

ROOM FAN COIL UNITS



Air treatment

IDROFAN®

42N

Accessories

- Supporting feet
- Supporting feet and cover panel
- Return air grille for cabinet unit
- Rear closing panel
- Cabinet on concealed units,
- Discharge air sleeve (concealed units only)
- Supporting brackets
- A and B-type thermostats
- Special installation kit
- Cold draught prevention kit - all two-pipe sizes
- Automatic changeover switch
- Air sensor with 15 m cable
- Water sensor kit with 15 m cable
- Infrared remote controller and infrared remote receiver kit
- ZUI1 or ZUI2 interface
- SUI1 or SUI2 (with/without fan speed selection)

Features

- Eleven sizes with two-pipe, two-pipe changeover or four-pipe coil; air flow range 35-422 l/s, cooling capacity range 0.8-6.4 kW, heating capacity range 1.1-9.5 kW.
- The 42N_S is available with a new-generation three- or five-speed AC motor. The 42N_E is available with a variable-speed low energy consumption EC motor.
- Concealed or cabinet chilled-water fan coil system, designed for vertical and horizontal installation in a room or above a false ceiling.
- Economical cooling and heating for hotels, commercial and residential applications.
- Cabinet version complete with control terminal.
- Combines aesthetic slim-line design with high installation flexibility.
- Two fan types, a tangential fan for ultra-low noise level and a centrifugal fan for high air distribution system compatibility.
- Factory-mounted PTC electric heater with low and high capacity settings.
- Low hydraulic pressure drop with a valve mounted.
- Quick installation with factory-mounted options (controls, valves).
- LEC models enhance unit performance offering reduced energy costs, improved comfort, maximum flexibility and extended operating life.

Standard controls

Electronic thermostat

- Four versions, A, B, C and D, with potentiometer
- EC version, three configurable discrete speeds via 0-10 V signal
- 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 & lighting control



Aquasmart New System Manager

Physical and electrical data, units with AC motors



42N_S, 2-pipe coil						15					20					26		
Fan speed	5	4	3	2	1	5	4	3	2	1	3	2	1	3	2	1		
Fan type	One, tangential					One, centrifugal					One, centrifugal					One, centrifugal		
Air flow	l/s-m³/h	35-125	56-200	69-250	84-300	97-350	59-215	80-285	92-330	107-385	128-460	93-335	149-536	196-706				
Cooling mode*																		
Total cooling capacity	kW	0.83	1.07	1.19	1.34	1.49	1.27	1.81	1.9	2.34	2.32	2.1	3	3.6				
Sensible cooling capacity	kW	0.7	0.93	1.03	1.19	1.31	0.97	1.42	1.5	1.85	1.9	1.65	2.35	2.9				
Water flow rate	l/s-l/h	0.04-143	0.05-184	0.06-205	0.06-230	0.07-256	0.07-239	0.09-311	0.10-358	0.11-402	0.12-437	0.10-361	0.14-516	0.17-619				
Water pressure drop	kPa	6.2	9.6	11.5	14.1	16.9	2.8	4.2	5.3	6.4	7.3	5.4	9.5	12.7				
Heating mode**																		
Heating capacity	kW	1.14	1.42	1.66	1.89	2.09	1.7	2.1	2.54	2.87	3.18	2.56	3.68	4.38				
Water pressure drop	kPa	4.9	7.8	9.4	11.6	14	2.2	3.4	4.3	5.2	6	4.4	7.8	10.6				
Sound power/sound pressure***	dB(A)	28/19	37/28	42/33	47/38	51/42	29/20	38/29	42/33	46/37	50/41	44/35	54/45	61/52				
Electrical data																		
Power input	W	16	17	19	23	30	29	30	31	34	36	45	55	65				
Current drawn	A	0.08	0.08	0.09	0.11	0.13	0.13	0.13	0.14	0.15	0.16	0.21	0.25	0.3				
Electric heater (high/low capacity)	800/500 W, 3.48/2.18 A					1000/500 W, 4.35/2.18 A					1000/500 W, 4.35/2.18 A							
Eurovent energy class FCEER/FCCOP	D/D					E/E					E/E							

