

IT'S IN OUR NATURE
NIBE.EU

Air/water heat pumps from NIBE





*Nature can be warm and loving,
as well as cold and fierce.
She is our greatest source of
energy, and we depend on her
to bring life into everything
around us.*

Being born in the harsh environments of the Nordics means we are not only used to strong climate contrasts, we have to thrive no matter the circumstances.

Whether it's a freezing winter or a hot summer afternoon, the need for a balanced indoor climate have always been an essential part of our everyday life.

Our products provide cooling, heating, ventilation and hot water to your home, enabling you to regulate your energy consumption, creating the perfect indoor climate. And by using local natural power, together we can build a more sustainable future.



Indoor comfort is in our nature

Nature inspire us to create the perfect climate conditions for our everyday lives. Welcome to our world of indoor comfort.



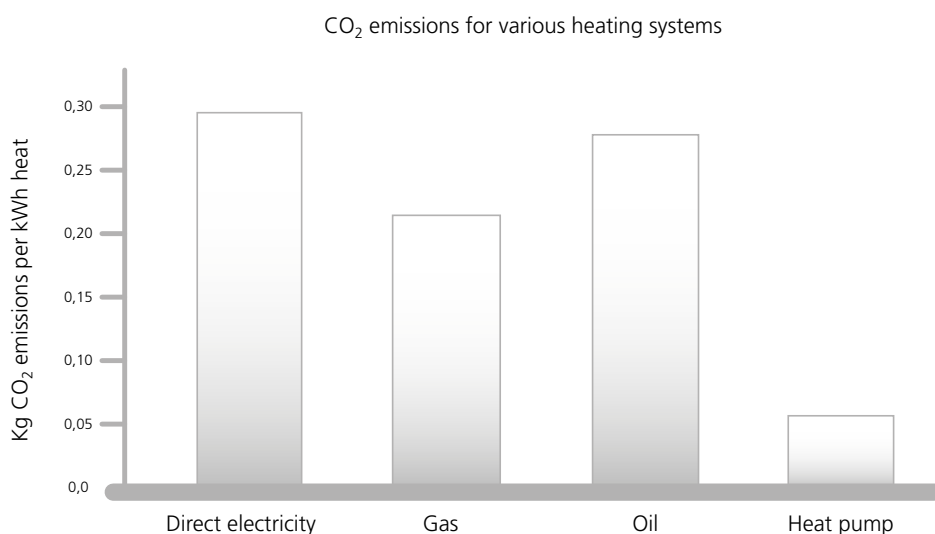


New times call for a new approach

The topic of climate issues has never been more discussed than today. Taking action and actually changing the way we interact with our planet's resources has become a necessity that none of us can afford to ignore.

A majority of the harmful emissions from an average home is caused by its heating and hot water systems. Oil, coal and gas needs to be replaced by energy sources that don't cause irreversible damage to our nature.

With over 50 years of manufacturing climate solutions, we invite you to take part in building a more sustainable future. We stay true to our legacy by harvesting natural energy, and by combining it with new smart technology we can offer even more efficient solutions that benefit everyone. Our wide range of products provides not only cooling, heating, ventilation and hot water to your home – it also does so with minimal impact on nature.



Start with a heat pump from NIBE

When making the switch from fossil fuels to renewable energy, you will experience benefits across the board. Not only will you do the environment a favour, you will save money by doing so.

With a heat pump from NIBE, you can create a perfect indoor climate by using renewable energy from your local surroundings. It immediately starts to deliver an environmental payback in the form of reduced energy consumption and emissions.

Since electricity is not the main energy source for the heat pump, the amount of electricity required is relatively low. It is only needed to drive the pump and enable the heat extraction process, allowing you to save up to 75% of your energy costs. With energy prices continually rising, you're unlikely to regret your decision. In fact, you'll start enjoying savings from the first month.



Harvesting energy from air



Air/water heat pumps

Thanks to the endless supply of air, one of nature's free and renewable energy sources, you will be able to maintain a perfect indoor climate for many years to come.

Heat pump technology is based on a very simple, well-known principle. Using a vapour compression cycle, it works in a similar way to any domestic refrigerator. By extracting heat energy from the outside air, even at lower temperatures, a NIBE air/water heat pump can heat your home and supply it with hot water, as well as invert the process to keep you cool during the warmer months.

