


Model(s):		NIBE F1145-17 (+ VPB 500)										
Type of heat source/sink:		Brine-to-water										
Low-temperature heat pump:		No										
Equipped with supplementary heater:		Yes										
Heat pump combination heater:		Yes										
Climate condition:		Average										
Temperature application:		Medium temperature (55 °C)										
Applied standards: EN14825 and EN16147												
Rated heat output		Prated	20,0	kW	Seasonal space heating energy efficiency		η_s	137	%			
<i>Declared capacity for part load at outdoor temperature Tj</i>				<i>Declared coefficient of performance for part load at outdoor temperature Tj</i>								
Tj = -7 °C	Pdh	16,0	kW	Tj = -7 °C	COPd	3,25	kW					
Tj = +2 °C	Pdh	16,2	kW	Tj = +2 °C	COPd	3,70	kW					
Tj = +7 °C	Pdh	16,6	kW	Tj = +7 °C	COPd	3,95	kW					
Tj = +12 °C	Pdh	16,9	kW	Tj = +12 °C	COPd	4,16	kW					
Tj = biv	Pdh	16,1	kW	Tj = biv	COPd	3,35	kW					
Tj = TOL	Pdh	16,0	kW	Tj = TOL	COPd	3,08	kW					
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		kW					
Bivalent temperature				T _{biv}	-4,8	°C	Operation limit temperature			TOL	-10	°C
Cycling interval capacity for heating				P _{cyh}		kW	Cycling interval efficiency			COP _{cyh}		-
Degradation co-efficient				Cdh	0,99	-	Heating water operating limit			WTOL	65	°C
<i>Power consumption in modes other than active mode</i>				<i>Supplementary heater</i>								
Off mode	P _{OFF}	0,002	kW	Rated heat output		P _{sup}	4,0	kW				
Thermostat-off mode	P _{TO}	0,025	kW	Type of energy input		Electric						
Standby mode	P _{SB}	0,007	kW									
Crankcase heater mode	P _{CK}	0,035	kW									
<i>Other items</i>												
Capacity control	fixed			Rated air flow rate, outdoors				m ³ /h				
Sound power level, indoors/outdoors	L _{WA}	43/-	dB	Rated water flow rate, indoor heat exchanger				1,72 m ³ /h				
Annual energy consumption	Q _{HE}	11407	kWh	Rated brine or water flow rate, outdoor heat exchanger				3,23 m ³ /h				
<i>For heat pump combination heater:</i>												
Declared load profile		XXL		Water heating energy efficiency		η_{wh}	96	%				
Daily electricity consumption	Q _{elec}	10,18	kWh	Daily fuel consumption		Q _{fuel}		kWh				
Annual electricity consumption	AEC	2235	kWh	Annual fuel consumption		AFC		GJ				
Approved by:												
Contact details		© NIBE Energy Systems - Box 14 - Hannabadsvägen 5 - 28521 Markaryd - Sweden										

Supplier's name:	NIBE		
Model:	NIBE F1145-17 (+VPB 500)		
Temperature application	35	55	°C
Declared load profile for water heating	XXL		
Seasonal space heating energy efficiency class, average climate:	A++	A++	
Water heating energy efficiency class, average climate:	A		
Rated heat output, average climate:	20	20	kW
Annual energy consumption for space heating, average climate	9474	11407	kWh
Annual electricity consumption for water heating, average climate	2235		kWh
Seasonal space heating energy efficiency, average climate:	166	137	%
Water heating energy efficiency, average climate:	96		%
Sound power level LWA indoors	43		dB
Rated heat output, cold climate:	20	20	kW
Rated heat output, warm climate:	20	20	kW
Annual energy consumption for space heating, cold climate	11047	13300	kWh
Annual electricity consumption for water heating, cold climate	2235		kWh
Annual energy consumption for space heating, warm climate	6224	7404	kWh
Annual electricity consumption for water heating, warm climate	2235		kWh
Seasonal space heating energy efficiency, cold climate:	171	140	%
Water heating energy efficiency, cold climate:	96		%
Seasonal space heating energy efficiency, warm climate:	164	136	%
Water heating energy efficiency, warm climate:	96		%
Sound power level LWA outdoors	-		dB

Data for package fiche

Controller class	VII		
Controller contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	170	140	%
Seasonal space heating energy efficiency class for package, average climate:	A++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	174	144	%
Seasonal space heating energy efficiency of package, warm climate:	167	140	%