REGULATION (EU) N. 813/2013

Ecodesign requirements for space heaters

Air to water heat pumps, heating only, high temperature water production

AW-HT 0122 - 0302

Heating Capacity Range 40,2 - 107 [kW] - (EN14511 VALUE) Nominal Heating Capacity at Tdesighn Range 29,0 - 75,0 [kW]



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1. REGULATION (EU) N. 813/2013

1.1 Scope of the document

This documenti is compliant with the Commission Regulation (EU) N. 813/2013 reguarding "REQUIREMENTS FOR PRODUCT INFORMATION" (Annex II, Point 5) and it is made by the required information set out of the Table 2, Annex II of the Regulation called "Information requirements for heat pump space heaters and heat pump combination heaters".

1.2 REGULATION (UE) N. 813/2013 description The COMMISSION REGULATION (EU) N. 813/2013 of 2 August 2013, implementing Directive 2009/125/EC of the European Parliament and of the Council, establishes ecodesign requirements for the placing on the market and/or putting into service of space heaters and combination heaters with a rated heat output ≤ 400 kW, including those integrated in packages of space heater, temperature control and solar device or packages of combination heater, temperature control and solar device as defined in Article 2 of Commission Delegated Regulation (EU) N. 811/2013.

1.3 Climaveneta's declared data description

- Heat pump combination heater: heat pump space heater that is designed to also provide heat to deliver hot drinking. Low-temperature application: application where the heat pump space
- heater delivers its declared capacity for heating at an indoor heat exchanger outlet temperature of 35 °C. Medium-temperature application: application where the heat pump
- space heater or heat pump combination heater delivers its declared capacity for heating at an indoor heat exchanger outlet temperature of 55[°]C.
- TdesignH: temperature at reference design conditions.
- PdesignH , Design load for heating: the rated heat output of a heat pump space heater or heat pump combination heater at the reference design temperature, whereby the design load for heating is equal to the part load for heating with outdoor temperature equal to reference design temperature, expressed in kW.
- Seasonal space heating energy efficiency (ns): ratio between the space heating demand for a designated heating season, supplied by a heater and the annual energy consumption required to meet this demand, expressed in %.
- Seasonal space heating energy efficiency class: efficiency class determined on the basis of its seasonal space heating energy efficiency with a difference distribution between heaters and low temperature heat pumps
- Low-temperature heat pump: heat pump space heater that is specifically designed for low-temperature application, and that cannot deliver heating water with an outlet temperature of 52 °C at an inlet dry (wet) bulb temperature of -7 °C (-8 °C) in the reference design conditions for average climate.
- Bivalent temperature: the outdoor temperature declared by the manufacturer for heating at which the declared capacity for heating equals the part load for heating and below which the declared capacity for heating requires supplementary capacity for heating to meet the part
- load for heating. Operation limit temperature: the outdoor temperature declared by the manufacturer for heating, below which the air-to-water heat pump space heater or air-to-water heat pump combination heater will not be able to deliver any heating capacity and the declared capacity for heating is equal to zero.
- Degradation coefficient: measure of efficiency loss due to cycling of heat Off mode: a condition in which the heat pump space heater or heat
- pump combination heater is connected to the mains power source and is not providing any function.
- Thermostat-off mode: condition corresponding to the hours with no heating load and activated heating function, whereby the heating function is switched on but the heat pump space heater or heat pump combination heater is not operational.
- Standby mode: condition where the heater is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only the following functions, which may persist for an indefinite time: reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status display.
- Crankcase heater mode: condition in which a heating device is activated to avoid the refrigerant migrating to the compressor so as to limit the refrigerant concentration in oil when the compressor is started.
- Seasonal coefficient of performance (SCOP): the overall coefficient of performance of a heat pump heater representative of the designated heating season, calculated as the reference annual heating demand divided by the annual energy consumption. Supplementary capacity for heating: rated heat output of a
- supplementary heater that supplements the declared capacity for heating to meet the part load for heating, if the declared capacity for heating than load less the is part

for heating.

- Capacity control: ability of a heat pump space heater or heat pump combination heater to change its capacity by changing the volumetric flow rate of at least one of the fluids needed to operate the refrigeration cycle.
- Annual energy consumption: means the energy consumption required to meet the reference annual heating demand for a designated heating season
- Sound power level LWA: the A-weighted sound power level, indoors and/or outdoors, expressed in dB.

2. CLIMAVENETA CONTENTS UNIT

2.1 Table index

Air to water heat pumps, heating only, high temperature water production

AW-HT 0122 - 0302

Heating Capacity Range 40,2 - 107 [kW] Nominal Heating Capacity at Tdesighn Range 29,0 - 75,0 [kW]

Units	Version	Size					Pag.
AW-HT	CA-E	0122	0122	0152	0152	0202	5
		0202	0262	0262	0302	0302	
AW-HT	LN-CA-E	0122	0122	0152	0152	0202	25
		0202	0262	0262	0302	0302	



AW-HT /CA-E /0122 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	28	
Seasonal space heating energy efficiency	ηs	[%]	124	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	ture Tj	- 1 1		
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	23,4	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	15,3	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,5	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,6	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	24,0	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	21,6	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-6	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperate	ure 20 °C and outdoor temperatu	re Tj		
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,74	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,30	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,03	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,39	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,81	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,54	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,100	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	6,76	
Other items				
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	84	
Annual electricity consumption for heating	QHE	[kW/h]	18501	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	18540	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	



AW-HT /CA-E /0122 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	31	
Seasonal space heating energy efficiency	ηs	[%]	115	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj	- 1		
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	25,3	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	16,4	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,4	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,5	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	25,8	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	23,9	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-6	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj		
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,25	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,98	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,00	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,44	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,32	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,07	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,044	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	6,60	
Other items		· · ·		
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	84	
Annual electricity consumption for heating	QHE	[kW/h]	21469	
Outdoor heat exchanger		· ·		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	18540	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /D /CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	26
Seasonal space heating energy efficiency	ης	[%]	123
Seasonal space heating energy efficiency class	-	-	Α
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	23,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	14,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,5
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,6
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	23,4
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	21,6
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,74
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,29
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,03
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,39
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,74
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,54
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,100
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	4,85
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	84
Annual electricity consumption for heating	QHE	[kW/h]	17359
Outdoor heat exchanger	•		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	18540
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The permeters are deduced for explication of modium temperature execution the percention of low			



AW-HT /D /CA-E /0122 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	29	
Seasonal space heating energy efficiency		[%]	114	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj			
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	25,3	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	15,4	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,4	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,5	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	25,3	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	23,9	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj		
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,25	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,96	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,00	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,44	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,25	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,07	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode		- 1 - 1		
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,044	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	4,71	
Other items		- 1		
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	84	
Annual electricity consumption for heating	QHE	[kW/h]	20236	
Outdoor heat exchanger	•			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	18540	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
Outdoor heat exchanger For air-to-water HP: Rated air flow rate, outdoors	Qairsource Qwater/brine source	[m³/h]	18540	