The NIBE air/water systems consist of an outdoor module combined with an indoor or control module. This forms a complete climate system that is easy to install, operate and maintain. The modules work with any kind of terrain and are compatible with a variety of energy sources, and additional solutions for ventilation and pool heating can be added to the system.

Thanks to smart technology, our products give you control over your energy consumption and will play a key part in your connected home. The efficient control system automatically adjusts the indoor climate for maximum comfort, and you do nature a favour at the same time.

PRODUCTS

Outdoor Modules

NIBE F2120
NIBE F2040
NIBE SPLIT

Indoor Modules and Controllers

NIBE VVM 310
NIBE VVM 320/325
NIBE VVM 500
NIBE SMO 20
NIBE SMO 40

Air/water heat pumps from NIBE Products

NIBE F2120

NIBE F2120 is an inverter-controlled air/water heat pump which represents a real breakthrough when it comes to efficiency. With a seasonal performance factor in excess of 5.0*, the heat pump provides more than five times as much heat per year as an electric heater with the same energy consumption. NIBE F2120 provides optimum savings since the heat pump automatically adapts to your home's output requirements all year round.

NIBE F2120 has a class leading working range and deliver a supply temperature of up to 65°C. Even at outdoor temperatures of as low as -25°C, it still provides a supply temperature of up to 63°C, while keeping the noise level to a minimum. NIBE F2120 has three-phase connection, which simplifies electrical installation.



A+++

Energy efficiency class
package label, 35°C

A+++

Energy efficiency class
package label, 55°C

- Breakthrough in efficiency with a seasonal performance factor of over 5.0*
- Class leading working range, supply temperature of up to 65°C, and 63°C at an outdoor temperature of -25°C.
- Minimal noise level, even at full output.

NIBE F2120		-8	-12	-16	-20	
Efficiency class 35/55°C Package Label ¹⁾		A+++ / A+++				
Efficiency class 35/55°C Product Label		A++ / A++				
SCOP _{EN14825} Average climate 35/55°C		4.8 / 3.8	4.8 / 3.8	5.1 / 3.9	5.1 / 3.9	
P _{designh} Average climate 35/55°C	kW	5.9 / 6.3	8.0 / 8.3	11.0 / 12.3	11.0 / 12.3	
SCOP _{EN14825} Cold climate 35/55°C		4.0 / 3.3	4.1 / 3.3	4.3 / 3.5	4.3 / 3.5	
P _{designh} Cold climate 35/55°C	kW	6.8 / 7.4	9.3 / 9.8	13.0 / 14.0	13.0 / 14.0	
7/35 Heat capacity / COP, EN14511, nominal		kW	3.57 / 4.57	3.54 / 5.12	5.17 / 5.11	
Sound power level (L _{WA}) _{EN12102} at 7/45, nominal		dB(A) 53				
Rated voltage		230V~50Hz / 400V 3N~50Hz		400V 3N~50Hz		
CO ₂ -equivalent (hermetically sealed refrigerant circuit) ²⁾		ton	5.01	5.43	6.26	6.26
Height / Width / Depth		mm	1065 / 1130 / 610	1165 / 1280 / 612		
Weight (excluding packaging)		kg	167	177	183	183

¹⁾ Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with an external additional boiler or solar heating the total efficiency of the system must be recalculated. ²⁾ F2120 doesn't require annual inspection according to the F-gas directive.

*NIBE F2120 has a rating of SCOP > 5.0 (Average climate, Low temperature) and SCOP 4.3 (Colder climate, Low temperature) in accordance with European standard EN 14825:2013, i.e. the standard for determining the reference seasonal performance factor, SCOP. Applies to F2120-16 and -20.

Air/water heat pumps from NIBE Products

NIBE F2040

NIBE F2040 is an intelligent and compact inverter-controlled air/water heat pump. NIBE F2040 provides optimum savings since the heat pump automatically adapts to your home's output requirements all year round.

The heat pump works down to an outdoor temperature of -20°C and at the same time supplies up to 58°C in supply line temperature. The effective cooling function allows the heat pump to deliver a comfortable indoor climate even at high outdoor temperatures.



