Environmental Management System Approval

Carrier is participating in the Eurovent Certification Programme. Products are as listed in the Eurovent Directory of Certified Products.

42N

Nominal cooling capacity 1.4-7.3 kW
Nominal heating capacity 2.0-9.8 kW

The 42N product range combines aesthetic and attractive design with versatility to satisfy any application need, from large office buildings or hotels to shops and residential applications.
This new product series is characterised by concentrated, innovative technology, unusual for a simple product like a fan coil. The result is a product that is easy to select and install.
It is available in seven sizes, with an air flow range from 90 l/s to 440 l/s (190 to 930 cfm) at high fan speed.
Two types of fans are available, a tangential fan for sizes 16 to 50, ideal for applications where low noise level is the most important selection parameter, and a centrifugal fan, available across the range, for applications where static pressure and air flow are the main requirements.
The two fan versions are available in any combination, from cabinet models for floor, wall or under-ceiling installation to models without cabinet for furred-in installation.

Features

- With its sleek styling the 42N blends in perfectly with any room décor. The pre-painted steel panels are protected by a high-quality paint finish.
- The flexibility of the unit drain pan allows the same unit to be installed in a vertical or horizontal position without the need for a dedicated accessory.
- Integrated, factory-mounted cooling and heating coil for four-pipe applications.
- The 42N units have been designed for extremely quiet operation with sound (pressure and power) levels that set new standards in the industry. The tangential fan with its unique uneven spacing between blades (up to size 33) ensures almost noiseless operation (up to 2 dB(A) less compared to the previous version). Particular attention has been given to the low fan speed, typically used at night.
- **Pleated filter:** The standard filter for the Idrofan series is a complete new concept: the filtration surface is pleated, resulting in a 87% larger surface than a conventional filter with the following additional advantages:
  - Lower air flow per unit area, resulting in lower pressure drop and reduced noise level
  - The average interval between filter cleaning is three times longer, compared to standard filters.
  - The filter material is polypropylene and the grade is EU1
- **Filter position:** In the Idrofan series the filter is located at the bottom of the unit. Cleaning is easy: once the two screws at the either side of the filter have been removed, the filter frame can be pulled down and the filter can be removed easily. Re-assembly is just as easy, reversing the sequence.
  The filter and filter position within the unit are designed to prevent air bypass around the filter, to ensure that the air is always filtered and clean.
- **Ease of installation:** The Idrofan series fan coils are extremely easy to install. For horizontal under-ceiling installations with cabinet or ducted ceiling-void applications the installer's task has been significantly simplified.

Robust hooks allow easy and fast attachment of the unit; the installer only has to place it in a horizontal position. No calculations are needed to determine the correct slope for proper condensate water drainage.
For concealed ducted applications, both air intake and outlet can be mounted on the unit before installing them together as a single piece in the false ceiling.
Even the installation of floor-mounted units is now easier - the new hook dimensions and positions help fixing the units firmly against the wall.
All these technical improvements minimise installation time and improve the long-term reliability, avoiding small mistakes that could impair the reliability of installed units over time.

- **New range of controls:** The Idrofan fan coil offers a complete new range of controls.
- The new controls have an elegant square shape with two coaxial knobs to set room temperature and fan speed, as desired by the customer.
  Wall-mounted controls are easily and discreetly integrated in any room environment.
  Several tests assure easy installation.
  The number of controls available has been reduced to three, with more and improved features, and easy selection according to application needs:
  - On/Off with three fan speeds
  - Electronic for two-pipe applications
  - Electronic for four-pipe or two-pipe applications with electric heaters

Features:

- **Set range:** From 10°C to 30°C with the possibility to limit the temperature in public buildings where low energy consumption is a key requirement via a dip-switch inside the control. The following limitations can be set:
  - Cooling mode: minimum set point allowed - 23°C
  - Heating mode: maximum set point allowed - 20°C
- **Auto fan:** The fan speed is automatically set by the control; when the room temperature is far from the set point, high fan speed is selected. As the room temperature approaches the desired value, the fan speed decreases until the minimum speed is reached.
- **Automatic changeover:** Automatic changeover from the cooling to heating mode, based on the water temperature, ensures that the ideal room temperature is maintained.
- **Remote changeover:** Automatic changeover from cooling to heating mode, based on the remote signal from the monitoring system.
- **Warm and cold draft protection:** This feature stops the fan when the set-point condition is satisfied and the water temperature is too low or too high, ensuring that air that is too cold or too warm does not cause discomfort to the room occupants.
- **Air sensor:** This is unit-mounted – if the control is wall-mounted, a second air sensor located in the control can be used for fine tuning of the desired room temperature.
- **Frost protection:** This function ensures that the room temperature is kept above a minimum level. If the unit is in off mode, and the room temperature drops below 7°C, frost protection is enabled and the unit operates in heating mode until temperature rises above 9°C. At this point the unit is switched off again.
- **Energy saving:** This feature allows saving energy when the room is unoccupied, without the need to switch off the unit.
  When the energy-saving button is pressed, the actual set-point will be modified as follows, without changing the position of the set-point selection knob:
  - Cooling mode: Set point raised by 4°C
  - Heating mode: Set point lowered by 4°C
  The unit will resume normal operation, once the energy-saving button is pressed again.

- **Aquasmart versions:** The Idrofan series is fully compatible with Aquasmart systems.
- **Valve options:** The valve options are easy to order; there are only two options for factory installation. As valve drain pans, both vertical and horizontal, are included in the unit, the decision can be taken quickly on-site, and the appropriate drain pan mounted in the unit. This reduces the complexity of the offer and lowers inventory levels.
- **Drain pan and insulation:** The drain pan incorporates innovative technological solutions:
  - Horizontal installation: the units can be installed perfectly horizontal - the new drain pan structure takes care of the slope, so that the installer avoids complex and time-consuming computations to correctly install the units.
  - Insulation: in most units the new drain pan design allows much tighter contact between drain pan and insulation, reinforced by metal clips to keep the insulation in place. This improves reliability and prevents water dripping from the unit.
  - The drain pan for the whole range is made of plastic, i.e. more robust and easier and safer to service.
- **Feet mounting:** The installation of feet has been greatly simplified. Just one clip is needed to fix the feet to the units. For this reason and for better reliability during transport, the feet are sold as options - supplied with the unit from the factory (ordering codes Z or P in the 4th digit). They are included with the unit, but not mounted.
- **Reversibility:** If the unit received is not as required, the coil and the control box can be switched on site from left to right or vice versa (except units equipped with valves - since the piping is optimised for that side, the valve package must be replaced by a valve accessory package).
- **Simplified accessory range:** The number of accessories has been reduced to simplify selection and reduce the inventory level. The accessories offered remain unchanged to satisfy any application needs, but the number of codes has been greatly reduced:
  - Electric heater part numbers have been reduced from 24 to 8. Each accessory can be mounted left or right (decision on site) and sometimes fits more than one size.
  - Valves can now be installed left or right (decision on site) and just four part numbers satisfy any application of three-way valves for two and four-pipe applications.
  - To keep the offer as simple as possible, drain pan kits are offered separately. With optional, factory-mounted valves both drain pans are included to permit the on-site decision if the unit is floor-mounted or horizontally mounted.
- The units comply with international standards IEC 335-1 and Eurovent 6/1.

Accessories

- Unit feet
- Feet covers
- Motorised valve packages
- Controls
- Electric heaters
- Fresh air damper
- Discharge duct
- Aesthetic rear cover panel
- Grille for ceiling installation
- Return air grille
- Auxiliary horizontal/vertical drain pan for accessory valve kit
- Grouping kit
- 4-pipe coil
- Heating coil
- High capacity coil
- Photocatalytic filters

Physical data

42N		16	25	33	43	50	60	75
Unit with tangential fan								
Air flow	l/s	90	131	158	227	242	-	-
Total cooling capacity	kW	1.43	2.18	3.14	4.04	4.42	-	-
Sensible cooling capacity	kW	1.11	1.82	2.52	3.28	3.55	-	-
Water flow rate (cooling)	l/s	0.07	0.10	0.15	0.20	0.21	-	-
	l/h	246	375	540	695	760	-	-
Water pressure drop (cooling)	kPa	18	12	10	18	20	-	-
Heating capacity	kW	2.02	3.05	4.3	5.79	6.24	-	-
Electric heater (low/high)	kW	0.5/1	1/2	1/2	1.5/3	1.5/3	-	-
Unit with centrifugal fan								
Air flow	l/s	92	167	190	239	282	339	438
Total cooling capacity	kW	1.44	2.43	3.53	4.17	4.94	5.87	7.26
Sensible cooling capacity	kW	1.12	2.04	2.82	3.31	3.93	4.88	6.14
Water flow rate (cooling)	l/s	0.07	0.12	0.17	0.20	0.24	0.28	0.35
	l/h	248	418	607	717	850	1010	1249
Water pressure drop (cooling)	kPa	17	14	13	20	23	19	18
Heating capacity	kW	2.02	3.66	5	6	6.84	7.85	9.8
Electric heater (low/high)	kW	0.5/1	1/2	1/2	1.5/3	1.5/3	1.5/3	1.5/3

Based on Eurovent conditions:
Cooling mode: entering air temperature 27°C db/19°C wb, entering/leaving water temperature 7/12°C, high fan speed.
Heating mode (2-pipe coil): entering air temperature 20°C, entering water temperature 50°C, high fan speed, water flow rate as cooling mode.

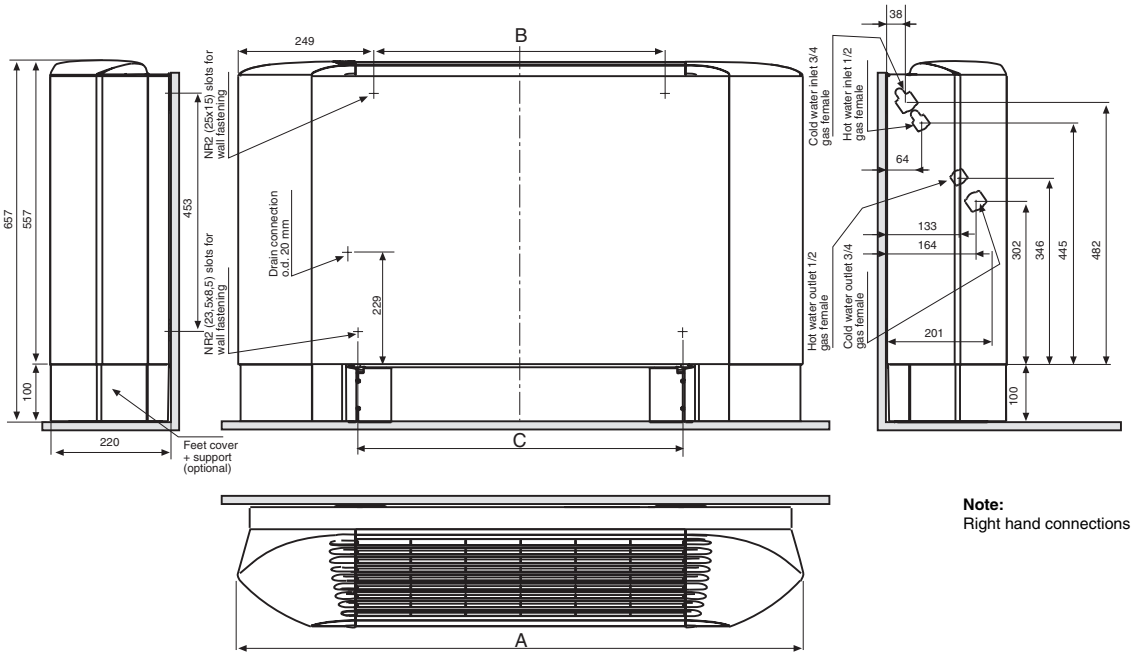
Electrical data

42N		16	25	33	43	50	60	75
Current drawn								
Centrifugal fan	A	0.15	0.35	0.38	0.33	0.43	0.51	0.72
Tangential fan		0.14	0.15	0.19	0.25	0.31	-	-
Power input								
Centrifugal fan	W	32	78	85	75	98	113	164
Tangential fan		32	32	44	57	69	-	-

Three-speed electric motors with permanent capacitor, class B

Dimensions, vertical units with cabinet

42N 16-25-33-43-50-60-75



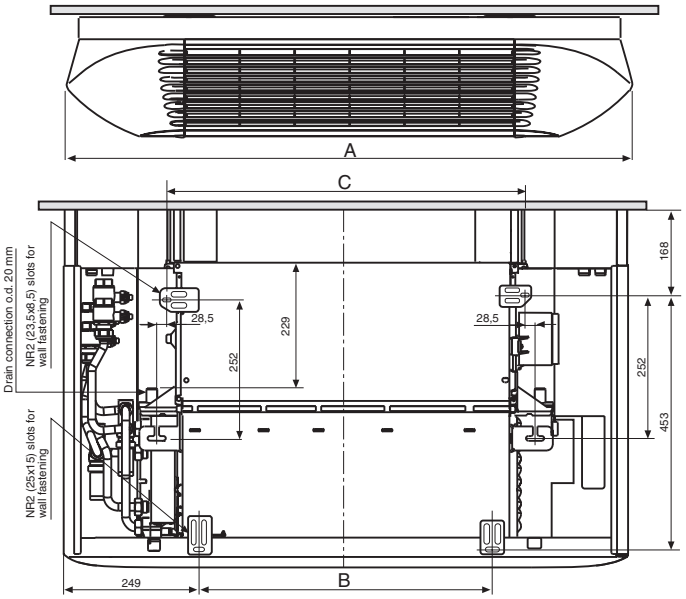
Note:
Right hand connections are opposite

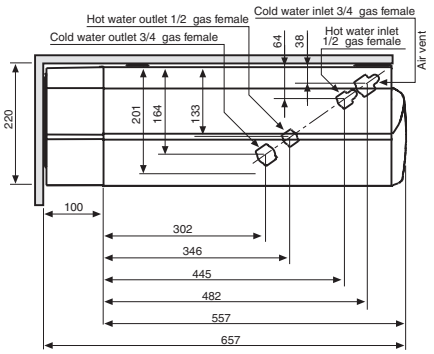
All dimensions are in mm.