AW-HT /CA-E /0152 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	34	
Seasonal space heating energy efficiency	ηs	[%]	121	
Seasonal space heating energy efficiency class	-		Α	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	ture Tj	I		
Declared capacity for heating with outdoor temperature $T_i = -7 \degree C$	Pdh	[kW]	29,9	
Declared capacity for heating with outdoor temperature $Ti = +2 °C$	Pdh	[kW]	19,4	
Declared capacity for heating with outdoor temperature $T_i = +7 \text{ °C}$	Pdh	[kW]	24,9	
Declared capacity for heating with outdoor temperature Ti = +12 °C	Pdh	[kW]	27,7	
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	29.9	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	26,9	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0.90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperate			0,00	
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd		2,66	
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3.24	
Declared coefficient of performance with outdoor temperature $T_j = +7 \degree C$	COPd	-	4,00	
Declared coefficient of performance with outdoor temperature $T_j = +12 \text{ °C}$	COPd	-	4.39	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,66	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,46	
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	-	_,	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode		[0]		
Off mode	POFF	[kW]	0.000	
Thermostat-off mode	PTO	[kW]	0,142	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater		[]	0,120	
Nominal heating capacity	Psup	[kW]	6,91	
Other items		[]	0,0 1	
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, integris	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	22537	
Outdoor heat exchanger		[[iteration]	22007	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	27036	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The perspectate are declared for application at madium temperature, outdoor heat exchanger				



AW-HT /CA-E /0152 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	37	
Seasonal space heating energy efficiency	ηs	[%]	114	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	ture Tj	I		
Declared capacity for heating with outdoor temperature $T_i = -7 \degree C$	Pdh	[kW]	32,6	
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	19,8	
Declared capacity for heating with outdoor temperature $T_i = +7 \text{ °C}$	Pdh	[kW]	24,9	
Declared capacity for heating with outdoor temperature $T_i = +12 \degree C$	Pdh	[kW]	27,7	
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	32,6	
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	30.0	
For air-to-water heat pumps: $T_j = -15 \degree C$ (if TOL < $-20 \degree C$)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0.90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperate		re Ti	-,	
Declared coefficient of performance with outdoor temperature $T_j = -7$ °C	COPd		2,27	
Declared coefficient of performance with outdoor temperature $T_i = +2 \degree C$	COPd	-	2.97	
Declared coefficient of performance with outdoor temperature $T_j = +7 \degree C$	COPd	-	3,97	
Declared coefficient of performance with outdoor temperature Ti = +12 °C	COPd	-	4,44	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,27	
Declared coefficient of performance with outdoor temperature Ti = Operation limit temperature	COPd	-	2.04	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL		45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,061	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0.123	
Supplementary heater	1	[]	-,	
Nominal heating capacity	Psup	[kW]	6,85	
Other items		[]		
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	25934	
Outdoor heat exchanger		[[Krivit]	20001	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	27036	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The perspectors are declared for application at madium temperature, outdoor heat exchanger				



AW-HT /D /CA-E /0152 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	34	
Seasonal space heating energy efficiency		[%]	121	
Seasonal space heating energy efficiency class	-	-	Α	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj	- 1 1		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	29,9	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	19,4	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	24,9	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	27,7	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	29,9	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	26,9	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj		
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,66	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,24	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,00	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,39	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,66	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,46	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,142	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	6,91	
Other items	•			
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	22537	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	27036	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
Outdoor heat exchanger For air-to-water HP: Rated air flow rate, outdoors	Qairsource Qwater/brine source	[m³/h] [m³/h]	27036	



AW-HT /D /CA-E /0152 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	37	
Seasonal space heating energy efficiency		[%]	114	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj			
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	32,6	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	19,8	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	24,9	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	27,7	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	32,6	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	30,0	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ture 20 °C and outdoor temperatu	re Tj		
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,27	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,97	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	3,97	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,44	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,27	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,04	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode		- 1 - 1		
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,061	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	РСК	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	6,85	
Other items				
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	25934	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	27036	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The percentation are dealared for explication of matic now rate, outdoor near exchanger				



AW-HT /CA-E /0202 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	47	
Seasonal space heating energy efficiency	ηs	[%]	124	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj			
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	42,0	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	26,1	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,5	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,5	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	42,0	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	38,8	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj		
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,73	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,27	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,02	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,41	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,73	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,55	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	РТО	[kW]	0,189	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater	ł			
Nominal heating capacity	Psup	[kW]	8,68	
Other items				
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	87	
Annual electricity consumption for heating	QHE	[kW/h]	30922	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
Outdoor heat exchanger For air-to-water HP: Rated air flow rate, outdoors	Qwater/brine source	[m³/h]	-	



AW-HT /CA-E /0202 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	51	
Seasonal space heating energy efficiency	ns	[%]	116	
Seasonal space heating energy efficiency class	-		A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	iture Tj	I		
Declared capacity for heating with outdoor temperature $T_i = -7 \degree C$	Pdh	[kW]	44,9	
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	27,3	
Declared capacity for heating with outdoor temperature $T_i = +7 \text{ °C}$	Pdh	[kW]	33,4	
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,4	
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	44.9	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	41,9	
For air-to-water heat pumps: $T_j = -15 \text{ °C}$ (if TOL < -20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh	-	0.90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			0,00	
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd	-	2.29	
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	2,98	
Declared coefficient of performance with outdoor temperature $T_j = +7$ °C	COPd	-	3,99	
Declared coefficient of performance with outdoor temperature $T_j = +12 \text{ °C}$	COPd	_	4.46	
Declared coefficient of performance with outdoor temperature Ti = Bivalent temperature	COPd		2,29	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	_	2.12	
For air-to-water heat pumps: $T_{j} = -15$ °C (if TOL < -20 °C)	COPd	_	-,	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode		[[]	10	
Off mode	POFF	[kW]	0.000	
Thermostat-off mode	PTO	[kW]	0,083	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater	1 010	[]	0,120	
Nominal heating capacity	Psup	[kW]	8,85	
Other items		[]	-,	
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, autoors	LWA	[dB(A)]	87	
Annual electricity consumption for heating	QHE	[kW/h]	35316	
Outdoor heat exchanger		[[Kennig	00010	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The peremeters are declared for application at madium temperature, succept in the ages of law t				



AW-HT /D /CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	47
Seasonal space heating energy efficiency	ηs	[%]	124
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	42,0
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	26,1
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,5
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,5
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	42,0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	38,8
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat		re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,73
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,27
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,02
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,41
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,73
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,55
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,189
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	8,68
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	30922
Outdoor heat exchanger			0746
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /D /CA-E /0 MEDIUM TEMPERATURE			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	51
Seasonal space heating energy efficiency		[%]	116
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj	- 1 - 1	
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	44,9
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	27,3
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,4
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,4
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	44,9
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	41,9
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,29
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,98
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	3,99
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,46
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,29
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,12
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,083
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	8,85
Other items		· · · · · ·	
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	35316
Outdoor heat exchanger	· · · · · · · · · · · · · · · · · · ·		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /CA-E /020 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	59
Seasonal space heating energy efficiency	ηs	[%]	126
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj		
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	51,8
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	32,0
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	41,3
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	46,8
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	51,8
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	48,5
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,82
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,30
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,04
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,43
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,82
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,67
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		- 1 - 1	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,254
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	10,1
Other items		- 1 - 1	
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	37499
Outdoor heat exchanger	•		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	38160
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			



