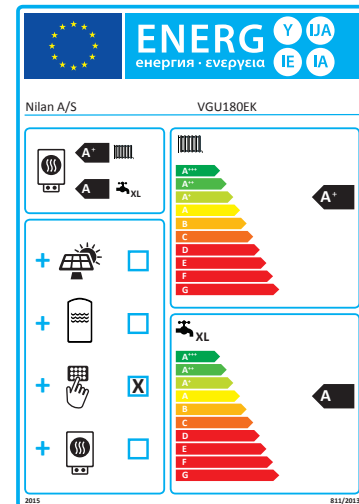


VGU180 EK

Heat pump combination for space heating and domestic hot water production - average climate

Model	VGU180EK
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	Yes
Temperature control:	
Model	CTS602
Class	2
Contribution to seasonal space heating energy efficiency	2%



Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	2.5	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}	2.078	kW
$T_j = +2\text{ °C}$	P_{dh}	2.094	kW
$T_j = +7\text{ °C}$	P_{dh}	2.109	kW
$T_j = +12\text{ °C}$	P_{dh}	2.151	kW
$T_j = \text{bivalent temperature}$	P_{dh}	2.074	kW
$T_j = \text{operation limit temperature}$	P_{dh}	2.119	kW
Operation limit temperature $T_j = -15\text{ °C}$ (if TOL < -20 °C)	P_{dh}		kW
Bivalent temperature	T_{biv}	-6	°C
Cycling interval capacity for heating	P_{cyc}		kW
Degradation co-efficient	C_{dh}	0.9	
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.0084	kW
Thermostat off-mode	P_{TD}	0.0253	kW
Standby mode	P_{SB}	0.0084	kW
Crankcase heater mode	P_{CK}	0	kW
Other items			
Capacity control:	Variable compressor Variable indoor temperature adjustment		
	Permanent indoor water flow Permanent outdoor water flow		
Sound power level, indoor	L_{WA}	58.2	dB
Annual energy consumption	Q_{HE}	1732	kWh
Specified consumer profile		XL	
Daily energy consumption	Q_{elec}	7.212	kWh
Annual energy consumption	AEC	1557	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	105	%
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	3.59	
$T_j = +2\text{ °C}$	COP_d	3.77	
$T_j = +7\text{ °C}$	COP_d	3.97	
$T_j = +12\text{ °C}$	COP_d	4.13	
$T_j = \text{bivalent temperature}$	COP_d	3.64	
$T_j = \text{operation limit temperature}$	COP_d	3.70	
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		°C
Cycling interval capacity for heating	COP_{cyc}		
Heating water operating limit temperature	WTOL		°C
Supplementary heater			
Rated heat output	P_{sup}	9	kW
Type of energy input	Elektrisk		
For air-to-water heat pumps: Rated air flow rate, outdoors		360	m³/h
For water-/ brine-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			m³/h
Energy efficiency for water heating	η_{wh}	108	%
Daily fuel consumption	Q_{fuel}		kWh