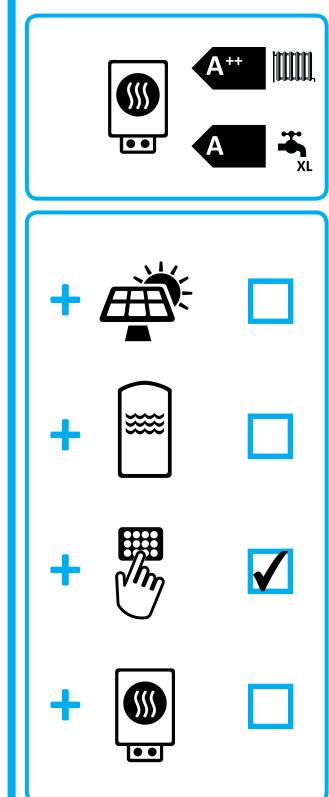




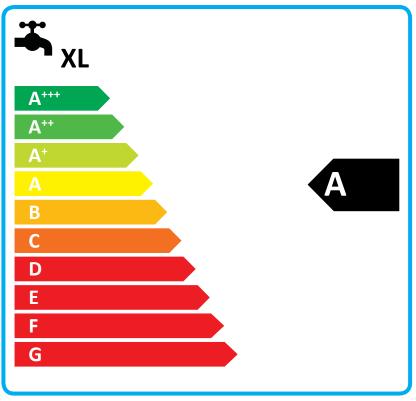
ENERG Y UA EHEPΓИЯ · ενεργεια II IA



NIBE F2050-6 + VVM S320







Supplier's name:	NIBE		
Model:	NIBE F2050-6 + VVM S320		
Temperature application	35 55		°C
Declared load profile for water	XL		
heating	ΛL	-	
Seasonal space heating energy	۸	Λ	
efficiency class, average climate:	A+++	A++	
Water heating energy efficiency	Α		
class, average climate:	^		
Rated heat output, average climate:	5	6	kW
Annual energy consumption for	0440	0050	1.14/1
space heating, average climate	2116	3250	kWh
Annual electricity consumption for	455	.7	1.14/1
water heating, average climate	155	07	kWh
Seasonal space heating energy	000	400	0/
efficiency, average climate:	200	139	%
Water heating energy efficiency,	108	0	0/
average climate:	100	0	%
Sound power level LWA indoors	35)	dB
Rated heat output, cold climate:	6	6	kW
Rated heat output, warm climate:	6	5	kW
Annual energy consumption for	3487	4604	kWh
space heating, cold climate	3407	4004	KVVII
Annual electricity consumption for	202	20	kWh
water heating, cold climate	2020		KVVII
Annual energy consumption for	1110	1617	kWh
space heating, warm climate	1110	1017	KVVII
Annual electricity consumption for	1335		kWh
water heating, warm climate	1000		KVVII
Seasonal space heating energy	161	119	%
efficiency, cold climate:	101	113	/0
Water heating energy efficiency, cold	83		%
climate:			/0
Seasonal space heating energy	265	178	%
efficiency, warm climate:	203 176		/0
Water heating energy efficiency,	125		%
warm climate:			
Sound power level LWA outdoors	53	dB	

Data for package fiche with SMO or VVM

Controller class	CLAS		
Controler contribution to efficiency	4		%
Seasonal space heating energy efficiency of package, average climate:	204	143	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A++	%
Seasonal space heating energy efficiency of package, cold climate:	165	123	%
Seasonal space heating energy efficiency of package, warm climate:	269	182	%

Model(s):	NIBE F2050-6 + VVM S320		
Type of heat source/sink:	Air/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 - EN16147 - EN12102	2-1		
	Seasonal space heating		



