AEI 1G80 BEMX/EMX 3PH data sheet

Extreme flexibility, part way between residential and commercial use

With an unrivalled design for average-sized air/air and air/water hybrid systems, it also allows for the connection of up to 4 indoor units of any type, such as air, water, radiant panels or low-temperature radiators, in a single, dual, triple or quadruple configuration. By using the EMIX port to connect the unit to an EMIX/EMIX TANK, mixed applications can be created to produce domestic hot water at the same time. The G80 unit is available in both a single-phase and three-phase version.

Possible combinations with indoor units (sizes)

A2W	A2A / A2W ●	A2A
AUCH	AUAH+A+A+A •	C •
AUCH •	AUAH+A+B •	A+B •
	AUBH+A+A+A •	B+B
	AUBH+A+B •	A+A+A •
	AUCH+A+A •	A+A+B •
		A+A+A+A

● With EMIX/EMIX TANK

● Mixed configuration: air/air for cooling and air/water for heating

SIMULTANEOUS OPERATION IS NOT POSSIBLE

OUTDOOR UNIT				AEI1G80 BEMX (1ph) AEI1G80EMX 3PH (3ph)	
Matchable units for Domestic Hot Water (DWH) production				EMIX TANK V2 (200-300 liters)	
				EMIX V1 + External Tank	
				External Tank + 3-way valve	
Matchable air/air Indoor units				see technical datasheets	
Matchable air/water Indoor units				AUCH	
AIR/WATER					
				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	6.90-7.50	8.00-11.06
		Nominal electric power input	kW_{el}	1.89	1.90
		Nominal EER/COP		3.65	4.15
	Air +35°C - Water 12/7°C Air - 7°C - Water 30/35 °C	Nominal Cooling/Heating capacity	kW	4.90	6.30
		Nominal electric power input	kW_{el}	2.30	2.47
		Nominal EER/COP		2.13	2.55
Performance according to ERP Ecodesign EN 14825	LOW TEMPERATURE AVERAGE season	Nominal Heating capacity	kW	7.00	
		Seasonal energy efficiency ηs	%	153	
		SCOP		3.90	
		Energy efficiency class		A++	
	MEDIUM TEMPERATURE AVERAGE season	Nominal Heating capacity	kW	6	
		Seasonal energy efficiency ηs	%	110	
		SCOP		2.83	
		Energy efficiency class		A+	
AIR/AIR					
				Cooling	Heating
Performance according to EN 14511	Outdoor air +35°C - Indoor air 27°C Outdoor air + 7°C - Indoor air 20°C	Nominal (min.-max) Cooling/Heating capacity	kW	6.87 (1.60 / 9.62)	8.00 (1.70/ 11.20)
		Nominal electric power input	kW_{el}	1.86	1.90
		Nominal EER/COP		3.70	4.22
Performance according to ERP Ecodesign EN 14825	AVERAGE season	Pdesignc/Pdesignh	kW	9.00	7.70
		SEER/COP		6.70	4.10
		Energy efficiency class		A++	A+
DOMESTIC HOT WATER					
DHW Performance according to EN 16147	With 300L tank and diverting valve	Load profile		XL	
		Energy efficiency class		A	
		DHW COP		2.23	
		ERP efficiency	%	87	
	With Emix Tank 300 V2	Load profile		XL	
		Energy efficiency class		A	
		DHW COP		2.78	
		ERP efficiency	%	116	
		Heating-up time from 10°C to 48°C	h:m	3:04	
Unit operation data		Outdoor temperature operating range	°C	-15 / +43	-20 / +24
		Indoor temperature operating range	°C	+10 / +47	+5 / +27
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/1+T/50-60 - 400/3+N+T/50	
		Maximum electric consumption	kW/A	3.50/15.90 (1ph) - 3.50/5.90 (3ph)	
		Sound pressure	dB(A)	45	
		Sound power	dB(A)	64	
Components and dimensions		Compressor type		Twin Rotary	
		Fan air flow rate	m^3/h	3000	
		Weight	kg	87	
		Dimensions H/W/D	mm	835/1190/400	
Cooling lines		Diameters (liquid-gas)	inch	1/4"-3/8"(x3) + 1/4"-1/2" + 3/8"-3/8"(eMIX)	
		Total length of pipes (standard charge)	m	multi 40 / single 30	
		Total length of pipes (additional charge)	m	multi 65 / single 50	
		Pipe length per unit (standard charge)	m	30	
		Pipe length per unit (additional charge)	m	30	
		Maximum height difference IU-OU	m	10	
		Maximum height difference IU-IU	m	5	
Refrigerant		Type and GWP		R410A / 2088 kg CO_2 eq.	
		Standard charge		2.9 kg / 6.05 Tons CO_2 eq.	

