

GEO 6

Heating pump system for space heating

Model	GEO 6
Air-to-water heat pump	No
Water-to-water heat pump	No
Brine-to-water heat pump	Yes
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
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Rated heat output	P_{rated}	6,01	kW
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Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature of T_j

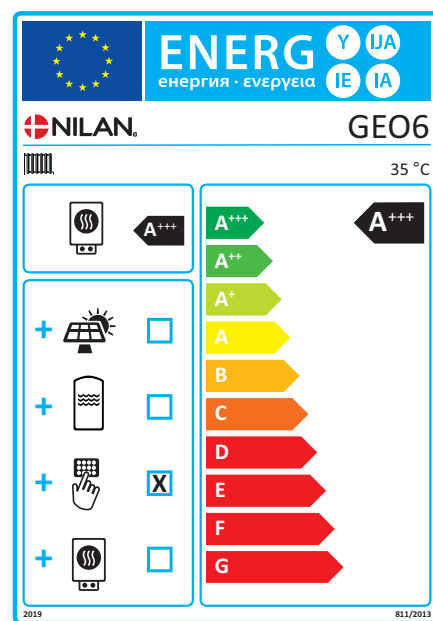
$T_j = -7\text{ °C}$	P_{dh}	5,29	kW
$T_j = +2\text{ °C}$	P_{dh}	3,32	kW
$T_j = +7\text{ °C}$	P_{dh}	2,09	kW
$T_j = +12\text{ °C}$	P_{dh}	1,30	kW
T_j = bivalent temperature	P_{dh}	6,01	kW
T_j = operation limit temperature	P_{dh}	0	kW
For air-water-heating pumps $T_j = -15\text{ °C}$ (if TOL < -20 °C)	P_{dh}		kW
Bivalent temperature	T_{div}	-10	°C
Cycling interval capacity for heating	P_{cyc}		kW
Degradation co-efficient	C_{dh}	0,99 - 1	

Power consumption in modes other than active mode

Off mode	P_{OFF}	0,002	kW
Thermostat off-mode	P_{TD}	0,024	kW
Standby mode	P_{SB}	0,002	kW
Crankcase heater mode	P_{CK}	0,000	kW

Other items

Capacity control:	Variable compressor Variable indoor temperature adjustment		
	Fixed indoor water flow Fixed outdoor water flow		
Sound power level, indoors	L_{WA}	51	dB
Emissions of nitrogen oxides	Q_{HE}	2386	kWh



Item	Symbol	Value	Unit
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Seasonal space heating energy efficiency	η_s	208	%
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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 °C	COP _d	4,48	
T _j = +2 °C	COP _d	5,22	
T _j = +7 °C	COP _d	5,69	
T _j = +12 °C	COP _d	5,30	
T _j = bivalent temperature	COP _d	4,27	
T _j = operation limit temperature	COP _d	0	
For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C)	COP _d		
For air-to-water heat pumps: Operation limit temperature	TOL		°C
Cycling interval efficiency	COP _{cyc}		
Heating water operating limit temperature	WTOL	?	°C

Supplementary heater

Rated heat output	P_{sup}	2	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors			m³/h
For water-/ brine-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		1,041	m³/h