Tj = TOL Pdh 4,6 kW Tj = -15 °C (if TOL < -20 °C) Pdh kW Bivalent temperature T _{biv} -7 °C Cycling interval capacity for heating Pcych Cycling interval capacity for heating Pcych Degradation co-efficient Cdh 0,96 - Power consumption in modes other than active mode Off mode P _{To} 0,007 kW Thermostat-off mode P _{SB} 0,011 kW Standby mode P _{SB} 0,011 kW Crankcase heater mode P _{CK} 0,000 kW Other items Capacity control Variable Rated air flow rate, outdoors Rated water flow rate, indoor heat Tj = TOL COPd 1,75 Tj = -15 °C (if TOL < -20 °C) Coperation limit temperature TOL -10 °C Cycling interval efficiency COPcyc - Cycling interval efficiency COPcyc - Heating water operating limit WTOL 58 °C Rated heat output Psup 1,0 kW Type of energy input Electric	Temperature application:			Medium te	emperature (55 °C)			
Prated S,6 kW efficiency N _S 139 %	Applied standards: EN14825 - EN16147	- EN12102	-1					
Declared capacity for part load at outdoor temperature T_1 $T_1 = -7 ^{\circ}\text{C}$ Pdh S_1 0 kW $T_2 = -7 ^{\circ}\text{C}$ Pdh S_2 0 kW $T_3 = -7 ^{\circ}\text{C}$ COPd S_3 5.1 $T_3 = -7 ^{\circ}\text{C}$ Pdh S_4 0 kW $T_3 = -7 ^{\circ}\text{C}$ COPd S_3 5.1 $T_3 = -7 ^{\circ}\text{C}$ Pdh S_4 0 kW $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 S_5 1 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.3 $T_3 = -7 ^{\circ}\text{C}$ COPd S_4 0.4 $T_4 = -7 ^{\circ}\text{C}$ 0.5 $T_4 = -7 ^{\circ}\text{C}$ 0.5 $T_4 = -7 ^{\circ}\text{C}$ 0.7					Seasonal space heating energy			
Tj = -7 °C	Rated heat output	Prated	5,6	kW	efficiency	η_{s}	139	%
$ T_j = -7 ^{\circ} C \\ T_j = +2 ^{\circ} C \\ Pdh \\ 2,9 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,9 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +12 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +7 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +12 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +12 ^{\circ} C \\ Pdh \\ 1,7 \\ RW \\ T_j = +12 ^{\circ} C \\ Pdh \\ 1,7 \\ R_j = +12 ^{\circ} C \\ Pd$	Declared canacity for part load at outdoor temperature Ti			Declared coefficient of performance for part load at outdoor temperature Ti				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			5,0	kW				
Tj = +12 °C Pdh 1,7 kW Tj = biv Pdh 5,0 kW Tj = TOL Pdh 4,6 kW Tj = -15 °C (if TOL < -20 °C) Pdh kW Bivalent temperature Tbw -7 °C Cycling interval capacity for heating Pcych kW Degradation co-efficient Cdh 0,96 - Power consumption in modes other than active mode Off mode Poff 0,007 kW Thermostat-off mode Pro 0,001 kW Standby mode Ps 8 0,011 kW Crankcase heater mode Pck 0,000 kW Other items Capacity control Variable Sound power level, indoors/outdoors LwA 35/53 dB Annual energy consumption QHE 3250 kWh Daily electricity consumption Qelec 7,409 kWh Daily electricity consumption Qelec 7,409 kWh Daily fuel consumption Qelec 7,409 kWh Daily fuel consumption Qelec 7,409 kWh Daily fuel consumption Qelec Research Res	Tj = +2 °C	Pdh	2,9	kW	Tj = +2 °C	COPd		
Tj = biv Pdh 5,0 kW Tj = TOL Pdh 4,6 kW Tj = -15 °C (if TOL < -20 °C) Pdh 4,6 kW Tj = -15 °C (if TOL < -20 °C) Pdh kW Bivalent temperature T _{bw} -7 °C Cycling interval capacity for heating Pcych Degradation co-efficient Cdh 0,96 - Power consumption in modes other than active mode Off mode P _{OFF} 0,007 kW Thermostat-off mode P _{TO} 0,011 kW Standby mode P _{SB} 0,011 kW Crankcase heater mode P _{CX} 0,000 kW Other items Capacity control Variable Sound power level, indoors/outdoors L _{WA} 35/53 dB Annual energy consumption Q _{HE} 3250 kWh Daily electricity consumption Q _{elec} 7,409 kWh Daily fluel consumption Q _{tuel} KWh	Tj = +7 °C	Pdh	1,9	kW	Tj = +7 °C	COPd	4,99	
