



Technical parameters for heat pump space heaters and heat pump combination heaters

As by **ANNEX II, point 5 - REQUIREMENTS FOR PRODUCT INFORMATION, Table 2 - 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 and by **ANNEX V - Table 8 of COMMISSION REGULATION (EU) No 811/2013 of 18 February 2013** supplementing **Directive 2010/30/EU of the European Parliament and of the Council** 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 device.

Model	AUAH / AE1G50EMX / DHW KIT		
Type of heat pump	☒ Air-to-water heat pump ☐ Water-to-water heat pump ☐ Brine-to-water heat pump		
Low-temperature heat pump	☐ Yes ☒ No		
Equipped with a supplementary heater	☒ Yes ☐ No		
Heat pump combination heater	☒ Yes ☐ No		
Climate	☒ Average ☐ Colder ☐ Warmer		
Temperature application	☐ Medium (55°C) ☒ Low (35°C)		
Applied standards	EN14825 / EN16147		

Item	Symbol	Value	Unit
Rated heat output	Prated	3	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	Pdh	2.5	kW
Tj = + 2°C	Pdh	1.5	kW
Tj = + 7°C	Pdh	1.0	kW
Tj = + 12°C	Pdh	0.9	kW
Tj = bivalent temperature	Pdh	2.5	kW
Tj = operation limit temperature	Pdh	2.3	kW
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcyc	-	kW
Degradation co-efficient	Cdh	0.9	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	151	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	COPd	2.26	-
Tj = + 2°C	COPd	3.78	-
Tj = + 7°C	COPd	5.30	-
Tj = + 12°C	COPd	7.02	-
Tj = bivalent temperature	COPd	2.26	-
Tj = operation limit temperature	COPd	2.02	-
Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	kW
Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	58	°C

Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.005	kW
Thermostat-off mode	P _{SB}	0.008	kW
Standby mode	P _{TO}	0.005	kW
Crankcase heater mode	P _{CK}	0.035	kW

Supplementary heater			
Rated heat output	P _{sup}	0.5	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoor / outdoor	L _{WA}	46 / 65	dB
Annual energy consumption	Q _{HE}	1534	kWh
Rated air flow rate, outdoor	-	1500	m³/h
Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater			
Declared load profile	XL		
Daily electricity consumption	Q _{elec}	8.214	kWh
Annual electricity consumption	AEC	1743	kWh
Water heating energy efficiency	η_{wh}	96	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

Contact details	ARGOCLIMA S.p.A. Via Alfeno Varo, 35, 25020, Alfianello (BS), Italy www.argoclima.com
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Temperature application	☒ Medium (55°C) ☐ Low (35°C)		
Applied standards	EN14825 / EN16147		

Item	Symbol	Value	Unit
Rated heat output	Prated	3	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	Pdh	3.0	kW
Tj = + 2°C	Pdh	1.9	kW
Tj = + 7°C	Pdh	1.1	kW
Tj = + 12°C	Pdh	1.3	kW
Tj = bivalent temperature	Pdh	3.0	kW
Tj = operation limit temperature	Pdh	2.1	kW
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcyc	-	kW
Degradation co-efficient	Cdh	0.9	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	111	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	COPd	1.75	-
Tj = + 2°C	COPd	2.78	-
Tj = + 7°C	COPd	3.74	-
Tj = + 12°C	COPd	5.88	-
Tj = bivalent temperature	COPd	1.75	-
Tj = operation limit temperature	COPd	1.11	-
Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	kW
Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	58	°C

Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.005	kW
Thermostat-off mode	P _{SB}	0.008	kW
Standby mode	P _{TO}	0.005	kW
Crankcase heater mode	P _{CK}	0.035	kW

Supplementary heater			
Rated heat output	P _{sup}	1.3	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoor / outdoor	L _{WA}	46 / 65	dB
Annual energy consumption	Q _{HE}	2479	kWh
Rated air flow rate, outdoor	-	1500	m³/h
Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater			
Declared load profile	XL		
Daily electricity consumption	Q _{elec}	8.214	kWh
Annual electricity consumption	AEC	1743	kWh
Water heating energy efficiency	η_{wh}	96	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

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PRODUCT FICHE

As by ANNEX IV - POINT 1 of COMMISSION REGULATION (EU) No 811/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council 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 device.

LOW TEMPERATURE HEAT PUMP - Low temperature application

MODEL : AUAH / AEI1G50EMX / DHW KIT

SEASONAL SPACE HEATING ENERGY EFFICIENCY CLASS	A+
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		35°C	55°C	
Rated heat output (average climate conditions)	Prated	3	3	kW

DECLARED LOAD PROFILE	XL
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SEASONAL WATER HEATING ENERGY EFFICIENCY CLASS	A
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		35°C	55°C	
Annual energy consumption (average climate conditions)	Q _{HE}	1534	2479	kWh

Annual electricity consumption for water heating (average climate conditions)	AEC	1867	kWh
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		35°C	55°C	
Seasonal space heating energy efficiency (average climate conditions)	η _s	151	111	%

Water heating energy efficiency (average climate conditions)	η _{wh}	90	%
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		35°C	55°C	
Rated heat output (colder climate conditions)	P _{nomiale}	2	3	kW
Rated heat output (warmer climate conditions)	P _{nomiale}	4	2	kW

		35°C	55°C	
Annual electricity consumption for space heating (colder climate conditions)	Q _{HE}	2017	2737	kWh
Annual electricity consumption for space heating (warmer climate conditions)	Q _{HE}	954	963	kWh

Annual electricity consumption for water heating (colder climate conditions)	AEC	2252	kWh
Annual electricity consumption for water heating (warmer climate conditions)	AEC	1490	kWh

		35°C	55°C	
Seasonal space heating energy efficiency (colder climate conditions)	η _s	115	87.5	%
Seasonal space heating energy efficiency (warmer climate conditions)	η _s	194	126	%

Water heating energy efficiency (colder climate conditions)	η _{wh}	74	%
Water heating energy efficiency (warmer climate conditions)	η _{wh}	112	%

		Indoor	Outdoor	
Sound power level	L _{WA}	46	65	dB