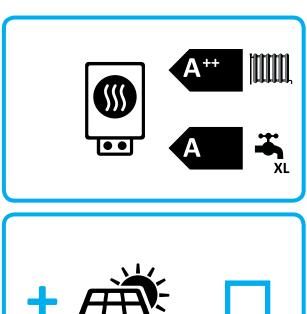


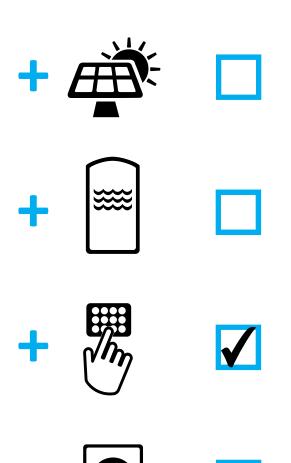


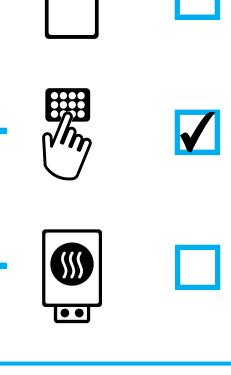
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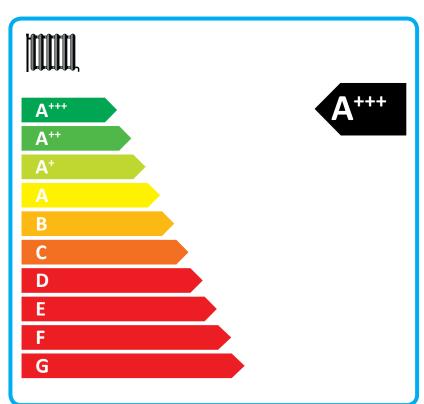


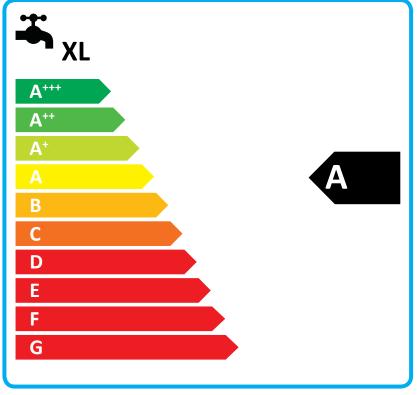
NIBE F2120-12 + VVM S320











2015

NIBE F2120-12 + VVM S320     Temperature application   35   55   °C     Declared load profile for water heating     Seasonal space heating energy efficiency class, average climate:     Water heating energy efficiency class, average climate:     Water heating energy efficiency class, average climate:     Rated heat output, average climate:     Annual energy consumption for space heating, average climate     Annual electricity consumption for water heating, average climate     Seasonal space heating energy efficiency, average climate:     Water heating energy efficiency, average climate:     Water heating energy efficiency, average climate:     Sound power level LWA indoors     Rated heat output, cold climate:     Sound power level LWA indoors     Saasonal space heating energy efficiency, average climate:     Sound power level LWA indoors     Saasonal space heating energy efficiency, average climate:     Sound power level LWA indoors     Saasonal space heating energy efficiency, average climate     Sound power level LWA indoors     Saasonal space heating energy efficiency, cold climate     Annual energy consumption for water heating, cold climate     Annual energy consumption for water heating, warm climate     Saasonal space heating energy efficiency, cold climate:     Water heating energy efficiency, cold climate:     Water heating energy efficiency, warm climate     Wate	Supplier's name:	NIE	BE		
Declared load profile for water heating  Seasonal space heating energy efficiency class, average climate:  Water heating energy efficiency class, average climate:  Rated heat output, average climate:  Annual energy consumption for space heating, average climate  Seasonal space heating energy efficiency, average climate:  Water heating energy efficiency, average climate:  Sound power level LWA indoors  Rated heat output, cold climate:  Sound power level LWA indoors  Rated heat output, warm climate:  9,3  9,8  kW  Rated heat output, warm climate:  9,2  9,2  kWh  Annual energy consumption for space heating, cold climate  Annual electricity consumption for water heating, cold climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, warm climate:	Model:	NIBE F2120-1	2 + VVM S320		
Seasonal space heating energy efficiency class, average climate:  Water heating energy efficiency class, average climate:  Rated heat output, average climate:  Rated heat output, average climate:  Annual energy consumption for space heating, average climate  Annual electricity consumption for water heating, average climate  Annual electricity consumption for water heating energy efficiency, average climate:  Water heating energy efficiency, average climate:  Water heating energy efficiency, average climate:  Sound power level LWA indoors  Rated heat output, cold climate:  Annual energy consumption for space heating, cold climate  Annual energy consumption for space heating, cold climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for space heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold efficiency, cold efficiency, cold efficienc	Temperature application	35	55	°C	
Seasonal space heating energy efficiency class, average climate:  Water heating energy efficiency class, average climate:  Rated heat output, average climate:  Annual energy consumption for space heating, average climate  Seasonal space heating energy efficiency, average climate:  Water heating energy efficiency, average climate:  Water heating energy efficiency, average climate:  Sound power level LWA indoors  Rated heat output, cold climate:  Sound power level LWA indoors  Rated heat output, warm climate:  9,3  9,8  kW  Rated heat output, warm climate:  9,2  9,2  kW  Annual energy consumption for space heating, cold climate  Annual electricity consumption for water heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, warm climate:	Declared load profile for water	YI			
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Water heating energy efficiency, average climate:  Sound power level LWA indoors  Rated heat output, cold climate:  9,3 9,8 kW  Rated heat output, warm climate:  9,2 9,2 kW  Annual energy consumption for space heating, cold climate  Annual electricity consumption for water heating, warm climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  ### Water heating energy efficiency, warm climate:  ### Water heating energy efficiency, warm climate:		190	148	%	
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space heating, cold climate  Annual electricity consumption for water heating, cold climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:	Rated heat output, warm climate:	9,2	9,2	kW	
Annual electricity consumption for water heating, cold climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:	Annual energy consumption for	FCCC	7000	LAMA	
water heating, cold climate  Annual energy consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:	space heating, cold climate	9000	7239	KVVN	
Annual energy consumption for space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, warm climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:	Annual electricity consumption for	1895		k\//h	
space heating, warm climate  Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:	water heating, cold climate			KVVII	
Annual electricity consumption for water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  216  216  327  330  347  347  350  360  360  360  360  360  360  360	• • • • • • • • • • • • • • • • • • • •	22/11	27/11	kWh	
water heating, warm climate  Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  216  130  88  %  176  %  Water heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:		2241	2141		
Seasonal space heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  159  130  %  88  %  176  %  176  %	•	1473		k₩h	
efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  159  130  %  88  %  176  %  176  %  114  %				KVVII	
Water heating energy efficiency, cold climate:  Water heating energy efficiency, cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  176  %  176  %	, , , , , , , , , , , , , , , , , , , ,	159	130	%	
cold climate:  Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  176  %  176  %				, , ,	
Seasonal space heating energy efficiency, warm climate:  Water heating energy efficiency, warm climate:  176  %  176  %		88		%	
efficiency, warm climate:  Water heating energy efficiency, warm climate:  176  %  114  %		<u> </u>			
Water heating energy efficiency, warm climate: 114 %		216	176	%	
warm climate: 114 %		- 1			
	• • • • • • • • • • • • • • • • • • • •	11	%		
OUTIN DOME LEAST ORIGINAL I UR	Sound power level LWA outdoors	53	dB		

