



Quality Management System Approval



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

## 42DW

**Nominal cooling capacity 5.5-12.7 kW**

**Nominal heating capacity 7.3-17.9 kW**

The Carrier 42DW fan coil units offer reliable, economical cooling and heating for light and medium commercial and residential applications.

### Features

- Available in four sizes with two-pipe, two-pipe plus electric heater or four-pipe coils, with an air flow range from 230 to 700 l/s, a cooling capacity range from 5.5 to 12.7 kW and a heating capacity range from 7.3 to 17.9 kW
- Compact ducted chilled-water fan coil units, designed for installation above false ceilings
- Reliable and efficient heating and cooling for light commercial and residential applications
- Minimised size, using a V-shaped coil
- Reduced height of 285 mm
- Air return from the rear or below for increased installation flexibility
- Air outlet modularity (sleeve or spigots), outlets on the front or at the sides
- High-capacity unit with low sound levels
- Four-speed motor, offering a choice of two medium comfort speeds
- High-pressure centrifugal fans
- Compatible with the 35BD/SR air diffuser range
- Safe factory-installed electric heater for single or two-stage hot water heating
- Low hydraulic pressure drop with a valve mounted, compatible with all chiller pump kits
- Quick installation with factory-installed options (controls, valves)
- Improved market competitiveness

# Standard controls



## Electronic thermostat

- Two versions, A and B, with potentiometer
- Automatic or manual three-speed selection
- Automatic or manual change-over
- Electric heat control
- Comfort/economy/frost protection modes



## HDB controller

- Digital display or infra-red terminal
- Unit grouping capability
- Adjustable settings and parameters
- Timer and daily scheduling



## NTC communicating controller

- Network communication
- Aquasmart Evolution system compatible
- IAQ and DCV management
- Motorised blinds and lighting control

## Options/accessories

- Factory-installed two- or four-way valves
- High-efficiency filter

# Physical and electrical data

Unit size	42DWC 07				42DWC 09				42DWC 12				
	42DWE 07				42DWE 09				42DWE 12				
Fan speed	Low	Medium	High	Super high	Low	Medium	High	Super high	Low	Medium	High	Super high	
<b>Fan</b>													
Air flow	l/s	228	250	260	271	253	303	349	372	478	562	632	669
	m <sup>3</sup> /h	820	900	935	975	910	1090	1256	1340	1719	2024	2276	2410
Static pressure	Pa	40	50	55	60	35	50	65	75	35	50	60	70
<b>Cooling mode</b>													
Total cooling capacity*	kW	5.08	5.5	5.67	5.83	5.88	6.81	7.69	8.04	9.29	10.36	11.15	11.6
Sensible cooling capacity*	kW	4	4.33	4.47	4.63	4.54	5.32	6.05	6.38	7.53	8.52	9.28	11.19
Water flow rate	l/s	0.24	0.26	0.27	0.28	0.28	0.33	0.38	0.38	0.45	0.51	0.54	0.55
	l/h	870	940	980	1003	1020	1170	1355	1382	1630	1825	1950	1996
Water pressure drop	kPa	16	21.1	23.2	24.5	16.1	21.5	27.5	29.9	38	45	55	60
<b>2-pipe heating mode</b>													
Heating capacity*	kW	6.74	7.28	7.6	7.72	7.95	9.31	10.5	10.99	13.09	14.8	16.26	16.58
Water pressure drop	kPa	16	21.1	23.2	24.5	16.1	21.5	27.5	29.9	38	45	55	60
<b>Electric heater capacity (42DWE)</b>													
W		3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
<b>Sound levels</b>													
Sound power level (LwO)	dB(A)	51	53	54	56	52	56	60	61	57	61	63	65
Sound pressure level (LpO)**	dB(A)	43	45	46	48	44	48	52	53	49	53	55	57
Sound power level (Lwl + Env)	dB(A)	52	54	55	57	53	57	61	62	60	64	66	68
Sound pressure level (Lpl + Env)**	dB(A)	44	46	47	49	45	49	53	54	52	56	58	60
Sound power level (LwT)	dB(A)	-	-	-	-	-	-	-	-	-	-	-	-
Sound pressure level (LpT)**	dB(A)	-	-	-	-	-	-	-	-	-	-	-	-
NR value**		38	41	42	43	40	44	48	49	44	48	51	53
<b>Electrical data</b>													
Power supply	V-ph-Hz	230-150				230-150				230-150			
Power input	W	85	95	105	135	125	165	195	215	265	310	360	400
Current draw	A	0.37	0.41	0.45	0.58	0.55	0.71	0.85	0.93	1.16	1.37	1.57	1.73
Coil outlet/inlet diameter	inch	3/4				3/4				3/4			
<b>Weight (42DWC/42DWE)</b>													
kg		35/39				37/41				48/53			
<b>Unit size</b>													
<b>42DWC 16</b>													
<b>42DWE 16</b>													
Fan speed	Low	Medium	High	Super high	Low	Medium	High	Super high	Low	Medium	High	Super high	
<b>Fan</b>													
Air flow	l/s	601	655	692	739	301	368	433	470	658	738	805	857
	m <sup>3</sup> /h	2162	2359	2491	2662	1083	1323	1560	1692	2369	2655	2899	3085
Static pressure	Pa	40	50	55	60	0	0	0	0	0	0	0	0
<b>Cooling mode</b>													
Total cooling capacity*	kW	12.00	12.70	13.40	13.70	6.34	7.33	8.19	8.58	11.32	12.12	12.64	12.97
Sensible cooling capacity*	kW	9.39	10.00	10.70	10.60	4.92	5.79	6.55	7.01	9.38	10.16	10.69	10.97
Water flow rate	l/s	0.57	0.61	0.64	0.65	0.31	0.35	0.40	0.41	0.56	0.60	0.63	0.62
	l/h	2061	2182	2307	2356	1110	1275	1425	1475	2010	2150	2250	2231
Water pressure drop	kPa	45	49	54	59	26	32	39	44	48	54	58	63
<b>2-pipe heating mode</b>													
Heating capacity*	kW	16.7	17.9	18.9	19.6	-	-	-	-	-	-	-	-
Water pressure drop	kPa	45	49.4	54.2	59	-	-	-	-	-	-	-	-
<b>4-pipe heating mode</b>													
Heating capacity*	kW	-	-	-	-	8.24	9.3	10.15	10.88	15.35	16.41	17.28	17.56
Water flow rate	l/s	-	-	-	-	0.19	0.22	0.24	0.26	0.35	0.38	0.40	0.42
	l/h	-	-	-	-	700	775	850	936	1265	1370	1440	1510
Water pressure drop	kPa	-	-	-	-	15	17	21	24	45	51	56	60
<b>Electric heater capacity (42DWE)</b>													
W		3000	3000	3000	3000	-	-	-	-	-	-	-	-
<b>Sound levels</b>													
Sound power level (LwO)	dB(A)	63	65	67	68	53	58	63	66	69	71	73	75
Sound pressure level (LpO)**	dB(A)	55	57	59	60	45	50	55	57	61	63	65	67
Sound power level (Lwl + Env)	dB(A)	66	68	70	71	-	-	-	-	-	-	-	-
Sound pressure level (Lpl + Env)**	dB(A)	58	60	62	63	-	-	-	-	-	-	-	-
Sound power level (LwT)	dB(A)	-	-	-	-	53	58	63	65	69	71	73	75
Sound pressure level (LpT)**	dB(A)	-	-	-	-	45	50	55	57	61	63	65	67
NR value**		58	60	62	63	41	46	50	53	57	59	61	63
<b>Electrical data</b>													
Power supply	V-ph-Hz	230-150				230-150				230-150			
Power input	W	370	410	450	515	135	175	220	240	400	460	510	580
Current draw	A	1.63	1.76	1.94	2.23	0.58	0.76	0.95	1.04	1.82	2.04	2.24	2.47
Coil outlet/inlet diameter	inch	3/4				3/4				3/4			
<b>Weight (42DWC-DWD/42DWE)</b>													
kg		53/58				37				53			

\* Based on standard Eurovent conditions:

Cooling 27 °C db/19 °C wb air temperature, 7 °C/12 °C entering/leaving water temperature

2-pipe heating: 20 °C air temperature, 50 °C entering water temperature, same water flow rate as in cooling

4-pipe heating: 20 °C air temperature, 70 °C/60 °C entering/leaving water temperature

\*\* The sound pressure level and the NR levels are referred to a 100 m<sup>3</sup> room with a reverberation time of 0.5 seconds (-8 dB)