42N		16	25	33	43	50	60	75
A		830	1030	1030	1230	1230	1430	1430
B		332	532	532	732	732	932	932
C		432	632	632	832	832	1032	1032
Dimensions Filter size	mm	189 x 391	189 x 591	189 x 591	189 x 790	189 x 790	189 x 990	189 x 990
Weight	kg	17	19	19	22	22	35	35

Dimensions, horizontal units with cabinet

42N 16-25-33-43-50-60-75





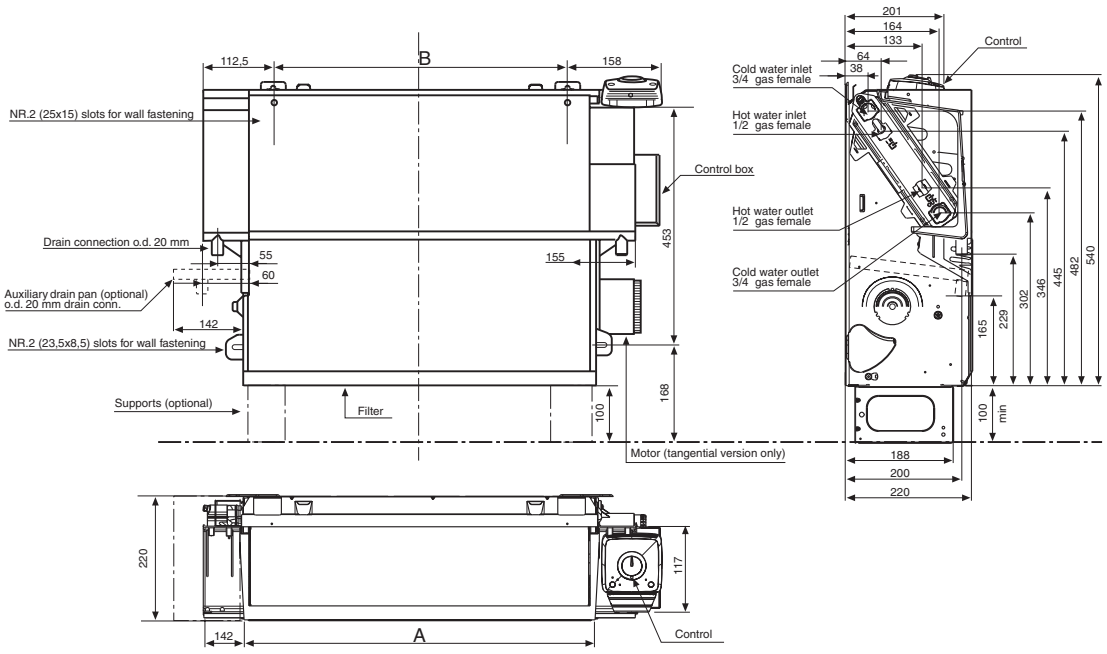
Note:
Right hand connections are opposite

All dimensions are in mm.

42N		16	25	33	43	50	60	75
A		830	1030	1030	1230	1230	1430	1430
B		332	532	532	732	732	932	932
C		432	632	632	832	832	1032	1032
Dimensions Filter size	mm	189 x 391	189 x 591	189 x 591	189 x 790	189 x 790	189 x 990	189 x 990
Weight	kg	17	19	19	22	22	35	35

Dimensions, vertical concealed units

42N 16-25-33-43-50-60-75

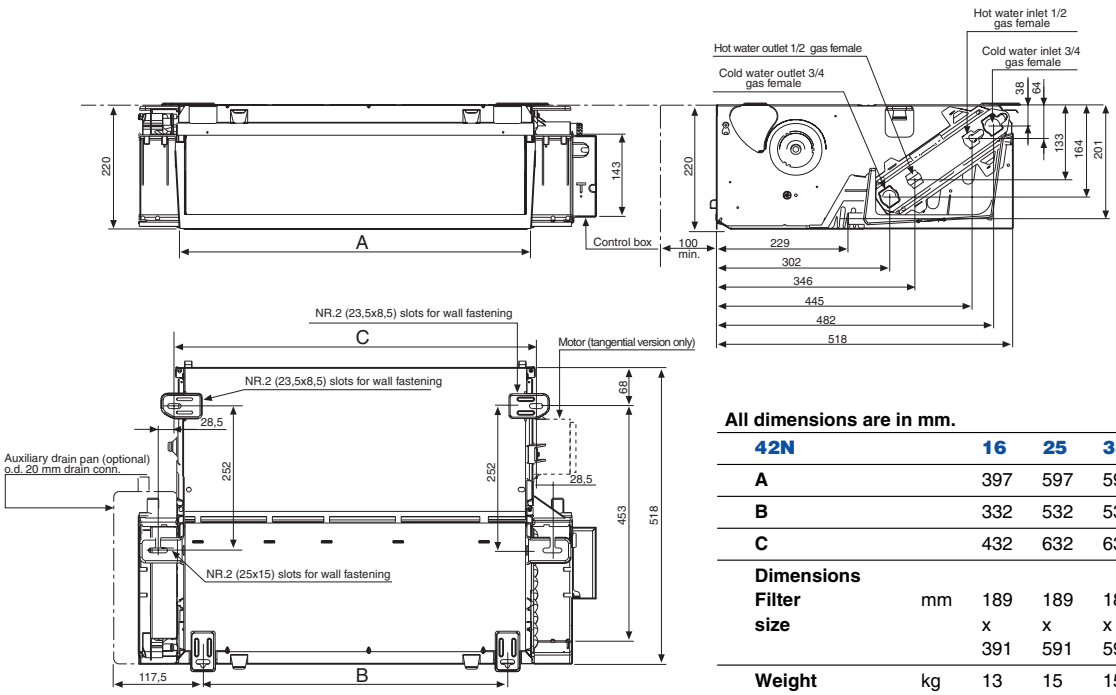


All dimensions are in mm.

42N		16	25	33	43	50	60	75
A		397	597	597	797	797	997	997
B		332	532	532	732	732	932	932
C		432	632	632	832	832	1032	1032
Dimensions Filter size	mm	189 x 391	189 x 591	189 x 591	189 x 790	189 x 790	189 x 990	189 x 990
Weight	kg	13	15	15	16	16	28	28

Dimensions, horizontal concealed units

42N 16-25-33-43-50-60-75

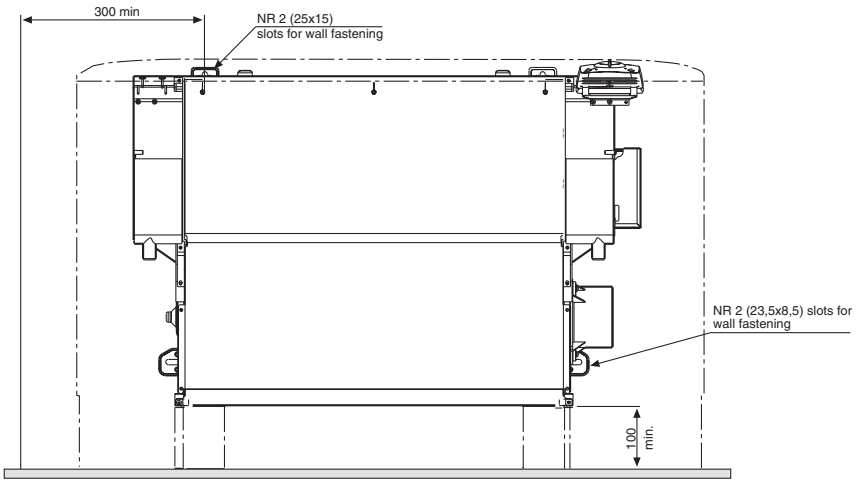


All dimensions are in mm.

42N		16	25	33	43	50	60	75
A		397	597	597	797	797	997	997
B		332	532	532	732	732	932	932
C		432	632	632	832	832	1032	1032
Dimensions Filter size	mm	189 x 391	189 x 591	189 x 591	189 x 790	189 x 790	189 x 990	189 x 990
Weight	kg	13	15	15	16	16	28	28

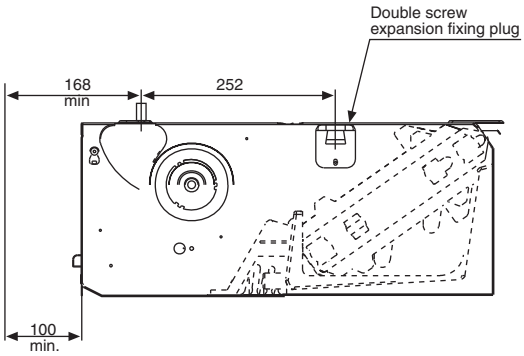
Typical mounting arrangements

Vertical wall-mounted units

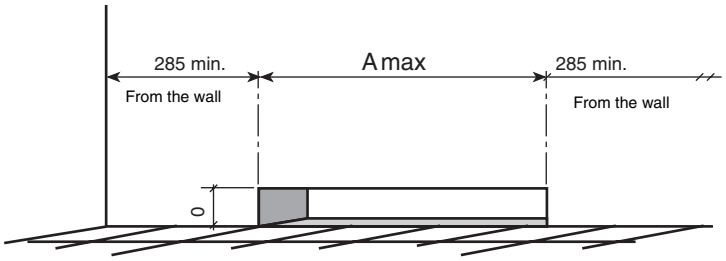


All dimensions are in mm.

Horizontal ceiling-mounted units



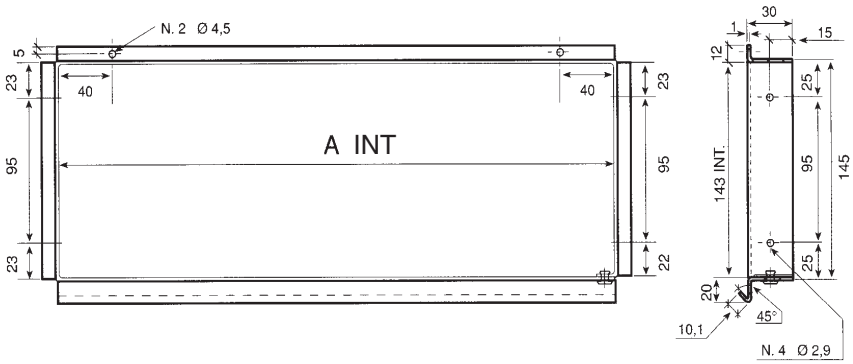
Construction work for optional fresh air damper mounting



All dimensions are in mm.

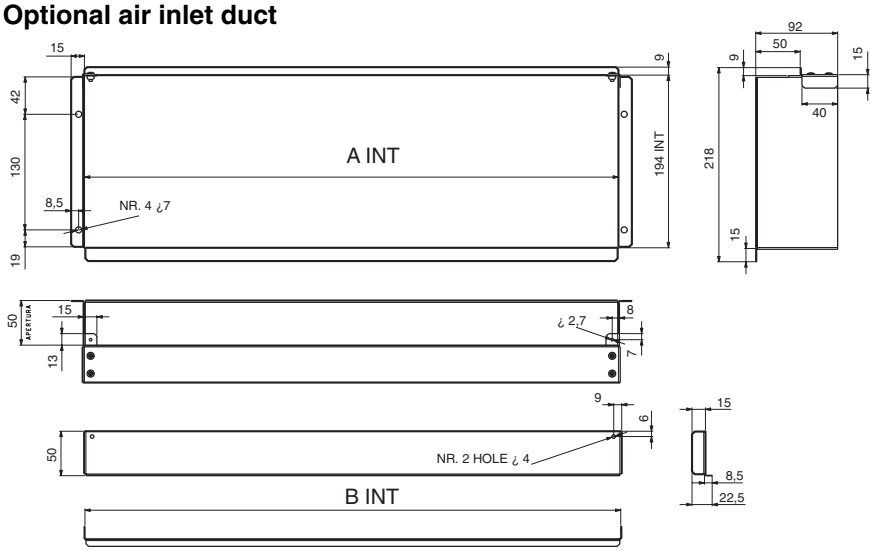
42N	A
16	267
23	467
33	467
43	667
50	667
60	867
75	867

Optional air discharge duct



42N	A
16	397
25	597
33	597
43	797
50	797
60	997
75	997

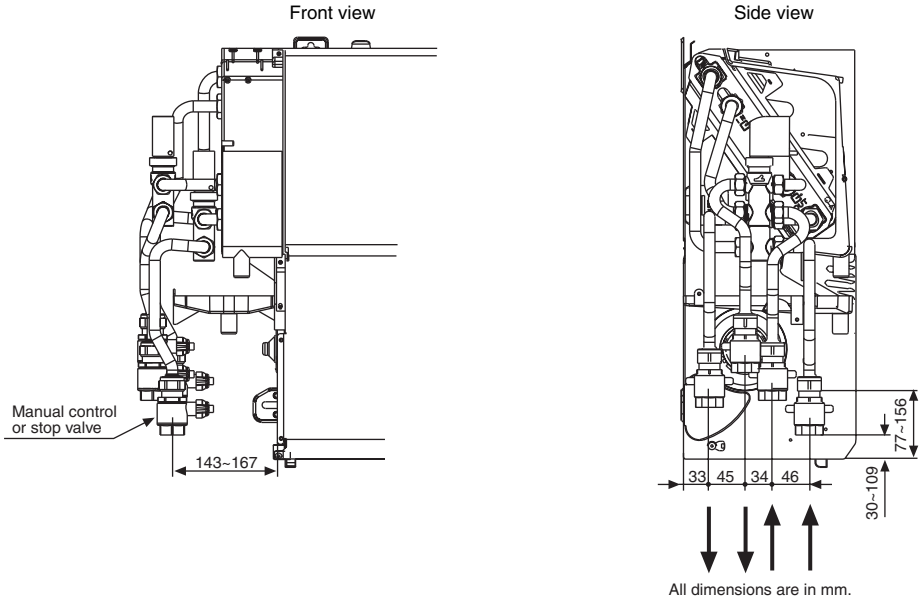
Optional air inlet duct



42N	A	B
16	400	402
25	600	602
33	600	602
43	800	802
50	800	802
60	1000	1002
75	1000	1002

All dimensions are in mm.