## Data for package fiche

Data for package from			
Controller class	VI		
Controler contribution to efficiency	4,0		%
Seasonal space heating energy efficiency of package, average climate:	194	152	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	163	134	%
Seasonal space heating energy efficiency of package, warm climate:	220	180	%

Model(s):	NIBE F2120-12 + VVM S320		
Type of heat source/sink:	Air-to-water		
Low-temperature heat pump:	No		
Equipped with supplementary heater:	Yes		
Heat pump combination heater:	Yes		
Climate condition:	Average		
Temperature application:	High temperature (55 °C)		



Climate condition:			A <sup>1</sup>	verage			•
Temperature application:				perature (55 °C)			
Applied standards: EN14825, EN14511, E	N16147 and	EN12102					
Rated heat output	Prated	8,3	kW	Seasonal space heating energy efficiency	$\eta_s$	148	%
nateu neat output	Trateu	0,5	KVV	emelency	' IS	140	70
Declared capacity for part load at outdoor tem	perature Tj			Declared coefficient of performance for part	load at outdo	or temperati	ıre Tj
Tj = -7 °C	Pdh	7,3	kW	Tj = -7 °C	COPd	2,39	-
Tj = +2 °C	Pdh	4,7	kW	Tj = +2 °C	COPd	3,85	-
Tj = +7 °C	Pdh	2,9	kW	Tj = +7 °C	COPd	4,48	-
Tj = +12 °C	Pdh	3,3	kW	Tj = +12 °C	COPd	5,30	-
Tj = biv	Pdh	7,3	kW	Tj = biv	COPd	2,39	-
Tj = TOL	Pdh	7,8	kW	Tj = TOL	COPd	2,28	-
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-
					_	,	
Bivalent temperature	T <sub>biv</sub>	-7	°C	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit	WTOL	65	°C
Power consumption in modes other than active	1	l		Supplementary heater	1 -		
Off mode	P <sub>OFF</sub>	0,025	kW	Rated heat output	Psup	0,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	kW				
Standby mode	$P_SB$	0,025	kW	Type of energy input Electric			
Crankcase heater mode	P <sub>CK</sub>	0,037	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors		3400	m³/h
, ,				Rated water flow rate, indoor heat			
Sound power level, indoors/outdoors	L <sub>WA</sub>	35/53	dB	exchanger		variable	m³/h
				Rated brine or water flow rate,			
Annual energy consumption	$Q_{HE}$	4529	kWh	outdoor heat exchanger			m³/h
For heat pump combination heater:	•			•	•		
Declared load profile		XL		Water heating energy efficiency	η <sub>wh</sub>	101	%
•	-			5 = 5, = = = mo,	Iwii		•
Daily electricity consumption	Q <sub>elec</sub>	7,56	kWh	Daily fuel consumption	$Q_{\text{fuel}}$		kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC		GJ
Approved by:	•	•			•		
Contact details	© NIBE E	nergy Sys	tems -	Box 14 - Hannabadsvägen 5 - 28521 M	arkaryd - S	weden	