

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: HOP16WODU3 / Indoor unit: HOP160WIDU3						
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	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	13.0	kW	Seasonal space heating energy efficiency	η_s	133.2	%	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T_j			
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							
$T_j = -7\text{ °C}$	P_{dh}	11.52	kW	$T_j = -7\text{ °C}$	COP_d	1.99	-	$T_j = -7\text{ °C}$	COP_d	1.99	-
$T_j = +2\text{ °C}$	P_{dh}	7.18	kW	$T_j = +2\text{ °C}$	COP_d	3.34	-	$T_j = +2\text{ °C}$	COP_d	3.34	-
$T_j = +7\text{ °C}$	P_{dh}	4.67	kW	$T_j = +7\text{ °C}$	COP_d	4.61	-	$T_j = +7\text{ °C}$	COP_d	4.61	-
$T_j = +12\text{ °C}$	P_{dh}	3.31	kW	$T_j = +12\text{ °C}$	COP_d	6.07	-	$T_j = +12\text{ °C}$	COP_d	6.07	-
$T_j =$ bivalent temperature	P_{dh}	11.52	kW	$T_j =$ bivalent temperature	COP_d	1.99	-	$T_j =$ bivalent temperature	COP_d	1.99	-
$T_j =$ operation limit temperature	P_{dh}	10.33	kW	$T_j =$ operation limit temperature	COP_d	1.8	-	$T_j =$ operation limit temperature	COP_d	1.8	-
For air-to-water heat pumps: $T_j = -15\text{ °C}$	P_{dh}	9.6	kW	For air-to-water heat pumps: $T_j = -15\text{ °C}$	COP_d	1.87	-	For air-to-water heat pumps: $T_j = -15\text{ °C}$	COP_d	1.87	-
Bivalent temperature	T_{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°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}	-	-	Cycling interval efficiency	COP_{cyc}	-	-
Degradation co-efficient (**)	C_{dh}	0.9	-	Heating water operating limit temperature	WTOL	65	°C	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode					Supplementary heater						
Off mode	P_{OFF}	0.020	kW	Rated heat output (*)			P_{sup}	2.67	kW		
Thermostat-off mode	P_{TO}	0.020	kW	Type of energy input			Electrical				
Standby mode	P_{SB}	0.030	kW								
Crankcase heater mode	P_{CK}	0	kW								
Other items											
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors			-	4650	m ³ /h		
Sound power level, indoors/ outdoors	L_{WA}	43/68	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}	7896	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	JSC "BALTIC REFRIGERATION GROUP" S. Zukausko 11, Ramuciai, LT-54464 Kaunas distr., Lithuania										
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating $P_{designh}$, and the rated heat output of a supplementary heater P_{sup} 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 $C_{dh} = 0,9$.											