AW-HT /CA-E /026 MEDIUM TEMPERATURE a	-		
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	63
Seasonal space heating energy efficiency	ns	[%]	118
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	iture Tj	I	
Declared capacity for heating with outdoor temperature $T_i = -7 \degree C$	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	34,1
Declared capacity for heating with outdoor temperature $T_i = +7 \text{ °C}$	Pdh	[kW]	41.2
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	46,6
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	56.0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	53,7
For air-to-water heat pumps: $T_j = -15 \text{ °C}$ (if TOL < -20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0.90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			0,00
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd	-	2.33
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3.03
Declared coefficient of performance with outdoor temperature $T_j = 2^{\circ}$	COPd	_	4,04
Declared coefficient of performance with outdoor temperature $T_j = +12 \degree C$	COPd		4.48
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd		2,33
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd		2,16
For air-to-water heat pumps: $T_{j} = -15$ °C (if TOL < -20 °C)	COPd		-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode	WICE	[0]	40
Off mode	POFF	[kW]	0.000
Thermostat-off mode	PTO	[kW]	0,111
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater		[]	0,120
Nominal heating capacity	Psup	[kW]	9,61
Other items	P		
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	43297
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	38160
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The normation are dealared for analisation at madium temperature, executing the ages of law t			

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /D /CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	59
Seasonal space heating energy efficiency	ης	[%]	126
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	51,8
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	32,0
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	41,3
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	46,8
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	51,8
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	48,5
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,82
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,30
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,04
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,43
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,82
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,67
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,254
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	10,1
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	37499
Outdoor heat exchanger	•		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	38160
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The permeters are deduced for explication of modium temperature execution the percention of low			



AW-HT /D /CA-E /02 MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	63
Seasonal space heating energy efficiency	ηs	[%]	118
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ture Tj	I	
Declared capacity for heating with outdoor temperature $T_j = -7$ °C	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature $T_j = +2 \degree C$	Pdh	[kW]	34,1
Declared capacity for heating with outdoor temperature $T_i = +7 \degree C$	Pdh	[kW]	41,2
Declared capacity for heating with outdoor temperature $T_j = +12 \degree C$	Pdh	[kW]	46,6
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	56.0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	53,7
For air-to-water heat pumps: $T_j = -15 \text{ °C}$ (if TOL < -20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0.90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd		2.33
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3.03
Declared coefficient of performance with outdoor temperature $T_j = +7$ °C	COPd	-	4,04
Declared coefficient of performance with outdoor temperature $T_j = +12 \text{ °C}$	COPd	-	4.48
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,33
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,16
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		[0]	10
Off mode	POFF	[kW]	0.000
Thermostat-off mode	PTO	[kW]	0,111
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater	1 OK	[(()]]	0,120
Nominal heating capacity	Psup	[kW]	9,61
Other items		[]	0,01
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, inteolog	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	43297
Outdoor heat exchanger		[[Kennig	10201
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	38160
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The peremeters are declared for application at madium temperature, succept in the ages of law t			



AW-HT /CA-E /030 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	71
Seasonal space heating energy efficiency		[%]	130
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	62,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	38,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	49,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	56,2
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	62,4
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	58,4
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,93
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,37
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,17
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,52
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,93
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,75
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,337
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	12,1
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	43982
Outdoor heat exchanger	· ·		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /CA-E /030 MEDIUM TEMPERATURE a	-		
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	75
Seasonal space heating energy efficiency	ηs	[%]	121
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ture Tj	I	
Declared capacity for heating with outdoor temperature $T_j = -7$ °C	Pdh	[kW]	66,0
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	40,2
Declared capacity for heating with outdoor temperature $T_j = +7 \degree C$	Pdh	[kW]	49,5
Declared capacity for heating with outdoor temperature $T_j = +12 \degree C$	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	66.0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	61,7
For air-to-water heat pumps: $T_j = -15 \text{ °C}$ (if TOL < -20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0.90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd		2,34
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3,11
Declared coefficient of performance with outdoor temperature $T_j = +7$ °C	COPd	-	4,15
Declared coefficient of performance with outdoor temperature $T_j = +12 \text{ °C}$	COPd	-	4.58
Declared coefficient of performance with outdoor temperature Ti = Bivalent temperature	COPd	-	2,34
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,15
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		[0]	10
Off mode	POFF	[kW]	0.000
Thermostat-off mode	PTO	[kW]	0,148
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater		[]	0,120
Nominal heating capacity	Psup	[kW]	12,9
Other items		[]	.=,0
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, inteolog	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	49946
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The perspectate are declared for application at medium temperature, outdoor heat exchanger			

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /D /CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	71
Seasonal space heating energy efficiency	ης	[%]	130
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	62,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	38,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	49,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	56,2
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	62,4
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	58,4
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,93
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,37
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,17
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,52
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,93
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,75
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,337
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	12,1
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	43982
Outdoor heat exchanger	•		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The percentage are declared for application of modium temperature, execution the appendix of low	· · · · · · · · ·		



AW-HT /D /CA-E /0 MEDIUM TEMPERATURE			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	75
Seasonal space heating energy efficiency	ηs	[%]	121
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	66,0
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	40,2
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	49,5
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	66,0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	61,7
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,34
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,11
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,15
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,58
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,34
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,15
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		- 1	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,148
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater	ł		
Nominal heating capacity	Psup	[kW]	12,9
Other items		- I - I	
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	87
Annual electricity consumption for heating	QHE	[kW/h]	49946
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	37404
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			



AW-HT /D /LN-CA-E / LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	27
Seasonal space heating energy efficiency	ηs	[%]	124
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	ture Tj		
Declared capacity for heating with outdoor temperature $T_i = -7$ °C	Pdh	[kW]	23,7
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	14,6
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,7
Declared capacity for heating with outdoor temperature Ti = +12 °C	Pdh	[kW]	20,9
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	23,7
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	22,0
For air-to-water heat pumps: Ti = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh		0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperate	ure 20 °C and outdoor temperature	e Tj	,
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,78
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,29
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,07
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,45
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,78
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,59
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		1 1	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,102
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	РСК	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	4,79
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	82
Annual electricity consumption for heating	QHE	[kW/h]	17430
Outdoor heat exchanger		· ·	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	15012
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /D /LN-CA-E / MEDIUM TEMPERATURE :			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	29
Seasonal space heating energy efficiency	ηs	[%]	114
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj	- 1 1	
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	25,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	15,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,6
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,8
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	25,4
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	23,9
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,26
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,96
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,04
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,51
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,26
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,07
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,045
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater	· ·	· · ·	
Nominal heating capacity	Psup	[kW]	4,82
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	82
Annual electricity consumption for heating	QHE	[kW/h]	20262
Outdoor heat exchanger		· · ·	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	15012
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /LN-CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	29
Seasonal space heating energy efficiency	ηs	[%]	125
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	23,7
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	15,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,9
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	24,3
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	22,0
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-6
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	·
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,78
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,31
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,07
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,45
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,85
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,59
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		- 1 - 1	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,102
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	6,72
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	82
Annual electricity consumption for heating	QHE	[kW/h]	18579
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	15012
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The perspectate are declared for application of modium temperature, event in the cose of low			



