

AIR 9

Model	AIR 9
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Brine-to-water heat pump	No
Low-temperature heat pump	Yes
Equipped with a supplementary heater	Yes
Heat pump combination heater	No
Temperature control:	
Model	CTS602
Class	2
Contribution to seasonal space heating energy efficiency	2%

Item	Symbol	Value	Unit
------	--------	-------	------

Rated heat output	P_{rated}	5,21	kW
-------------------	-------------	------	----

Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature of T_j

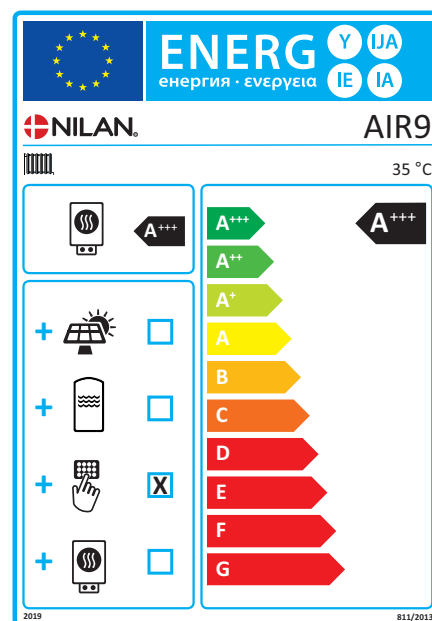
$T_j = -7\text{ °C}$	P_{dh}	4,79	kW
$T_j = +2\text{ °C}$	P_{dh}	2,88	kW
$T_j = +7\text{ °C}$	P_{dh}	1,90	kW
$T_j = +12\text{ °C}$	P_{dh}	2,12	kW
$T_j =$ bivalent temperature	P_{dh}	5,21	kW
$T_j =$ operation limit temperature	P_{dh}	0	kW
For air-water-heating pumps $T_j = -15\text{ °C}$ (if TOL < -20 °C)	P_{dh}		kW
Bivalent temperature	T_{biv}	-10	°C
Cycling interval capacity for heating	P_{cyc}		kW
Degradation co-efficient	C_{dh}	0,94-0,99	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,01	kW
Thermostat off-mode	P_{TO}	0,005	kW
Standby mode	P_{SB}	0,01	kW
Crankcase heater mode	P_{CK}	0	kW

Other items

Capacity control:	Variable compressor Variable indoor water flow		
	Variable indoor temperature adjustment		
Sound power level, outdoors	L_{WA}	46	dB
Emissions of nitrogen oxides	Q_{HE}	1464	kWh



Item	Symbol	Value	Unit
------	--------	-------	------

Seasonal space heating energy efficiency	η_s	206	%
--	----------	-----	---

Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j

$T_j = -7\text{ °C}$	COP_d	3,20	
$T_j = +2\text{ °C}$	COP_d	4,95	
$T_j = +7\text{ °C}$	COP_d	6,53	
$T_j = +12\text{ °C}$	COP_d	9,69	
$T_j =$ bivalent temperature	COP_d	2,83	
$T_j =$ operation limit temperature	COP_d	0	
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if TOL < -20 °C)	COP_d		
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}		
Heating water operating limit temperature	WTOL	45	°C

Supplementary heater

Rated heat output	P_{sup}	6	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors		3000	m ³ /h
For water-/ brine-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			m ³ /h