## Notes:

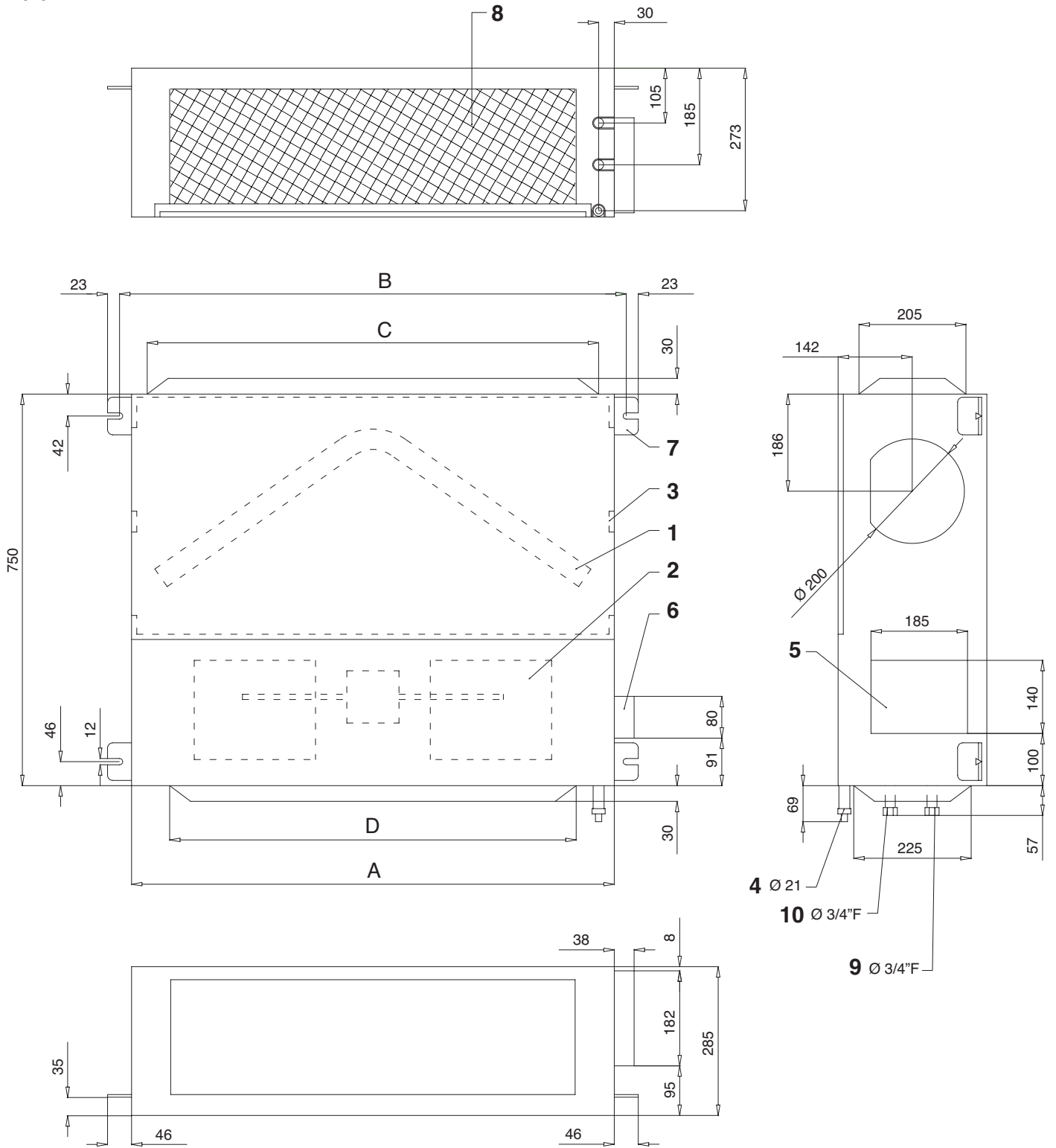
42DWC units are based on FCP = 50 Pa at medium fan speed. Sound pressure levels are divided into LwO (outlet) and Lwl + Env (inlet + envelope)

42DWD units are based on FC = free delivery. Sound pressure level is the total LwT = LwO + Lwl + envelope.

NR for the 42DWD is evaluated at the outlet (from LpO) and for the 42DWD it is evaluated from the total noise (from LpT):

# Dimensions, mm

42DWC 07-16  
2-pipe version



- 1. Coil
- 2. Fan
- 3. Condensate pan
- 4. Condensate drain connection
- 5. Fresh air intake
- 6. Control panel
- 7. Unit frame
- 8. Air filter
- 9. Cold water inlet
- 10. Cold water outlet

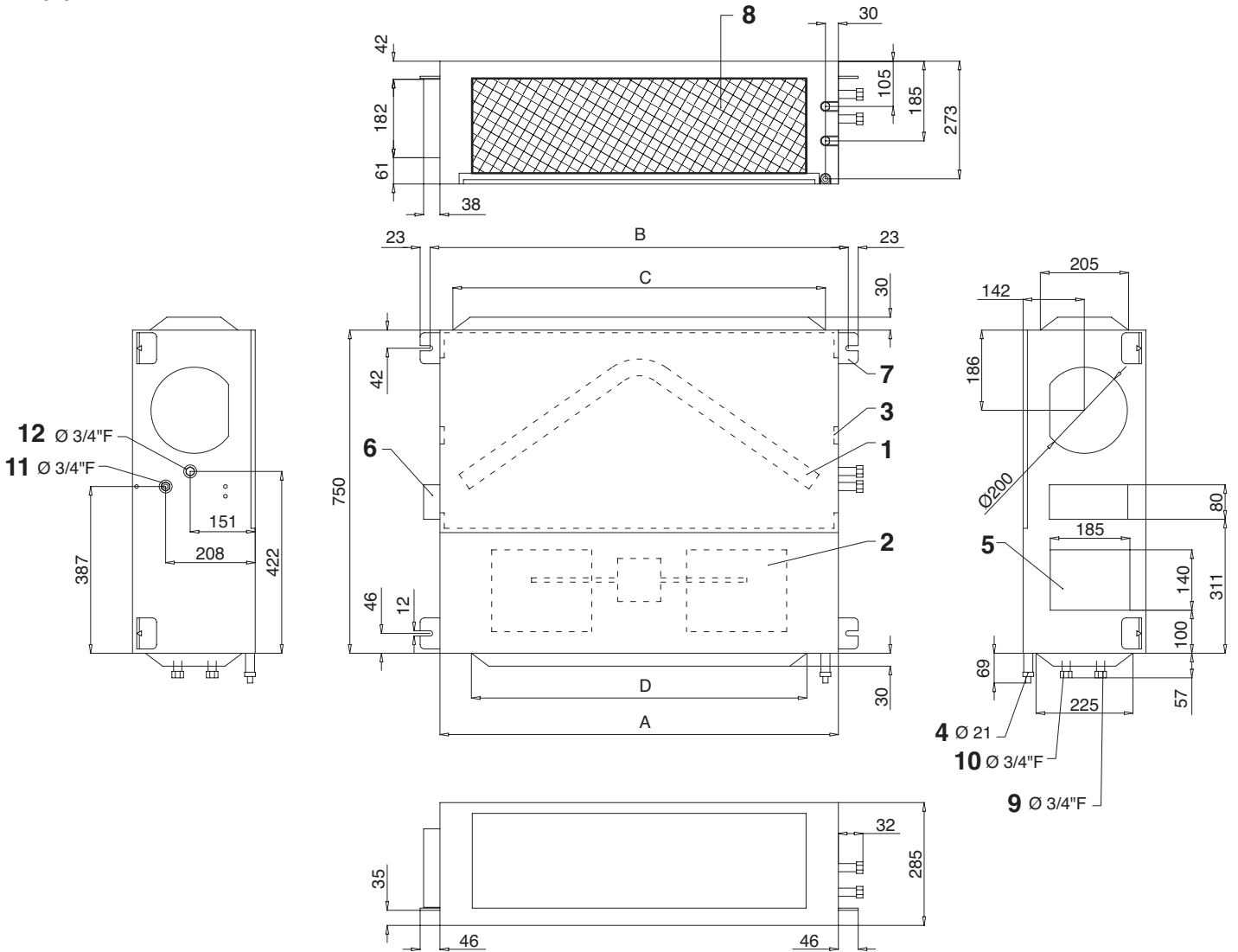
42DWC	A	B	C	D
07-09	925	971	865	779
12-16	1325	1371	1265	1179

When designing an installation always use up-to-date drawings, available from your local Carrier office.

# Dimensions, mm

42DWD 09-16

4-pipe version



1. Coil
2. Fan
3. Condensate pan
4. Condensate drain connection
5. Fresh air intake
6. Control panel
7. Unit frame
8. Air filter
9. Cold water inlet
10. Cold water outlet
11. Hot water outlet
12. Hot water inlet

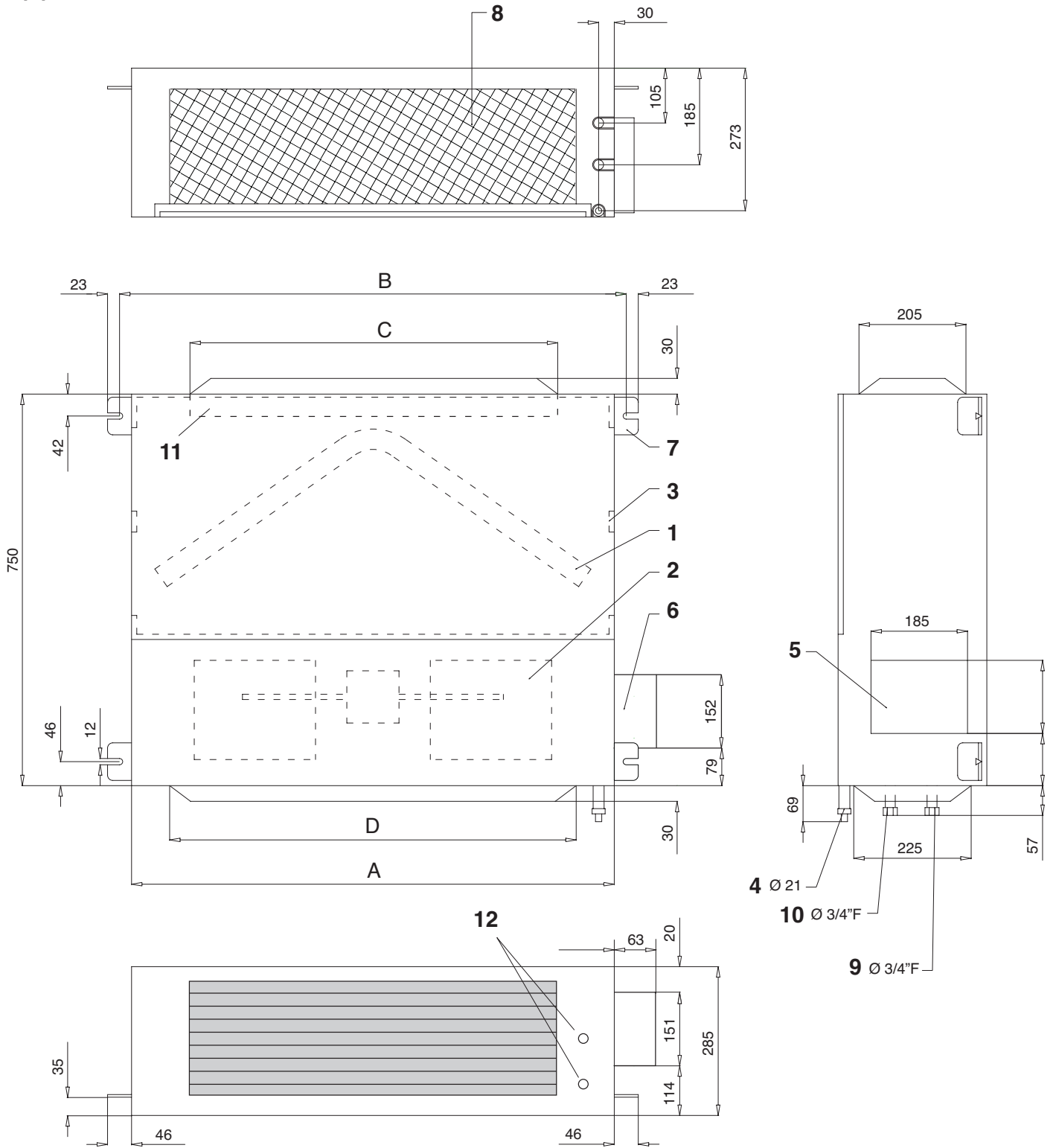
42DWD	A	B	C	D
09	925	971	865	779
16	1325	1371	1265	1179

