 | 7242936 | 7242937 | 7242938 | 7242939 | 7242940 | | | |
| | Rear skirting support in RAL7035 light grey, 55 mm thick (for 70 mm skirting) | Code | 7242926 | 7242927 | 7242928 | 7242929 | 7242930 | 7242931 | | | |
| | Rear painted panel in RAL7035 light grey for positioning the unit by a window | Code | 7262703 | 7262704 | 7262705 | 7262706 | 7262707 | 7262708 | | | |
| | Support base for Concealed unit | Code | 7242932 | | | | | | | | |
| | Single deflection diffusion grille with sealing frame for vertical and horizontal Concealed models | Code | 7256897 | 7256898 | 7256899 | 7256900 | 7256901 | 7256902 | | | |
| | Double deflection diffusion grille with sealing frame for horizontal Concealed models | Code | 7242942 | 7242943 | 7242944 | 7242945 | 7242946 | 7242947 | | | |
| 000 | Supply plenum with Spigots Ø 200 mm | Code | 7512282 | 7512284 | 7512286 | 7512288 | 7242995 | 7242996 | | | |
| 000 | Supply air plenum with Spigots Ø 160 mm | Code | 7512283 | 7512285 | 7512287 | 7512289 | 7243490 | | | | |
| | Resilient mounts supplied separately (4 per unit) | Code 0219453 | | | | | | | | | |

SPECIFICATION

The Unit will conform to the standards and regulations in force. They will be manufactured under ISO 9001 quality assurance and in compliance with environmental certification <u>ISO 14001</u>. All comfort units, as well as being Eurovent certified, must bear the CE mark.

The **bi-material and two-colour casing** will be of a <u>modern</u> and <u>refined design</u> to blend in with all types of interior. Its robust packaged design must enable it to be dismantled easily and quickly. No plastic cover or moving parts will weaken the robustness of the unit.

The base will have mounting holes on the metal rear panel to facilitate fixing to walls and ceilings. Under no circumstances will it be constructed using materials liable to wear out.

The air filter, minimum G3 type in accordance with EN 779, with M1 fire resistance and fitted on removable runners, must be easily accessible and removable.

Air supply will be via a <u>COANDA effect grille</u> in order to ensure compliance with comfort standard ISO 7730. The fins must not under any circumstances be directed or able to be directed towards the occupied space.

The water coil will be made of copper pipes and continuous fins in seamed aluminium. To ensure the best energy efficiency possible, different variants will be available thus limiting surplus power. the hydraulic connections will be fitted with female rotary couplings with flat faces to facilitate the fitting of regulation valves. The PN16 coils will be equipped with air bleed and draining valves. They must be tested with a minimum test pressure of 16 bar.

The main condensate pan, in class V0 non-corrodible smooth ABS-type material, will as standard have <u>reinforced insulation</u> of at least 20 mm for use in all climates. An auxiliary pan will be available to collect condensate from the regulation valves. All <u>metal trays will be prohibited</u>. Condensate draining must be of the <u>raised type</u>, <u>raised by at least 30 mm</u> to facilitate the gravity drain.

The fan motor assembly is equipped with an asynchronous motor or an EC motor with a 230V (50/60 Hz) closed and tropicalised power supply, with a protected shaft and internal automatic overload protection as standard on the winding. The impellers will be, with a diameter of 160 mm to ensure high acoustic and air flow performance. The fan motor assembly will be sized to meet the requirements of installations needing up to 50 Pa of operating pressure.

The impellers of the unit will be in ABS, and designed for optimum performance. They will be of two-piece type therefore easily removed, enabling the maintenance operator to replace only the defective part if necessary (motor or impeller).

- The asynchronous motor has 5 speeds connected to the electrics box of the unit for optimised selection on site.
- **The EC motor** is a low-consumption motor which enables a reduction of up to 80% in electricity consumption. It has gradual operation by 0-10V control signal.

An electrics box that is enclosed and of large dimensions, fitted with a DIN rail, will be able to accommodate and protect all the control components from dust. A cable clamp will ensure the electrical wires are secure. The electrics box will be large enough to contain all the components of a complete regulation loop.

The technical design of the unit should allow it <u>to be installed</u> <u>horizontally or vertically without modification</u>.

The **control** will be factory-fitted to the units to ensure correct operation

Eco-design should be a permanent consideration at every stage of the unit's conception process. Recyclable parts must be stamped with the current logo to facilitate sorting and identification at end of life. The unit as a whole must be <u>at least</u> 85 % recyclable. The unit must be easy to dismantle at end of life.

Guarantees

The manufacturer guarantees the equipment's performance, and will provide the documents attesting to the equipment's compliance with the attached specifications and with the STANDARDS, in particular the heating and cooling capacity (total and sensible), the air flow, the motor power input, the efficiency of the filters and the sound power spectrum. Using a simulation tool, the manufacturer of the comfort units must be able to give the relevant comfort indices or the values in compliance with the standard EN ISO 7730. The unit's instruction manual must be in the language used in the country of installation. The manufacturer's technical specifications and the equipment's sound pressure must be given in the documents to be appended to the submission.



