

AirCube 16

Flexible heat pump module for indoor and outdoor installation.

AirCube advantages

1. Aluminum subframe:

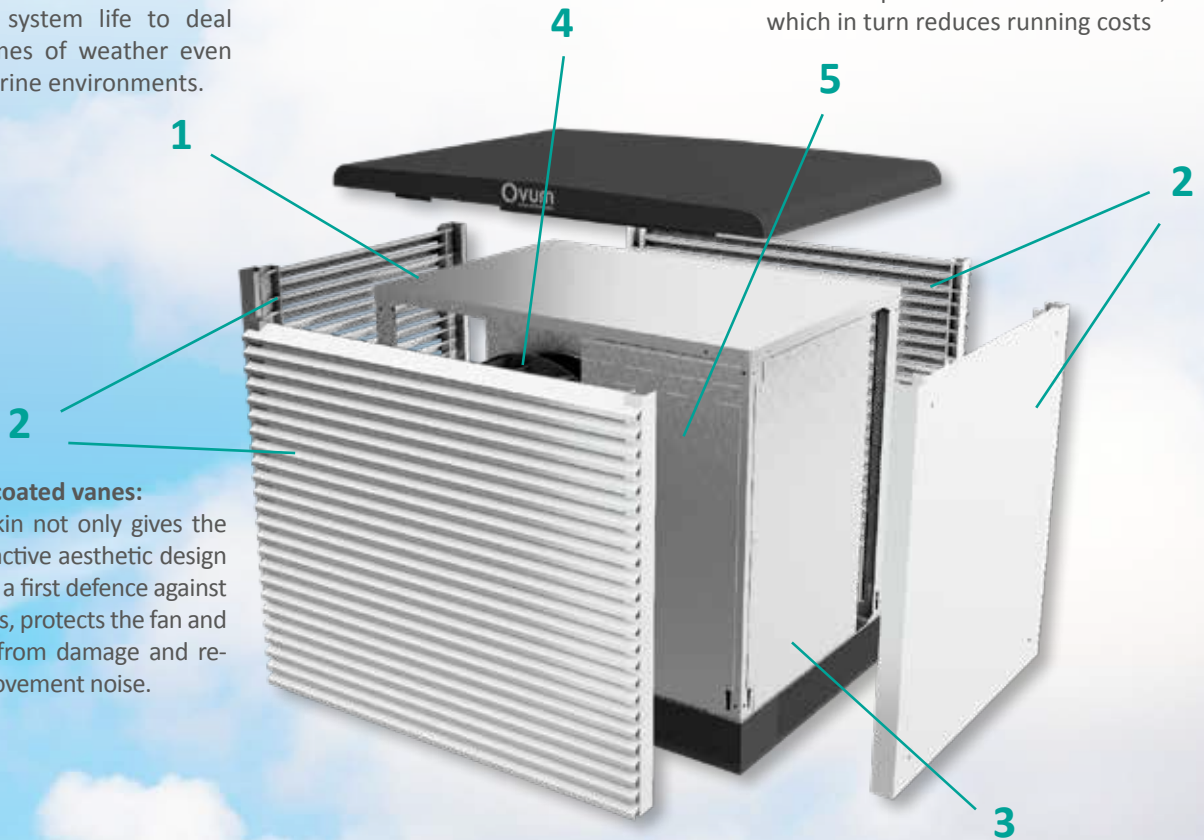
the highly durable subframe ensures long system life to deal with extremes of weather even in harsh marine environments.

4. Large fan motor:

The large fan motor allows us to move large amounts of air at slow speed, this reduces system noise and as a result it is one of the quietest units on the market.

5. Large Evaporator:

The large evaporator means less cooling demand per m2 which reduces ice build-up and the need to defrost, which in turn reduces running costs



2. Powder coated vanes:

the outer skin not only gives the unit an attractive aesthetic design it also offers a first defence against the elements, protects the fan and evaporator from damage and reduces air movement noise.

7. Touch screen controller:

A feature rich intuitive touchscreen allows simple control of the system whilst giving maximum information to your technician to commission and fault find the system.