When designing an installation always use up-to-date drawings, available from your local Carrier office.

# Dimensions, mm

42DWE 07-16

2-pipe version with electric heater

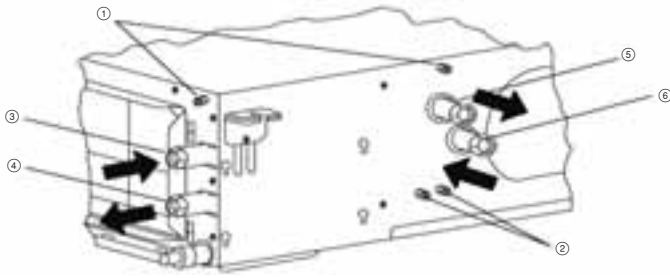


1. Coil
2. Fan
3. Condensate pan
4. Condensate drain connection
5. Fresh air intake
6. Control panel
7. Unit frame
8. Air filter
9. Cold water inlet
10. Cold water outlet
11. Electric heater assembly
12. Electric heater overload protectors

42DWE	A	B	C	D
07-09	925	971	700	779
12-16	1325	1371	943	1179

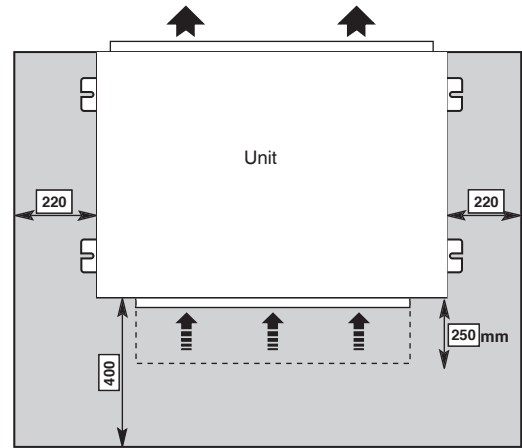
When designing an installation always use up-to-date drawings, available from your local Carrier office.

## Water connections



- 1- Purge valves
- 2- Drain valves
- 3- Cold water inlet 3/4" female
- 4- Cold water outlet 3/4" female
- 5- Hot water outlet 3/4" female
- 6- Hot water inlet 3/4" female

## Required clearances, mm



## External kit

Valve spacing, mm		
	mm	Position
2-pipe	220	A
4-pipe	120	B

# Cooling capacities (kW), two-pipe coil (with fan at medium speed and 50 Pa static pressure)

EAT °C wb	°C db	EWT °C	ΔT K	42DWC 07		42DWC 09		42DWC 12		42DWC 16	
				Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible
15	21	5	3	4.73	3.73	5.93	4.61	9.04	7.33	10.97	8.64
15	21	5	5	3.47	3.13	4.29	3.84	6.65	6.1	8.15	7.26
15	21	5	7	2.55	2.55	3.09	3.09	4.53	4.42	5.64	5.53
15	21	5	9	1.8	1.8	2.21	2.21	2.88	2.82	3.66	3.59
15	21	7	3	3.66	3.22	4.53	3.96	7.04	6.36	8.51	7.47
15	21	7	5	2.71	2.7	3.32	3.32	5.19	5.07	6.25	6.09
15	21	7	7	1.92	1.92	2.29	2.29	3.27	3.2	4.11	4.02
15	21	7	9	1.37	1.37	1.69	1.69	1.92	1.88	2.41	2.36
15	21	9	3	2.79	2.77	3.45	3.42	5.50	5.38	6.52	6.36
15	21	9	5	2.09	2.09	2.55	2.55	3.90	3.82	4.76	4.67
15	21	9	7	1.3	1.3	1.6	1.6	2.07	2.03	2.65	2.59
15	21	9	9	0.94	0.94	1.16	1.16	1.25	1.23	1.56	1.54
15	21	11	3	2.18	2.18	2.7	2.7	4.24	4.16	5.06	4.96
15	21	11	5	1.44	1.44	1.72	1.72	2.43	2.38	3.04	2.99
15	21	13	3	1.56	1.56	1.92	1.92	2.96	2.9	3.57	3.49
17	23	5	3	6.2	4.24	7.76	5.26	11.87	8.32	14.40	9.84
17	23	5	5	4.88	3.64	6.06	4.49	9.19	7.11	11.34	8.47
17	23	5	7	3.45	3.02	4.17	3.67	6.41	5.78	8.01	6.95
17	23	5	9	2.44	2.43	2.91	2.91	4.19	4.09	5.27	5.17
17	23	7	3	5.01	3.71	6.33	4.61	9.60	7.31	11.69	8.63
17	23	7	5	3.74	3.15	4.55	3.84	7.03	6.13	8.67	7.27
17	23	7	7	2.64	2.6	3.18	3.16	4.79	4.64	5.90	5.71
17	23	7	9	1.83	1.83	2.23	2.23	3.00	2.94	3.81	3.74
17	23	9	3	3.9	3.22	4.84	3.96	7.36	6.34	8.99	7.46
17	23	9	5	2.79	2.71	3.44	3.31	5.32	5.15	6.44	6.16
17	23	9	7	1.99	1.99	2.39	2.39	3.40	3.33	4.26	4.17
17	23	9	9	1.37	1.37	1.69	1.69	1.93	1.89	2.45	2.40
17	23	11	3	2.85	2.76	3.56	3.4	5.55	5.39	6.63	6.35
17	23	11	5	2.14	2.14	2.61	2.61	4.01	3.93	4.88	4.78
17	23	11	7	1.33	1.33	1.61	1.61	2.16	2.12	2.75	2.69
17	23	11	9	0.94	0.94	1.16	1.16	1.25	1.23	1.57	1.55
17	23	13	3	2.21	2.21	2.73	2.73	4.30	4.21	5.13	5.03
17	23	13	5	1.48	1.48	1.78	1.78	2.51	2.46	3.15	3.08
17	23	13	7	0.88	0.88	1.08	1.08	1.19	1.17	1.49	1.46
17	23	13	9	0.48	0.48	0.59	0.59	0.60	0.59	0.75	0.73
19	25	5	3	7.89	4.8	9.88	5.97	15.19	9.37	18.23	11.06
19	25	5	5	6.51	4.19	8.1	5.17	12.24	8.11	15.03	9.66
19	25	5	7	4.95	3.53	6.07	4.31	9.09	6.82	11.46	8.19
19	25	5	9	3.39	2.91	4.04	3.51	5.94	5.33	7.60	6.53
19	25	7	3	6.66	4.25	8.35	5.28	12.69	8.32	15.35	9.82
19	25	7	5	5.21	3.64	6.55	4.51	9.85	7.13	12.20	8.50
19	25	7	7	3.75	3.05	4.49	3.69	6.85	5.85	8.58	7.01
19	25	7	9	2.55	2.49	3.03	3.01	4.39	4.23	5.48	5.29
19	25	9	3	5.34	3.7	6.75	4.6	10.23	7.3	12.47	8.61
19	25	9	5	4.02	3.16	4.9	3.85	7.46	6.16	9.29	7.32
19	25	9	7	2.74	2.62	3.34	3.18	5.04	4.84	6.24	5.88
19	25	9	9	1.89	1.89	2.26	2.26	3.13	3.07	3.97	3.90
19	25	11	3	4.14	3.21	5.19	3.97	7.76	6.33	9.51	7.45
19	25	11	5	2.9	2.71	3.58	3.31	5.44	5.16	6.63	6.17
19	25	11	7	2.06	2.06	2.48	2.48	3.52	3.45	4.40	4.32
19	25	11	9	1.38	1.38	1.7	1.7	1.97	1.93	2.53	2.48
19	25	13	3	2.96	2.75	3.68	3.38	5.69	5.38	6.83	6.33
19	25	13	5	2.18	2.18	2.68	2.68	4.10	4.02	4.97	4.88
19	25	13	7	1.38	1.38	1.64	1.64	2.25	2.21	2.85	2.80
19	25	13	9	0.95	0.95	1.17	1.17	1.26	1.23	1.57	1.55
19	27	5	3	7.89	5.39	9.88	6.68	15.25	10.64	18.34	12.51
19	27	5	5	6.6	4.81	8.32	5.98	12.54	9.44	15.39	11.19
19	27	5	7	5.27	4.23	6.39	5.15	9.85	8.25	12.22	9.81
19	27	5	9	3.98	3.68	4.84	4.46	7.35	6.93	9.01	8.33
19	27	7	3	6.65	4.83	8.39	6.01	12.93	9.62	15.64	11.32
19	27	7	5	5.5	4.33	6.81	5.32	10.36	8.52	12.7	10.04
19	27	7	7	4.17	3.77	5.13	4.61	7.89	7.3	13.70	12.29
19	27	7	9	3.25	3.23	3.94	3.94	5.87	5.71	14.70	14.41
19	27	9	3	5.52	4.35	6.93	5.38	10.56	8.62	15.70	12.42
19	27	9	5	4.32	3.84	5.37	4.73	8.32	7.57	16.70	14.76
19	27	9	7	3.39	3.36	4.13	4.11	6.43	6.25	17.70	17.16
19	27	9	9	2.62	2.62	3.15	3.15	4.51	4.42	18.70	18.32
19	27	11	3	4.35	3.86	5.45	4.77	8.44	7.69	19.70	17.49
19	27	11	5	3.47	3.43	4.29	4.22	6.74	6.56	20.70	20.07
19	27	11	7	2.76	2.76	3.37	3.37	5.14	5.04	21.70	21.27
19	27	11	9	1.96	1.96	2.32	2.32	3.25	3.19	22.70	22.23
19	27	13	3	3.46	3.45	4.29	4.25	6.83	6.69	23.70	23.23
19	27	13	5	2.85	2.85	3.52	3.52	5.46	5.35	24.70	24.20
19	27	13	7	2.12	2.12	2.55	2.55	3.64	3.57	25.70	25.17
19	27	13	9	1.38	1.38	1.71	1.71	2.04	2	26.70	26.13