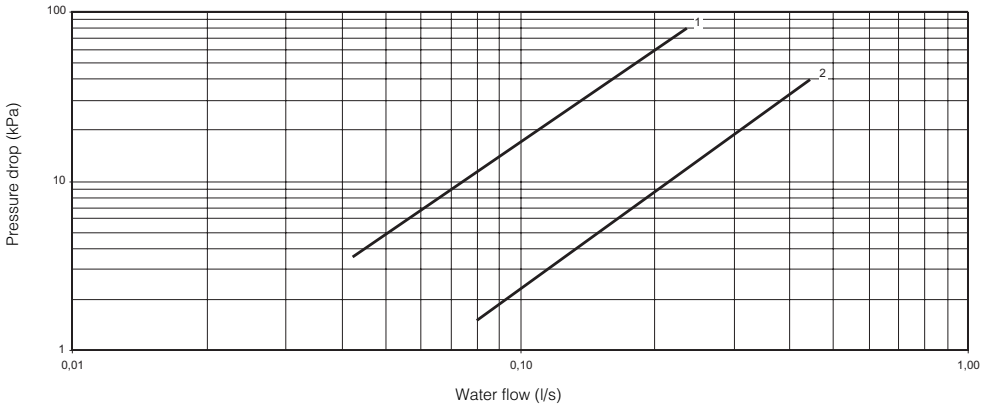
Valve kit



Coil connections

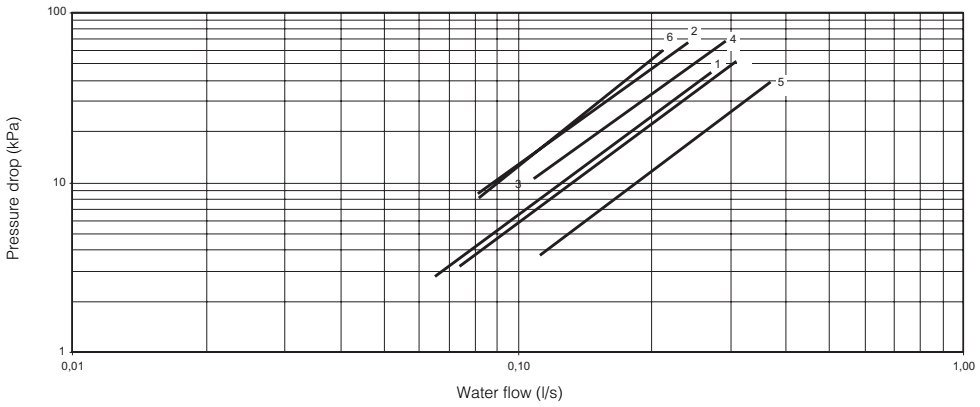
Cooling	
Standard coil and 4-pipe coil	
42N 16-33	1/2" gas female
42N 43-75	3/4" gas female
Heating	
4-pipe coil	
42N 16-75	1/2" gas female

2-way valve pressure drop



Legend:
1. 1/2" valve, open (size 16-25-33)
2. 3/4" valve, open (size 43-50-60-75)

3-way valve pressure drop



Legend:
1 1/2" open (42N 16-25-33)
2 1/2" closed (42N 16-25-33)
3 3/4" open (42N 43-50-60-75)
4 3/4" closed (42N 43-50-60-75)
5 1/2" hot open (4-pipe coil, all sizes)
6 1/2" hot closed (4-pipe coil, all sizes)

Pressure drop values are based on a water temperature of 20°C.
For other water temperature values use a correction factor of 0.4% per °C

Cooling capacities, two-pipe coil (with fan at high speed)

Tangential fan

EWT °C	ΔT K	EAT °C wb	EAT °C db	42N 16 Total	42N 16 Sensible	42N 25 Total	42N 25 Sensible	42N 33 Total	42N 33 Sensible	42N 43 Total	42N 43 Sensible	42N 50 Total	42N 50 Sensible
3	3	15	21	1.42	1.04	2.33	1.76	3.30	2.44	4.22	3.14	4.61	3.43
3	5	15	21	1.24	0.95	1.84	1.52	2.66	2.13	3.47	2.79	3.81	3.05
3	7	15	21	1.04	0.86	1.37	1.27	2.00	1.80	2.68	2.38	2.98	2.63
3	9	15	21	0.86	0.75	1.04	1.03	1.53	1.48	2.09	1.99	2.34	2.21
5	3	15	21	1.16	0.91	1.87	1.54	2.66	2.13	3.41	2.76	3.73	3.01
5	5	15	21	0.97	0.82	1.40	1.30	2.04	1.83	2.67	2.39	2.94	2.62
5	7	15	21	0.80	0.72	1.07	1.06	1.56	1.51	2.08	2.00	2.31	2.20
5	9	15	21	0.67	0.63	0.82	0.82	1.21	1.20	1.62	1.60	1.81	1.77
7	3	15	21	0.89	0.79	1.42	1.32	2.04	1.83	2.58	2.36	2.82	2.57
7	5	15	21	0.74	0.69	1.09	1.08	1.57	1.53	2.05	2.00	2.26	2.19
7	7	15	21	0.62	0.60	0.83	0.83	1.20	1.20	1.62	1.61	1.79	1.77
7	9	15	21	0.50	0.50	0.63	0.63	0.94	0.94	1.18	1.18	1.32	1.32
9	3	15	21	0.66	0.65	1.10	1.10	1.55	1.53	1.99	1.97	2.17	2.14
9	5	15	21	0.56	0.56	0.85	0.85	1.22	1.22	1.60	1.60	1.75	1.75
9	7	15	21	0.47	0.47	0.60	0.60	0.88	0.88	1.18	1.18	1.31	1.31
9	9	15	21	0.36	0.36	0.45	0.45	0.67	0.67	0.81	0.81	0.87	0.87
11	3	15	21	0.52	0.52	0.86	0.86	1.21	1.21	1.56	1.56	1.70	1.70
11	5	15	21	0.43	0.43	0.61	0.61	0.88	0.88	1.18	1.18	1.29	1.29
13	3	15	21	0.39	0.39	0.62	0.62	0.88	0.88	1.15	1.15	1.25	1.25
13	5	15	21	0.29	0.29	0.37	0.37	0.55	0.55	0.74	0.74	0.81	0.81
3	3	17	23	1.76	1.15	2.95	1.96	4.15	2.73	5.30	3.50	5.79	3.82
3	5	17	23	1.59	1.07	2.47	1.74	3.54	2.44	4.55	3.15	4.98	3.45
3	7	17	23	1.40	0.98	1.90	1.49	2.78	2.10	3.71	2.78	4.11	3.06
3	9	17	23	1.17	0.89	1.39	1.25	2.07	1.77	2.82	2.37	3.17	2.63
5	3	17	23	1.50	1.03	2.48	1.75	3.51	2.42	4.48	3.12	4.90	3.40
5	5	17	23	1.32	0.95	1.98	1.53	2.85	2.13	3.70	2.78	4.06	3.03
5	7	17	23	1.11	0.86	1.44	1.28	2.13	1.80	2.83	2.38	3.16	2.63
5	9	17	23	0.90	0.75	1.07	1.04	1.58	1.49	2.16	2.00	2.42	2.21
7	3	17	23	1.23	0.91	1.99	1.53	2.84	2.12	3.62	2.74	3.96	2.99
7	5	17	23	1.03	0.82	1.48	1.30	2.16	1.82	2.82	2.39	3.10	2.61
7	7	17	23	0.83	0.72	1.10	1.07	1.61	1.52	2.14	2.01	2.38	2.20
7	9	17	23	0.68	0.62	0.83	0.83	1.22	1.20	1.66	1.62	1.85	1.79
9	3	17	23	0.95	0.79	1.49	1.31	2.14	1.82	2.72	2.35	2.97	2.56
9	5	17	23	0.76	0.69	1.12	1.09	1.61	1.53	2.10	2.00	2.32	2.19
9	7	17	23	0.63	0.59	0.84	0.84	1.22	1.22	1.65	1.62	1.82	1.78
9	9	17	23	0.51	0.50	0.63	0.63	0.94	0.94	1.20	1.20	1.34	1.34
11	3	17	23	0.68	0.65	1.11	1.10	1.57	1.53	2.01	1.96	2.20	2.14
11	5	17	23	0.57	0.56	0.86	0.86	1.23	1.23	1.61	1.61	1.77	1.76
11	7	17	23	0.46	0.46	0.60	0.60	0.88	0.88	1.20	1.20	1.33	1.33
11	9	17	23	0.36	0.36	0.45	0.45	0.67	0.67	0.81	0.81	0.87	0.87
13	3	17	23	0.52	0.52	0.86	0.86	1.21	1.21	1.57	1.57	1.70	1.70
13	5	17	23	0.43	0.43	0.62	0.62	0.89	0.89	1.19	1.19	1.30	1.30
13	7	17	23	0.33	0.33	0.41	0.41	0.61	0.61	0.75	0.75	0.84	0.84
13	9	17	23	0.21	0.21	0.25	0.25	0.37	0.37	0.45	0.45	0.47	0.47
3	3	19	25	2.12	1.26	3.60	2.16	5.06	3.01	6.44	3.85	7.04	4.20
3	5	19	25	1.95	1.18	3.12	1.94	4.44	2.72	5.69	3.51	6.23	3.83
3	7	19	25	1.76	1.10	2.60	1.72	3.74	2.42	4.91	3.17	5.39	3.47
3	9	19	25	1.56	1.01	1.98	1.47	2.92	2.07	3.97	2.78	4.43	3.07
5	3	19	25	1.87	1.14	3.14	1.95	4.42	2.71	5.63	3.48	6.15	3.79
5	5	19	25	1.68	1.06	2.64	1.74	3.78	2.43	4.85	3.14	5.30	3.42
5	7	19	25	1.48	0.98	2.06	1.50	3.01	2.11	4.00	2.79	4.41	3.06
5	9	19	25	1.25	0.88	1.48	1.25	2.21	1.77	3.02	2.38	3.39	2.63
7	3	19	25	1.60	1.02	2.64	1.74	3.74	2.41	4.77	3.10	5.21	3.38
7	5	19	25	1.40	0.94	2.13	1.53	3.06	2.13	3.95	2.76	4.32	3.02
7	7	19	25	1.18	0.85	1.54	1.28	2.27	1.80	3.02	2.39	3.36	2.63
7	9	19	25	0.94	0.74	1.11	1.05	1.64	1.50	2.25	2.01	2.52	2.21
9	3	19	25	1.31	0.90	2.12	1.52	3.02	2.11	3.86	2.72	4.22	2.97
9	5	19	25	1.10	0.82	1.58	1.31	2.30	1.82	3.01	2.38	3.28	2.60
9	7	19	25	0.87	0.71	1.14	1.07	1.66	1.52	2.22	2.01	2.47	2.20
9	9	19	25	0.70	0.62	0.84	0.83	1.23	1.21	1.70	1.63	1.88	1.80
11	3	19	25	1.01	0.78	1.58	1.31	2.27	1.81	2.89	2.34	3.16	2.55
11	5	19	25	0.79	0.68	1.14	1.09	1.66	1.53	2.17	2.00	2.39	2.18
11	7	19	25	0.64	0.59	0.86	0.86	1.24	1.23	1.67	1.62	1.84	1.78
11	9	19	25	0.51	0.49	0.63	0.63	0.94	0.94	1.23	1.22	1.36	1.35
13	3	19	25	0.71	0.65	1.13	1.09	1.62	1.52	2.05	1.95	2.25	2.13
13	5	19	25	0.58	0.56	0.87	0.87	1.24	1.23	1.63	1.61	1.79	1.76
13	7	19	25	0.47	0.47	0.61	0.61	0.90	0.90	1.22	1.22	1.34	1.34
13	9	19	25	0.36	0.36	0.45	0.45	0.67	0.67	0.80	0.80	0.88	0.88

EWT	ΔT	EAT											
°C	K	°C		42N 16		42N 25		42N 33		42N 43		42N 50	
		wb	db	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible
3	3	19	27	2.11	1.40	3.59	2.41	5.03	3.33	6.42	4.28	7.01	4.66
3	5	19	27	1.94	1.32	3.11	2.19	4.42	3.05	5.67	3.93	6.20	4.29
3	7	19	27	1.76	1.23	2.58	1.96	3.73	2.74	4.89	3.60	5.37	3.93
3	9	19	27	1.55	1.14	2.03	1.72	2.98	2.41	3.98	3.20	4.43	3.53
5	3	19	27	1.86	1.28	3.12	2.19	4.40	3.03	5.60	3.90	6.12	4.25
5	5	19	27	1.68	1.20	2.63	1.98	3.76	2.75	4.82	3.56	5.28	3.89
5	7	19	27	1.48	1.11	2.09	1.75	3.04	2.44	4.00	3.21	4.39	3.51
5	9	19	27	1.25	1.01	1.63	1.52	2.39	2.14	3.20	2.83	3.56	3.11
7	3	19	27	1.59	1.16	2.63	1.98	3.72	2.73	4.75	3.53	5.19	3.84
7	5	19	27	1.43	1.11	2.18	1.82	3.14	2.52	4.04	3.28	4.42	3.55
7	7	19	27	1.17	0.98	1.66	1.54	2.41	2.15	3.18	2.83	3.51	3.10
7	9	19	27	1.01	0.88	1.34	1.31	1.94	1.86	2.59	2.46	2.87	2.70
9	3	19	27	1.30	1.04	2.11	1.76	3.01	2.43	3.83	3.14	4.19	3.43
9	5	19	27	1.09	0.94	1.67	1.55	2.41	2.16	3.11	2.81	3.39	3.05
9	7	19	27	0.93	0.85	1.35	1.33	1.94	1.88	2.55	2.45	2.80	2.68
9	9	19	27	0.80	0.76	1.09	1.09	1.58	1.57	2.12	2.08	2.33	2.29
11	3	19	27	1.00	0.91	1.63	1.55	2.34	2.14	2.97	2.76	3.24	3.00
11	5	19	27	0.86	0.82	1.35	1.34	1.92	1.88	2.49	2.43	2.72	2.65
11	7	19	27	0.74	0.73	1.10	1.10	1.58	1.58	2.08	2.07	2.28	2.26
11	9	19	27	0.64	0.63	0.85	0.85	1.24	1.24	1.68	1.68	1.85	1.85
13	3	19	27	0.78	0.78	1.33	1.33	1.86	1.85	2.38	2.36	2.59	2.57
13	5	19	27	0.69	0.69	1.11	1.11	1.57	1.57	2.03	2.03	2.22	2.22
13	7	19	27	0.60	0.60	0.87	0.87	1.25	1.25	1.66	1.66	1.82	1.82
13	9	19	27	0.50	0.50	0.63	0.63	0.94	0.94	1.25	1.25	1.38	1.38
3	3	21	29	2.50	1.50	4.29	2.60	6.00	3.60	7.64	4.62	8.34	5.04
3	5	21	29	2.33	1.42	3.80	2.38	5.38	3.32	6.88	4.28	7.52	4.67
3	7	21	29	2.14	1.34	3.31	2.17	4.74	3.04	6.11	3.94	6.69	4.31
3	9	21	29	1.95	1.26	2.71	1.94	3.94	2.71	5.26	3.59	5.80	3.94
5	3	21	29	2.24	1.39	3.82	2.39	5.36	3.31	6.82	4.25	7.45	4.63
5	5	21	29	2.06	1.31	3.32	2.18	4.72	3.03	6.04	3.91	6.60	4.27
5	7	21	29	1.87	1.22	2.79	1.97	4.02	2.74	5.22	3.58	5.72	3.91
5	9	21	29	1.65	1.14	2.18	1.72	3.21	2.42	4.28	3.21	4.76	3.53
7	3	21	29	1.97	1.27	3.33	2.18	4.69	3.01	5.96	3.87	6.51	4.22
7	5	21	29	1.78	1.19	2.81	1.97	4.01	2.74	5.14	3.54	5.63	3.86
7	7	21	29	1.57	1.10	2.24	1.75	3.27	2.44	4.28	3.20	4.70	3.50
7	9	21	29	1.33	1.01	1.71	1.52	2.53	2.13	3.38	2.82	3.76	3.11
9	3	21	29	1.69	1.15	2.81	1.97	3.97	2.72	5.05	3.50	5.52	3.82
9	5	21	29	1.48	1.07	2.26	1.76	3.27	2.44	4.19	3.17	4.58	3.46
9	7	21	29	1.25	0.98	1.74	1.54	2.55	2.15	3.34	2.82	3.69	3.09
9	9	21	29	1.04	0.87	1.37	1.32	2.00	1.86	2.67	2.46	2.96	2.69
11	3	21	29	1.39	1.03	2.25	1.76	3.21	2.42	4.09	3.13	4.47	3.41
11	5	21	29	1.16	0.94	1.75	1.55	2.54	2.15	3.25	2.79	3.55	3.04
11	7	21	29	0.97	0.84	1.38	1.33	1.99	1.87	2.62	2.45	2.89	2.67
11	9	21	29	0.82	0.75	1.11	1.10	1.60	1.58	2.15	2.09	2.37	2.29
13	3	21	29	1.06	0.91	1.71	1.54	2.46	2.13	3.10	2.74	3.38	2.98
13	5	21	29	0.89	0.81	1.37	1.34	1.96	1.87	2.53	2.42	2.77	2.63
13	7	21	29	0.76	0.72	1.11	1.11	1.60	1.58	2.11	2.07	2.31	2.26
13	9	21	29	0.64	0.63	0.87	0.87	1.26	1.26	1.70	1.69	1.87	1.86
3	3	23	31	2.91	1.61	5.04	2.79	7.02	3.87	8.95	4.95	9.76	5.40
3	5	23	31	2.74	1.53	4.54	2.58	6.41	3.59	8.18	4.61	8.94	5.03
3	7	23	31	2.56	1.45	4.04	2.37	5.77	3.32	7.40	4.28	8.10	4.67
3	9	23	31	2.36	1.37	3.50	2.15	5.04	3.02	6.59	3.95	7.22	4.32
5	3	23	31	2.66	1.49	4.57	2.58	6.39	3.58	8.13	4.58	8.87	5.00
5	5	23	31	2.47	1.41	4.06	2.37	5.74	3.30	7.33	4.25	8.02	4.63
5	7	23	31	2.28	1.33	3.54	2.16	5.07	3.03	6.52	3.92	7.13	4.28
5	9	23	31	2.07	1.25	2.95	1.94	4.27	2.72	5.65	3.59	6.21	3.93
7	3	23	31	2.38	1.37	4.07	2.37	5.71	3.28	7.26	4.21	7.93	4.59
7	5	23	31	2.19	1.29	3.54	2.16	5.04	3.01	6.44	3.88	7.04	4.24
7	7	23	31	1.98	1.21	3.00	1.96	4.33	2.74	5.58	3.56	6.11	3.88
7	9	23	31	1.76	1.13	2.36	1.73	3.47	2.42	4.63	3.21	5.11	3.52
9	3	23	31	2.10	1.26	3.55	2.16	5.00	2.99	6.35	3.84	6.94	4.19
9	5	23	31	1.89	1.18	3.00	1.96	4.29	2.72	5.49	3.52	6.00	3.84
9	7	23	31	1.67	1.10	2.42	1.75	3.52	2.44	4.58	3.19	5.02	3.48
9	9	23	31	1.42	1.01	1.81	1.52	2.69	2.13	3.59	2.82	3.99	3.10
11	3	23	31	1.79	1.14	2.99	1.96	4.24	2.70	5.39	3.48	5.88	3.79
11	5	23	31	1.58	1.06	2.42	1.75	3.49	2.43	4.48	3.15	4.90	3.44
11	7	23	31	1.33	0.98	1.85	1.54	2.71	2.14	3.55	2.81	3.90	3.08
11	9	23	31	1.09	0.87	1.41	1.32	2.07	1.86	2.77	2.46	3.07	2.69
13	3	23	31	1.47	1.02	2.41	1.75	3.43	2.41	4.36	3.11	4.77	3.39
13	5	23	31	1.24	0.94	1.85	1.55	2.69	2.14	3.43	2.77	3.75	3.03
13	7	23	31	1.01	0.84	1.41	1.33	2.06	1.87	2.70	2.44	2.99	2.67
13	9	23	31	0.84	0.75	1.13	1.11	1.63	1.58	2.19	2.09	2.41	2.29

