

# 42EM ATMOSPHERA

## DUCTED FAN COIL UNITS

### Physical and electrical data

42EM	0.5			0.9			1.0			1.9			2.1								
Fan speed		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H					
Air flow	l/s	66	97	104	12	109	133	75	122	136	14	127	156	73	143	156					
Available static pressure	Pa	23	50	58	1	50	75	19	50	62	1	50	75	13	50	60					
Cooling mode*																					
Total cooling capacity	kW	1.26	1.75	1.85	0.35	1.96	2.21	1.92	2.90	3.18	0.40	2.92	3.37	1.99	3.63	3.92					
Sensible cooling capacity	kW	1.01	1.43	1.52	0.25	1.60	1.84	1.42	2.20	2.43	0.28	2.30	2.69	1.44	2.69	2.92					
Water flow rate	l/h	217	301	318	60	336	380	331	499	547	69	502	580	342	624	674					
	l/s	0.06	0.08	0.09	0.02	0.09	0.11	0.09	0.14	0.15	0.02	0.14	0.16	0.10	0.17	0.19					
Water pressure drop	kPa	6	10	11	1	12	15	19	37	43	3	38	48	9	26	29					
Water content	l	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.7	1.7	1.7					
Heating mode, two pipes**																					
Heating capacity	kW	1.92	2.71	2.89	0.40	3.05	3.52	2.33	3.59	3.96	0.46	3.62	4.23	2.37	4.41	4.77					
Heating mode, four pipes***																					
Heating capacity	kW	1.52	2.00	2.10	0.33	2.20	2.49	1.67	2.38	2.57	0.37	2.50	2.86	1.74	2.89	3.08					
Water flow rate	l/h	134	175	185	28	189	214	144	205	221	32	215	246	150	249	265					
	l/s	0.04	0.05	0.05	0.01	0.05	0.06	0.04	0.06	0.06	0.01	0.06	0.06	0.04	0.07	0.07					
Water pressure drop	kPa	3	4	5	1	4	5	5	9	10	2	9	11	3	13	15					
Water content	l	0.15	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30					
Electric heater	1 ph - 50 Hz - 230 V ± 15 %, maximum capacity 1000 W, current draw 4.35 A																				
Sound levels																					
Sound power level (return and radiated)	dB(A)	43	51	53	29	55	59	41	51	53	24	50	54	39	46	49					
Sound power level (supply)	dB(A)	42	49	50	25	50	55	38	49	51	24	52	56	38	44	47					
Sound pressure level	dB(A)	29	36	38	13	38	43	25	35	38	9	36	40	23	30	34					
NR value****		24	31	33	9	33	38	19	30	33	5	31	35	17	25	28					
Electrical data, motor																					
	1 ph - 50 Hz - 230 V ± 15 %																				
Power input	W	45	77	102	3	50	85	40	80	110	4	52	85	58	97	104					
Current drawn	A	0.20	0.34	0.45	-	-	-	0.17	0.35	0.48	-	-	-	0.27	0.45	0.49					
Air filter (G3)	mm	230 x 408			230 x 408			208 x 578			208 x 578			208 x 978							
Technical data																					
	Connection diameter, cold and hot-water coils: 1/2" gas (unit nut female), spigot connection diameter 200 mm																				
Height x depth x length	mm	250 x 700 x 1015				250 x 700 x 1015				250 x 810 x 870				250 x 810 x 870				250 x 810 x 1270			
Unit weight	kg	22				22				35				35				53			

