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	**AUCH / AEI1G110*EMX*** / 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 starndards	EN14825 / EN16147

Item	**Symbol**	**Value**	**Unit**
Rated heat output	**Prated**	**8**	**kW**
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	Pdh	7.4	kW
Tj = + 2°C	Pdh	4.5	kW
Tj = + 7°C	Pdh	2.8	kW
Tj = + 12°C	Pdh	2.6	kW
Tj = bivalent temperature	Pdh	7.4	kW
Tj = operation limit temperature	Pdh	6.6	kW
T j = – 15 °C (if TOL < – 20 °C)	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient	Cdh	0.9	-

Item	**Symbol**	**Value**	**Unit**
Seasonal space heating energy efficiency	**η_s**	**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	2.24	-
Tj = + 2°C	COPd	3.76	-
Tj = + 7°C	COPd	5.34	-
Tj = + 12°C	COPd	7.09	-
Tj = bivalent temperature	COPd	2.24	-
Tj = operation limit temperature	COPd	2.02	-
T j = – 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}	0.030	kW

Supplementary heater			
Rated heat output	Psup	1.8	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoor / outdoor	L_{WA}	46 / 69	dB
Annual energy consumption	Q_{HE}	4476	kWh

Rated air flow rate, outdoor	-	2500	m^3/h
Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater			
Declared load profile	**XL**		
Daily electricity consumption	Qelec	8.400	kWh
Annual electricity consumption	AEC	1787	kWh

Water heating energy efficiency	**η_{wh}**	**94**	**%**
Daily fuel consumption	Qfuel	-	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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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	**AUCH + AEI1G110*EMX*** + 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 starndards	EN14825 / EN16147

Item	**Symbol**	**Value**	**Unit**
Rated heat output	**Prated**	**7**	**kW**
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7°C	Pdh	6.3	kW
Tj = + 2°C	Pdh	3.7	kW
Tj = + 7°C	Pdh	3.0	kW
Tj = + 12°C	Pdh	2.9	kW
Tj = bivalent temperature	Pdh	6.3	kW
Tj = operation limit temperature	Pdh	4.0	kW
T j = – 15 °C (if TOL < – 20 °C)	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient	Cdh	0.9	-

Item	**Symbol**	**Value**	**Unit**
Seasonal space heating energy efficiency	**η_s**	**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	1.55	-
Tj = + 2°C	COPd	2.81	-
Tj = + 7°C	COPd	4.05	-
Tj = + 12°C	COPd	6.02	-
Tj = bivalent temperature	COPd	1.55	-
Tj = operation limit temperature	COPd	1.08	-
T j = – 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}	0.000	kW
Thermostat-off mode	P_{SB}	0.008	kW
Standby mode	P_{TO}	0.005	kW
Crankcase heater mode	P_{CK}	0.030	kW

Supplementary heater			
Rated heat output	Psup	3.1	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoor / outdoor	L_{WA}	46 / 69	dB
Annual energy consumption	Q_{HE}	5169	kWh

Rated air flow rate, outdoor	-	3500	m^3/h
Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater			
Declared load profile	**XL**		
Daily electricity consumption	Qelec	8.400	kWh
Annual electricity consumption	AEC	1787	kWh

Water heating energy efficiency	**η_{wh}**	**94**	**%**
Daily fuel consumption	Qfuel	-	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.

MEDIUM TEMPERATURE HEAT PUMP - Low and medium temperature application

MODEL : AUCH + AEI1G110*EMX* + DHW KIT**

SEASONAL SPACE HEATING ENERGY EFFICIENCY CLASS				**A+**
		35°C	**55°C**	
Rated heat output (average climate conditions)	**Prated**	**8**	**7**	**kW**
DECLARED LOAD PROFILE				**XL**
SEASONAL WATER HEATING ENERGY EFFICIENCY CLASS				**A**
		35°C	**55°C**	
Annual energy consumption (average climate conditions)	**Q_{HE}**	**4476**	**5169**	**kWh**
Annual electricity consumption for water heating (average climate conditions)	**AEC**	**1787**	**kWh**	
		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}**	**94**	**%**	
		35°C	55°C	
Rated heat output (colder climate conditions)	Pnominale	7	6	kW
Rated heat output (warmer climate conditions)	Pnominale	8	7	kW
		35°C	55°C	
Annual electricity consumption for space heating (colder climate conditions)	Q_{HE}	5292	5843	kWh
Annual electricity consumption for space heating (warmer climate conditions)	Q_{HE}	2159	2700	kWh
Annual electricity consumption for water heating (colder climate conditions)	AEC	2307	kWh	
Annual electricity consumption for water heating (warmer climate conditions)	AEC	1382	kWh	
		35°C	55°C	
Seasonal space heating energy efficiency (colder climate conditions)	η_s	127	90	%
Seasonal space heating energy efficiency (warmer climate conditions)	η_s	203	126	%
Water heating energy efficiency (colder climate conditions)	η_{wh}	73	%	
Water heating energy efficiency (warmer climate conditions)	η_{wh}	121	%	
Sound power level, indoor / outdoor	L_{WA}	46	69	dB

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