42N_S, 2-pipe coil						30					42					45		
Fan speed	5	4	3	2	1	3	2	1	5	4	3	2	1	3	2	1		
Fan type	Two, centrifugal					Two, centrifugal					Two, centrifugal					Two, centrifugal		
Air flow	l/s-m³/h	97-350	126-455	153-550	182-655	207-745	147-531	222-798	268-965	146-525	185-665	224-805	277-995	333-1195	237-853	331-1191	422-1519	
Cooling mode*																		
Total cooling capacity	kW	2.07	2.54	3.01	3.46	3.7	3	4	4.5	2.6	3.37	3.98	4.74	5.45	3.9	5.45	6.35	
Sensible cooling capacity	kW	1.4	1.96	2.35	2.84	3.1	2.35	3.3	3.85	2.12	2.78	3.3	3.98	4.55	3.2	4.6	5.1	
Water flow rate	l/s-l/h	0.10-356	0.12-437	0.14-518	0.17-595	0.18-636	0.14-516	0.19-688	0.22-774	0.12-447	0.16-580	0.19-695	0.23-815	0.26-937	0.19-671	0.26-937	0.30-1092	
Water pressure drop	kPa	6	8.6	11.5	14.6	16.4	11.4	18.8	23	3.2	5	6.7	9	11.5	6.4	11.5	15	
Heating mode**																		
Heating capacity	kW	2.86	3.54	4.18	4.8	5.29	4.05	5.55	6.4	4	5.05	5.9	6.9	8.08	6.1	8	9.5	
Water pressure drop	kPa	4.8	6.9	9.2	11.7	13.1	9.2	15	18.4	2.7	4.2	5.5	7.5	9.5	5.4	9.5	12.3	
Water content	l	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
Sound power/sound pressure***	dB(A)	36/27	42/33	47/38	51/42	54/45	47/38	57/48	62/53	41/32	47/38	53/44	57/48	62/53	54/45	62/53	68/59	
Electrical data																		
Power input	W	42	44	46	50	57	45	75	100	69	77	83	92	128	90	125	165	
Current drawn	A	0.19	0.2	0.21	0.23	0.25	0.21	0.35	0.45	0.31	0.34	0.37	0.41	0.55	0.41	0.55	0.72	
Electric heater (high/low capacity)	2000/1000 W, 8.70/4.35 A					2000/1000 W, 8.70/4.35 A					2000/1000 W, 8.70/4.35 A					2000/1000 W, 8.70/4.35 A		
Eurovent energy class FCEER/FCCOP	D/D					D/D					E/E					E/E		

Physical and electrical data, units with LEC motors

42N_E, 2-pipe coil						19					29					39			49		
Fan speed	%	20	40	60	80	100	20	40	60	80	100	20	40	60	80	100	20	40	60		
Fan type	One, tangential					One, centrifugal					Two, centrifugal					Two, centrifugal			Two, centrifugal		
Air flow	l/s	35	56	69	84	97	59	80	92	107	128	97	126	153	182	207	146	185	224	277	333
m³/h		125	200	250	300	350	215	285	330	385	460	350	455	550	655	745	525	665	805	995	1195
Cooling mode*																					
Total cooling capacity	kW	0.83	1.07	1.19	1.34	1.49	1.29	1.81	1.93	2.34	2.36	2.07	2.54	3.01	3.46	3.7	2.6	3.37	3.98	4.74	5.45
Sensible cooling capacity	kW	0.7	0.93	1.03	1.19	1.31	0.91	1.42	1.41	1.85	1.79	1.4	1.96	2.35	2.84	3.1	2.12	2.78	3.3	3.98	4.55
Water flow rate	l/s	0.04	0.05	0.06	0.06	0.07	0.07	0.09	0.1	0.11	0.12	0.1	0.12	0.14	0.17	0.18	0.12	0.16	0.19	0.23	0.26
l/h		143	184	205	230	256	239	311	358	402	437	356	437	518	595	636	447	580	685	815	937
Water pressure drop	kPa	6.2	9.6	11.5	14.1	16.9	2.8	4.2	5.3	6.4	7.3	6	8.6	11.5	14.6	16.4	3.2	5	6.7	9	11.5
Heating mode**																					
Heating capacity	kW	1.14	1.42	1.66	1.89	2.09	1.57	2.1	2.35	2.87	2.94	2.86	3.54	4.18	4.8	5.29	4	5.05	5.9	6.9	8.08
Water pressure drop	kPa	4.9	7.8	9.4	11.6	14	2.2	3.4	4.3	5.2	6	4.8	6.9	9.2	11.7	13.1	2.7	4.2	5.5	7.5	9.5
Sound power/sound pressure***	dB(A)	28/19	37/28	42/33	47/38	51/42	29/20	38/29	42/33	46/37	50/41	36/27	42/33	47/38	51/42	54/45	41/32	47/38	53/44	57/48	62/53
Electrical data																					
Power input	W	3	4	7	10	14	3	5	7	10	15	5	9	15	23	35	8	14	25	39	65
Current drawn	A	0.08	0.09	0.1	0.11	0.15	0.09	0.09	0.11	0.13	0.16	0.1	0.12	0.16	0.21	0.29	0.1	0.15	0.22	0.35	0.52
Electric heater (high/low capacity)	800/500 W, 3.48/2.18 A					100/500 W, 4.35/2.18 A					2000/1000 W, 8.70/4.35 A					2000/1000 W, 8.70/4.35 A					
Eurovent energy class FCEER/FCCOP	A/A					A/A					A/A					A/A					

* Eurovent conditions: Entering air temperature = 27°C db/19°C wb – entering/leaving water temperature = 7°C/12°C, high fan speed.

** Eurovent conditions: Entering air temperature = 20°C, entering water temperature = 50°C, same water flow rate as in cooling mode.

*** Based on a hypothetical acoustic attenuation for the room and the air distribution system of -9 dB(A).

Note: For data on 4-pipe coils please refer to the specific product documentation.

Dimensions and weights

Vertical units with cabinet				Horizontal units with cabinet				Horizontal concealed units				Vertical concealed units			
S15	S20-26	S30-42	S45-65	S15	S20-26	S30-42	S45-65	S15	S20-26	S30-42	S45-65	S15	S20-26	S30-42	S