6. Indoor controller:

To easily access the heat pump



3. Insulated components:

All important components such as the compressor and electrics are housed within an insulated weather proof housing ensuring heat loss is kept to a minimum and components are kept in optimum condition



Remote Access:

The unit can be equipped with a wireless dongle allowing full remote access for you the owner, as well as your installer and Ovum's technical department.



PV integration:

Free usable power that will be stored in your heating system. The heat pump detects free electricity and uses it if no other consumers need it.



Active cooling:

Also on hot summer days a pleasant climate is maintained through the heat pump

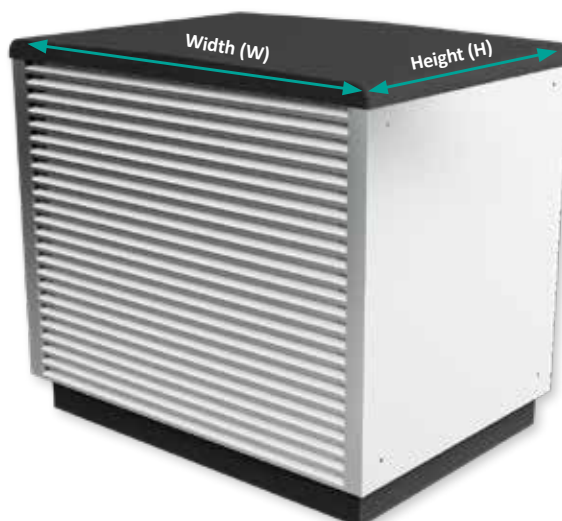
Dimensions Aircube 16 Outdoor

Width W: 1580 mm

Depth T: 810 mm

Height H: 1000 mm incl. feet (adjustable)

(B 1580 mm x T 810 mm x H 1000 mm)



For installation guidelines and notes, see „Installation instructions Ovum AirCube“.