EWT	ΔT	EAT											
°C	K	°C		42N 16		42N 25		42N 33		42N 43		42N 50	
		wb	db	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible
3	3	25	32	3.36	1.64	5.85	2.86	8.14	3.97	10.37	5.07	11.32	5.53
3	5	25	32	3.18	1.56	5.35	2.64	7.52	3.69	9.59	4.73	10.48	5.16
3	7	25	32	3.00	1.49	4.84	2.43	6.87	3.42	8.80	4.40	9.63	4.81
3	9	25	32	2.81	1.41	4.32	2.23	6.19	3.15	7.98	4.07	8.74	4.46
5	3	25	32	3.10	1.53	5.38	2.65	7.51	3.68	9.55	4.70	10.42	5.13
5	5	25	32	2.92	1.45	4.86	2.44	6.85	3.41	8.74	4.37	9.55	4.77
5	7	25	32	2.72	1.37	4.33	2.23	6.18	3.14	7.92	4.04	8.66	4.41
5	9	25	32	2.52	1.29	3.78	2.03	5.45	2.86	7.05	3.72	7.73	4.07
7	3	25	32	2.83	1.41	4.88	2.45	6.83	3.39	8.68	4.34	9.47	4.73
7	5	25	32	2.63	1.33	4.34	2.24	6.15	3.12	7.84	4.01	8.57	4.37
7	7	25	32	2.43	1.25	3.79	2.03	5.43	2.85	6.97	3.68	7.63	4.02
7	9	25	32	2.21	1.17	3.20	1.83	4.64	2.57	6.07	3.36	6.65	3.67
9	3	25	32	2.54	1.29	4.35	2.24	6.11	3.10	7.76	3.97	8.47	4.33
9	5	25	32	2.34	1.22	3.79	2.03	5.39	2.83	6.88	3.64	7.52	3.98
9	7	25	32	2.12	1.14	3.22	1.83	4.64	2.56	5.97	3.32	6.54	3.63
9	9	25	32	1.88	1.05	2.56	1.61	3.75	2.26	5.00	3.00	5.50	3.28
11	3	25	32	2.24	1.18	3.79	2.03	5.35	2.81	6.79	3.60	7.41	3.93
11	5	25	32	2.02	1.10	3.21	1.83	4.59	2.54	5.87	3.28	6.42	3.58
11	7	25	32	1.78	1.02	2.61	1.63	3.79	2.27	4.91	2.96	5.38	3.23
11	9	25	32	1.52	0.93	1.90	1.40	2.83	1.96	3.82	2.61	4.24	2.86
13	3	25	32	1.91	1.06	3.20	1.82	4.53	2.52	5.76	3.24	6.29	3.53
13	5	25	32	1.68	0.98	2.60	1.62	3.74	2.25	4.79	2.92	5.24	3.18
13	7	25	32	1.42	0.90	1.95	1.41	2.87	1.97	3.77	2.59	4.13	2.83
13	9	25	32	1.12	0.80	1.37	1.19	2.04	1.68	2.76	2.23	3.07	2.45

EWT – Entering water temperature
ΔT – Water temperature rise
EAT – Entering air temperature
wb – wet bulb
db – dry bulb

Eurovent conditions

Cooling capacities, two-pipe coil (with fan at high speed)

Centrifugal fan

EWT °C	ΔT K	EAT °C wb	EAT °C db	42N 16 Total	42N 16 Sensible	42N 25 Total	42N 25 Sensible	42N 33 Total	42N 33 Sensible	42N 43 Total	42N 43 Sensible	42N 50 Total	42N 50 Sensible	42N 60 Total	42N 60 Sensible	42N 75 Total	42N 75 Sensible
3	3	15	21	1.44	1.05	2.63	2.04	3.75	2.80	4.38	3.26	5.18	3.87	6.31	4.74	7.82	5.95
3	5	15	21	1.26	0.96	2.01	1.74	2.99	2.44	3.60	2.90	4.30	3.45	5.05	4.15	6.23	5.20
3	7	15	21	1.04	0.86	1.46	1.42	2.24	2.05	2.79	2.48	3.40	2.99	3.87	3.51	4.72	4.38
3	9	15	21	0.87	0.76	1.08	1.08	1.70	1.66	2.17	2.07	2.69	2.53	2.98	2.88	3.57	3.54
5	3	15	21	1.18	0.93	2.09	1.78	3.01	2.45	3.53	2.87	4.19	3.40	5.06	4.16	6.25	5.21
5	5	15	21	0.98	0.83	1.54	1.48	2.29	2.09	2.77	2.48	3.33	2.97	3.92	3.57	4.83	4.47
5	7	15	21	0.81	0.73	1.16	1.16	1.75	1.71	2.17	2.08	2.64	2.52	3.04	2.94	3.69	3.65
5	9	15	21	0.67	0.63	0.83	0.83	1.31	1.31	1.69	1.67	2.09	2.05	2.26	2.25	2.74	2.74
7	3	15	21	0.90	0.80	1.59	1.53	2.30	2.10	2.68	2.45	3.18	2.91	3.85	3.56	4.79	4.48
7	5	15	21	0.74	0.70	1.22	1.22	1.77	1.75	2.13	2.08	2.56	2.49	3.05	2.98	3.75	3.73
7	7	15	21	0.62	0.60	0.88	0.88	1.35	1.35	1.68	1.67	2.05	2.03	2.33	2.33	2.85	2.85
7	9	15	21	0.50	0.50	0.64	0.64	1.00	1.00	1.23	1.23	1.53	1.53	1.59	1.59	1.90	1.90
9	3	15	21	0.67	0.66	1.26	1.26	1.77	1.76	2.06	2.04	2.44	2.42	2.99	2.97	3.74	3.73
9	5	15	21	0.57	0.57	0.94	0.94	1.38	1.38	1.66	1.66	1.99	1.99	2.36	2.36	2.93	2.93
9	7	15	21	0.47	0.47	0.61	0.61	0.96	0.96	1.23	1.23	1.51	1.51	1.66	1.66	2.02	2.02
9	9	15	21	0.36	0.36	0.44	0.44	0.71	0.71	0.83	0.83	0.98	0.98	1.00	1.00	1.21	1.21
11	3	15	21	0.53	0.53	0.98	0.98	1.39	1.39	1.63	1.63	1.92	1.92	2.34	2.34	2.95	2.95
11	5	15	21	0.43	0.43	0.65	0.65	0.99	0.99	1.22	1.22	1.48	1.48	1.70	1.70	2.10	2.10
13	3	15	21	0.40	0.40	0.70	0.70	1.00	1.00	1.19	1.19	1.42	1.42	1.71	1.71	2.13	2.13
13	5	15	21	0.30	0.30	0.37	0.37	0.59	0.59	0.77	0.77	0.94	0.94	1.01	1.01	1.23	1.23
3	3	17	23	1.78	1.17	3.36	2.28	4.72	3.13	5.49	3.64	6.50	4.30	7.96	5.30	9.89	6.64
3	5	17	23	1.60	1.08	2.72	1.99	3.98	2.78	4.72	3.28	5.61	3.89	6.69	4.72	8.24	5.89
3	7	17	23	1.41	0.99	2.01	1.68	3.11	2.39	3.86	2.90	4.67	3.48	5.33	4.12	6.48	5.11
3	9	17	23	1.18	0.89	1.43	1.36	2.28	2.00	2.94	2.47	3.65	3.01	3.97	3.46	4.79	4.29
5	3	17	23	1.52	1.04	2.80	2.03	3.98	2.78	4.65	3.24	5.50	3.84	6.71	4.72	8.31	5.92
5	5	17	23	1.33	0.96	2.15	1.75	3.20	2.44	3.84	2.89	4.57	3.43	5.39	4.14	6.62	5.18
5	7	17	23	1.12	0.86	1.52	1.43	2.36	2.05	2.94	2.48	3.60	2.99	4.07	3.53	4.96	4.39
5	9	17	23	0.90	0.75	1.12	1.11	1.76	1.68	2.25	2.09	2.79	2.53	3.09	2.90	3.68	3.59
7	3	17	23	1.25	0.92	2.22	1.78	3.20	2.44	3.76	2.85	4.45	3.37	5.38	4.13	6.65	5.19
7	5	17	23	1.04	0.83	1.61	1.49	2.42	2.09	2.93	2.48	3.50	2.96	4.12	3.56	5.07	4.47
7	7	17	23	0.84	0.73	1.19	1.18	1.80	1.72	2.23	2.09	2.72	2.51	3.13	2.95	3.79	3.69
7	9	17	23	0.69	0.63	0.85	0.85	1.34	1.33	1.73	1.68	2.12	2.06	2.33	2.31	2.81	2.81
9	3	17	23	0.96	0.80	1.66	1.52	2.41	2.09	2.82	2.44	3.34	2.89	4.04	3.54	5.00	4.46
9	5	17	23	0.77	0.69	1.24	1.23	1.81	1.75	2.18	2.08	2.63	2.48	3.12	2.98	3.83	3.75
9	7	17	23	0.63	0.60	0.90	0.90	1.37	1.37	1.71	1.68	2.08	2.03	2.37	2.36	2.90	2.90
9	9	17	23	0.51	0.50	0.64	0.64	1.00	1.00	1.25	1.25	1.55	1.55	1.63	1.63	1.97	1.97
11	3	17	23	0.69	0.66	1.26	1.26	1.79	1.76	2.09	2.04	2.47	2.41	3.03	2.96	3.76	3.73
11	5	17	23	0.57	0.57	0.95	0.95	1.39	1.39	1.68	1.67	2.01	2.00	2.38	2.38	2.96	2.96
11	7	17	23	0.47	0.47	0.62	0.62	0.98	0.98	1.25	1.25	1.53	1.53	1.70	1.70	2.07	2.07
11	9	17	23	0.36	0.36	0.44	0.44	0.71	0.71	0.83	0.83	1.00	1.00	1.00	1.00	1.21	1.21
13	3	17	23	0.53	0.53	0.99	0.99	1.39	1.39	1.63	1.63	1.92	1.92	2.35	2.35	2.95	2.95
13	5	17	23	0.43	0.43	0.67	0.67	1.00	1.00	1.23	1.23	1.49	1.49	1.72	1.72	2.13	2.13
13	7	17	23	0.33	0.33	0.41	0.41	0.65	0.65	0.78	0.78	0.98	0.98	0.99	0.99	1.18	1.18
13	9	17	23	0.21	0.21	0.24	0.24	0.39	0.39	0.46	0.46	0.52	0.52	0.52	0.52	0.64	0.64
3	3	19	25	2.15	1.28	4.13	2.51	5.77	3.45	6.68	4.00	7.90	4.73	9.72	5.84	12.10	7.31
3	5	19	25	1.97	1.19	3.48	2.23	5.01	3.11	5.90	3.64	7.00	4.32	8.44	5.26	10.43	6.56
3	7	19	25	1.78	1.11	2.81	1.94	4.20	2.76	5.09	3.29	6.08	3.92	7.13	4.69	8.73	5.84
3	9	19	25	1.57	1.02	2.01	1.62	3.23	2.35	4.13	2.89	5.06	3.50	5.59	4.06	6.72	5.01
5	3	19	25	1.89	1.16	3.57	2.26	5.02	3.11	5.84	3.61	6.90	4.27	8.46	5.26	10.51	6.60
5	5	19	25	1.70	1.07	2.91	1.99	4.24	2.77	5.02	3.26	5.97	3.87	7.14	4.69	8.79	5.86
5	7	19	25	1.50	0.99	2.18	1.69	3.35	2.40	4.16	2.90	4.99	3.46	5.74	4.12	6.99	5.12
5	9	19	25	1.26	0.89	1.51	1.38	2.44	2.02	3.14	2.48	3.89	3.01	4.23	3.48	5.08	4.30
7	3	19	25	1.61	1.03	2.99	2.02	4.24	2.77	4.94	3.22	5.85	3.81	7.13	4.68	8.84	5.88
7	5	19	25	1.41	0.95	2.31	1.74	3.42	2.43	4.09	2.87	4.87	3.41	5.75	4.12	7.05	5.15
7	7	19	25	1.19	0.86	1.61	1.44	2.52	2.06	3.14	2.48	3.83	2.99	4.33	3.53	5.26	4.40
7	9	19	25	0.94	0.75	1.16	1.14	1.82	1.69	2.34	2.09	2.90	2.53	3.21	2.91	3.84	3.63
9	3	19	25	1.32	0.91	2.37	1.77	3.41	2.42	4.00	2.83	4.73	3.35	5.73	4.11	7.08	5.16
9	5	19	25	1.11	0.83	1.71	1.49	2.58	2.09	3.11	2.48	3.70	2.94	4.35	3.55	5.35	4.45
9	7	19	25	0.88	0.72	1.22	1.19	1.86	1.73	2.31	2.09	2.82	2.51	3.23	2.95	3.92	3.70
9	9	19	25	0.71	0.62	0.87	0.87	1.37	1.35	1.77	1.70	2.17	2.06	2.40	2.34	2.88	2.87
11	3	19	25	1.02	0.79	1.74	1.52	2.55	2.08	2.99	2.43	3.55	2.88	4.26	3.52	5.27	4.44
11	5	19	25	0.80	0.69	1.27	1.24	1.87	1.75	2.25	2.08	2.71	2.47	3.22	2.98	3.94	3.75
11	7	19	25	0.65	0.60	0.92	0.92	1.40	1.39	1.74	1.69	2.11	2.04	2.42	2.38	2.95	2.94
11	9	19	25	0.52	0.50	0.64	0.64	1.00	1.00	1.28	1.27	1.58	1.57	1.67	1.67	2.03	2.03
13	3	19	25	0.71	0.66	1.28	1.26	1.83	1.75	2.13	2.03	2.53	2.40	3.09	2.95	3.83	3.73
13	5	19	25	0.58	0.57	0.96	0.96	1.40	1.40	1.69	1.67	2.03	2.00	2.40	2.39	2.98	2.98
13	7	19	25	0.47	0.47	0.64	0.64	1.00	1.00	1.27	1.27	1.54	1.54	1.73	1.73	2.11	2.11
13	9	19	25	0.36	0.36	0.44	0.44	0.71	0.71	0.83	0.83	1.01	1.01	1.01	1.01	1.22	1.22