Tj = TOL Tj = TOL Tj = TOL Tj = TOL Tj = -15 °C (if TOL < -20 °C) Pdh NW Tj = -15 °C (if TOL < -20 °C) Pdh NW Tj = -15 °C (if TOL < -20 °C) Pdh NW Tj = -15 °C (if TOL < -20 °C) Operation limit temperature ToL	Tj = +12 °C	Pdh	1,7	kW	Tj = +12 °C	COPd	6,33	
Tj = -15 °C (if TOL < -20 °C) Pdh kW Bivalent temperature T _{bw} -7 °C Cycling interval capacity for heating Pcych Cdh 0,96 - Heating water operating limit WTOL 58 °C Power consumption in modes other than active mode Off mode P _{OFF} 0,007 kW Thermostat-off mode P _{TO} 0,011 kW Standby mode P _{SB} 0,011 kW Crankcase heater mode P _{CK} 0,000 kW Other Items Capacity control Variable Sound power level, indoors/outdoors L _{WA} 35/53 dB Annual energy consumption Q _{HE} 3250 kWh Daily electricity consumption Q _{elec} 7,409 kWh Daily electricity consumption Q _{elec} 7,409 kWh Tij = -15 °C (if TOL < -20 °C) COPd Tij = -15 °C (if TOL < -20 °C) COPd TOL -10 °C Cycling interval efficiency COPcyc - Heating water operating limit WTOL 58 °C Supplementary heater Type of energy input Psup 1,0 kW Type of energy input Electric Rated air flow rate, outdoors Rated water flow rate, indoor heat exchanger m³/h Rated brine or water flow rate, outdoor heat exchanger m³/h Rated brine or water flow rate, outdoor heat exchanger m³/h Sound power level, indoors/outdoors Date of the properties of the	Tj = biv	Pdh	5,0	kW	Tj = biv	COPd	1,95	
Bivalent temperature T _{biv} -7 °C Cycling interval capacity for heating Pcych		Pdh	4,6	kW	, -	COPd	1,75	
Cycling interval capacity for heating Pcych KW Degradation co-efficient Cdh 0,96 - Heating water operating limit WTOL 58 °C Power consumption in modes other than active mode Poff 0,007 kW Thermostat-off mode Poff 0,001 kW Standby mode Poff 0,001 kW Standby mode Poff 0,001 kW Crankcase heater mode Poff 0,000 kW Other items Capacity control Variable Rated air flow rate, outdoors 2340 m³/h Sound power level, indoors/outdoors LwA 35/53 dB Annual energy consumption Qtelec 7,409 kWh Daily electricity consumption Qtelec 7,409 kWh Cycling interval efficiency COPcyc - Heating water operating limit WTOL 58 °C Supplementary heater Rated heat output Psup 1,0 kW Type of energy input Electric Supplementary heater Rated heat output Psup 1,0 kW Type of energy input Electric Type of	Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		
Cycling interval capacity for heating Pcych	Bivalent temperature	This	-7	°C	Operation limit temperature	TOL	-10	°C
Degradation co-efficient Cdh 0,96 - Heating water operating limit WTOL 58 °C Supplementary heater Supplementary heater Supplementary heater Rated heat output Psup 1,0 kW Thermostat-off mode Psup 0,011 kW Standby mode Psup 0,011 kW Standby mode Pck 0,000 kW Crankcase heater mode Pck 0,000 kW Supplementary heater Rated heat output Psup 1,0 kW Type of energy input Electric Rated air flow rate, outdoors Rated water flow rate, indoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Psup my combination heater: Declared load profile XL Daily electricity consumption Qelec 7,409 kWh Daily fuel consumption Qfuel kWh	•		-					_
Power consumption in modes other than active mode Off mode Poff	, <u>, , , , , , , , , , , , , , , , , , </u>	 	0.96	-	, ,		58	°C
Thermostat-off mode	,		0.007	LVA				
Standby mode				+	Rated neat output	Psup	1,0	KVV