Performance*

	20%			40%			60%			80%			100%		
	PH	PE	COP	PH	PE	COP	PH	PE	COP	PH	PE	COP	PH	PE	COP
A15W35	5,3 kW	0,8 kW	6,58	10,3 kW	1,5 kW	6,98	14,8 kW	2,3 kW	6,37	19,2 kW	3,3 kW	5,76	22,2 kW	4,6 kW	4,86
A7W35	4,3 kW	0,9 kW	4,80	8,4 kW	1,6 kW	5,29	12,2 kW	2,5 kW	4,97	16,1 kW	3,5 kW	4,61	18,6 kW	4,7 kW	3,96
A2W35	3,7 kW	0,9 kW	4,01	7,4 kW	1,6 kW	4,49	10,8 kW	2,5 kW	4,27	14,3 kW	3,5 kW	4,02	16,5 kW	4,7 kW	3,50
A-7W35	2,8 kW	0,9 kW	3,01	5,7 kW	1,7 kW	3,39	8,4 kW	2,6 kW	3,27	11,3 kW	3,6 kW	3,16	13,2 kW	4,7 kW	2,80
A-10W35	2,6 kW	0,9 kW	2,76	5,2 kW	1,7 kW	3,10	7,7 kW	2,6 kW	3,00	10,5 kW	3,6 kW	2,92	12,3 kW	4,7 kW	2,61
A-15W35	2,2 kW	0,9 kW	2,43	4,5 kW	1,7 kW	2,69	6,7 kW	2,6 kW	2,61	9,1 kW	3,5 kW	2,57	10,8 kW	4,6 kW	2,33
A15W40	5,1 kW	0,9 kW	5,50	10,0 kW	1,7 kW	5,87	14,4 kW	2,6 kW	5,45	18,8 kW	3,7 kW	5,02	21,6 kW	5,0 kW	4,29
A7W40	4,1 kW	1,0 kW	4,08	8,1 kW	1,8 kW	4,53	11,9 kW	2,8 kW	4,31	15,7 kW	3,9 kW	4,07	18,1 kW	5,1 kW	3,53
A2W40	3,5 kW	1,0 kW	3,43	7,1 kW	1,8 kW	3,87	10,4 kW	2,8 kW	3,73	13,9 kW	3,9 kW	3,57	16,1 kW	5,2 kW	3,12
A-7W40	2,7 kW	1,0 kW	2,57	5,5 kW	1,9 kW	2,95	8,1 kW	2,8 kW	2,88	11,1 kW	3,9 kW	2,82	12,9 kW	5,1 kW	2,51
A-10W40	2,4 kW	1,0 kW	2,35	5,0 kW	1,9 kW	2,70	7,5 kW	2,8 kW	2,65	10,2 kW	3,9 kW	2,61	11,9 kW	5,1 kW	2,34
A-15W40	2,1 kW	1,0 kW	2,06	4,3 kW	1,8 kW	2,34	6,4 kW	2,8 kW	2,30	8,8 kW	3,9 kW	2,30	10,4 kW	5,0 kW	2,09
A15W45	4,9 kW	1,0 kW	4,67	9,6 kW	1,9 kW	4,98	13,9 kW	3,0 kW	4,68	18,4 kW	4,2 kW	4,40	21,1 kW	5,6 kW	3,80
A7W45	3,9 kW	1,1 kW	3,50	7,9 kW	2,0 kW	3,90	11,5 kW	3,1 kW	3,75	15,4 kW	4,3 kW	3,60	17,7 kW	5,6 kW	3,15
A2W45	3,4 kW	1,1 kW	2,95	6,9 kW	2,0 kW	3,35	10,1 kW	3,1 kW	3,27	13,6 kW	4,3 kW	3,17	15,7 kW	5,6 kW	2,80
A-7W45	2,5 kW	1,1 kW	2,21	5,3 kW	2,1 kW	2,57	7,9 kW	3,1 kW	2,54	10,8 kW	4,3 kW	2,52	12,5 kW	5,5 kW	2,26
A-10W45	2,3 kW	1,1 kW	2,02	4,8 kW	2,0 kW	2,35	7,2 kW	3,1 kW	2,34	9,9 kW	4,2 kW	2,33	11,5 kW	5,5 kW	2,11
A-15W45	2,0 kW	1,1 kW	1,75	4,1 kW	2,0 kW	2,04	6,2 kW	3,0 kW	2,03	8,6 kW	4,2 kW	2,05	10,0 kW	5,3 kW	1,87
A15W50	4,7 kW	1,2 kW	3,97	9,3 kW	2,2 kW	4,24	13,5 kW	3,3 kW	4,03	17,9 kW	4,6 kW	3,85	20,5 kW	6,1 kW	3,36
A7W50	3,7 kW	1,2 kW	3,00	7,6 kW	2,3 kW	3,36	11,1 kW	3,4 kW	3,26	15,0 kW	4,7 kW	3,18	17,2 kW	6,1 kW	2,80
A2W50	3,2 kW	1,3 kW	2,53	6,6 kW	2,3 kW	2,90	9,8 kW	3,4 kW	2,86	13,3 kW	4,7 kW	2,81	15,3 kW	6,1 kW	2,50
A-7W50	2,4 kW	1,3 kW	1,88	5,1 kW	2,3 kW	2,23	7,6 kW	3,4 kW	2,23	10,5 kW	4,7 kW	2,25	12,1 kW	6,0 kW	2,03
A-10W50	2,2 kW	1,3 kW	1,71	4,6 kW	2,3 kW	2,04	7,0 kW	3,4 kW	2,06	9,6 kW	4,6 kW	2,08	11,1 kW	5,9 kW	1,89
A-15W50	1,8 kW	1,2 kW	1,46	3,9 kW	2,2 kW	1,76	5,9 kW	3,3 kW	1,79	8,3 kW	4,5 kW	1,83	9,6 kW	5,8 kW	1,67
A15W55	4,5 kW	1,3 kW	3,33	8,9 kW	2,5 kW	3,60	13,0 kW	3,7 kW	3,47	17,3 kW	5,2 kW	3,36	19,9 kW	6,7 kW	2,95
A7W55	3,5 kW	1,4 kW	2,52	7,2 kW	2,5 kW	2,87	11 kW	3,8 kW	2,83	14,5 kW	5,2 kW	2,79	16,7 kW	6,7 kW	2,48
A2W55	3,0 kW	1,4 kW	2,12	6,3 kW	2,5 kW	2,49	9,4 kW	3,8 kW	2,48	12,9 kW	5,2 kW	2,48	14,8 kW	6,7 kW	2,22
A-7W55	2,2 kW	1,4 kW	1,56	4,8 kW	2,5 kW	1,91	7,3 kW	3,7 kW	1,95	10,1 kW	5,1 kW	1,99	11,7 kW	6,5 kW	1,80
A-10W55	2,0 kW	1,4 kW	1,40	4,4 kW	2,5 kW	1,75	6,7 kW	3,7 kW	1,80	9,3 kW	5,0 kW	1,84	10,7 kW	6,4 kW	1,67
A-15W55	1,7 kW	1,4 kW	1,19	3,7 kW	2,5 kW	1,51	5,7 kW	3,6 kW	1,56	8,0 kW	4,9 kW	1,62	9,2 kW	6,2 kW	1,48