AW-HT /LN-CA-E /0 MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	31
Seasonal space heating energy efficiency	ηs	[%]	115
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj	- 1	
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	25,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	16,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	18,6
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	20,8
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	25,9
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	23,9
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-6
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,26
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,98
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,04
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,51
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,35
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,07
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,045
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	6,72
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	82
Annual electricity consumption for heating	QHE	[kW/h]	21463
Outdoor heat exchanger		· ·	
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	15012
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /D /LN-CA-E / LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	34
Seasonal space heating energy efficiency	ns	[%]	121
Seasonal space heating energy efficiency class	-		Α
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ture Tj		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	30,4
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	19,2
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	24,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	27,7
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	30,4
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	27,8
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	e Tj	
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,71
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,22
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	3,97
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,40
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,71
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,54
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,140
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	6,57
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	84
Annual electricity consumption for heating	QHE	[kW/h]	22889
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	22500
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



Air-to-water heat pump: yes / no Water-to-water heat pump: yes / no Brine-to-water heat pump: yes / no Low-temperature heat pump: yes / no With supplementary heater: yes / no Wixed unit with heat pump: yes / no Mixed unit with heat pump: yes / no Temperature application (1) (low 35°C/ medium 55°C) Water flow rate fixed / variable Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ns [%] Seasonal space heating energy efficiency class - -	yes no no no no no hedium 55°C fixed variable
Brine-to-water heat pump: yes / no Image: space	no no no hedium 55°C fixed variable
Low-temperature heat pump: yes / no With supplementary heater: yes / no Mixed unit with heat pump: yes / no Temperature application (1) (low 35°C/ medium 55°C) mm Water flow rate fixed / variable Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ns [%]	no no nodium 55°C fixed variable
With supplementary heater: yes / no Mixed unit with heat pump: yes / no Temperature application (1) (low 35°C/ medium 55°C) Water flow rate fixed / variable Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ŋs [%]	no no nedium 55°C fixed variable
Mixed unit with heat pump: yes / no Temperature application (1) (low 35°C/ medium 55°C) Water flow rate fixed / variable Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh Seasonal space heating energy efficiency ŋs	no nedium 55°C fixed variable
Temperature application (1) (low 35°C/ medium 55°C) mm Water flow rate fixed / variable mm Outlet temperature fixed / variable mm Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder mm Rated heat output at Tdesignh Prated = Pdesignh [kW] mm Seasonal space heating energy efficiency ns [%]	nedium 55°C fixed variable
Water flow rate fixed / variable Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ŋs [%]	fixed variable
Outlet temperature fixed / variable Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ŋs [%]	variable
Parameters are declared for average/warmer/colder climate conditions (1) average / warmer / colder Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ns [%]	
Rated heat output at Tdesignh Prated = Pdesignh [kW] Seasonal space heating energy efficiency ŋs [%]	overage
Seasonal space heating energy efficiency ns [%]	average
	37
Seasonal space heating energy efficiency class	115
	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj	
Declared capacity for heating with outdoor temperature Tj = -7 °C Pdh [kW]	32,8
Declared capacity for heating with outdoor temperature Tj = +2 °C Pdh [kW]	19,9
Declared capacity for heating with outdoor temperature Tj = +7 °C Pdh [kW]	24,8
Declared capacity for heating with outdoor temperature Tj = +12 °C Pdh [kW]	27,7
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature Pdh [kW]	32,8
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature Pdh [kW]	30,6
For air-to-water heat pumps: $Tj = -15 \degree C$ (if TOL < $-20 \degree C$) Pdh [kW]	-
Bivalent temperature Tbiv [°C]	-7
Degradation coefficient Cdh -	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj	
Declared coefficient of performance with outdoor temperature Tj = -7 °C COPd -	2,30
Declared coefficient of performance with outdoor temperature Tj = +2 °C COPd -	2,96
Declared coefficient of performance with outdoor temperature Tj = +7 °C COPd -	3,97
Declared coefficient of performance with outdoor temperature Tj = +12 °C COPd -	4,45
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature COPd -	2,30
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature COPd -	2,10
For air-to-water heat pumps: $Tj = -15 \degree C$ (if TOL < - 20 °C) COPd -	-
For air-to-water HP : Operation limit temperature TOL [°C]	-20
Heating water operating limit temperature at TOL WTOL [°C]	45
Power consumption in modes other than active mode	
Off mode POFF [kW]	0,000
Thermostat-off mode PTO [kW]	0,060
Standby mode PSB [kW]	0,123
Crankcase heater mode PCK [kW]	0,123
Supplementary heater	
Nominal heating capacity Psup [kW]	6,47
Other items	
Capacity control fixed / variable	variable
Sound power level, indoors LWA [dB(A)]	-
Sound power level, outdoors LWA [dB(A)]	84
Annual electricity consumption for heating QHE [kW/h]	26046
Outdoor heat exchanger	
For air-to-water HP: Rated air flow rate, outdoors Qairsource [m³/h]	22500
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Qwater/brine source [m ³ /h]	-



AW-HT /LN-CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	34
Seasonal space heating energy efficiency		[%]	121
Seasonal space heating energy efficiency class	-	-	Α
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	30,4
Declared capacity for heating with outdoor temperature $T_j = +2 \degree C$	Pdh	[kW]	19,2
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	24,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	27,7
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	30,4
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	27,8
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,71
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,22
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	3,97
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,40
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,71
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,54
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,140
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	6,57
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	84
Annual electricity consumption for heating	QHE	[kW/h]	22889
Outdoor heat exchanger	•		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	22500
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The percenters are declared for application at modium temperature, event in the area of low t			



AW-HT /LN-CA-E /0 MEDIUM TEMPERATURE :			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	37
Seasonal space heating energy efficiency	ηs	[%]	115
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	32,8
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	19,9
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	24,8
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	27,7
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	32,8
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	30,6
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,30
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	2,96
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	3,97
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,45
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,30
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,10
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode		_ 1 _ 1	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,060
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater	ł		
Nominal heating capacity	Psup	[kW]	6,47
Other items		- 1 - 1	
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	84
Annual electricity consumption for heating	QHE	[kW/h]	26046
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	22500
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			



AW-HT /D /LN-CA-E / LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	48
Seasonal space heating energy efficiency	ηs	[%]	125
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor tempera	ture Tj	1	
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	42,3
Declared capacity for heating with outdoor temperature $T_j = +2 \degree C$	Pdh	[kW]	26,4
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,8
Declared capacity for heating with outdoor temperature Ti = +12 °C	Pdh	[kW]	37,7
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	42,3
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	38,9
For air-to-water heat pumps: Ti = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh		0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperate	ure 20 °C and outdoor temperature	e Tj	,
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,75
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,30
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,06
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,43
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,75
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,56
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,192
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	РСК	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	8,92
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	30897
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	30312
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



