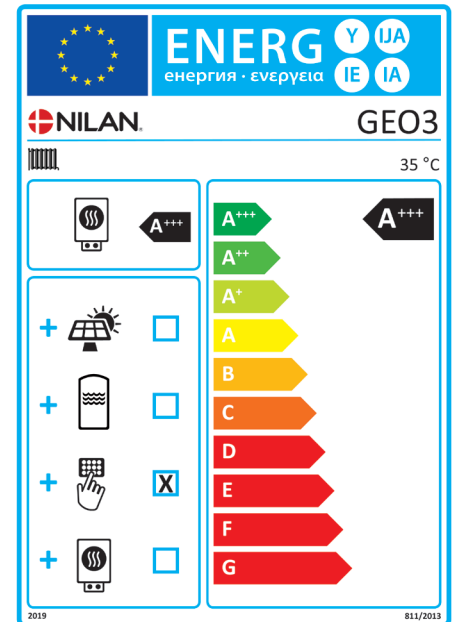


GEO3

Heating pump system for space heating

Model	GE03
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
Rated heat output	P_{rated}	3,44	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}	3,04	kW
$T_j = +2\text{ °C}$	P_{dh}	1,88	kW
$T_j = +7\text{ °C}$	P_{dh}	1,26	kW
$T_j = +12\text{ °C}$	P_{dh}	1,02	kW
$T_j = \text{bivalent temperature}$	P_{dh}	3,03	kW
$T_j = \text{operation limit temperature}$	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}	-7	°C
Cycling interval capacity for heating	P_{cyc}		kW
Degradation co-efficient	C_{dh}	0,97	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0,003	kW
Thermostat off-mode	P_{TD}	0,010	kW
Standby mode	P_{SB}	0,010	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}	47	dB
Emissions of nitrogen oxides	Q_{NH}	931	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	208	%
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_{pd}	4,66	
$T_j = +2\text{ °C}$	COP_{pd}	5,29	
$T_j = +7\text{ °C}$	COP_{pd}	5,63	
$T_j = +12\text{ °C}$	COP_{pd}	5,82	
$T_j = \text{bivalent temperature}$	COP_{pd}	4,61	
$T_j = \text{operation limit temperature}$	COP_{pd}	0	
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if TOL < -20 °C)	COP_{pd}		
For air-to-water heat pumps: Operation limit temperature	TOL		°C
Cycling interval efficiency	COP_{cyc}		
Heating water operating limit temperature	WTOL	52	°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			
			m ³ /h
For water-/ brine-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
		0,518	m ³ /h