Notes

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.

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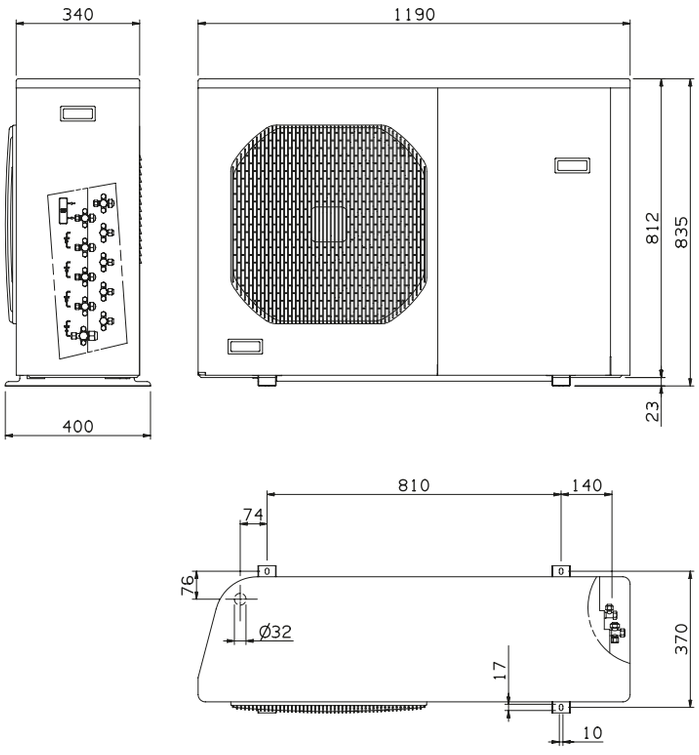

Data based on the UNI/TS 11300-4:2012 standard

Heating

LWT [°C]	Outdoor air temperature - Dry Bulb (Wet Bulb) - °C									
	-10 (-11)		-7 (-8)		2 (1)		7 (6)		12 (11)	
	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP
20	**6.50**	**2.36**	**6.80**	**2.45**	**6.10**	**2.36**	**11.20**	**3.27**	**11.60**	**3.55**

LAT: Leaving air temperature
Qh: Heat capacity
COP: Coefficient of performance

Cooling

LWT [°C]	Inlet outdoor air temperature °C	
	35	
	Qc [kW]	EER
27 (19)	**9.60**	**3.74**

LAT: Leaving air temperature
Qc: Cooling capacity
EER: Energy efficiency ratio

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	**6.30**	**2.55**	**6.81**	**2.89**	**7.01**	**3.34**	**8.00**	**4.20**	**11.46**	**4.62**
45	**5.70**	**2.03**	**6.38**	**2.48**	**6.60**	**2.79**	**7.39**	**3.12**	**10.02**	**3.64**
55	**4.90**	**1.60**	**4.99**	**1.99**	**5.27**	**2.10**	**6.10**	**2.32**	**7.78**	**2.71**

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	**4.90**	**2.13**
18	**6.90**	**3.65**

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

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