

Information requirements for heat pump space heaters and heat pump combination heaters				Source: 811/2013 & 813/2013
Model(s):	Outdoor unit: RAS-4WHNPE	Indoor unit: RWD-4.0NW1E-220S(-K)	Tank model: <--	
Air-to-water heat pump:				Yes
Low-temperature heat pump:				No
Equipped with a supplementary heater:				Yes
Heat pump combination heater:				Yes

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
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Average

Rated heat output (3)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	135%	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	8,6	kW	Tj = - 7 °C	COPd	1,80	—
Tj = + 2 °C	Pdh	5,2	kW	Tj = + 2 °C	COPd	3,60	—
Tj = + 7 °C	Pdh	3,5	kW	Tj = + 7 °C	COPd	4,80	—
Tj = + 12 °C	Pdh	3,6	kW	Tj = + 12 °C	COPd	5,80	—
Tj = bivalent temperature	Pdh	8,6	kW	Tj = bivalent temperature	COPd	1,80	—
Tj = operation limit temperature	Pdh	7,4	kW	Tj = operation limit temperature	COPd	1,70	—
For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	Pdh	X	kW	For air-to-water heat pumps: Tj = - 15 °C (if TOL < - 20 °C)	COPd	X	—
Bivalent temperature	Tbiv	-7	°C	For air-to-water HP : Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	X	kW	Cycling interval efficiency	COPcyc	X	—
				Heating water operating limit temperature	WTOL	55	°C
				Supplementary heater			
Degradation coefficient (4)	Cdh	0,9	—	Rated heat output (3)	Psup	2,6	kW
Annual Energy consumption	Q _{HE}	5837	kWh	Type of energy input	Electricity		

Colder

Rated heat output (3)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	120%	%
				Supplementary heater			
				Rated heat output (3)	Psup	2,3	kW
Annual Energy consumption	Q _{HE}	8654	kWh	Type of energy input	Electricity		

Warmer

Rated heat output (3)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	191%	%
				Supplementary heater			
				Rated heat output (3)	Psup	0	kW
Annual Energy consumption	Q _{HE}	2748	kWh	Type of energy input	Electricity		

Power consumption in modes other than active mode

Off mode	P _{OFF}	0,019	kW
Thermostat-off mode	P _{TO}	0	kW
Standby mode	P _{SB}	0,019	kW
Crankcase heater mode	P _{CK}	0	kW

Other items

Capacity control	fixed/variable	Variable	
Sound power level, indoors	L _{WA}	39	dB(A)
Sound power level, outdoors	L _{WA}	58	dB(A)
Emissions of nitrogen oxides	NO _x	0	mg/kWh

Outdoor heat exchanger

For air-to-water HP: Rated air flow rate	Q _{airsource}	4800	m ³ /h
For air-to-water HP: Rated air flow rate	or Q _{watersource}	X	m ³ /h
For water-to-water: Rated water flow rate	or Q _{brinesource}	X	m ³ /h

For heat pump combination heater

Declared load profile	-	L	—	Water heating energy efficiency	η_{wh}	127	%
Daily electricity consumption	Q _{elec}	2,22	kWh	Daily fuel consumption	Q _{fuel}	X	kWh
Annual energy consumption	AEC	809	kWh				

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Legend	
For instructions on assembly, installation or maintenance, please refer to the operating manual. This document declares also information concerning disassembly, recycling and disposal.	
(3) For heat pump space heaters and heat pump combination heaters, the rated heat output $Prated$ is equal to the design load for heating $Pdesignh$, and the rated heat output of a supplementary heater $Psup$ is equal to the supplementary capacity for heating $sup(Tj)$.	
(4) If Cdh is not determined by measurement then the default degradation coefficient is $Cdh = 0,9$.	