42EM	2.2			2.3			3.1			3.2			3.3				
Fan speed		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	
Air flow	l/s	96	183	207	153	256	259	73	143	156	96	183	207	153	256	259	
Available static pressure	Pa	14	50	64	18	50	51	13	50	60	14	50	64	18	50	51	
Cooling mode*																	
Total cooling capacity	kW	2.54	4.47	4.94	3.86	5.87	5.96	2.33	4.34	4.69	2.99	5.38	5.97	4.62	7.15	7.26	
Sensible cooling capacity	kW	1.85	3.36	3.74	2.87	4.52	4.59	1.59	3.01	3.26	2.05	3.77	4.20	3.21	5.09	5.17	
Water flow rate	l/h	437	769	850	664	1010	1025	401	746	807	514	925	1027	795	1230	1249	
	l/s	0.12	0.21	0.24	0.18	0.28	0.28	0.11	0.21	0.22	0.14	0.26	0.29	0.22	0.34	0.35	
Water pressure drop	kPa	14	37	48	29	60	62	9	25	30	13	35	45	29	70	71	
Water content	l	1.7	1.7	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.7	1.7	1.7	1.7	1.7	1.7	
Heating mode, two pipes**																	
Heating capacity	kW	3.03	5.50	6.10	4.69	7.32	7.46	2.59	4.94	5.36	3.34	6.21	6.9	5.27	8.45	8.59	
Heating mode, four pipes***																	
Heating capacity	kW	2.14	3.45	3.75	3.05	4.36	4.41	1.66	2.92	3.14	2.08	3.56	3.92	3.10	4.63	4.70	
Water flow rate	l/h	184	297	323	262	375	379	143	251	270	179	306	337	267	398	404	
	l/s	0.05	0.08	0.09	0.07	0.10	0.11	0.04	0.07	0.08	0.05	0.09	0.09	0.07	0.11	0.11	
Water pressure drop	kPa	7	20	23	14	29	30	6	16	19	9	23	27	18	32	34	
Water content	l	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	
Electric heater	1 ph - 50 Hz - 230 V ± 15 %																
Maximum capacity	W	2000			2000			1000			2000			2000			
Current drawn	A	8.7			8.7			4.35			8.7			8.7			
Sound levels																	
Sound power level (return and radiated)	dB(A)	41	55	58	45	58	60	39	46	49	41	55	58	45	58	60	
Sound power level (supply)	dB(A)	40	54	56	45	58	59	38	44	47	40	54	56	45	58	59	
Sound pressure level	dB(A)	25	39	42	31	43	45	23	30	34	25	39	42	31	43	45	
NR value****		19	33	37	25	39	41	17	25	28	19	33	37	25	39	41	
Electrical data, motor																	
	1 ph - 50 Hz - 230 V ± 15 %																
Power input	W	70	120	140	100	174	197	58	97	104	70	120	140	100	174	197	
Current drawn	A	0.30	0.50	0.63	0.44	0.77	0.90	0.27	0.45	0.49	0.30	0.50	0.63	0.44	0.77	0.90	
Air filter (G3)	mm	208 x 978			208 x 978			208 x 978			208 x 978			208 x 978			
Technical data																	
	Connection diameter, cold and hot-water coils: 1/2" gas (unit nut female), spigot connection diameter 200 mm																
Height	mm	250 x 810 x 1270				250 x 810 x 1270				250 x 990 x 1270				250 x 990 x 1270			
Unit weight	kg	53				53				69				69			

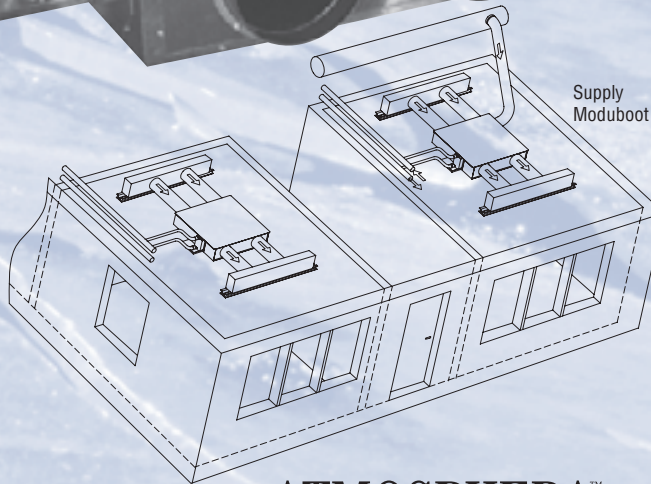
Fan speed: L = Low, M = Medium, H = High

\* Eurovent conditions: Entering air temperature = 27°C db/47% rh – entering/leaving water temperature = 7°C/12°C

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

\*\*\* Eurovent conditions: Entering air temperature = 20°C, entering/leaving water temperature = 70°C/60°C

\*\*\*\* Based on a hypothetical acoustic attenuation for the room and the air distribution system of -18 dB(A)



## ATMOSPHERA™

### FEATURES

- Eight sizes with multi-speed motor and two sizes with variable-speed LEC motor, with two-pipe, two-pipe plus electric heater or four-pipe coils, with an air flow range from 66 to 259 l/s, a cooling capacity range from 1.3 to 7.3 kW and a heating capacity range from of 1.5 to 8.6 kW
- Decentralised compact ducted chilled-water fan coil system, designed for installation in plant rooms. This allows centralised service and maintenance.
- Reliable and economical cooling and heating for light commercial and office applications
- Low height of 225 mm
- Installation flexibility with two versions: modular or compact
- Compatible with the 35BD/SR air diffuser range
- Air outlet modularity with different spigots
- Extremely low sound level in the ducting of the air distribution system
- Six-speed fan motor, offering a choice of several medium comfort speeds
- High-pressure centrifugal fans, compatible with all main air distribution systems
- High-efficiency EU3 filter
- 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)
- The LEC (low energy consumption) fan motor assembly is available as an option. This direct-drive motor is electronically commutated (EC motor), controlled by a 0–10 V signal and allows precise, simple and quiet unit operation in a wide range of rotational speeds in variation from the original speed.



35BD/SR linear diffuser (supply and return air)

### 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
- Aquasart Evolution system compatible
- IAQ and DCV management
- Motorised blinds and lighting control

### OPTIONS/ACCESSORIES

- Wall-mounted infrared receiver
- Factory-mounted two- or four-way valves