EWT	ΔT	EAT															
°C	K	°C		42N 16		42N 25		42N 33		42N 43		42N 50		42N 60		42N 75	
		wb	db	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible
3	3	19	27	2.14	1.42	4.11	2.81	5.74	3.83	6.66	4.44	7.87	5.26	9.68	6.49	12.05	8.15
3	5	19	27	1.96	1.33	3.46	2.52	4.99	3.49	5.88	4.09	6.97	4.85	8.40	5.91	10.38	7.41
3	7	19	27	1.77	1.25	2.80	2.24	4.19	3.14	5.07	3.74	6.05	4.45	7.09	5.35	8.70	6.68
3	9	19	27	1.56	1.16	2.12	1.93	3.32	2.75	4.13	3.33	5.05	4.02	5.71	4.73	6.93	5.89
5	3	19	27	1.88	1.29	3.56	2.56	5.00	3.49	5.81	4.05	6.87	4.80	8.42	5.92	10.47	7.44
5	5	19	27	1.69	1.21	2.90	2.28	4.22	3.15	5.00	3.70	5.94	4.39	7.10	5.35	8.74	6.70
5	7	19	27	1.49	1.13	2.25	1.99	3.41	2.80	4.15	3.34	4.97	3.98	5.79	4.78	7.12	5.99
5	9	19	27	1.25	1.02	1.74	1.69	2.67	2.43	3.33	2.95	4.07	3.54	4.63	4.17	5.63	5.21
7	3	19	27	1.61	1.17	2.97	2.31	4.22	3.15	4.92	3.67	5.82	4.34	7.10	5.34	8.80	6.72
7	5	19	27	1.44	1.12	2.43	2.04	3.53	2.82	4.17	3.31	4.94	3.93	5.87	4.88	7.26	6.14
7	7	19	27	1.18	0.99	1.81	1.74	2.71	2.47	3.30	2.94	3.98	3.52	4.65	4.21	5.72	5.29
7	9	19	27	1.01	0.89	1.44	1.44	2.18	2.11	2.69	2.56	3.28	3.08	3.78	3.62	4.58	4.51
9	3	19	27	1.32	1.05	2.37	2.06	3.40	2.80	3.97	3.27	4.70	3.87	5.69	4.76	7.07	5.99
9	5	19	27	1.10	0.96	1.86	1.79	2.72	2.49	3.22	2.92	3.82	3.45	4.58	4.20	5.69	5.31
9	7	19	27	0.94	0.86	1.49	1.49	2.19	2.14	2.65	2.55	3.19	3.04	3.77	3.64	4.63	4.57
9	9	19	27	0.81	0.77	1.17	1.17	1.77	1.77	2.20	2.16	2.67	2.61	3.05	3.03	3.75	3.75
11	3	19	27	1.01	0.92	1.85	1.80	2.65	2.47	3.08	2.86	3.64	3.38	4.44	4.16	5.55	5.28
11	5	19	27	0.87	0.83	1.53	1.53	2.18	2.15	2.58	2.52	3.07	2.99	3.72	3.64	4.62	4.60
11	7	19	27	0.75	0.74	1.22	1.22	1.79	1.79	2.17	2.15	2.60	2.57	3.06	3.05	3.80	3.80
11	9	19	27	0.64	0.64	0.89	0.89	1.39	1.39	1.75	1.75	2.12	2.12	2.40	2.40	2.93	2.93
13	3	19	27	0.79	0.78	1.54	1.54	2.13	2.13	2.47	2.46	2.92	2.90	3.59	3.58	4.52	4.52
13	5	19	27	0.70	0.70	1.25	1.25	1.79	1.79	2.11	2.11	2.51	2.51	3.04	3.04	3.81	3.81
13	7	19	27	0.60	0.60	0.94	0.94	1.41	1.41	1.72	1.72	2.07	2.07	2.41	2.41	2.99	2.99
13	9	19	27	0.50	0.50	0.64	0.64	1.01	1.01	1.30	1.30	1.60	1.60	1.71	1.71	2.09	2.09
3	3	21	29	2.53	1.52	4.94	3.04	6.85	4.14	7.92	4.80	9.36	5.67	11.55	7.01	14.40	8.80
3	5	21	29	2.35	1.44	4.27	2.75	6.09	3.80	7.14	4.44	8.46	5.26	10.26	6.44	12.71	8.06
3	7	21	29	2.16	1.36	3.62	2.48	5.32	3.47	6.33	4.10	7.53	4.87	8.95	5.88	10.99	7.34
3	9	21	29	1.96	1.27	2.85	2.18	4.40	3.10	5.46	3.74	6.56	4.47	7.54	5.31	9.17	6.60
5	3	21	29	2.27	1.40	4.38	2.79	6.11	3.80	7.08	4.41	8.36	5.21	10.29	6.44	12.81	8.09
5	5	21	29	2.08	1.32	3.70	2.51	5.33	3.47	6.26	4.06	7.42	4.81	8.96	5.88	11.07	7.36
5	7	21	29	1.88	1.24	3.02	2.25	4.51	3.14	5.41	3.72	6.45	4.42	7.59	5.33	9.28	6.65
5	9	21	29	1.66	1.15	2.27	1.94	3.56	2.76	4.46	3.34	5.40	4.01	6.12	4.74	7.44	5.90
7	3	21	29	2.00	1.28	3.79	2.55	5.33	3.47	6.18	4.03	7.30	4.76	8.97	5.87	11.14	7.38
7	5	21	29	1.80	1.20	3.10	2.27	4.51	3.14	5.33	3.68	6.33	4.36	7.58	5.32	9.33	6.67
7	7	21	29	1.58	1.12	2.40	2.00	3.65	2.80	4.44	3.33	5.30	3.97	6.16	4.76	7.57	5.96
7	9	21	29	1.33	1.02	1.81	1.70	2.81	2.44	3.51	2.94	4.29	3.54	4.83	4.17	5.90	5.22
9	3	21	29	1.71	1.16	3.17	2.30	4.50	3.13	5.24	3.64	6.19	4.31	7.56	5.31	9.37	6.67
9	5	21	29	1.50	1.08	2.47	2.03	3.66	2.80	4.34	3.29	5.16	3.91	6.11	4.75	7.54	5.96
9	7	21	29	1.26	0.99	1.88	1.75	2.85	2.46	3.47	2.93	4.18	3.51	4.85	4.20	5.98	5.28
9	9	21	29	1.05	0.88	1.48	1.46	2.24	2.12	2.78	2.56	3.39	3.07	3.90	3.62	4.71	4.54
11	3	21	29	1.40	1.04	2.52	2.05	3.62	2.79	4.24	3.25	5.01	3.85	6.07	4.73	7.50	5.96
11	5	21	29	1.17	0.96	1.93	1.79	2.85	2.48	3.37	2.90	4.00	3.44	4.76	4.18	5.91	5.27
11	7	21	29	0.98	0.85	1.52	1.50	2.24	2.14	2.72	2.55	3.28	3.04	3.88	3.64	4.74	4.59
11	9	21	29	0.83	0.76	1.19	1.19	1.80	1.78	2.24	2.17	2.70	2.61	3.11	3.06	3.80	3.79
13	3	21	29	1.07	0.92	1.92	1.80	2.76	2.45	3.21	2.85	3.79	3.37	4.63	4.15	5.75	5.24
13	5	21	29	0.89	0.82	1.55	1.54	2.22	2.15	2.63	2.52	3.12	2.98	3.79	3.63	4.69	4.60
13	7	21	29	0.76	0.73	1.23	1.23	1.81	1.80	2.19	2.15	2.62	2.57	3.09	3.07	3.83	3.83
13	9	21	29	0.65	0.64	0.92	0.92	1.41	1.41	1.77	1.76	2.14	2.13	2.43	2.43	2.98	2.98
3	3	23	31	2.95	1.63	5.82	3.26	8.04	4.45	9.28	5.14	10.96	6.07	13.56	7.52	16.91	9.43
3	5	23	31	2.77	1.55	5.14	2.97	7.27	4.11	8.49	4.79	10.04	5.67	12.25	6.95	15.20	8.69
3	7	23	31	2.58	1.47	4.47	2.70	6.49	3.78	7.67	4.44	9.11	5.27	10.92	6.40	13.46	7.97
3	9	23	31	2.38	1.38	3.78	2.43	5.66	3.44	6.83	4.10	8.14	4.88	9.55	5.85	11.68	7.27
5	3	23	31	2.69	1.51	5.26	3.02	7.29	4.11	8.43	4.76	9.95	5.62	12.30	6.96	15.32	8.73
5	5	23	31	2.50	1.43	4.56	2.73	6.50	3.78	7.60	4.41	9.00	5.22	10.94	6.39	13.55	8.00
5	7	23	31	2.30	1.35	3.87	2.47	5.69	3.45	6.76	4.07	8.03	4.83	9.56	5.85	11.75	7.29
5	9	23	31	2.09	1.26	3.12	2.20	4.77	3.11	5.86	3.73	7.00	4.44	8.11	5.30	9.86	6.60
7	3	23	31	2.41	1.39	4.67	2.77	6.51	3.78	7.53	4.38	8.89	5.17	10.96	6.39	13.64	8.03
7	5	23	31	2.21	1.31	3.95	2.50	5.68	3.45	6.67	4.03	7.90	4.78	9.56	5.84	11.81	7.31
7	7	23	31	2.00	1.23	3.25	2.24	4.83	3.12	5.78	3.70	6.88	4.39	8.11	5.30	9.93	6.62
7	9	23	31	1.77	1.14	2.45	1.95	3.85	2.76	4.80	3.34	5.78	3.99	6.56	4.73	8.01	5.91
9	3	23	31	2.12	1.27	4.04	2.53	5.68	3.44	6.59	3.99	7.77	4.72	9.55	5.83	11.86	7.32
9	5	23	31	1.91	1.19	3.31	2.26	4.82	3.12	5.69	3.66	6.74	4.33	8.09	5.28	9.96	6.62
9	7	23	31	1.69	1.11	2.58	2.00	3.93	2.79	4.74	3.31	5.66	3.94	6.57	4.74	8.04	5.93
9	9	23	31	1.43	1.02	1.89	1.71	2.98	2.44	3.73	2.94	4.56	3.53	5.11	4.17	6.21	5.21
11	3	23	31	1.82	1.15	3.38	2.28	4.80	3.11	5.58	3.61	6.59	4.27	8.06	5.27	9.99	6.62
11	5	23	31	1.59	1.07	2.63	2.02	3.90	2.78	4.64	3.28	5.51	3.89	6.53	4.72	8.01	5.92
11	7	23	31	1.34	0.99	1.97	1.76	3.02	2.46	3.68	2.93	4.41	3.49	5.11	4.19	6.28	5.26
11	9	23	31	1.10	0.88	1.51	1.47	2.31	2.12	2.88	2.56	3.51	3.07	4.02	3.62	4.88	4.55
13	3	23	31	1.49	1.04	2.69	2.04	3.86	2.77	4.52	3.23	5.34	3.82	6.49	4.70	8.00	5.93
13	5	23	31	1.25	0.95	2.01	1.78	3.00	2.46	3.55	2.88	4.22	3.43	5.01	4.16	6.18	5.24
13	7	23	31	1.01	0.85	1.55	1.51	2.31	2.14	2.81	2.54	3.39	3.03	3.99	3.63	4.88	4.59
13	9	23	31	0.85	0.75	1.21	1.21	1.83	1.80	2.28	2.17	2.75	2.61	3.18	3.07	3.86	3.83