EAT °C wb	°C db	EWT °C	ΔT K	42DWC 07		42DWC 09		42DWC 12		42DWC 16	
				Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible
21	29	5	3	9.72	5.95	12.16	7.39	18.87	11.69	27.70	16.88
21	29	5	5	8.39	5.36	10.5	6.65	15.84	10.44	28.70	18.36
21	29	5	7	6.83	4.71	8.58	5.83	12.93	9.24	29.70	20.37
21	29	5	9	5.37	4.12	6.41	4.98	9.81	7.98	30.70	23.68
21	29	7	3	8.48	5.4	10.63	6.7	16.29	10.61	31.70	20.19
21	29	7	5	7.06	4.81	8.96	5.99	13.41	9.44	32.70	22.23
21	29	7	7	5.67	4.25	6.96	5.19	10.48	8.28	33.70	25.35
21	29	7	9	4.17	3.67	5.08	4.47	7.77	7.04	34.70	30.26
21	29	9	3	7.16	4.84	8.98	6	13.78	9.61	35.70	24.17
21	29	9	5	5.88	4.33	7.35	5.34	10.95	8.48	36.70	27.27
21	29	9	7	4.44	3.77	5.42	4.61	8.30	7.32	37.70	32.12
21	29	9	9	3.35	3.28	4.06	3.98	6.17	5.96	38.70	37.01
21	29	11	3	5.86	4.33	7.4	5.37	11.22	8.61	39.70	29.38
21	29	11	5	4.63	3.85	5.67	4.71	8.74	7.58	40.70	33.95
21	29	11	7	3.49	3.37	4.3	4.11	6.59	6.36	41.70	39.67
21	29	11	9	2.7	2.7	3.26	3.26	4.66	4.57	42.70	41.87
21	29	13	3	4.62	3.85	5.75	4.74	8.81	7.67	43.70	36.65
21	29	13	5	3.56	3.43	4.44	4.2	6.84	6.61	44.70	42.54
21	29	13	7	2.82	2.82	3.45	3.45	5.26	5.15	45.70	44.82
21	29	13	9	2.04	2.04	2.42	2.42	3.37	3.3	46.70	45.77
23	31	5	3	11.70	6.51	14.62	8.09	22.88	12.77	47.70	26.32
23	31	5	5	10.37	5.92	12.98	7.36	19.53	11.43	48.70	27.88
23	31	5	7	8.84	5.30	10.97	6.52	16.45	10.22	49.70	29.87
23	31	5	9	7.03	4.60	8.78	5.67	13.11	8.97	50.70	33.00
23	31	7	3	10.46	5.96	13.09	7.4	20.27	11.7	51.70	29.35
23	31	7	5	9.05	5.38	11.33	6.67	16.94	10.42	52.70	31.48
23	31	7	7	7.42	4.75	9.3	5.87	13.93	9.27	53.70	34.32
23	31	7	9	5.82	4.15	7.05	5.04	10.54	8.03	54.70	39.35
23	31	9	3	9.13	5.41	11.45	6.71	17.50	10.62	55.70	33.06
23	31	9	5	7.63	4.82	9.61	5.99	14.35	9.44	56.70	35.98
23	31	9	7	6.11	4.26	7.56	5.23	11.28	8.32	57.70	40.47
23	31	9	9	4.52	3.69	5.41	4.47	8.22	7.09	58.70	48.43
23	31	11	3	7.72	4.85	9.68	6.01	14.70	9.58	59.70	37.75
23	31	11	5	6.29	4.33	7.92	5.36	11.66	8.47	60.70	42.12
23	31	11	7	4.78	3.79	5.77	4.6	8.80	7.37	61.70	49.21
23	31	11	9	3.49	3.30	4.25	4	6.39	6.12	62.70	58.71
23	31	13	3	6.24	4.31	7.91	5.36	11.94	8.59	63.70	44.08
23	31	13	5	4.95	3.85	6.09	4.71	9.17	7.58	64.70	50.94
23	31	13	7	3.62	3.37	4.48	4.11	6.75	6.38	65.70	61.15
23	31	13	9	2.78	2.78	3.36	3.36	4.87	4.77	66.70	65.35
25	33	5	3	13.84	7.06	17.29	8.79	27.22	13.85	67.70	34.11
25	33	5	5	12.51	6.49	15.66	8.07	23.81	12.49	68.70	35.46
25	33	5	7	11.05	5.89	13.82	7.3	20.35	11.2	69.70	37.36
25	33	5	9	9.20	5.19	11.34	6.36	17.09	10.03	70.70	39.90
25	33	7	3	12.60	6.52	15.75	8.11	24.58	12.77	71.70	36.80
25	33	7	5	11.18	5.94	14.01	7.38	21.03	11.44	72.70	38.72
25	33	7	7	9.63	5.34	12.01	6.6	17.62	10.21	73.70	41.30
25	33	7	9	7.69	4.65	9.58	5.73	14.31	9.06	74.70	45.04
25	33	9	3	11.27	5.97	14.11	7.42	21.79	11.7	75.70	39.96
25	33	9	5	9.76	5.39	12.24	6.69	18.17	10.41	76.70	42.68
25	33	9	7	8.06	4.77	10.09	5.9	14.92	9.27	77.70	46.27
25	33	9	9	6.30	4.17	7.72	5.09	11.41	8.09	78.70	52.57
25	33	11	3	9.84	5.42	12.35	6.73	18.83	10.62	79.70	43.98
25	33	11	5	8.24	4.84	10.33	5.99	15.34	9.43	80.70	47.78
25	33	11	7	6.57	4.27	8.21	5.26	12.14	8.34	81.70	53.41
25	33	11	9	4.90	3.71	5.8	4.48	8.78	7.15	82.70	63.56
25	33	13	3	8.32	4.86	10.45	6.03	15.75	9.57	83.70	49.39
25	33	13	5	6.69	4.31	8.49	5.35	12.46	8.46	84.70	54.89
25	33	13	7	5.15	3.80	6.24	4.62	9.35	7.41	85.70	63.96
25	33	13	9	3.65	3.31	4.45	4	6.66	6.17	86.70	79.12

**Legend**  
**EAT** - Entering air temperature, °C  
**EWT** - Entering water temperature, °C  
**ΔT** - Temperature difference, K  
**db** - Dry bulb temperature  
**wb** - Wet bulb temperature

