PRODUCT FICHE
NØRDIS air-to-water heat pump

Energy labelling regulation: (EU)811/2013
Ecodesign regulation: (EU)813/2013

Technical parameters

Model(s):	Outdoor unit: HLE09MONO1S
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE
Parameters are declared for medium temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	*8.40*	kW	Seasonal space heating energy efficiency	η_s	*151*	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j				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	P_{dh}	*7.50*	kW	T_j = – 7 °C	COP_d	*2.34*	-
T_j = + 2 °C	P_{dh}	*5.10*	kW	T_j = + 2 °C	COP_d	*3.86*	-
T_j = + 7 °C	P_{dh}	*3.20*	kW	T_j = + 7 °C	COP_d	*5.12*	-
T_j = + 12 °C	P_{dh}	*2.50*	kW	T_j = + 12 °C	COP_d	*7.28*	-
T_j = bivalent temperature	P_{dh}	*7.50*	kW	T_j = bivalent temperature	COP_d	*2.34*	-
T_j = operation limit temperature	P_{dh}	*7.40*	kW	T_j = operation limit temperature	COP_d	*2.03*	-
For air-to-water heat pumps: T_j = – 15 °C (if TOL<-20°C)	P_{dh}	-	kW	For air-to-water heat pumps: T_j = – 15 °C (if TOL<-20°C)	COP_d	-	-
Bivalent temperature	T_{biv}	*-7*	°C	For air-to-water heat pumps: Operation limit temperature	TOL	*-10*	°C
Cycling interval capacity for heating	P_{cych}	-	kW	Cycling interval efficiency	COP_{cyc}	-	-
Degradation co-efficient (**)	C_{dh}	*0.99*	-	Heating water operating limit temperature	WTOL	*75*	°C

Power consumption in modes other than active mode			
Off mode	P_{OFF}	*0.007*	kW
Thermostat-off mode	P_{TO}	*0.027*	kW
Standby mode	P_{SB}	*0.007*	kW
Crankcase heater mode	P_{CK}	*0.000*	kW

Supplementary heater			
Rated heat output (*)	P_{sup}	*1.3*	kW
Type of energy input	*Electrical*		

Other items							
Capacity control	*Variable*			For air-to-water heat pumps: Rated air flow rate, outdoors	-	*3350*	m^3/h
Sound power level, indoors/ outdoors	L_{WA}	*56*	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h
Annual energy consumption	Q_{HE}	*4576*	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{elec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details	NØRDIS EUROPE SP. Z O.O. Opolska 38 55-011 Siechnice, Poland

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).
(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0,9.