EWT °C	ΔT K	EAT °C wb	EAT °C db	42N 16 Total	42N 16 Sensible	42N 25 Total	42N 25 Sensible	42N 33 Total	42N 33 Sensible	42N 43 Total	42N 43 Sensible	42N 50 Total	42N 50 Sensible	42N 60 Total	42N 60 Sensible	42N 75 Total	42N 75 Sensible
3	3	25	32	3.40	1.66	6.78	3.33	9.33	4.56	10.76	5.26	12.70	6.21	15.74	7.70	19.65	9.63
3	5	25	32	3.22	1.58	6.09	3.04	8.55	4.22	9.95	4.91	11.77	5.80	14.41	7.13	17.90	8.89
3	7	25	32	3.04	1.50	5.40	2.77	7.76	3.89	9.13	4.57	10.82	5.41	13.06	6.57	16.13	8.17
3	9	25	32	2.84	1.42	4.71	2.51	6.94	3.57	8.27	4.23	9.84	5.03	11.67	6.03	14.32	7.48
5	3	25	32	3.14	1.55	6.21	3.09	8.58	4.23	9.90	4.88	11.68	5.76	14.47	7.14	18.04	8.94
5	5	25	32	2.95	1.47	5.50	2.80	7.78	3.89	9.06	4.53	10.72	5.36	13.10	6.58	16.24	8.21
5	7	25	32	2.75	1.39	4.80	2.54	6.95	3.57	8.20	4.20	9.73	4.97	11.69	6.03	14.41	7.50
5	9	25	32	2.54	1.30	4.08	2.29	6.09	3.25	7.31	3.86	8.70	4.59	10.23	5.50	12.52	6.82
7	3	25	32	2.86	1.43	5.62	2.85	7.79	3.89	9.00	4.50	10.61	5.31	13.13	6.58	16.34	8.24
7	5	25	32	2.66	1.35	4.89	2.57	6.96	3.56	8.13	4.16	9.61	4.92	11.70	6.03	14.48	7.52
7	7	25	32	2.45	1.27	4.16	2.31	6.09	3.24	7.23	3.82	8.58	4.54	10.24	5.49	12.58	6.83
7	9	25	32	2.23	1.19	3.41	2.06	5.18	2.92	6.28	3.49	7.50	4.15	8.71	4.96	10.61	6.15
9	3	25	32	2.57	1.31	4.99	2.60	6.96	3.56	8.04	4.12	9.49	4.87	11.71	6.02	14.55	7.54
9	5	25	32	2.36	1.23	4.24	2.34	6.09	3.24	7.13	3.78	8.44	4.48	10.22	5.48	12.62	6.84
9	7	25	32	2.14	1.15	3.48	2.08	5.18	2.92	6.19	3.45	7.36	4.10	8.69	4.94	10.64	6.16
9	9	25	32	1.89	1.07	2.65	1.81	4.16	2.58	5.19	3.12	6.21	3.71	7.08	4.41	8.56	5.47
11	3	25	32	2.26	1.19	4.32	2.36	6.07	3.23	7.03	3.74	8.30	4.42	10.21	5.46	12.66	6.85
11	5	25	32	2.04	1.11	3.55	2.10	5.16	2.91	6.08	3.41	7.20	4.04	8.66	4.92	10.66	6.16
11	7	25	32	1.80	1.03	2.78	1.85	4.21	2.59	5.08	3.08	6.05	3.66	7.05	4.39	8.59	5.48
11	9	25	32	1.53	0.94	1.93	1.57	3.12	2.23	3.97	2.72	4.80	3.25	5.36	3.84	6.46	4.78
13	3	25	32	1.94	1.08	3.62	2.12	5.14	2.90	5.96	3.37	7.04	3.98	8.62	4.90	10.67	6.16
13	5	25	32	1.70	1.00	2.83	1.87	4.18	2.58	4.97	3.03	5.89	3.60	7.00	4.37	8.58	5.48
13	7	25	32	1.43	0.91	2.04	1.61	3.18	2.26	3.91	2.70	4.66	3.21	5.34	3.84	6.52	4.81
13	9	25	32	1.12	0.80	1.43	1.33	2.25	1.91	2.87	2.32	3.53	2.79	3.90	3.27	4.73	4.10

EWT – Entering water temperature
ΔT – Water temperature rise
EAT – Entering air temperature
wb – wet bulb
db – dry bulb

Eurovent conditions

To obtain the cooling capacities for four-pipe coils, multiply the values from the table above for two-pipe coils by the following correction factors.

42N Tangential - 4 pipes

Size	Correction factor
16	1.06
25	1.00
33	0.83
43	1.00
50	0.95

42N Centrifugal - 4 pipes

Size	Correction factor
16	1.07
25	1.12
33	0.88
43	1.00
50	0.94
60	0.97
75	0.92

Correction factors

Tangential fan motors

42N	Fan speed	Total cooling capacity	Sensible cooling capacity
16	High	1.00	1.00
	Medium	0.84	0.80
	Low	0.64	0.57
25	High	1.00	1.00
	Medium	0.83	0.79
	Low	0.65	0.60
33	High	1.00	1.00
	Medium	0.84	0.82
	Low	0.51	0.48
43	High	1.00	1.00
	Medium	0.85	0.81
	Low	0.64	0.57
50	High	1.00	1.00
	Medium	0.86	0.83
	Low	0.62	0.58

Centrifugal fan motors

42N	Fan speed	Total cooling capacity	Sensible cooling capacity
16	High	1.00	1.00
	Medium	0.88	0.86
	Low	0.77	0.71
25	High	1.00	1.00
	Medium	0.71	0.69
	Low	0.60	0.57
33	High	1.00	1.00
	Medium	0.84	0.81
	Low	0.56	0.54
43	High	1.00	1.00
	Medium	0.87	0.85
	Low	0.64	0.61
50	High	1.00	1.00
	Medium	0.89	0.87
	Low	0.65	0.61
60	High	1.00	1.00
	Medium	0.87	0.83
	Low	0.61	0.57
75	High	1.00	1.00
	Medium	0.79	0.77
	Low	0.63	0.58

Heating capacities, two-pipe coil (with fan at high speed)

Tangential fan

Water flow rate		Available temperature difference	Heating capacity (high-speed fan) 2 pipe-coil				
l/h	l/s	K	42N16	42N25	42N33	42N43	42N50
100	0,03	20	1,07	1,36	1,58	1,49	1,55
200	0,06	20	1,30	1,78	2,22	2,37	2,46
246	0,07	20	1,35	1,88	2,39	2,65	2,76
300	0,08	20	1,40	1,96	2,53	2,91	3,04
375	0,10	20	1,44	2,04	2,66	3,17	3,33
500	0,14	20	1,49	2,13	2,81	3,48	3,67
540	0,15	20	1,50	2,15	2,84	3,55	3,75
695	0,19	20	1,53	2,20	2,94	3,78	4,01
760	0,21	20	1,54	2,22	2,97	3,85	4,09
900	0,25	20	1,56	2,25	3,02	3,98	4,24
1100	0,31	20	1,57	2,29	3,07	4,12	4,39
1300	0,36	20	1,58	2,31	3,11	4,22	4,50
1500	0,42	20	1,59	2,32	3,13	4,29	4,59
1800	0,50	20	1,60	2,34	3,16	4,38	4,69
2500	0,69	20	1,62	2,37	3,21	4,50	4,83
3000	0,83	20	1,62	2,38	3,22	4,56	4,90
100	0,03	30	1,60	2,04	2,38	2,27	2,34
200	0,06	30	1,94	2,67	3,35	3,60	3,74
246	0,07	30	2,02	2,82	3,59	4,03	4,19
300	0,08	30	2,09	2,94	3,80	4,40	4,60
375	0,10	30	2,15	3,05	4,00	4,79	5,02
500	0,14	30	2,22	3,19	4,21	5,26	5,53
540	0,15	30	2,24	3,22	4,30	5,37	5,66
695	0,19	30	2,29	3,31	4,41	5,79	6,04
760	0,21	30	2,30	3,33	4,45	5,82	6,24
900	0,25	30	2,32	3,38	4,53	6,01	6,38
1100	0,31	30	2,35	3,43	4,60	6,21	6,61
1300	0,36	30	2,37	3,46	4,66	6,35	6,78
1500	0,42	30	2,38	3,48	4,70	6,46	6,90
1800	0,50	30	2,39	3,51	4,74	6,59	7,05
2500	0,69	30	2,41	3,55	4,80	6,77	7,26
3000	0,83	30	2,42	3,57	4,83	6,85	7,35
100	0,03	40	2,13	2,74	3,19	3,07	3,16
200	0,06	40	2,59	3,58	4,49	4,88	5,05
246	0,07	40	2,70	3,77	4,81	5,44	5,64
300	0,08	40	2,79	3,93	5,08	5,93	6,18
375	0,10	40	2,87	4,09	5,34	6,45	6,75
500	0,14	40	2,96	4,27	5,63	7,07	7,43
540	0,15	40	2,98	4,30	5,70	7,22	7,60
695	0,19	40	3,05	4,42	5,89	7,67	8,10
760	0,21	40	3,06	4,45	5,94	7,81	8,27
900	0,25	40	3,10	4,52	6,05	8,06	8,55
1100	0,31	40	3,13	4,58	6,14	8,32	8,85
1300	0,36	40	3,15	4,62	6,22	8,51	9,07
1500	0,42	40	3,17	4,65	6,27	8,65	9,24
1800	0,50	40	3,19	4,69	6,33	8,81	9,42
2500	0,69	40	3,21	4,74	6,41	9,04	9,69
3000	0,83	40	3,23	4,76	6,44	9,15	9,82
100	0,03	50	2,67	3,44	4,00	3,88	3,99
200	0,06	50	3,25	4,48	5,63	6,17	6,38
246	0,07	50	3,38	4,72	6,03	6,86	7,11
300	0,08	50	3,49	4,93	6,37	7,48	7,78
375	0,10	50	3,59	5,13	6,70	8,13	8,50
500	0,14	50	3,71	5,35	7,06	8,90	9,35
540	0,15	50	3,73	5,39	7,14	9,09	9,56
695	0,19	50	3,81	5,53	7,38	9,65	10,20
760	0,21	50	3,83	5,58	7,45	9,82	10,40
900	0,25	50	3,87	5,66	7,57	10,10	10,70
1100	0,31	50	3,91	5,73	7,70	10,50	11,10
1300	0,36	50	3,94	5,79	7,78	10,70	11,40
1500	0,42	50	3,96	5,82	7,85	10,90	11,60
1800	0,50	50	3,98	5,87	7,92	11,10	11,80
2500	0,69	50	4,02	5,93	8,02	11,30	12,10
3000	0,83	50	4,03	5,96	8,07	11,50	12,30

Water flow rate		Available temperature difference	Heating capacity (high-speed fan) 2 pipe-coil				
l/h	l/s	K	42N16	42N25	42N33	42N43	42N50
100	0,03	60	3,21	4,14	4,82	4,71	4,83
200	0,06	60	3,90	5,40	6,78	7,48	7,71
246	0,07	60	4,06	5,68	7,26	8,30	8,59
300	0,08	60	4,19	5,94	7,67	9,04	9,40
375	0,10	60	4,32	6,17	8,07	9,83	10,30
500	0,14	60	4,46	6,43	8,50	10,80	11,30
540	0,15	60	4,48	6,49	8,59	11,00	11,50
695	0,19	60	4,57	6,66	8,87	11,60	12,30
760	0,21	60	4,60	6,71	8,96	11,90	12,50
900	0,25	60	4,65	6,80	9,11	12,20	13,00
1100	0,31	60	4,70	6,89	9,26	12,60	13,40
1300	0,36	60	4,73	6,96	9,36	12,90	13,70
1500	0,42	60	4,76	7,00	9,44	13,10	13,90
1800	0,50	60	4,78	7,06	9,52	13,30	14,20
2500	0,69	60	4,82	7,13	9,64	13,60	14,60
3000	0,83	60	4,84	7,16	9,70	13,80	14,80
100	0,03	70	3,75	4,85	5,64	5,54	5,67
200	0,06	70	4,56	6,31	7,94	8,80	9,05
246	0,07	70	4,74	6,65	8,49	9,75	10,10
300	0,08	70	4,90	6,95	8,97	10,60	11,00
375	0,10	70	5,04	7,22	9,44	11,50	12,00
500	0,14	70	5,20	7,53	9,94	12,60	13,20
540	0,15	70	5,24	7,59	10,00	12,90	13,50
695	0,19	70	5,34	7,79	10,40	13,70	14,40
760	0,21	70	5,37	7,85	10,50	13,90	14,70
900	0,25	70	5,43	7,96	10,70	14,30	15,20
1100	0,31	70	5,49	8,06	10,80	14,80	15,70
1300	0,36	70	5,52	8,14	10,90	15,10	16,00
1500	0,42	70	5,55	8,19	11,00	15,30	16,30
1800	0,50	70	5,58	8,25	11,10	15,60	16,60
2500	0,69	70	5,63	8,34	11,30	15,90	17,10
3000	0,83	70	5,65	8,38	11,30	16,10	17,30

Available Temperature difference=hot water inlet temperature-air inlet dry bulb temperature
Max operating water temperature 80°C; Max operating pressure 14 bar.