■ Eurovent ratings

# Cooling capacities (kW), four-pipe coil (with fan at medium speed and 0 Pa static pressure)

EAT °C wb	°C db	EWT °C	ΔT K	42DWD 09		42DWD 16		EAT °C wb	°C db	EWT °C	ΔT K	42DWD 09		42DWD 16	
				Total	Sensible	Total	Sensible					Total	Sensible	Total	Sensible
15	21	5	3	6.29	4.96	10.68	8.77	21	29	5	3	13.07	7.9	22.62	14.04
15	21	5	5	4.7	4.22	7.85	7.25	21	29	5	5	11.12	7.09	18.62	12.41
15	21	5	7	3.49	3.39	5.48	5.26	21	29	5	7	9.15	6.31	15.02	10.98
15	21	5	9	2.34	2.27	3.17	3.04	21	29	5	9	7.17	5.53	11.3	9.42
15	21	7	3	4.87	4.31	8.35	7.6	21	29	7	3	11.36	7.18	19.44	12.76
15	21	7	5	3.7	3.58	6.17	5.92	21	29	7	5	9.35	6.39	15.67	11.25
15	21	7	7	2.63	2.55	3.75	3.6	21	29	7	7	7.57	5.68	12.23	9.88
15	21	7	9	1.61	1.56	1.99	1.91	21	29	7	9	5.63	4.95	8.99	8.25
15	21	9	3	3.82	3.7	6.6	6.34	21	29	9	3	9.54	6.46	16.33	11.54
15	21	9	5	2.85	2.76	4.62	4.44	21	29	9	5	7.76	5.77	12.77	10.14
15	21	9	7	1.72	1.67	2.28	2.19	21	29	9	7	5.91	5.06	9.69	8.72
15	21	9	9	1.1	1.07	1.28	1.23	21	29	9	9	4.55	4.37	7.28	6.95
15	21	11	3	2.99	2.9	5.11	4.91	21	29	11	3	7.76	5.78	13.23	10.36
15	21	11	5	1.96	1.9	2.82	2.71	21	29	11	5	6.15	5.16	10.19	9
15	21	13	3	2.13	2.07	3.52	3.38	21	29	11	7	4.73	4.5	7.8	7.43
17	23	5	3	8.28	5.63	14.11	9.96	21	29	11	9	3.68	3.57	5.59	5.37
17	23	5	5	6.54	4.88	10.72	8.47	21	29	13	3	6.09	5.15	10.43	9.22
17	23	5	7	4.65	4.06	7.47	6.82	21	29	13	5	4.83	4.59	8.22	7.82
17	23	5	9	3.34	3.24	4.81	4.62	21	29	13	7	3.85	3.73	6.21	5.96
17	23	7	3	6.64	4.93	11.33	8.76	21	29	13	9	2.79	2.71	3.85	3.7
17	23	7	5	5	4.22	8.26	7.3	23	31	5	3	15.78	8.62	27.51	15.29
17	23	7	7	3.6	3.46	5.75	5.5	23	31	5	5	13.8	7.81	23.08	13.6
17	23	7	9	2.47	2.4	3.34	3.21	23	31	5	7	11.71	7	19.13	12.1
17	23	9	3	5.15	4.3	8.72	7.59	23	31	5	9	9.41	6.16	15.16	10.66
17	23	9	5	3.79	3.62	6.32	6.03	23	31	7	3	14.05	7.91	24.27	14.03
17	23	9	7	2.72	2.64	3.92	3.76	23	31	7	5	11.98	7.1	19.88	12.4
17	23	9	9	1.63	1.58	2.02	1.94	23	31	7	7	9.86	6.32	16.05	10.98
17	23	11	3	3.88	3.71	6.67	6.38	23	31	7	9	7.75	5.56	12.09	9.52
17	23	11	5	2.92	2.83	4.74	4.55	23	31	9	3	12.22	7.19	20.86	12.76
17	23	11	7	1.81	1.76	2.39	2.29	23	31	9	5	10.05	6.39	16.74	11.25
17	23	11	9	1.1	1.07	1.28	1.23	23	31	9	7	8.13	5.7	13.05	9.91
17	23	13	3	3.02	2.93	5.16	4.95	23	31	9	9	6.02	4.96	9.48	8.38
17	23	13	5	2.02	1.96	3	2.88	23	31	11	3	10.27	6.47	17.4	11.52
17	23	13	7	1.03	1	1.22	1.17	23	31	11	5	8.23	5.75	13.55	10.12
17	23	13	9	0.56	0.54	0.61	0.59	23	31	11	7	6.36	5.08	10.23	8.77
19	25	5	3	10.59	6.36	18.13	11.2	23	31	11	9	4.71	4.4	7.52	7.12
19	25	5	5	8.65	5.55	14.32	9.63	23	31	13	3	8.24	5.76	14.04	10.33
19	25	5	7	6.62	4.72	10.54	8.09	23	31	13	5	6.52	5.15	10.64	9
19	25	5	9	4.56	3.91	7	6.36	23	31	13	7	4.88	4.52	8	7.56
19	25	7	3	8.89	5.64	15.05	9.95	23	31	13	9	3.79	3.68	5.89	5.65
19	25	7	5	6.96	4.87	11.43	8.47	25	33	5	3	18.71	9.34	32.81	16.55
19	25	7	7	5.02	4.08	7.91	6.9	25	33	5	5	16.7	8.53	28.25	14.83
19	25	7	9	3.48	3.33	5.02	4.8	25	33	5	7	14.58	7.72	23.74	13.23
19	25	9	3	7.08	4.92	12.04	8.74	25	33	5	9	12.32	6.92	19.66	11.8
19	25	9	5	5.37	4.23	8.75	7.35	25	33	7	3	16.97	8.62	29.53	15.28
19	25	9	7	3.71	3.5	5.96	5.65	25	33	7	5	14.87	7.82	24.83	13.6
19	25	9	9	2.58	2.5	3.51	3.37	25	33	7	7	12.65	7.02	20.48	12.1
19	25	11	3	5.45	4.28	9.12	7.58	25	33	7	9	10.26	6.22	16.49	10.74
19	25	11	5	3.91	3.64	6.47	6.13	25	33	9	3	15.12	7.91	26.06	14.02
19	25	11	7	2.81	2.73	4.16	3.99	25	33	9	5	12.91	7.11	21.31	12.39
19	25	11	9	1.67	1.62	2.1	2.02	25	33	9	7	10.59	6.32	17.21	10.99
19	25	13	3	3.97	3.69	6.75	6.4	25	33	9	9	8.37	5.59	13.11	9.63
19	25	13	5	2.98	2.89	4.85	4.66	25	33	11	3	13.15	7.19	22.4	12.75
19	25	13	7	1.89	1.83	2.51	2.41	25	33	11	5	10.84	6.4	17.87	11.23
19	25	13	9	1.11	1.08	1.29	1.24	25	33	11	7	8.68	5.7	13.86	9.9
19	27	5	3	10.58	7.17	18.2	12.78	25	33	11	9	6.51	4.99	10.06	8.47
19	27	5	5	8.76	6.39	14.73	11.27	25	33	13	3	11.05	6.47	18.6	11.5
19	27	5	7	7.05	5.66	11.5	9.8	25	33	13	5	8.73	5.72	14.41	10.11
19	27	5	9	5.36	4.93	8.63	8.15	25	33	13	7	6.83	5.09	10.85	8.84
19	27	7	3	8.88	6.45	15.35	11.57	25	33	13	9	4.9	4.44	7.73	7.26
19	27	7	5	7.32	5.79	12.12	10.16	<b>Legend</b> EAT - Entering air temperature, °C EWT - Entering water temperature, °C ΔT - Temperature difference, K db - Dry bulb temperature wb - Wet bulb temperature							
19	27	7	7	5.64	5.08	9.25	8.61								
19	27	7	9	4.42	4.28	7.06	6.78								
19	27	9	3	7.33	5.81	12.51	10.4								
19	27	9	5	5.81	5.18	9.8	9.01								
19	27	9	7	4.62	4.45	7.6	7.29								
19	27	9	9	3.58	3.47	5.27	5.06								
19	27	11	3	5.76	5.17	10.01	9.23								
19	27	11	5	4.73	4.57	8.07	7.74								
19	27	11	7	3.76	3.65	6.06	5.82								
19	27	11	9	2.68	2.6	3.67	3.52								
19	27	13	3	4.72	4.58	8.27	7.94								
19	27	13	5	3.89	3.77	6.52	6.26								
19	27	13	7	2.88	2.79	4.39	4.21								
19	27	13	9	1.74	1.69	2.22	2.13								

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

Water flow rate l/h	l/s	$\Delta T$ K	42DWC 07	42DWC 09	42DWC 12	42DWC 16
500	0.14	20	4.18	4.97	6.04	6.86
684	0.19	20	4.54	5.51	7.09	8.31
1000	0.28	20	4.87	6.02	8.3	10.00
1200	0.33	20	4.98	6.18	8.75	10.63
1500	0.42	20	5.11	6.37	9.35	11.45
1800	0.50	20	5.19	6.48	9.74	11.99
2000	0.56	20	5.24	6.55	9.97	12.32
3000	0.83	20	5.37	6.71	10.64	13.25
500	0.14	30	6.35	7.57	9.22	10.52
684	0.19	30	6.87	8.37	10.8	12.66
1000	0.28	30	7.36	9.10	12.56	15.17
1200	0.33	30	7.52	9.33	13.23	16.08
1500	0.42	30	7.72	9.62	14.15	17.31
1800	0.50	30	7.84	9.78	14.74	18.13
2000	0.56	30	7.9	9.87	15.08	18.61
3000	0.83	30	8.08	10.11	16.07	20.01
500	0.14	40	8.56	10.22	12.77	14.26
684	0.19	40	9.23	11.26	14.56	17.10
1000	0.28	40	9.87	12.21	16.87	20.36
1200	0.33	40	10.08	12.52	17.78	21.59
1500	0.42	40	10.34	12.89	19.01	23.25
1800	0.50	40	10.5	13.10	19.78	24.33
2000	0.56	40	10.58	13.22	20.24	24.98
3000	0.83	40	10.82	13.53	21.55	26.81
500	0.14	50	10.78	12.90	15.39	17.48
684	0.19	50	11.61	14.17	18.31	21.13
1000	0.28	50	12.41	15.35	21.21	25.60
1200	0.33	50	12.67	15.73	22.38	27.13
1500	0.42	50	12.99	16.18	23.9	29.24
1800	0.50	50	13.18	16.44	24.87	30.59
2000	0.56	50	13.28	16.58	25.44	31.38
3000	0.83	50	13.57	16.96	27.08	33.67
500	0.14	60	13.01	15.59	19.08	21.32
684	0.19	60	14.01	17.10	22.42	26.09
1000	0.28	60	14.96	18.50	25.61	30.87
1200	0.33	60	15.27	18.96	27	32.70
1500	0.42	60	15.65	19.49	28.83	35.25
1800	0.50	60	15.87	19.80	30	36.88
2000	0.56	60	16	19.97	30.68	37.83
3000	0.83	60	16.33	20.41	32.63	40.56
500	0.14	70	15.09	18.15	22.04	25.21
684	0.19	70	16.25	19.96	25.57	30.19
1000	0.28	70	17.37	21.64	29.62	35.75
1200	0.33	70	17.73	22.18	31.27	37.89
1500	0.42	70	18.17	22.82	33.42	40.84
1800	0.50	70	18.43	23.18	34.79	42.75
2000	0.56	70	18.57	23.39	35.59	43.88
3000	0.83	70	18.97	23.92	37.87	47.07

