

# 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
<b>Temperature control:</b>	
Model	CTS602
Class	2
Contribution to seasonal space heating energy efficiency	2%

Item	Symbol	Value	Unit
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Rated heat output	$P_{rated}$	5,21	kW
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Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature of  $T_j$

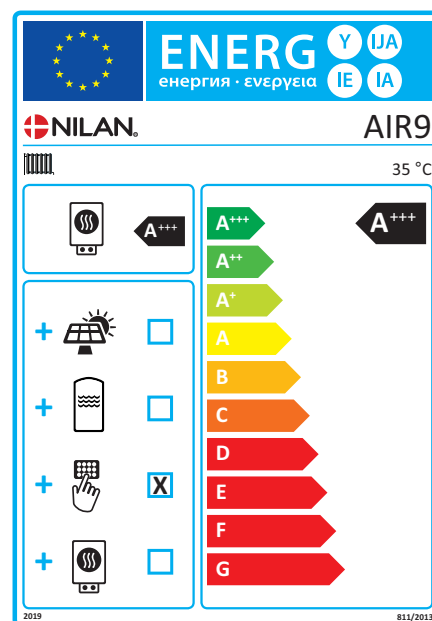
$T_j = -7\text{ °C}$	$P_{dh}$	4,79	kW
$T_j = +2\text{ °C}$	$P_{dh}$	2,88	kW
$T_j = +7\text{ °C}$	$P_{dh}$	1,90	kW
$T_j = +12\text{ °C}$	$P_{dh}$	2,12	kW
$T_j =$ bivalent temperature	$P_{dh}$	5,21	kW
$T_j =$ operation limit temperature	$P_{dh}$	0	kW
For air-water-heating pumps $T_j = -15\text{ °C}$ (if TOL < $-20\text{ °C}$ )	$P_{dh}$		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
Annual energy consumption	$Q_{HE}$	1464	kWh



Item	Symbol	Value	Unit
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Seasonal space heating energy efficiency	$\eta_s$	206	%
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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 < $-20\text{ °C}$ )	$COP_d$		
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 <sup>3</sup> /h
For water-/ brine-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			m <sup>3</sup> /h