Eurovent conditions

Heating capacities, two-pipe coil (with fan at high speed)

Centrifugal fan

Water flow rate		Available temperature difference	Heating capacity (high-speed fan) 2 pipe-coil						
l/h	l/s	K	42N16	42N25	42N33	42N43	42N50	42N60	42N75
100	0,03	20	1,03	1,52	1,72	1,52	1,61	1,66	1,73
200	0,06	20	1,27	2,04	2,47	2,42	2,60	2,71	2,87
248	0,07	20	1,33	2,18	2,68	2,72	2,94	3,08	3,31
300	0,08	20	1,38	2,28	2,85	2,98	3,24	3,42	3,72
418	0,12	20	1,45	2,44	3,09	3,38	3,72	3,98	4,46
500	0,14	20	1,48	2,51	3,20	3,58	3,97	4,25	4,85
607	0,17	20	1,51	2,58	3,31	3,78	4,22	4,53	5,23
717	0,20	20	1,53	2,63	3,39	3,93	4,41	4,75	5,54
850	0,24	20	1,55	2,67	3,46	4,08	4,60	4,96	5,84
1010	0,28	20	1,57	2,71	3,52	4,21	4,77	5,15	6,12
1100	0,31	20	1,58	2,73	3,55	4,27	4,85	5,24	6,25
1249	0,35	20	1,59	2,76	3,59	4,35	4,96	5,37	6,44
1500	0,42	20	1,60	2,79	3,64	4,46	5,10	5,53	6,68
1800	0,50	20	1,62	2,81	3,68	4,55	5,22	5,67	6,90
2500	0,69	20	1,63	2,85	3,74	4,69	5,41	5,89	7,24
3000	0,83	20	1,64	2,87	3,76	4,75	5,49	5,98	7,39
100	0,03	30	1,55	2,26	2,56	2,30	2,42	2,49	2,57
200	0,06	30	1,91	3,05	3,70	3,67	3,93	4,10	4,33
248	0,07	30	2,02	3,25	4,02	4,13	4,45	4,67	5,01
300	0,08	30	2,07	3,40	4,26	4,51	4,89	5,18	5,64
418	0,12	30	2,17	3,66	4,63	5,11	5,61	5,99	6,76
500	0,14	30	2,22	3,75	4,79	5,41	5,98	6,40	7,32
607	0,17	30	2,26	3,85	5,00	5,70	6,35	6,82	7,89
717	0,20	30	2,30	3,92	5,07	6,00	6,65	7,15	8,36
850	0,24	30	2,33	3,99	5,17	6,14	6,84	7,46	8,80
1010	0,28	30	2,35	4,05	5,27	6,34	7,18	7,85	9,23
1100	0,31	30	2,36	4,08	5,31	6,43	7,29	7,92	9,42
1249	0,35	30	2,38	4,11	5,36	6,55	7,45	8,07	9,80
1500	0,42	30	2,40	4,16	5,43	6,70	7,66	8,31	10,10
1800	0,50	30	2,41	4,20	5,49	6,83	7,84	8,52	10,40
2500	0,69	30	2,44	4,26	5,58	7,03	8,12	8,83	10,90
3000	0,83	30	2,45	4,28	5,62	7,12	8,24	8,98	11,10
100	0,03	40	2,07	3,01	3,41	3,11	3,26	3,34	3,43
200	0,06	40	2,55	4,06	4,94	4,97	5,30	5,52	5,84
248	0,07	40	2,67	4,33	5,36	5,57	5,98	6,29	6,76
300	0,08	40	2,77	4,54	5,69	6,06	6,57	6,96	7,61
418	0,12	40	2,90	4,85	6,17	6,87	7,54	8,05	9,10
500	0,14	40	2,96	5,00	6,40	7,26	8,03	8,59	9,84
607	0,17	40	3,02	5,13	6,61	7,66	8,53	9,15	10,60
717	0,20	40	3,06	5,23	6,76	7,96	8,92	9,59	11,20
850	0,24	40	3,10	5,32	6,90	8,24	9,28	10,00	11,80
1010	0,28	40	3,13	5,40	7,02	8,49	9,62	10,40	12,40
1100	0,31	40	3,15	5,43	7,08	8,61	9,77	10,60	12,60
1249	0,35	40	3,17	5,48	7,15	8,77	9,98	10,80	13,00
1500	0,42	40	3,19	5,54	7,24	8,97	10,30	11,10	13,50
1800	0,50	40	3,22	5,59	7,32	9,14	10,50	11,40	13,90
2500	0,69	40	3,25	5,67	7,44	9,40	10,80	11,80	14,50
3000	0,83	40	3,26	5,70	7,49	9,51	11,00	12,00	14,80
100	0,03	50	2,60	3,77	4,27	3,93	4,11	4,21	4,32
200	0,06	50	3,20	5,08	6,20	6,29	6,69	6,97	7,38
248	0,07	50	3,35	5,42	6,71	7,03	7,54	7,94	8,55
300	0,08	50	3,47	5,68	7,12	7,65	8,27	8,76	9,62
418	0,12	50	3,63	6,08	7,73	8,66	9,49	10,10	11,50
500	0,14	50	3,71	6,25	8,01	9,15	10,10	10,80	12,40
607	0,17	50	3,78	6,42	8,27	9,64	10,70	11,50	13,40
717	0,20	50	3,83	6,54	8,47	10,00	11,20	12,10	14,10
850	0,24	50	3,88	6,66	8,64	10,40	11,70	12,60	14,90
1010	0,28	50	3,92	6,75	8,79	10,70	12,10	13,10	15,60
1100	0,31	50	3,94	6,80	8,86	10,80	12,30	13,30	15,90
1249	0,35	50	3,96	6,86	8,95	11,00	12,50	13,60	16,40
1500	0,42	50	4,00	6,93	9,07	11,30	12,90	14,00	17,00
1800	0,50	50	4,02	7,00	9,16	11,50	13,20	14,30	17,50
2500	0,69	50	4,06	7,09	9,30	11,80	13,60	14,80	18,30
3000	0,83	50	4,08	7,13	9,36	11,90	13,80	15,00	18,60

Water flow rate		Available temperature difference	Heating capacity (high-speed fan) 2 pipe-coil						
l/h	l/s	K	42N16	42N25	42N33	42N43	42N50	42N60	42N75
100	0,03	60	3,13	4,53	5,13	4,76	4,97	5,09	5,21
200	0,06	60	3,86	6,11	7,45	7,61	8,08	8,44	8,94
248	0,07	60	4,03	6,51	8,07	8,50	9,11	9,59	10,40
300	0,08	60	4,17	6,83	8,56	9,24	9,99	10,60	11,70
418	0,12	60	4,37	7,30	9,30	10,50	11,50	12,20	13,90
500	0,14	60	4,46	7,52	9,63	11,10	12,20	13,10	15,00
607	0,17	60	4,54	7,72	9,95	11,60	12,90	13,90	16,10
717	0,20	60	4,61	7,87	10,20	12,10	13,50	14,60	17,10
850	0,24	60	4,66	8,00	10,40	12,50	14,10	15,20	18,00
1010	0,28	60	4,71	8,12	10,60	12,90	14,60	15,70	18,80
1100	0,31	60	4,73	8,17	10,60	13,00	14,80	16,00	19,20
1249	0,35	60	4,76	8,24	10,80	13,30	15,10	16,40	19,80
1500	0,42	60	4,80	8,33	10,90	13,60	15,50	16,80	20,50
1800	0,50	60	4,83	8,40	11,00	13,80	15,80	17,20	21,10
2500	0,69	60	4,88	8,51	11,20	14,20	16,30	17,80	22,00
3000	0,83	60	4,90	8,56	11,20	14,30	16,60	18,10	22,40
100	0,03	70	3,66	5,29	5,99	5,60	5,83	5,98	6,11
200	0,06	70	4,51	7,14	8,71	8,95	9,49	9,92	10,50
248	0,07	70	4,72	7,61	9,44	9,98	10,70	11,20	12,20
300	0,08	70	4,88	7,99	10,00	10,90	11,70	12,40	13,70
418	0,12	70	5,11	8,54	10,90	12,30	13,50	14,30	16,30
500	0,14	70	5,21	8,79	11,30	13,00	14,30	15,30	17,60
607	0,17	70	5,31	9,02	11,60	13,60	15,20	16,30	19,00
717	0,20	70	5,38	9,19	11,90	14,20	15,90	17,10	20,10
850	0,24	70	5,45	9,35	12,10	14,60	16,50	17,80	21,10
1010	0,28	70	5,50	9,49	12,40	15,10	17,10	18,50	22,10
1100	0,31	70	5,53	9,55	12,40	15,30	17,30	18,80	22,50
1249	0,35	70	5,56	9,63	12,60	15,50	17,70	19,20	23,20
1500	0,42	70	5,60	9,73	12,70	15,90	18,10	19,70	24,00
1800	0,50	70	5,64	9,82	12,90	16,10	18,50	20,20	24,70
2500	0,69	70	5,69	9,95	13,10	16,60	19,10	20,90	25,80
3000	0,83	70	5,72	10,00	13,10	16,80	19,40	21,20	26,30

Available Temperature difference=hot water inlet temperature-air inlet dry bulb temperature
Max operating water temperature 80°C; Max operating pressure 14 bar.

Eurovent conditions

Heating capacities, four-pipe coil (with fan at high speed)

Tangential fan

Water flow rate		Available temperature difference	Heating capacity (high-speed fan) 4-pipe coil				
l/h	l/s	K	42N 16	42N 25	42N 33	42N 43	42N 50
100	0.03	20	0.82	1.02	1.10	1.34	1.37
130	0.04	20	0.87	1.12	1.22	1.51	1.55
200	0.06	20	0.94	1.26	1.39	1.77	1.82
240	0.07	20	0.96	1.31	1.45	1.87	1.93
300	0.08	20	0.99	1.37	1.52	1.98	2.05
350	0.10	20	1.00	1.40	1.56	2.05	2.12
500	0.14	20	1.03	1.47	1.65	2.20	2.28
700	0.19	20	1.05	1.52	1.71	2.30	2.39
900	0.25	20	1.06	1.55	1.75	2.37	2.46
1100	0.31	20	1.07	1.57	1.77	2.41	2.51
100	0.03	30	1.22	1.53	1.65	2.00	2.04
130	0.04	30	1.30	1.68	1.83	2.25	2.31
200	0.06	30	1.40	1.89	2.08	2.65	2.72
240	0.07	30	1.44	1.96	2.17	2.80	2.88
300	0.08	30	1.47	2.05	2.28	2.97	3.06
350	0.10	30	1.49	2.10	2.34	3.08	3.18
500	0.14	30	1.54	2.20	2.47	3.29	3.40
700	0.19	30	1.57	2.27	2.56	3.45	3.57
900	0.25	30	1.58	2.31	2.61	3.54	3.68
1100	0.31	30	1.59	2.34	2.65	3.61	3.75
100	0.03	40	1.62	2.05	2.21	2.67	2.72
130	0.04	40	1.75	2.29	2.50	3.11	3.18
200	0.06	40	1.86	2.52	2.78	3.54	3.64
240	0.07	40	1.91	2.62	2.90	3.74	3.85
300	0.08	40	1.96	2.73	3.04	3.97	4.09
350	0.10	40	1.99	2.80	3.12	4.11	4.24
500	0.14	40	2.04	2.93	3.29	4.39	4.54
700	0.19	40	2.08	3.02	3.41	4.60	4.76
900	0.25	40	2.10	3.08	3.48	4.72	4.90
1100	0.31	40	2.12	3.12	3.53	4.81	4.99
100	0.03	50	2.03	2.57	2.77	3.34	3.41
130	0.04	50	2.16	2.81	3.06	3.78	3.86
200	0.06	50	2.33	3.16	3.49	4.44	4.56
240	0.07	50	2.39	3.29	3.64	4.69	4.83
300	0.08	50	2.45	3.42	3.81	4.97	5.12
350	0.10	50	2.48	3.51	3.91	5.15	5.31
500	0.14	50	2.55	3.67	4.12	5.49	5.68
700	0.19	50	2.60	3.78	4.26	5.75	5.96
900	0.25	50	2.63	3.85	4.35	5.91	6.13
1100	0.31	50	2.64	3.90	4.41	6.01	6.24
100	0.03	60	2.44	3.09	3.33	4.02	4.10
130	0.04	60	2.59	3.39	3.69	4.55	4.65
200	0.06	60	2.79	3.81	4.20	5.35	5.49
240	0.07	60	2.86	3.96	4.38	5.65	5.81
300	0.08	60	2.94	4.12	4.58	5.98	6.17
350	0.10	60	2.98	4.22	4.71	6.19	6.39
500	0.14	60	3.06	4.41	4.95	6.61	6.83
700	0.19	60	3.12	4.54	5.12	6.92	7.16
900	0.25	60	3.15	4.63	5.23	7.10	7.36
1100	0.31	60	3.17	4.68	5.30	7.22	7.49
100	0.03	70	2.84	3.62	3.90	4.70	4.79
130	0.04	70	3.07	4.06	4.42	5.49	5.61
200	0.06	70	3.26	4.45	4.91	6.26	6.42
240	0.07	70	3.34	4.63	5.12	6.61	6.80
300	0.08	70	3.43	4.82	5.36	7.00	7.21
350	0.10	70	3.48	4.93	5.50	7.24	7.47
500	0.14	70	3.57	5.15	5.78	7.72	7.98
700	0.19	70	3.63	5.31	5.98	8.08	8.36
900	0.25	70	3.67	5.40	6.10	8.29	8.59
1100	0.31	70	3.70	5.46	6.18	8.44	8.75

Heating capacities, four-pipe coil (with fan at high speed)