**Legend**  
 $\Delta T$  - Temperature difference, K

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

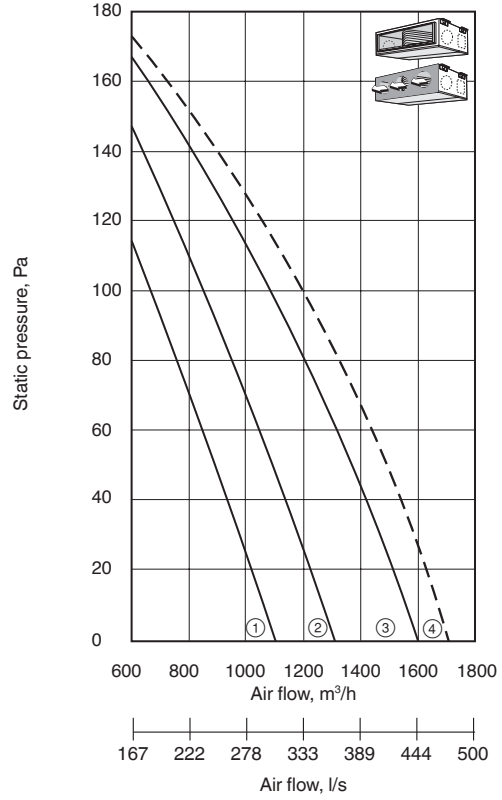
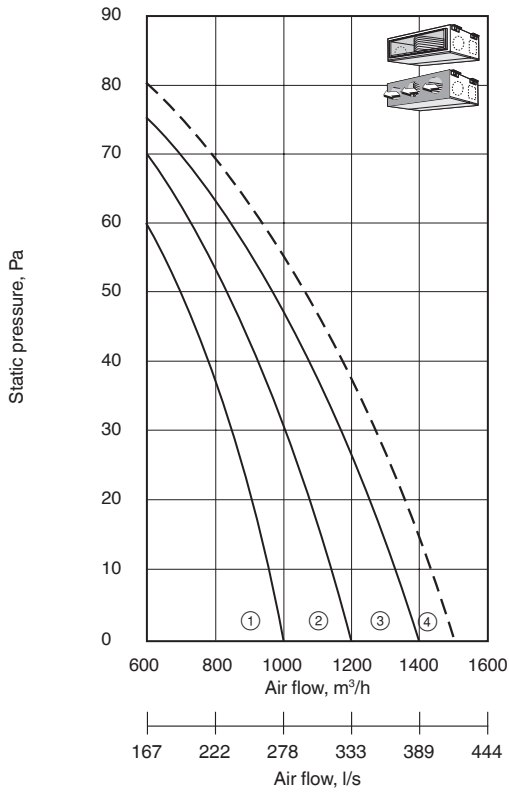
Water flow rate l/h	l/s	$\Delta T$ K	42DWD 09	42DWD 16
500	0.14	20	3.18	4.69
684	0.19	20	3.46	5.25
1000	0.28	20	3.77	5.9
1200	0.33	20	3.88	6.14
1500	0.42	20	4.03	6.47
1800	0.50	20	4.12	6.67
2000	0.56	20	4.18	6.8
500	0.14	30	4.83	7.13
684	0.19	30	5.26	7.99
1000	0.28	30	5.72	8.95
1200	0.33	30	5.88	9.31
1500	0.42	30	6.1	9.79
1800	0.50	30	6.23	10.1
2000	0.56	30	6.31	10.28
500	0.14	40	6.52	9.79
684	0.19	40	7.09	10.76
1000	0.28	40	7.69	12.05
1200	0.33	40	7.91	12.52
1500	0.42	40	8.19	13.15
1800	0.50	40	8.36	13.56
2000	0.56	40	8.47	13.8
500	0.14	50	8.11	11.94
684	0.19	50	8.82	13.57
1000	0.28	50	9.68	15.17
1200	0.33	50	9.95	15.77
1500	0.42	50	10.3	16.55
1800	0.50	50	10.51	17.05
2000	0.56	50	10.64	17.34
500	0.14	60	9.84	14.69
684	0.19	60	10.8	16.62
1000	0.28	60	11.69	18.33
1200	0.33	60	12.01	19.04
1500	0.42	60	12.42	19.97
1800	0.50	60	12.67	20.56
2000	0.56	60	12.82	20.91
500	0.14	70	11.58	17.04
684	0.19	70	12.55	19.05
1000	0.28	70	13.59	21.3
1200	0.33	70	13.96	22.13
1500	0.42	70	14.44	23.21
1800	0.50	70	14.73	23.9
2000	0.56	70	14.91	24.31

**Legend**  
 $\Delta T$  - Temperature difference, K

# Fan performance curves, front discharge

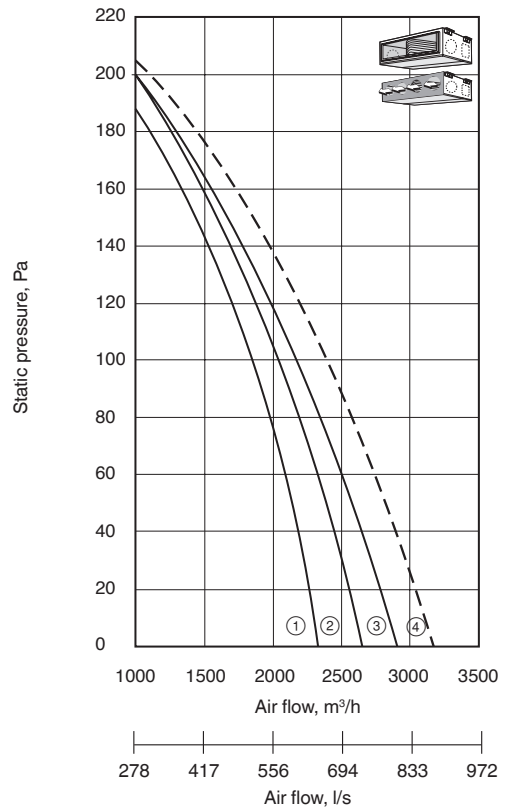
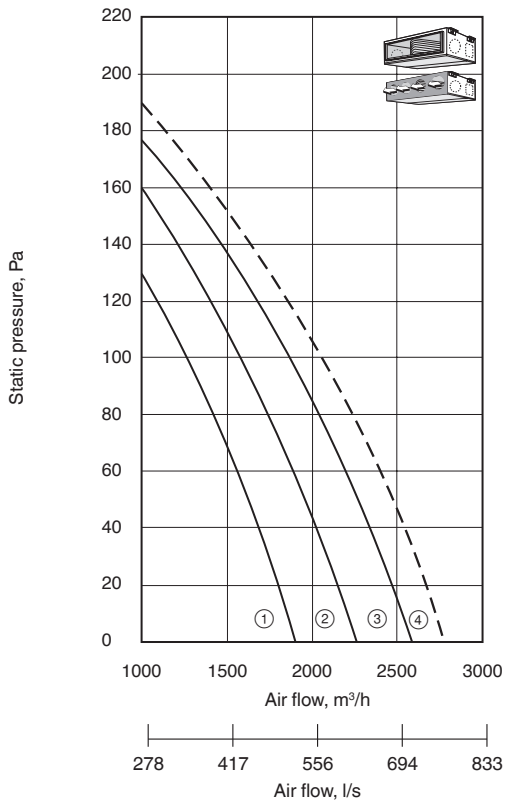
42DWC 07

42DWC 09 - 42DWD 09



42DWC 12

42DWC 16 - 42DWD 16



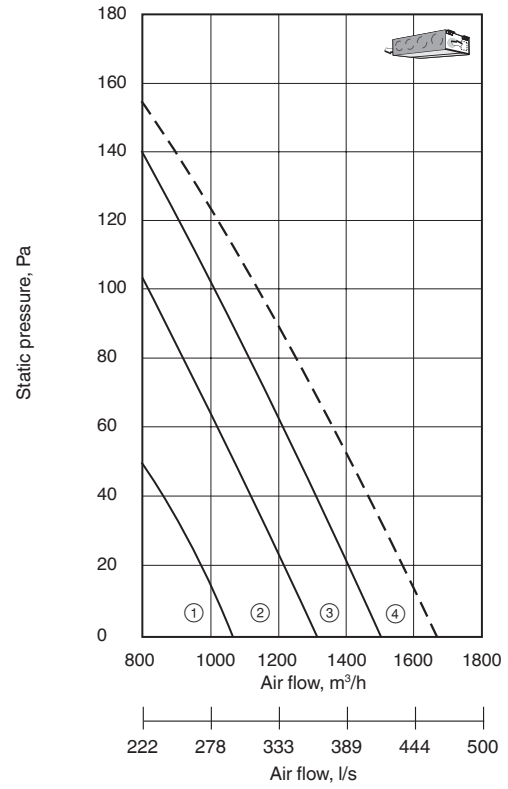
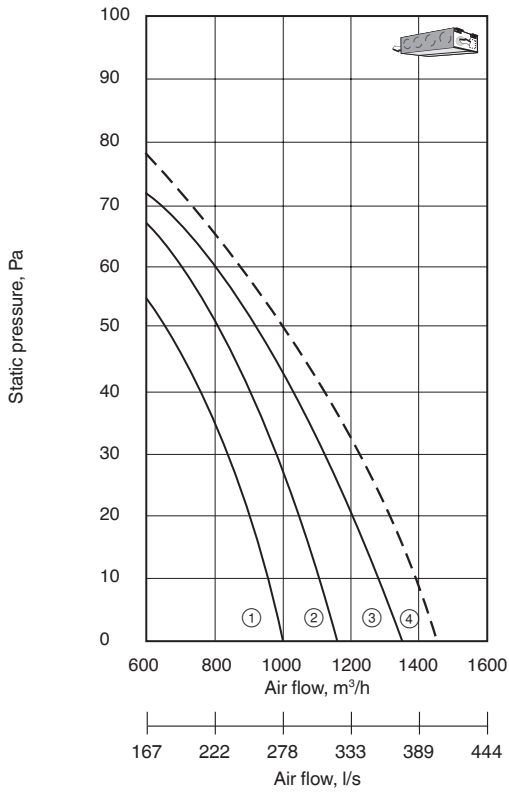
**Legend**