AW-HT /D /LN-CA-E / MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	51
Seasonal space heating energy efficiency		[%]	117
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	45,0
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	27,4
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,7
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,6
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	45,0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	42,0
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,29
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,01
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,02
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,48
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,29
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,09
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,084
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	8,87
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	35170
Outdoor heat exchanger	· · · · · · · · · · · · · · · · · · ·		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	30312
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /LN-CA-E /0 LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	48
Seasonal space heating energy efficiency		[%]	125
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	42,3
Declared capacity for heating with outdoor temperature Ti = +2 °C	Pdh	[kW]	26,4
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	33,8
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	37,7
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	42,3
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	38,9
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	· · · · · · · · · · · · · · · · · · ·
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,75
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,30
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,06
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,43
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,75
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,56
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,192
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	8,92
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	30897
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	30312
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The percentage are declared for application of modium temperature, execution the appendix of low	· · · · · · · · · · · · · · · · · · ·		



AW-HT /LN-CA-E /0 MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	51
Seasonal space heating energy efficiency	ηs	[%]	117
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj		
Declared capacity for heating with outdoor temperature $T_j = -7 \degree C$	Pdh	[kW]	45.0
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	27,4
Declared capacity for heating with outdoor temperature $T_j = +7 \degree C$	Pdh	[kW]	33.7
Declared capacity for heating with outdoor temperature $T_j = +12 \text{ °C}$	Pdh	[kW]	37,6
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	45.0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	42,0
For air-to-water heat pumps: $Tj = -15$ °C (if TOL < -20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			0,00
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,29
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd		3,01
Declared coefficient of performance with outdoor temperature $T_j = 12^{\circ}$ C	COPd		4.02
Declared coefficient of performance with outdoor temperature $T_j = +12 \degree C$	COPd		4,48
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd		2,29
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd		2.09
For air-to-water heat pumps: $Ti = -15$ °C (if TOL < -20 °C)	COPd		-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode	WICE	[0]	
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,084
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater		[]	0,120
Nominal heating capacity	Psup	[kW]	8.87
Other items		[]	-,
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, autoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	35170
Outdoor heat exchanger		[
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	30312
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The percenters are declared for application at madium temperature, outdoor heat exchanger			



AW-HT /D /LN-CA-E / LOW TEMPERATURE ap			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		fixed
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	59
Seasonal space heating energy efficiency	ηs	[%]	127
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	52,5
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	32,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	41,8
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	47,2
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	52,5
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	48,9
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd	-	2,89
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,31
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,07
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,47
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,89
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,75
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,260
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	10,4
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	37790
Outdoor heat exchanger	-		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
,			



AW-HT /D /LN-CA-E / MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	63
Seasonal space heating energy efficiency		[%]	118
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj		
Declared capacity for heating with outdoor temperature $Tj = -7$ °C	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	34,1
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	41,6
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	47,0
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	52,9
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	
Declared coefficient of performance with outdoor temperature Tj = - 7 °C	COPd		2,33
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,03
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,03
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,51
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,33
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,11
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	РТО	[kW]	0,113
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	10,4
Other items			
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	43302
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /LN-CA-E /0262 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	59	
Seasonal space heating energy efficiency	<u></u> ηs	[%]	127	
Seasonal space heating energy efficiency class	-		A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj			
Declared capacity for heating with outdoor temperature $T_j = -7 \degree C$	Pdh	[kW]	52,5	
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	32,5	
Declared capacity for heating with outdoor temperature $Tj = +7$ °C	Pdh	[kW]	41.8	
Declared capacity for heating with outdoor temperature $T_j = +12 \text{ °C}$	Pdh	[kW]	47,2	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	52,5	
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	48,9	
For air-to-water heat pumps: $T_j = -15$ °C (if TOL < -20 °C)	Pdh	[kW]	-	
Bivalent temperature	Thiv	[°C]	-7	
Degradation coefficient	Cdh	-	0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			0,00	
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd		2,89	
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3,31	
Declared coefficient of performance with outdoor temperature $T_j = 7^{\circ}C$	COPd	-	4.07	
Declared coefficient of performance with outdoor temperature $T_j = +12 \text{ °C}$	COPd		4,47	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,89	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2.75	
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	-	_,. 0	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode		[0]		
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,260	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater		[]	-,	
Nominal heating capacity	Psup	[kW]	10.4	
Other items			•	
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	85	
Annual electricity consumption for heating	QHE	[kW/h]	37790	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The perspectate are deplaced for application at madium temperature, except in the appendix of low t				



AW-HT /LN-CA-E /0 MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	63
Seasonal space heating energy efficiency	ns	[%]	118
Seasonal space heating energy efficiency class	-		A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj	I	
Declared capacity for heating with outdoor temperature $T_j = -7 \degree C$	Pdh	[kW]	56,0
Declared capacity for heating with outdoor temperature $T_i = +2 \degree C$	Pdh	[kW]	34,1
Declared capacity for heating with outdoor temperature $T_i = +7 \text{ °C}$	Pdh	[kW]	41,6
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	47,0
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	56.0
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	52,9
For air-to-water heat pumps: $T_j = -15 \text{ °C}$ (if TOL < -20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0.90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat			0,00
Declared coefficient of performance with outdoor temperature Ti = -7 °C	COPd	-	2.33
Declared coefficient of performance with outdoor temperature $T_j = +2 \degree C$	COPd	-	3.03
Declared coefficient of performance with outdoor temperature $T_j = 2^{\circ}$	COPd	_	4,03
Declared coefficient of performance with outdoor temperature $T_j = +12 \degree C$	COPd		4.51
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd		2,33
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd		2,11
For air-to-water heat pumps: $T_{j} = -15$ °C (if TOL < -20 °C)	COPd		-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode	WICE	[0]	-10
Off mode	POFF	[kW]	0.000
Thermostat-off mode	PTO	[kW]	0,113
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater		[]	0,120
Nominal heating capacity	Psup	[kW]	10.4
Other items	F		-,
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	85
Annual electricity consumption for heating	QHE	[kW/h]	43302
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-
(1) The normation are dealared for analisation at madium temperature, executing the ages of law t			



AW-HT /D /LN-CA-E /0302 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	70	
Seasonal space heating energy efficiency	ns	[%]	130	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ture Tj			
Declared capacity for heating with outdoor temperature Tj = - 7 °C	Pdh	[kW]	62,2	
Declared capacity for heating with outdoor temperature $Tj = +2 \degree C$	Pdh	[kW]	37,9	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	48,8	
Declared capacity for heating with outdoor temperature $T_j = +12 \degree C$	Pdh	[kW]	55,4	
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	62,2	
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	58,8	
For air-to-water heat pumps: Ti = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh		0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	,	
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,88	
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,41	
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,13	
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,50	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,88	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,71	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,325	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	11,5	
Other items				
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors LWA [dB(A)]		86		
Annual electricity consumption for heating QHE [kW/h]				
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	

 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger
 Qwater/brine source
 [m³/h]

 (1) The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.