*) The performance data given above are the respective nominal capacities with an uniced evaporator and no defrost losses. Depending on the operating point and humidity and installation location, these can be reduced. This must be taken into account when dimensioning the system.

Aircube 16 Technical specifications

HEAT OUTPUT WITHOUT ADDITIONAL HEATING		MIN	MAX	
Recommended for heating loads at A-7/W35		2,8 kW	13,2 kW	
Cooling capacity		2,8 kW	11,8 kW	
PERFORMANCE DATA 1) TO EN14511 Δ5K AT 50%		A7W35	A2W35	A-7W35
Heating capacity	10,3 kW	7,3 kW	8,5 kW	
Cooling capacity	8,3 kW	5,6 kW	5,8 kW	
Power consumption	2,0 kW	1,7 kW	2,7 kW	
COP	5,13	4,30	3,18	
PERFORMANCE DATA 1) TO EN14511 Δ5K AT 50%		A7W55	A-7W55	
Heating capacity	9,2 kW		6,2 kW	
Cooling capacity	6,0 kW		3,0 kW	
Power consumption	3,2 kW		3,2 kW	
COP	2,85		1,93	
SCOP		MEDIUM		
SCOP/ηs at 35 °C to EN14825		4,95/ 194%		
Pdesign		13,2 kW		
ENERGY LABEL ENERGY EFF. HEATING		CLASS		
EL at 35 °C		A+++		
SOUND POWER ACC. TO EN12102		SILENT	ERP	
		46,8 dB(A)	51,0 dB(A)	
REFRIGERANT CIRCUIT				
Refrigerant	R410A			
Filling quantity	4,7 kg			
max. Operating pressure	45 bar			
Refrigerating machine oil	FVC68D			
Oil quantity	1,4 ltr			
Compressor	modulating / Scroll			
Fan	Radial / Axial			
APPLICATION LIMITS AIRCUBE		MIN	MAX	
Outdoor air temperature		-20 °C	40 °C	
Heating		15 °C	62 °C	

ELECTRIC DATA	
Power supply control	1/N/PE, 230V, 50 Hz
Power input control	24,6 W
Cos (PHI) control	0,9
Fuse protection control	1x C10A
Fuse protection compressor	3x C16A
Power supply compressor	3/N/PE, 400V, 50 Hz
Compressor operating current	9,7 A
Starting current with inverter	15,8
Protection class	IP20

DIMENSIONS AIRCUBE	
Dimensions	B 1580 mm x T 810 mm x H 1000 mm
Outdoor installation	H 1000 mm
Weight without case	145 kg
Weight with case	172 kg

HEAT UTILISATION SYSTEM	
Capacitor type	Plate heat exchanger
Condenser	Stainless steel/CU
Pressure drop	14,8 kPa
Flow rate (5K)	2 m³/h
Residual head	5,3 mWs

HEAT SOURCE SYSTEM	
Evaporator	Fin package copper/ aluminium
Pressure loss	42 Pa
Max. Volume flow	6655 m³/h
Fan Max. Power	210 W

CONNECTIONS	
Heating flow	IG 1"
Heater return	IG 1"
Condensing tray connection	Hose DN40

1) Performance data means:
 A = Outside air temperature in °C
 W = Heating water temperature in °C
 V = Evaporation in °C
 % = Modulation

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Subject to printing and typesetting errors as well as technical changes.
 The tolerances according to EN 12900 apply to the above performance data.