- ① Low fan speed
- ② Medium fan speed
- ③ High fan speed
- ④ Super high fan speed

# Fan performance curves, side discharge

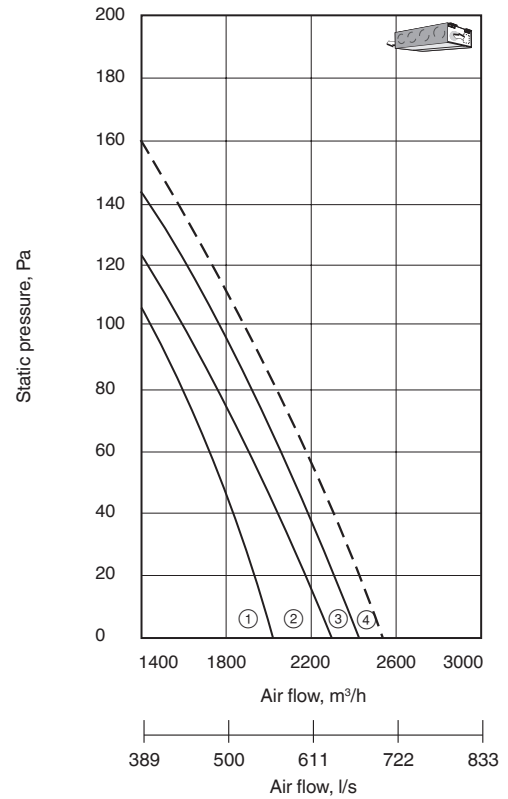
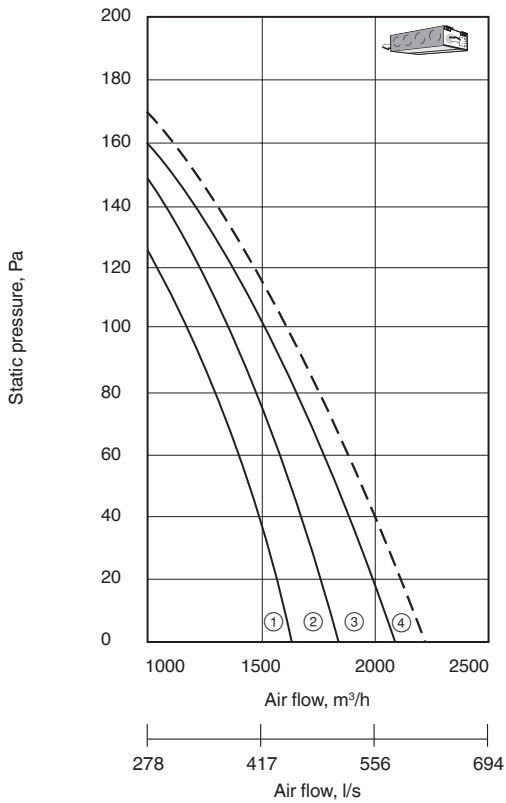
42DWC 07

42DWC 09 - 42DWD 09



42DWC 12

42DWC 16 - 42DWD 16

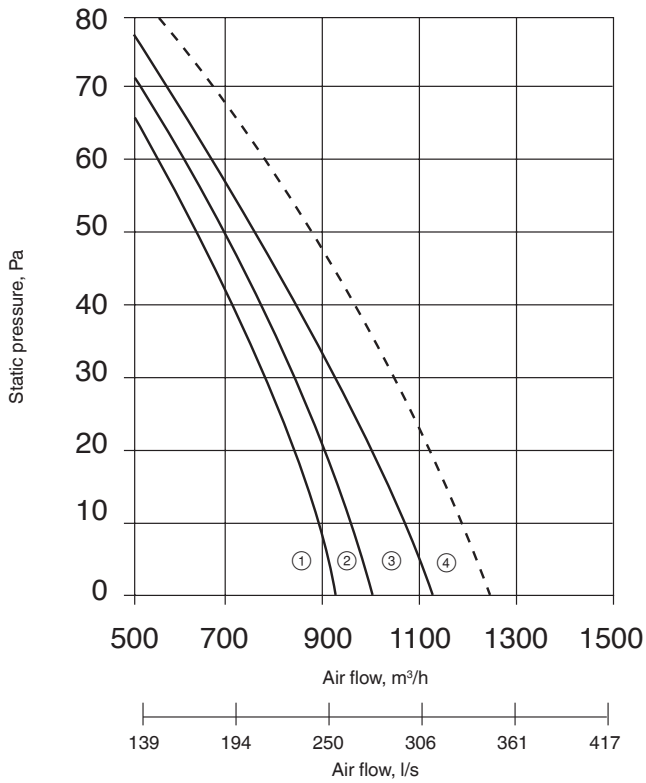


**Legend**

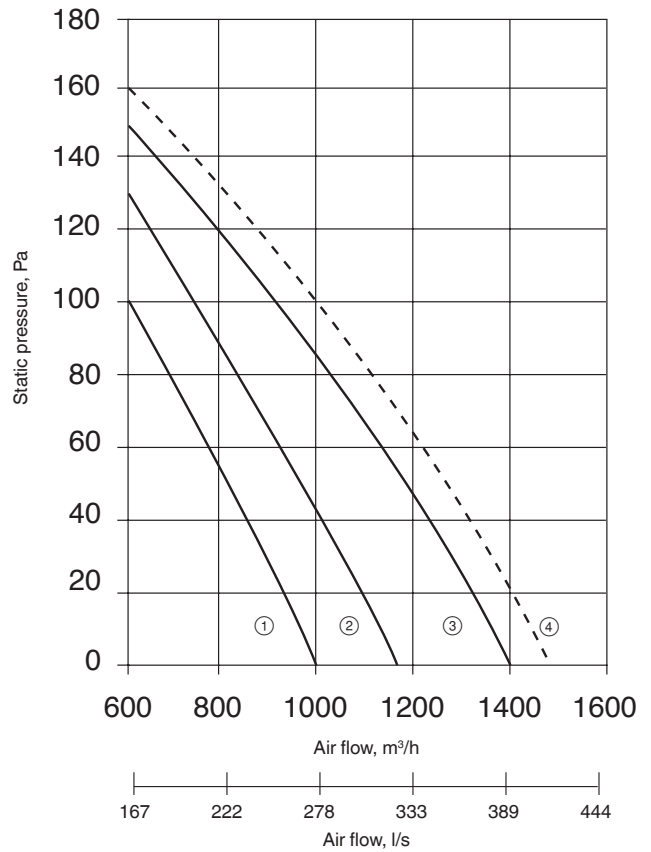
- ① Low fan speed
- ② Medium fan speed
- ③ High fan speed
- ④ Super high fan speed