AW-HT /D /LN-CA-E /0302 MEDIUM TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		variable	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	75	
Seasonal space heating energy efficiency		[%]	120	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Tj			
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	66,5	
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	40,5	
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	48,6	
Declared capacity for heating with outdoor temperature Ti = +12 °C	Pdh	[kW]	55,2	
Declared capacity for heating with outdoor temperature Ti = Bivalent temperature	Pdh	[kW]	66,5	
Declared capacity for heating with outdoor temperature Ti = Operation limit temperature	Pdh	[kW]	63,6	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
Degradation coefficient	Cdh		0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatur	re Tj	,	
Declared coefficient of performance with outdoor temperature $T_j = -7 \degree C$	COPd		2,36	
Declared coefficient of performance with outdoor temperature Ti = +2 °C	COPd	-	3,09	
Declared coefficient of performance with outdoor temperature Ti = +7 °C	COPd	-	4,11	
Declared coefficient of performance with outdoor temperature Ti = +12 °C	COPd	-	4,55	
Declared coefficient of performance with outdoor temperature Ti = Bivalent temperature	COPd	-	2,36	
Declared coefficient of performance with outdoor temperature Ti = Operation limit temperature	COPd	-	2,20	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL		45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	РТО	[kW]	0.143	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0.123	
Supplementary heater			,	
Nominal heating capacity	Psup	[kW]	11,6	
Other items	·	1		
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	50394	
Outdoor heat exchanger				
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
		1		



AW-HT /LN-CA-E /0302 LOW TEMPERATURE application				
Air-to-water heat pump:	yes / no		yes	
Water-to-water heat pump:	yes / no		no	
Brine-to-water heat pump:	yes / no		no	
Low-temperature heat pump:	yes / no		no	
With supplementary heater:	yes / no		no	
Mixed unit with heat pump:	yes / no		no	
Temperature application (1)	(low 35°C/ medium 55°C)		low 35°C	
Water flow rate	fixed / variable		fixed	
Outlet temperature	fixed / variable		fixed	
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average	
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	70	
Seasonal space heating energy efficiency	ηs	[%]	130	
Seasonal space heating energy efficiency class	-	-	A+	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	ature Ti			
Declared capacity for heating with outdoor temperature $T_{i} = -7 \text{ °C}$	Pdh	[kW]	62.2	
Declared capacity for heating with outdoor temperature $T_j = +2 \text{ °C}$	Pdh	[kW]	37,9	
Declared capacity for heating with outdoor temperature $Tj = +7$ °C	Pdh	[kW]	48.8	
Declared capacity for heating with outdoor temperature $T_j = +12 \degree C$	Pdh	[kW]	55,4	
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	62,2	
Declared capacity for heating with outdoor temperature Tj = Divalent temperature	Pdh	[kW]	58,8	
For air-to-water heat pumps: $Tj = -15 \degree C$ (if TOL < - 20 °C)	Pdh	[kW]	-	
Bivalent temperature	Tbiv	[°C]	-7	
	Cdh		0,90	
Degradation coefficient			0,90	
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	COPd		0.00	
Declared coefficient of performance with outdoor temperature $Tj = -7$ °C	COPd	-	2,88 3,41	
Declared coefficient of performance with outdoor temperature $Tj = +2 °C$ Declared coefficient of performance with outdoor temperature $Tj = +7 °C$	COPd	-	,	
	COPd	-	4,13	
Declared coefficient of performance with outdoor temperature $Tj = +12 \text{ °C}$		-	4,50	
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,88	
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,71	
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-	
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20	
Heating water operating limit temperature at TOL	WTOL	[°C]	45	
Power consumption in modes other than active mode				
Off mode	POFF	[kW]	0,000	
Thermostat-off mode	PTO	[kW]	0,325	
Standby mode	PSB	[kW]	0,123	
Crankcase heater mode	PCK	[kW]	0,123	
Supplementary heater				
Nominal heating capacity	Psup	[kW]	11,5	
Other items				
Capacity control	fixed / variable		variable	
Sound power level, indoors	LWA	[dB(A)]	-	
Sound power level, outdoors	LWA	[dB(A)]	86	
Annual electricity consumption for heating	QHE	[kW/h]	43782	
Outdoor heat exchanger		· ·		
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248	
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-	
(1) The percenters are deployed for explication of medium temperature, execution the approach low	· · · · · · · ·	· · · ·		



AW-HT /LN-CA-E /0 MEDIUM TEMPERATURE a			
Air-to-water heat pump:	yes / no		yes
Water-to-water heat pump:	yes / no		no
Brine-to-water heat pump:	yes / no		no
Low-temperature heat pump:	yes / no		no
With supplementary heater:	yes / no		no
Mixed unit with heat pump:	yes / no		no
Temperature application (1)	(low 35°C/ medium 55°C)		medium 55°C
Water flow rate	fixed / variable		fixed
Outlet temperature	fixed / variable		variable
Parameters are declared for average/warmer/colder climate conditions (1)	average / warmer / colder		average
Rated heat output at Tdesignh	Prated = Pdesignh	[kW]	75
Seasonal space heating energy efficiency	ηs	[%]	120
Seasonal space heating energy efficiency class	-	-	A+
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature	iture Tj	- 1	
Declared capacity for heating with outdoor temperature Tj = -7 °C	Pdh	[kW]	66,5
Declared capacity for heating with outdoor temperature Tj = +2 °C	Pdh	[kW]	40,5
Declared capacity for heating with outdoor temperature Tj = +7 °C	Pdh	[kW]	48,6
Declared capacity for heating with outdoor temperature Tj = +12 °C	Pdh	[kW]	55,2
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Pdh	[kW]	66,5
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Pdh	[kW]	63,6
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	[kW]	-
Bivalent temperature	Tbiv	[°C]	-7
Degradation coefficient	Cdh	-	0,90
Declared coefficient of performance or primary energy ratio for part load at indoor temperat	ure 20 °C and outdoor temperatu	re Tj	
Declared coefficient of performance with outdoor temperature Tj = -7 °C	COPd	-	2,36
Declared coefficient of performance with outdoor temperature Tj = +2 °C	COPd	-	3,09
Declared coefficient of performance with outdoor temperature Tj = +7 °C	COPd	-	4,11
Declared coefficient of performance with outdoor temperature Tj = +12 °C	COPd	-	4,55
Declared coefficient of performance with outdoor temperature Tj = Bivalent temperature	COPd	-	2,36
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	COPd	-	2,20
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	COPd	-	-
For air-to-water HP : Operation limit temperature	TOL	[°C]	-20
Heating water operating limit temperature at TOL	WTOL	[°C]	45
Power consumption in modes other than active mode			
Off mode	POFF	[kW]	0,000
Thermostat-off mode	PTO	[kW]	0,143
Standby mode	PSB	[kW]	0,123
Crankcase heater mode	PCK	[kW]	0,123
Supplementary heater			
Nominal heating capacity	Psup	[kW]	11,6
Other items		· · ·	
Capacity control	fixed / variable		variable
Sound power level, indoors	LWA	[dB(A)]	-
Sound power level, outdoors	LWA	[dB(A)]	86
Annual electricity consumption for heating	QHE	[kW/h]	50394
Outdoor heat exchanger			
For air-to-water HP: Rated air flow rate, outdoors	Qairsource	[m³/h]	31248
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Qwater/brine source	[m³/h]	-