Crankcase heater mode P _{CK} O,000 kW Other items Capacity control Variable Sound power level, indoors/outdoors Annual energy consumption Q _{HE} Sound power level, indoors/outdoors L _{WA} As joint and a state air flow rate, outdoors Rated air flow rate, outdoors Rated water flow rate, indoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Por heat pump combination heater: Declared load profile XL Water heating energy efficiency Daily fuel consumption Q _{fuel} NWh	Thermostat-off mode	P _{TO}	0,011	kW				
Other items Capacity control Variable Rated air flow rate, outdoors 2340 m³/h Sound power level, indoors/outdoors L _{WA} 35/53 dB Annual energy consumption Q _{HE} 3250 kWh outdoor heat exchanger m³/h For heat pump combination heater: Declared load profile XL Daily electricity consumption Q _{elec} 7,409 kWh Daily fuel consumption Q _{fuel} kWh	Standby mode	P_{SB}	0,011	kW	Type of energy input	Electric		
Capacity control Variable Sound power level, indoors/outdoors Annual energy consumption Q _{HE} 3250 kWh Annual energy consumption XL Declared load profile Variable Rated air flow rate, outdoors Rated water flow rate, indoor heat exchanger Rated brine or water flow rate, outdoor heat exchanger Material pump combination heater: Water heating energy efficiency Daily fuel consumption Q _{fuel} NU Daily fuel consumption Q _{fuel} NWh	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/outdoors L _{WA} 35/53 dB Annual energy consumption Q _{HE} 3250 kWh Annual energy consumption XL Daily electricity consumption Q _{elec} 7,409 kWh Rated water flow rate, indoor heat exchanger m³/h Water heating energy efficiency Daily fuel consumption Q _{fuel} kWh	Other items							
Sound power level, indoors/outdoors L _{WA} 35/53 dB exchanger Rated brine or water flow rate, outdoor heat exchanger m³/h For heat pump combination heater: Declared load profile XL Daily electricity consumption Q _{elec} 7,409 kWh Daily fuel consumption Q _{fuel} MB exchanger Rated brine or water flow rate, outdoor heat exchanger m³/h Water heating energy efficiency Daily fuel consumption Q _{fuel} kWh			Variable		Rated air flow rate, outdoors		2340	m³/h
Annual energy consumption Q _{HE} 3250 kWh Rated brine or water flow rate, outdoor heat exchanger m³/h For heat pump combination heater: Declared load profile XL Daily electricity consumption Q _{elec} 7,409 kWh Rated brine or water flow rate, outdoor heat exchanger m³/h Park the pump combination heater: Declared load profile XL Daily fuel consumption Q _{fuel} kWh					Rated water flow rate, indoor heat			
Annual energy consumption Q_{HE} 3250 kWh outdoor heat exchanger m³/h For heat pump combination heater: Declared load profile XL Water heating energy efficiency η_{wh} 108 % Daily electricity consumption Q_{elec} 7,409 kWh Daily fuel consumption Q_{fuel} kWh	Sound power level, indoors/outdoors	L_{WA}	35/53	dB	exchanger			m³/h
For heat pump combination heater: Declared load profile XL Daily electricity consumption Qelec 7,409 kWh Daily fuel consumption Qfuel kWh					Rated brine or water flow rate,			
	Annual energy consumption	Q_{HE}	3250	kWh	outdoor heat exchanger			m³/h
	For heat pump combination heater:							
			XL		Water heating energy efficiency	η_{wh}	108	%
	Daily alastrisity consumption		7.400	IdA/b	Daily fuel consumption			LAME
Annual electricity consumption AEC 1557 KWN Annual fuel consumption AFC GJ	<u> </u>				, ,			
	Annual electricity consumption	AEC	155/	kvvn	Annual tuel consumption	AFC		GJ
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