# Fan performance curves

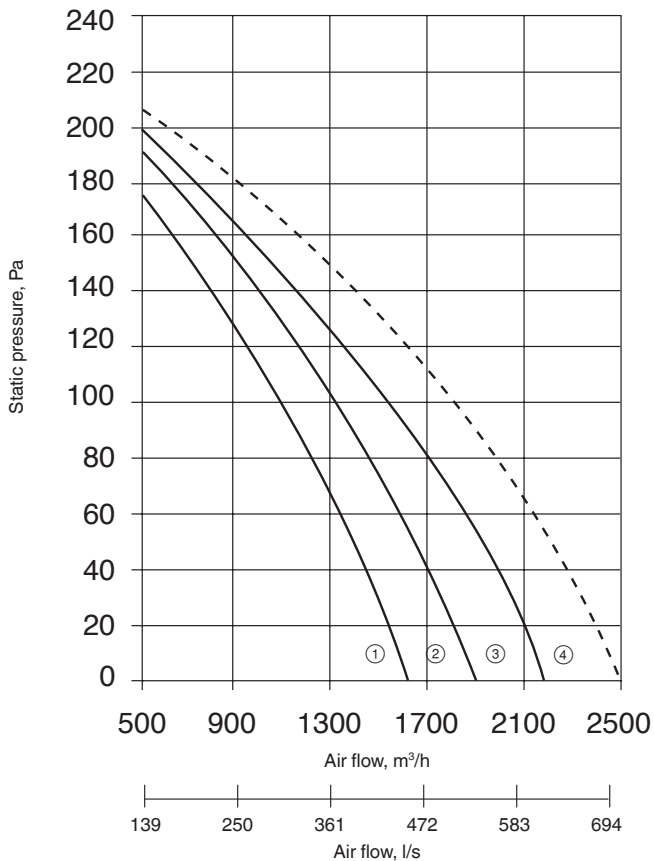
42DWE 07



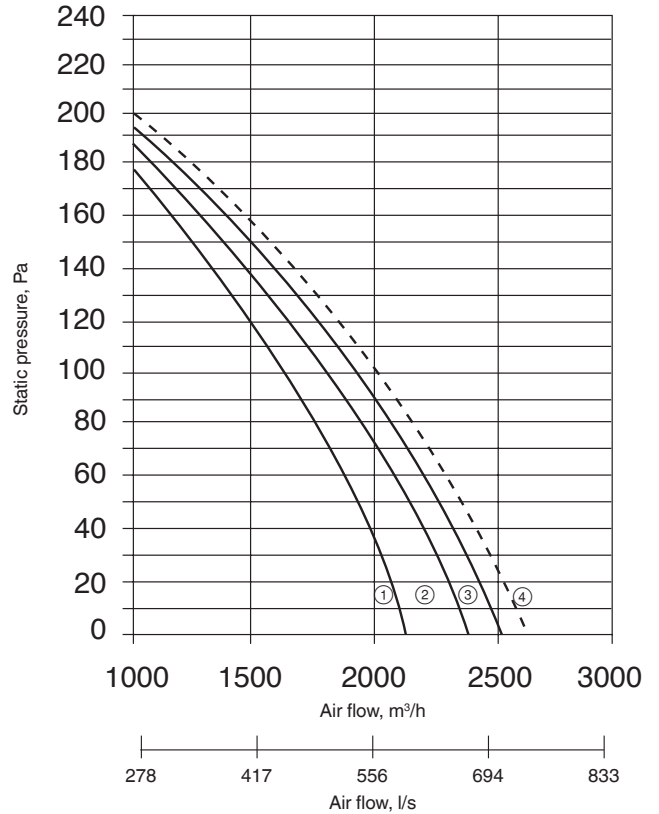
42DWE 09



42DWE 12



42DWE 16



- Legend**
- ① Low fan speed
  - ② Medium fan speed
  - ③ High fan speed
  - ④ Super high fan speed

# Correction factors for different fan speeds, cooling mode

2-pipe unit with 50 Pa static pressure at medium fan speed and unit free delivery at each speed

42DWC	Capacity	Fan speed			
		Super high	High	Medium	Low
07	Total	1.06	1.03	1	0.92
	Sensible	1.07	1.03	1	0.92
09	Total	1.18	1.13	1	0.86
	Sensible	1.20	1.14	1	0.85
12	Total	1.12	1.08	1	0.90
	Sensible	1.14	1.09	1	0.88
16	Total	1.06	1.02	1	0.93
	Sensible	1.07	1.01	1	0.94
<b>42DWD</b>					
09	Total	1.17	1.08	1	0.87
	Sensible	1.21	1.12	1	0.85
16	Total	1.07	1.04	1	0.93
	Sensible	1.08	1.05	1	0.92

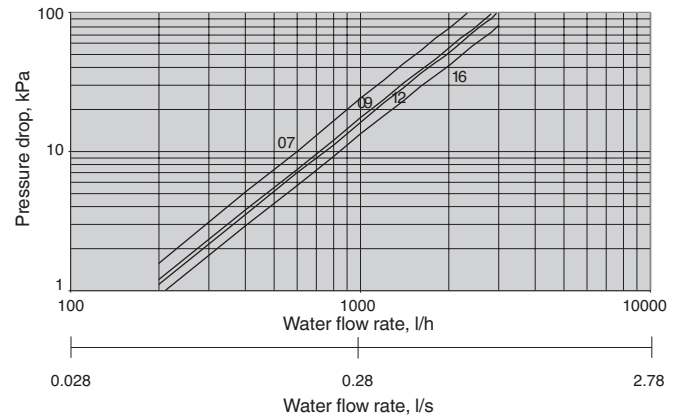
## Operating limits

Water circuit	
Maximum water-side pressure	1600 kPa
Minimum entering water temperature	+4°C
Maximum entering water temperature	+80°C
Room air	
Minimum temperature	5°C*
Maximum temperature	32°C
Power supply	
Nominal single-phase voltage	230 V, 50 Hz
Operating voltage limits	198 V - 264 V

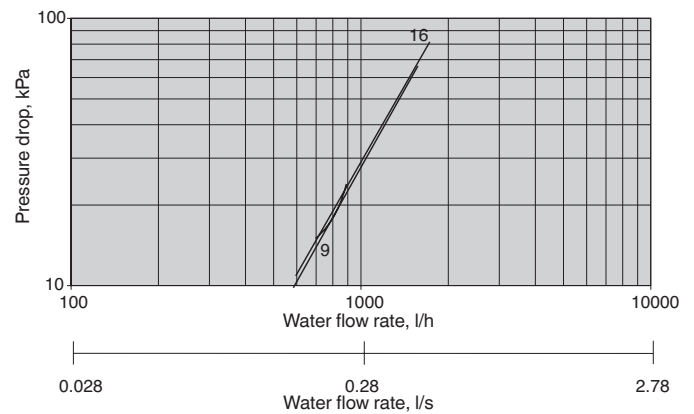
\* If the outdoor temperature can go down to 0°C, it is advisable to empty the water circuit to avoid breaks caused by ice. The coil can be emptied only partially; for total drainage of the unit see section "Emptying the plant" in the maintenance sub-section of the IOM.

## Pressure drops

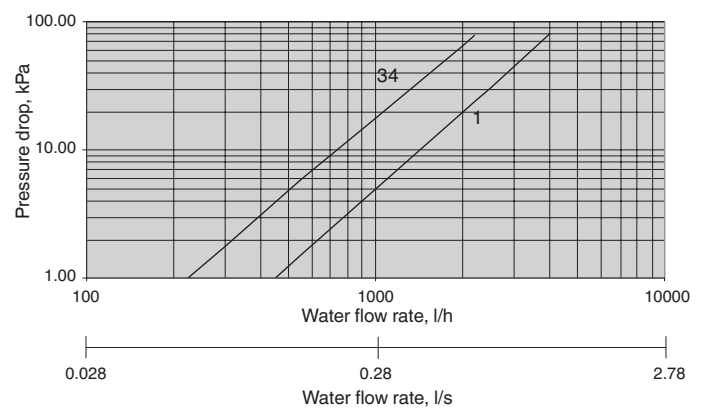
### 2-pipe coil



### 4-pipe coil



### Valve

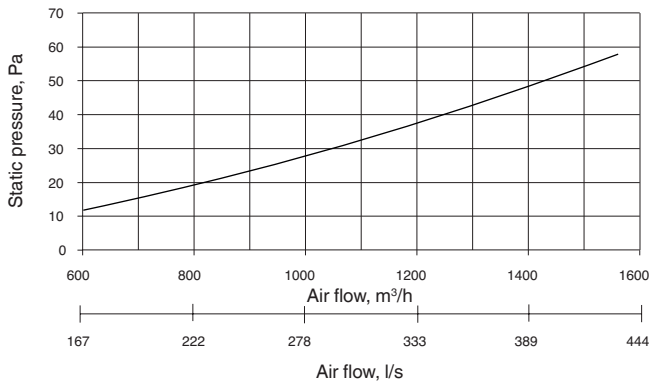


# Electric heater kit

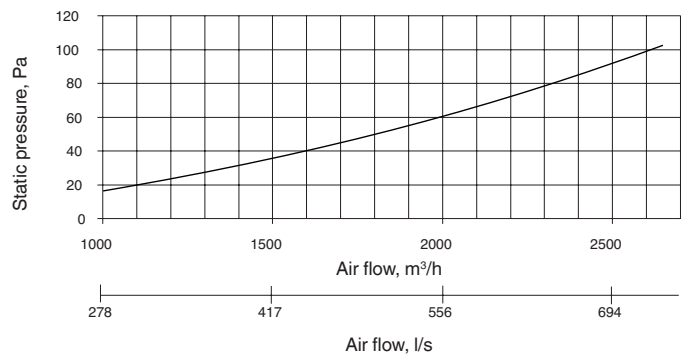
Size		Small		Large	
Part number		42DW9003		42DW9004	
Applicability		42DWC 07	42DWC 09	42DWC 12	42DWC 16
Power supply	V-ph-Hz	230-1-50/400-3-50			
Capacity	W	3000	3000	3000	3000
Max. temperature, indoor air	°C	27	27	27	27
Max. external static pressure	Pa	75	150	170	190
Weight	kg	4	4	5	5

## Air-side pressure drop of the electric heater kit

42DW9003



42DW9004



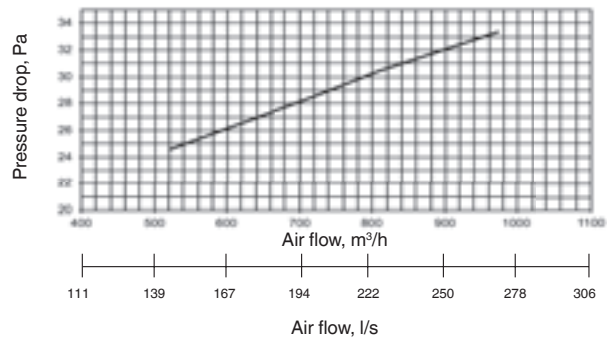
## Special filter kit

Size	Small		Large		
Part number	42DW9013		42DW9014		
Applicability	42DWC07	42DWC09	42DWC12	42DWC16	
Efficiency, EN779	F6	F6	F6	F6	
Material	Pleated fibre glass				
Weight	kg	8	8	11	11

## Filter pressure drop

Filtration kit 42DW9013

Filter: B035809H01, 764 x 236 mm, F6



Filtration kit 42DW9014

Filter: B035809H02, 1164 x 236 mm, F6