ENGLISH	ITALIANO	FRANCAISE	DEUTSCH	ESPANOL
Air-to-water heat pump:	Pompa di calore aria/ acqua:	Pompes à chaleur air-eau:	Luft-Wasser-Wärmepumpe:	Bomba de calor aire-agua:
Water-to-water heat pump:	Pompa di calore acqua/ acqua:	Pompes à chaleur eau-eau:	Wasser-Wasser-Wärmepumpe:	Bomba de calor agua-agua:
Brine-to-water heat pump:	Pompa di calore salamoia/ acqua:	Pompe à chaleur eau glycolée-eau:	Sole-Wasser-Wärmepumpe:	Bomba de calor salmuera-agua:
Low-temperature heat pump:	Pompa di calore a bassa temperatura:	Pompes à chaleur basse température:	Niedertemperatur-Wärmepumpe:	Bomba de calor de baja temperatura:
With supplementary heater:	Con riscaldatore supplementare:	Equipée d'un dispositif de chauffage d'appoint:	Mit Zusatzheizgerät:	Equipado con un calefactor complementario:
Mixed unit with heat pump:	Apparecchio misto a pompa di calore:	Dispositif de chauffage mixte par pompe à chaleur:	Kombiheizgerät mit Wärmepumpe:	Calefactor combinado con bomba de calor:
Temperature application	Temperatura applicazione	Application à température	Temperatur Anwendung	Aplicación de temperatura
Water flow rate	Portata d'acqua	Débit fluide	Volumenstrom Wasser	Caudal agua
Outlet temperature	Temperatura di uscita	Température de sortie	Austrittstemperatur	Temperatura de salida
Parameters are declared for average/warmer/colder climate conditions	I parametri sono dichiarati per condizioni climatiche medie/ alte/ basse	Les paramètres sont déclarés pour les conditions climatiques moyennes/chaud/basse	Die Parameter sind für eine Mitteltemperaturanwendung anzugeben	Los parámetros se indicarán para condiciones climáticas medias/ alta/ baja
Rated heat output at Tdesignh	Potenza termica nominale a Tdesign	Puissance thermique nominale Tdesignh	Wärmenennleistung Tdesignh	Potencia calorífica nominal Tdesignh
Seasonal space heating energy efficiency	Efficienza energetica stagionale del riscaldamento d'ambiente	Efficacité énergétique saisonnière pour le chauffage des locaux	Jahreszeitbedingte Raumheizungs-Energieeffizienz	Eficiencia energética estacional de calefacción
Seasonal space heating energy efficiency class	Classe di efficienza energetica stagionale del riscaldamento d'ambiente	Efficacité énergétique saisonnière pour le chauffage des locaux	Jahreszeitbedingte Raumheizungs-Energieeffizienz	Eficiencia energética estacional de calefacción
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj	Capacità di riscaldamento dichiarata a carico parziale, con temperatura interna pari a 20 °C e temperatura esterna Tj	Puissance calorifique déclarée à charge partielle pour une température intérieure de 20 °C et une température extérieure Tj	Angegebene Leistung für Teillast bei Raumlufttemperatur 20 °C und Außenlufttemperatur Tj	Capacidad de calefacción declarada para una carga parcial a una temperatura interior de 20 °C y una temperatura exterior Tj
Declared capacity for heating with outdoor temperature Tj = -7 °C	Capacità di riscaldamento con temperatura esterna Tj = – 7 °C	Puissance calorifique déclarée avec la température extérieure Tj = - 7 °C	Erklärt, Raumheizung mit Außenlufttemperatur Tj = – 7 °C	Capacidad de calefacción para una temperatura exterior Tj = - 7 °C
Declared capacity for heating with outdoor temperature Tj = +2 °C	Capacità di riscaldamento con temperatura esterna Tj = + 2 °C	Puissance calorifique déclarée avec la température extérieure Tj = +2 °C	Erklärt, Raumheizung mit Außenlufttemperatur Tj = +2 °C	Capacidad de calefacción para una temperatura exterior Tj = +2 °C
Declared capacity for heating with outdoor temperature Tj = +7 °C	Capacità di riscaldamento con temperatura esterna Tj = + 7 °C	Puissance calorifique déclarée avec la température extérieure Tj = +7 °C	Erklärt, Raumheizung mit Außenlufttemperatur Tj = +7 °C	Capacidad de calefacción para una temperatura exterior Tj = +7 °C
Declared capacity for heating with outdoor temperature Tj = +12 °C	Capacità di riscaldamento con temperatura esterna Tj = + 12 °C	Puissance calorifique déclarée avec la température extérieure Tj = +12 °C	Erklärt, Raumheizung mit Außenlufttemperatur Tj = +12 °C	Capacidad de calefacción para una temperatura exterior Tj = +12 °C
Declared capacity for heating with outdoor temperature Tj = Bivalent temperature	Capacità di riscaldamento con temperatura esterna Tj = temperatura bivalente	Puissance calorifique déclarée avec la température extérieure Tj = Température bivalente	Erklärt, Raumheizung mit Außenlufttemperatur Tj = Bivalenztemperatur	Capacidad de calefacción para una temperatura exterior Tj = Temperatura bivalente
Declared capacity for heating with outdoor temperature Tj = Operation limit temperature	Capacità di riscaldamento con temperatura esterna Tj = temperatura limite di esercizio	Puissance calorifique déclarée avec la température extérieure Tj = Température maximale de service	Erklärt, Raumheizung mit Außenlufttemperatur Tj = Betriebsgrenzwert-Temperatur	Capacidad de calefacción para una temperatura exterior Tj = Temperatura límite de funcionamiento
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Per le pompe di calore aria/ acqua: Tj = – 15 °C (se TOL < – 20 °C)	Pour les pompes à chaleur air-eau: Tj = – 15 °C (si TOL < – 20 °C)	Für Luft-Wasser-Wärmepumpen: Tj = – 15 °C (wenn TOL < – 20 °C)	Para bombas de calor aire-agua: Tj = – 15 °C (si TOL < – 20 °C)
Bivalent temperature	Temperatura bivalente	Température bivalente	Bivalenztemperatur	Temperatura bivalente
Degradation coefficient	Coefficiente di degradazione	Coefficient de dégradation	Minderungsfaktor	Coeficiente de degradación
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj	Coefficiente di prestazione dichiarato o indice di energia primaria per carico parziale, con temperatura interna pari a 20 °C e temperatura esterna Tj	Coefficient de performance déclaré ou coefficient sur énergie primaire déclaré à charge partielle pour une température intérieure de 20 °C et une température extérieure Tj	Angegebene Leistungszahl oder Heizzahl für Teillast bei Raumlufttemperatur 20 °C und Außenlufttemperatur Tj	Coeficiente de rendimiento declarado o factor energético primario para una carga parcial a una temperatura interior de 20 °C y una temperatura exterior Tj
Declared coefficient of performance with outdoor temperature $Tj = -7$ °C	Coefficiente di prestazione con temperatura esterna Tj = - 7 °C	Coefficient de performance déclaré avec la température extérieure Tj = – 7 °C	Erklärten Leistungszahl bei Außenlufttemperatur Tj = – 7 °C	Capacidad de calefacción para una temperatura exterior Tj = - 7 °C
Declared coefficient of performance with outdoor temperature Tj = +2 °C	Coefficiente di prestazione con temperatura esterna Tj = + 2 °C	Coefficient de performance déclaré avec la température extérieure Tj = +2 °C	Erklärten Leistungszahl bei Außenlufttemperatur Tj = +2 °C	Capacidad de calefacción para una temperatura exterior Tj = +2 °C
Declared coefficient of performance with outdoor temperature Tj = +7 °C	Coefficiente di prestazione con temperatura esterna Tj = + 7 °C	Coefficient de performance déclaré avec la température extérieure Tj = +7 °C	Erklärten Leistungszahl bei Außenlufttemperatur Tj = +7 °C	Capacidad de calefacción para una temperatura exterior Tj = +7 °C
Declared coefficient of performance with outdoor temperature $Tj = +12$ °C	Coefficiente di prestazione con temperatura esterna Tj = + 12 °C	Coefficient de performance déclaré avec la température extérieure Tj = +12 °C	Erklärten Leistungszahl bei Außenlufttemperatur Tj = +12 °C	Capacidad de calefacción para una temperatura exterior Tj = +12 °C



