AIM14 EMX/3PH data sheet

improve your life

Ideal for commercial buildings or spacious individual households

With a 14-kW heating and cooling capacity, this is the ideal unit to build heating and cooling hydronic systems for use in large individual households and office buildings. Available in the three-phase and single-phase version, this unit can be connected to the EMIX or EMIX TANK to produce domestic hot water directly from the thermodynamic source, using heat recovery during air-conditioning mode in the summer.

A | A++ | EC PUMP | ELECTRIC BACK UP | iCOP | A2W

Data based on the EN 14511-3:2013 standard

Heating

LWT [°C]	Outdoor air temperature - Dry Bulb (Wet Bulb) - °C									
	-7 (-8)		-2 (-3)		2 (1)		7 (6)		12 (11)	
	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP
35	**9.10**	**2.50**	**9.35**	**2.60**	**9.74**	**3.10**	**13.50**	**4.05**	**14.53**	**4.50**
45	**8.55**	**2.31**	**9.06**	**2.28**	**9.54**	**2.61**	**12.80**	**3.25**	**13.64**	**3.37**
55	**8.30**	**1.75**	**8.54**	**1.93**	**8.68**	**2.02**	**10.80**	**2.34**	**11.59**	**2.41**

LWT: Leaving water temperature
Qh: Heat capacity
COP: Coefficient of performance

Application data
Water inlet/outlet temperature difference = 5 °C, 8 °C for LWT = 55 °C

Cooling

LWT [°C]	Inlet outdoor air temperature - °C	
	35	
	Qc [kW]	EER
7	**8.30**	**2.26**
18	**10.00**	**3.50**

LWT: Leaving water temperature
Qc: Cooling capacity
EER: Energy efficiency ratio

Application data
Water inlet/outlet temperature difference = 5 °C

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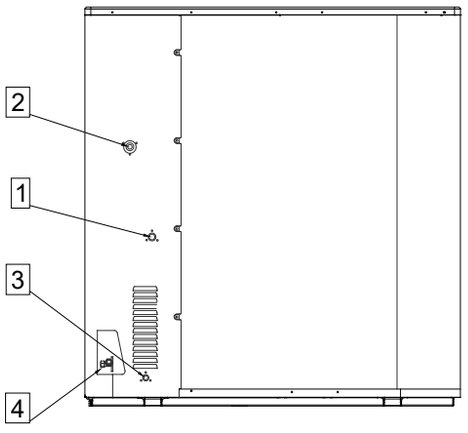
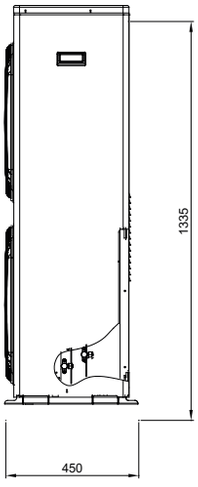
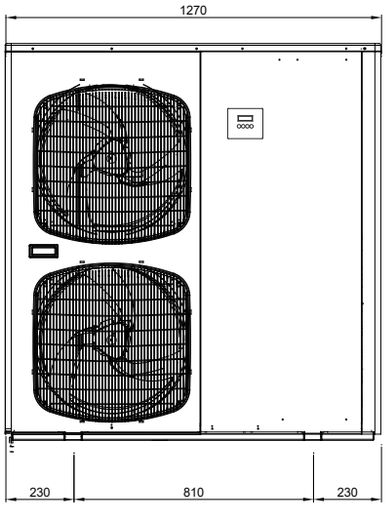
OUTDOOR UNIT				AIM14EMX AIM14EMX3PH	
Matchable units for Domestic Hot Water (DWH) production				EMIX TANK V2 (200-300 liters) EMIX V1 + External Tank External Tank + 3-way valve	
				Cooling	Heating
Performance according to EN 14511	Air +35°C - Water 23/18°C Air + 7°C - Water 30/35°C	Nominal-max. Cooling/Heating capacity	kW	10.00-11.90	13.60-15.50
		Nominal electric power input	kW_{el}	2.91	3.33
		Nominal EER/COP		3.44	4.06
	Air +35°C - Water 12/7°C Air - 7°C - Water 30/35 °C	Nominal-max. Cooling/Heating capacity	kW	8.30-9.60	8.70
		Nominal electric power input	kW_{el}	3.56	3.50
		Nominal EER/COP		2.32	2.49
Performance according to ERP Ecodesign EN 14825	LOW TEMPERATURE AVERAGE season	Nominal Heating capacity	kW	13.00	
		Seasonal energy efficiency ηs	%	154	
		SCOP		3.93	
		Energy efficiency class		A++	
	MEDIUM TEMPERATURE AVERAGE season	Nominal Heating capacity	kW	11.00	
		Seasonal energy efficiency ηs	%	112	
		SCOP		2.87	
		Energy efficiency class		A+	
DHW Performance according to EN 16147	With 300L tank and diverting valve	Load profile		XL	
		Energy efficiency class		A	
		DHW COP		2.12	
		ERP efficiency	%	85	
		Heating-up time from 10°C to 47°C	h:m	2:40	
	With Emix Tank 300 V2	Load profile		XL	
		Energy efficiency class		A	
		DHW COP		2.51	
		ERP efficiency	%	105	
		Heating-up time from 10°C to 48°C	h:m	2:24	
Unit operation data		Maximum outlet water temperature	°C	Up to 58	
		Outdoor temperature range (heating)	°C	-20 / +35	
		Outdoor temperature range (cooling)	°C	+10 / +47	
		Nominal water flow rate	m^3/h	at 35 °C	2.31
				at 45 °C	2.18
				at 55 °C	1.16
		Minimum efficient water volume of the system	l	80	
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	220/240-50/1+T (1ph) - 400/3+N+T/50 (3ph)	
		Maximum electric consumption	kW/A	5.2/23.8 (1ph) - 5.2/10.0 (3ph)	
		Fuse		10 A	
		Sound pressure	dB(A)	49	
Components and dimensions		Expansion vessel	l	6	
		Maximum pump pressure	m_{H2O}	7.5 (see H/Q diagrams)	
		Water connections	inch (")	1"	
		Safety valve	bar	3	
		Weight	kg	160	
		Dimensions H/W/D	mm	1335/1270/450	
		Compressor type		Twin Rotary	
Refrigerant pipes to EMIX/EMIX TANK		Diameters (gas/liquid)	inch (")	1/2"	
		Maximum length	m	10	
		Minimum length	m	5	
		Max height difference IU-OU	m	10	
Refrigerant		Type and GWP		R410A / 2088 kg CO_2 eq.	
		Standard charge	kg	3.10 kg / 6.47 Tons CO2 eq.	

*Single-phase version available within this year

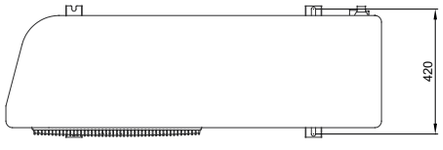
The equipment described in this catalogue contains HFC-410A-type fluorinated greenhouse gases. These products must be fitted by qualified staff pursuant to European regulations 303/2008 and 517/2014. PRELIMINARY data declared in accordance with REGULATION (EU) No 811/2013 of 18 February 2013 with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar devices, packages of combination heater, temperature control and solar devices, and with COMMISSION REGULATION (EU) No 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters. Argoclima reserves the right to amend the data presented in this catalogue at any time and without notice.







1. 1" M water inlet
2. 1" M water outlet
3. 1/2" M refilling/draining water circuit
4. Inlet/outlet of refrigerant pipes for EMIX



Characteristic curve of the pump and load losses in the unit