Centrifugal fan

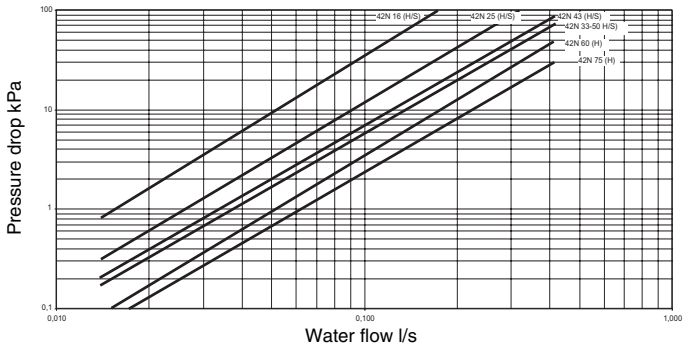
Water flow rate		Available temperature difference	Heating capacity (High speed fan) 4-pipe coil						
l/h	l/s	K	42N 16	42N 25	42N 33	42N 43	42N 50	42N 60	42N 75
100	0.03	20	0.83	1.15	1.21	1.37	1.45	1.53	1.67
130	0.04	20	0.88	1.27	1.34	1.55	1.64	1.74	1.91
200	0.06	20	0.95	1.44	1.54	1.82	1.95	2.07	2.30
240	0.07	20	0.97	1.51	1.61	1.92	2.07	2.19	2.45
300	0.08	20	1.00	1.58	1.69	2.04	2.20	2.34	2.63
350	0.10	20	1.02	1.62	1.74	2.12	2.29	2.43	2.74
500	0.14	20	1.04	1.71	1.85	2.27	2.47	2.61	2.98
700	0.19	20	1.07	1.77	1.92	2.38	2.60	2.75	3.16
900	0.25	20	1.08	1.81	1.97	2.45	2.68	2.83	3.27
1100	0.31	20	1.09	1.84	2.00	2.50	2.74	2.89	3.35
100	0.03	30	1.23	1.70	1.79	2.04	2.15	2.26	2.44
130	0.04	30	1.33	1.93	2.04	2.38	2.52	2.66	2.91
200	0.06	30	1.42	2.14	2.28	2.72	2.90	3.07	3.39
240	0.07	30	1.45	2.24	2.39	2.87	3.08	3.26	3.63
300	0.08	30	1.49	2.34	2.52	3.05	3.29	3.47	3.89
350	0.10	30	1.51	2.41	2.59	3.16	3.42	3.61	4.07
500	0.14	30	1.56	2.54	2.75	3.39	3.68	3.88	4.41
700	0.19	30	1.59	2.63	2.86	3.55	3.88	4.09	4.68
900	0.25	30	1.60	2.69	2.93	3.66	4.00	4.22	4.85
1100	0.31	30	1.62	2.73	2.97	3.72	4.08	4.30	4.96
100	0.03	40	1.64	2.26	2.38	2.72	2.85	3.00	3.23
130	0.04	40	1.74	2.50	2.64	3.08	3.25	3.42	3.71
200	0.06	40	1.88	2.85	3.04	3.63	3.87	4.08	4.50
240	0.07	40	1.93	2.98	3.19	3.84	4.11	4.34	4.82
300	0.08	40	1.98	3.12	3.35	4.07	4.38	4.62	5.17
350	0.10	40	2.01	3.21	3.45	4.22	4.55	4.80	5.40
500	0.14	40	2.07	3.38	3.65	4.51	4.90	5.16	5.86
700	0.19	40	2.11	3.50	3.80	4.74	5.16	5.44	6.22
900	0.25	40	2.13	3.58	3.89	4.87	5.32	5.60	6.44
1100	0.31	40	2.15	3.62	3.95	4.96	5.43	5.71	6.59
100	0.03	50	2.05	2.83	2.97	3.40	3.57	3.74	4.01
130	0.04	50	2.18	3.13	3.31	3.85	4.06	4.27	4.63
200	0.06	50	2.35	3.57	3.80	4.54	4.84	5.10	5.62
240	0.07	50	2.41	3.73	3.99	4.81	5.15	5.42	6.01
300	0.08	50	2.48	3.90	4.19	5.10	5.49	5.78	6.46
350	0.10	50	2.51	4.01	4.32	5.28	5.70	6.00	6.75
500	0.14	50	2.58	4.22	4.56	5.65	6.13	6.45	7.32
700	0.19	50	2.63	4.37	4.74	5.92	6.45	6.79	7.77
900	0.25	50	2.66	4.46	4.85	6.09	6.65	7.00	8.04
1100	0.31	50	2.68	4.52	4.93	6.20	6.78	7.13	8.22
100	0.03	60	2.46	3.40	3.57	4.09	4.28	4.49	4.80
130	0.04	60	2.62	3.76	3.98	4.64	4.89	5.13	5.55
200	0.06	60	2.83	4.29	4.57	5.47	5.83	6.13	6.74
240	0.07	60	2.90	4.48	4.79	5.78	6.19	6.51	7.22
300	0.08	60	2.97	4.69	5.04	6.13	6.60	6.94	7.76
350	0.10	60	3.02	4.81	5.18	6.35	6.85	7.21	8.10
500	0.14	60	3.10	5.06	5.48	6.79	7.37	7.75	8.79
700	0.19	60	3.16	5.24	5.69	7.12	7.75	8.15	9.32
900	0.25	60	3.19	5.35	5.82	7.31	7.99	8.40	9.64
1100	0.31	60	3.21	5.42	5.91	7.44	8.14	8.56	9.85
100	0.03	70	2.87	3.98	4.17	4.78	5.00	5.23	5.59
130	0.04	70	3.06	4.40	4.65	5.42	5.71	5.99	6.47
200	0.06	70	3.30	5.01	5.35	6.39	6.81	7.16	7.87
240	0.07	70	3.38	5.23	5.60	6.76	7.24	7.61	8.43
300	0.08	70	3.47	5.47	5.88	7.17	7.71	8.11	9.06
350	0.10	70	3.52	5.62	6.06	7.43	8.01	8.42	9.46
500	0.14	70	3.61	5.91	6.40	7.93	8.61	9.05	10.30
700	0.19	70	3.68	6.12	6.64	8.31	9.05	9.52	10.90
900	0.25	70	3.72	6.24	6.79	8.54	9.32	9.80	11.20
1100	0.31	70	3.75	6.33	6.89	8.69	9.51	9.98	11.50

Available temperature difference = entering hot water temperature – entering air dry bulb temperature

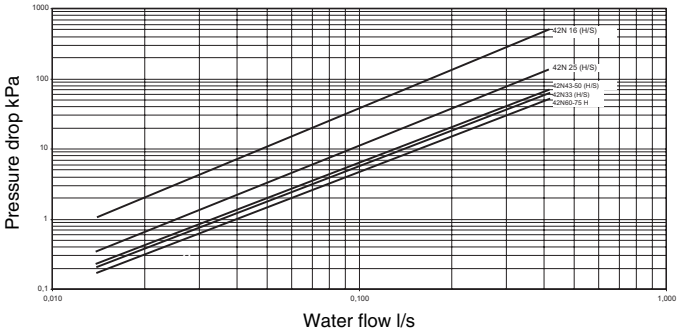
Max. operating water temperature 80°C; max. operating pressure 14 bar.

Pressure drops

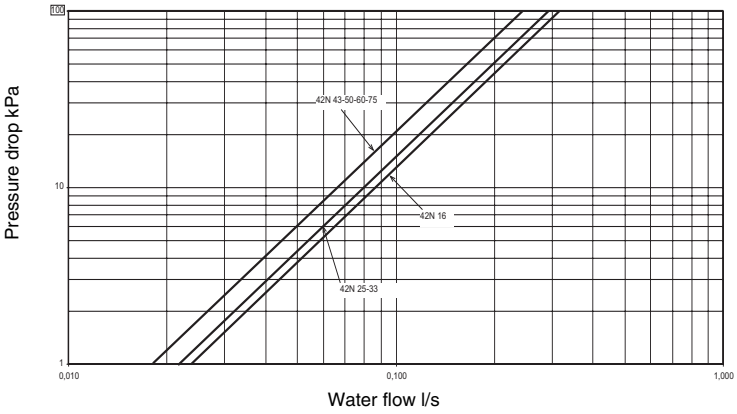
4-pipe coil pressure drop (cold water coil circuit)



4-pipe coil pressure drop (hot water coil circuit)



4-pipe coil pressure drop (cold water coil circuit)



The pressure drop is for the coil only and excludes the water connections and valves.

Fan performances

Tangential fan 42N	Speed			External static pressure (Pa) 0	10	15
16	High	Air volume	l/s	90.3	73.7	65.4
		Nominal capacity multiplier	%	100	87	81
	Medium	Air volume	l/s	68.9	52.3	44.1
		Nominal capacity multiplier	%	100	82	73
	Low	Air volume	l/s	42.8	26.2	17.9
		Nominal capacity multiplier	%	100	68	49
25	High	Air volume	l/s	131.4	111.9	102.2
		Nominal capacity multiplier	%	100	89	84
	Medium	Air volume	l/s	98.9	73.9	61.4
		Nominal capacity multiplier	%	100	81	70
	Low	Air volume	l/s	72.2	41.7	26.4
		Nominal capacity multiplier	%	100	65	44
33	High	Air volume	l/s	158.3	138.5	128.5
		Nominal capacity multiplier	%	100	91	86
	Medium	Air volume	l/s	127.8	102.4	89.7
		Nominal capacity multiplier	%	100	84	76
	Low	Air volume	l/s	69.4	38.5	23.0
		Nominal capacity multiplier	%	100	60	39
43	High	Air volume	l/s	227.2	198.5	184.1
		Nominal capacity multiplier	%	100	91	87
	Medium	Air volume	l/s	179.2	150.4	136.1
		Nominal capacity multiplier	%	100	88	82
	Low	Air volume	l/s	111.1	82.4	68.0
		Nominal capacity multiplier	%	100	79	67
50	High	Air volume	l/s	242.2	213.5	199.1
		Nominal capacity multiplier	%	100	92	87
	Medium	Air volume	l/s	196.1	167.4	153.0
		Nominal capacity multiplier	%	100	89	84
	Low	Air volume	l/s	128.1	99.3	85.0
		Nominal capacity multiplier	%	100	82	72

Fan performances

Centrifugal fan				External static pressure (Pa)							
				0	10	20	30	40	50	60	70
42N	**Speed**										
16	High	Air volume	l/s	92.2	84.0	75.8	67.6	59.3	51.1	42.9	34.7
		Nominal capacity multiplier	%	100	94	87	81	74	66	58	50
	Medium	Air volume	l/s	74.4	66.2	58.0	49.8	41.6	33.3	25.1	16.9
		Nominal capacity multiplier	%	100	92	84	75	66	55	44	31
	Low	Air volume	l/s	59.7	51.5	43.3	35.1	26.8	18.6	10.4	2.2
		Nominal capacity multiplier	%	100	90	79	67	55	41	25	-
25	High	Air volume	l/s	166.7	158.4	150.2	142.0	133.8	125.6	117.3	109.1
		Nominal capacity multiplier	%	100	97	94	91	87	83	79	75
	Medium	Air volume	l/s	100.0	91.8	83.6	75.3	67.1	58.9	50.7	42.4
		Nominal capacity multiplier	%	100	94	88	81	74	67	60	51
	Low	Air volume	l/s	80.6	72.3	64.1	55.9	47.7	39.4	31.2	23.0
		Nominal capacity multiplier	%	100	92	84	76	67	57	47	36
33	High	Air volume	l/s	190.3	179.7	169.2	158.6	148.1	137.5	126.9	116.4
		Nominal capacity multiplier	%	100	96	92	105	84	79	75	70
	Medium	Air volume	l/s	144.4	133.9	123.3	112.8	102.2	91.7	81.1	70.6
		Nominal capacity multiplier	%	100	94	89	83	77	70	64	57
	Low	Air volume	l/s	93.1	82.5	71.9	61.4	50.8	40.3	29.7	19.2
		Nominal capacity multiplier	%	100	91	81	71	61	49	38	27
43	High	Air volume	l/s	238.9	225.6	212.2	198.9	185.6	172.2	158.9	145.6
		Nominal capacity multiplier	%	100	96	92	107	84	80	76	71
	Medium	Air volume	l/s	194.4	181.1	167.8	154.4	141.1	127.8	114.4	101.1
		Nominal capacity multiplier	%	100	95	90	85	80	74	68	61
	Low	Air volume	l/s	125.0	111.7	98.3	85.0	71.7	58.3	45.0	31.7
		Nominal capacity multiplier	%	100	92	83	74	64	54	43	31
50	High	Air volume	l/s	281.9	268.6	255.3	241.9	228.6	215.3	201.9	188.6
		Nominal capacity multiplier	%	100	97	94	105	87	83	79	76
	Medium	Air volume	l/s	230.6	217.2	203.9	190.6	177.2	163.9	150.6	137.2
		Nominal capacity multiplier	%	100	96	92	87	83	78	73	68
	Low	Air volume	l/s	150.0	136.7	123.3	110.0	96.7	83.3	70.0	56.7
		Nominal capacity multiplier	%	100	93	86	79	71	63	54	45
60	High	Air volume	l/s	338.9	320.3	301.7	283.1	264.4	245.8	227.2	208.6
		Nominal capacity multiplier	%	100	96	93	111	85	80	76	71
	Medium	Air volume	l/s	272.2	253.6	235.0	216.4	197.8	179.2	160.6	141.9
		Nominal capacity multiplier	%	100	95	90	85	79	74	68	61
	Low	Air volume	l/s	175.0	156.4	137.8	119.2	100.6	81.9	63.3	44.7
		Nominal capacity multiplier	%	100	92	83	74	64	54	43	31
75	High	Air volume	l/s	437.5	414.3	391.2	368.0	344.8	321.7	298.5	275.3
		Nominal capacity multiplier	%	100	96	93	89	86	82	78	73
	Medium	Air volume	l/s	327.8	304.6	281.4	258.3	235.1	211.9	188.8	165.6
		Nominal capacity multiplier	%	100	95	90	85	79	73	67	60
	Low	Air volume	l/s	227.8	204.6	181.4	158.3	135.1	111.9	88.8	65.6
		Nominal capacity multiplier	%	100	92	84	75	66	57	47	36

Tables give the air volume relating to external static pressure. They refer to 42N units with filters, and used for sensible treatment without dehumidification.
If the unit is to work in dehumidification, the maximum external static pressure is reduced by 5 Pa.

Coil water content

42N		16	25	33	43	50	60	75
Standard coil	l	0.5	0.84	1.25	1.34	1.45	1.95	2.09
Coil for 4-pipe systems	l	0.67	1.09	1.25	1.68	1.68	2.01	2.01

Air throw

The air throw value gives the position where the air velocity is 0.2 m/s when the air is blown horizontally with the grille pointing upwards. Air throw values are given as a guideline only, and change with room dimensions and furniture used in the room.

42N		16	25	33	43	50	60	75
Tangential fan	m							
High speed		2.85	3.71	4.16	6.18	7.24	-	-
Medium speed		2.50	3.26	3.85	4.86	5.85	-	-
Low speed		0.83	1.33	1.18	2.93	3.66	-	-
Centrifugal fan	m							
High speed		2.81	3.83	4.27	5.66	6.73	8.13	10.50
Medium speed		2.45	3.51	3.70	5.01	5.87	7.07	7.87
Low speed		1.64	2.01	2.18	2.50	3.06	3.64	4.74

Operating limits

Water circuit	Maximum water-side pressure: 1400 kPa (142 m WG)	Minimum entering water temperature: +2°C Maximum entering water temperature: +80°C
Indoor temperature		Minimum temperature: 5°C* Maximum temperature: 32°C
Mains power supply	Nominal single-phase voltage Operating voltage limits	230 V ~ 50/60 Hz Min. 198 V - Max. 264 V
Maximum static pressure (versions with centrifugal fan)**	60 Pa (Size 16) – 70 Pa (Sizes 25-75)	
Maximum static pressure (versions with tangential fan)**	15 Pa	

Notes:

* If the outdoor temperature can go down to 0°C, it is advisable to empty the water circuit to avoid breaks caused by ice.

** Maximum static pressure values refer to unit operating at high speed for air treatment without dehumidification. When dehumidification is present, the maximum static pressure is reduced by 5 Pa.

Sound data*

Unit with tangential fan

42N	Fan speed	Sound pressure level dB(A)**	NR	Sound power level dB(A)
16	High	41	37	49
	Medium	35	30	43
	Low	25	22	33
25	High	41	37	49
	Medium	35	30	43
	Low	27	23	35
33	High	47	42	55
	Medium	41	37	49
	Low	30	26	38
43	High	51	47	59
	Medium	45	40	53
	Low	35	29	43
50	High	52	47	60
	Medium	47	43	55
	Low	38	32	46

Unit with centrifugal fan

42N	Fan speed	Sound pressure level dB(A)**	NR	Sound pressure level dB(A)
16	High	40	36	48
	Medium	34	30	42
	Low	28	24	36
25	High	50	44	58
	Medium	37	32	45
	Low	30	26	38
33	High	53	48	61
	Medium	46	41	54
	Low	35	31	43
43	High	51	46	59
	Medium	46	41	54
	Low	34	30	42
50	High	55	50	63
	Medium	50	45	58
	Low	39	35	47
60	High	54	48	62
	Medium	49	44	57
	Low	38	34	46
75	High	61	55	69
	Medium	54	49	62
	Low	45	40	53

* Values given are for a typical installation: floor-mounted vertical installation with cabinet for tangential units, and concealed (without cabinet) for centrifugal units.

** Sound pressure levels dB(A), NR measured in a room of 100 m^3 volume and 0.5 sec. reverberation time (e.g. living room with wall-to-wall carpet and curtains).

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Manufacturer reserves the right to change any product specifications without notice.

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