ENGLISH	ITALIANO	FRANCAISE	DEUTSCH	ESPANOL
Declared coefficient of	Coefficiente di prestazione con	Coefficient de performance	Erklärten Leistungszahl bei	Capacidad de calefacción para
Declared coefficient of performance with outdoor temperature Tj = Operation limit temperature	Coefficiente di prestazione con temperatura esterna Tj = temperatura limite di esercizio	Coefficient de performance déclaré avec la température extérieure Tj = Température maximale de service	Erklärten Leistungszahl bei Außenlufttemperatur Tj = Betriebsgrenzwert-Temperatur	Capacidad de calefacción para una temperatura exterior Tj = Temperatura límite de funcionamiento
For air-to-water heat pumps: Tj = – 15 °C (if TOL < – 20 °C)	Per le pompe di calore aria/ acqua: Tj = – 15 °C (se TOL < – 20 °C)	Pour les pompes à chaleur air-eau: Tj = – 15 °C (si TOL < – 20 °C)	Für Luft-Wasser-Wärmepumpen: Tj = – 15 °C (wenn TOL < – 20 °C)	Para bombas de calor aire-agua: Tj = – 15 °C (si TOL < – 20 °C)
For air-to-water HP : Operation limit temperature	Per le pompe di calore aria/ acqua: temperatura limite di esercizio	Pour les pompes à chaleur air-eau: Température limite de fonctionnemen	Für Luft-Wasser-Wärmepumpen: Betriebsgrenzwert-Temperatur	Para bombas de calor aire-agua: Temperatura límite de funcionamiento
Heating water operating limit temperature	Temperatura limite di esercizio di riscaldamento dell'acqua	Température maximale de service de l'eau de chauffage	Grenzwert der Betriebstemperatur des Heizwassers	Temperatura límite de calentamiento de agua
Power consumption in modes other than active mode	Consumo energetico in modi diversi dal modo attivo	Consommation d'électricité dans les modes autres que le mode actif	Stromverbrauch in anderen Betriebsarten als dem Betriebszustand	Consumo de electricidad en modos distintos del activo
Off mode	Modo spento	Mode arrêt	Aus-Zustand	Modo desactivado
Thermostat-off mode	Modo termostato spento	Mode arrêt par thermostat	Thermostat-aus-Zustand	Modo desactivado por termostato
Standby mode	Modo stand-by	Mode veille	Bereitschaftszustand	Modo de espera
Crankcase heater mode	Modo riscaldamento del carter	Mode résistance de carter active	Betriebszustand mit Kurbelgehäuseheizung	Modo riscaldamento del carter
Supplementary heater	Riscaldatore supplementare	Dispositif de chauffage d'appoint	Zusatzheizgerät	Calefactor complementario
Nominal heating capacity	Potenza termica nominale	Puissance thermique nominale	Heizleistung nominal	Potencia térmica nominal
Other items	Altri elementi	Autres caractéristiques	Sonstige Elemente	Otros elementos
Capacity control	Controllo della capacità	Régulation de la puissance	Leistungssteuerung	Control de capacidad
Sound power level, indoors	Livello della potenza sonora, all'interno	Niveau de puissance acoustique, à l'intérieur	Schallleistungspegel, innen	Nivel de potencia acústica (interior)
Sound power level, outdoors	Livello della potenza sonora, all'esterno	Niveau de puissance acoustique, à l'extérieur	Schallleistungspegel, außen	Nivel de potencia acústica (exterior)
Annual electricity consumption for heating	Consumo di elettricità annuale per il riscaldamento	Consommation annuelle d'électricité pour le chauffage	Jahresstromverbrauch für die Heizung	Consumo anual de electricidad para la calefacción
Outdoor heat exchanger	Scambiatore di calore esterno	Echangeur de chaleur externe	Wärmetauscher äußere	Intercambiador de calor (exterior)
For air-to-water HP: Rated air flow rate, outdoors	Per le pompe di calore aria/ acqua: portata d'aria, all'esterno	Pour les pompes à chaleur air-eau: débit d'air nominal, à l'extérieur	Für Luft-Wasser-Wärmepumpen: Nenn-Luftdurchsatz, außen	Para bombas de calor aire-agua: Caudal de aire nominal (exterior)
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	Per le pompe di calore acqua/acqua e salamoia/acqua: flusso di salamoia o acqua nominale, scambiatore di calore all'esterno	Pour les pompes à chaleur eau-eau ou eau glycolée-eau: débit nominal d'eau glycolée ou d'eau, échangeur thermique extérieur	Für Wasser/Sole-Wasser-Wärmepum Wasser- oder Sole-Nenndurchsatz	Para bombas de calor agua/salmuera a agua: Caudal de salmuera o de agua nominal, intercambiador de calor de exterior
Notes:	Note:	Remarques:	Hinweise:	Notas:
The parameters are declared for application at medium temperature, except in the case of low temperature heat pumps. For low temperature heat pumps, the parameters are declared for application at low temperature.	I parametri sono dichiarati per l'applicazione a temperatura media, tranne per le pompe di calore a bassa temperatura. Per le pompe di calore a bassa temperatura, i parametri sono dichiarati per l'applicazione a bassa temperatura.	Les paramètres sont déclarés pour l'application à moyenne température, excepté pour les pompes à chaleur basse température. Pour les pompes à chaleur basse température, les paramètres sont déclarés pour l'application à basse température.	Die Parameter sind für eine Mitteltemperaturanwendung anzugeben, außer für Niedertemperatur-Wärmepumpen. Für Niedertemperatur-Wärmepumpen sind die Parameter für eine Niedertemperaturanwendung anzugeben.	Los parámetros se declararán para aplicaciones de media temperatura, excepto si se trata de bombas de calor de baja temperatura. En el caso de las bombas de calor de baja temperatura, los parámetros se declararán para aplicaciones de baja temperatura.
Unit in standard configuration/execution, without optional accessories.	Unità in configurazione ed esecuzione standard, priva di accessori opzionali.	Unité en configuration et exécution standard, sans accessoires optionnels.	Gerät mit Standard-Konfiguration und -Ausführung, ohne wunschweises Zubehör.	Unidad en configuración y ejecución estándar, sin accesorios opcionales.



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