Energy efficiency class
package label, 35°C



Energy efficiency class
package label, 55°C

- Compact heat pump that adapts to your home's requirements.
- High capacity even down to -20°C and effective cooling function.
- Energy-saving smart technology with user-friendly control.

NIBE F2040		-6	-8	-12	-16	
Efficiency class 35/55°C Package Label ¹⁾		A+++/A++	A+++/A++	A+++/A++	A+++/A++	
Efficiency class 35/55°C Product Label		A++/A++	A++/A++	A++/A++	A++/A++	
SCOP _{EN14825} Average climate 35/55°C		4.80/3.46	4.38/3.25	4.43/3.38	4.48/3.43	
P _{designh} Average climate 35/55°C	kW	4.8/5.3	8.2 / 7.0	11.5 / 10.0	14.5 / 14.0	
SCOP _{EN14825} Cold climate 35/55°C		3.65 / 2.97	3.55 / 2.78	3.63 / 2.85	3.68 / 2.90	
P _{designh} Cold climate 35/55°C	kW	4.0 / 5.6	9.0 / 10.0	11.5 / 13.0	15.0 / 16.0	
7/35 Heat capacity / COP, EN14511, nominal		kW	2.67 / 5.32	3.86 / 4.65	5.21 / 4.78	7.03 / 4.85
Sound power level (L _{WA}) _{EN12102} at 7/45, nominal		dB(A)	50	54	57	61
Rated voltage		V	230 V 50 Hz, 230 V 2AC 50 Hz			
CO ₂ -equivalent (hermetically sealed refrigerant circuit) ²⁾		ton	3.13	5.32	6.06	8.35
Height / Width / Depth		mm	791 / 993 / 364	895 / 1035 / 422	995 / 1145 / 452	1450 / 1145 / 452
Weight (excluding packaging)		kg	66	90	105	135

¹⁾ Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with an external additional boiler or solar heating the total efficiency of the system must be recalculated. ²⁾ F2040 doesn't require annual inspection according to the F-gas directive.

Air/water heat pumps from NIBE Products

NIBE SPLIT HBS 05

NIBE SPLIT HBS 05 is an intelligent and compact inverter-controlled air/water heat pump. The outdoor module NIBE AMS 10 is connected with refrigerant pipes to the NIBE HBS 05 split box, which is located indoors. NIBE SPLIT provides optimum savings since the heat pump automatically adjusts to the property's output requirements all year round.

NIBE SPLIT HBS 05 works down to an outdoor temperature of -20°C and at the same time supplies up to 58°C in supply line temperature. The effective cooling function allows the heat pump to deliver a comfortable indoor climate even at high outdoor temperatures.



A+++

Energy efficiency class
package label, 35°C

A++

Energy efficiency class
package label, 55°C

- Compact heat pump that adapts to your home's requirements.
- High capacity even down to -20°C and effective cooling function.
- Energy-saving smart technology with user-friendly control.

NIBE SPLIT		AMS 10-6/ HBS 05-6	AMS 10-8, HBS 05-12	AMS 10-12/ HBS 05-12	AMS 10-16/ HBS 05-16
Efficiency class 35/55°C Package Label ¹⁾		A+++/A++	A+++/A++	A+++/A++	A+++/A++
Efficiency class 35/55°C Product Label		A++/A++	A++ / A++	A++ / A++	A++ / A++
SCOP _{EN14825} Average climate 35/55°C		4.80/3.46	4.38/3.25	4.43/3.38	4.48/3.43
P _{designh} Average climate 35/55°C	kW	4.8/5.3	8.2 / 7.0	11.5 / 10.0	14.5 / 14.0
SCOP _{EN14825} Cold climate 35/55°C		3.65 / 2.97	3.55 / 2.78	3.63 / 2.85	3.68 / 2.90
P _{designh} Cold climate 35/55°C	kW	4.0 / 5.6	9.0 / 10.0	11.5 / 13.0	15.0 / 16.0
7/35 Heat capacity / COP, EN14511, nominal	kW	2.67 / 5.32	3.86 / 4.65	5.21 / 4.78	7.03/4.85
Sound power level (L _{WA}) _{EN12102} at 7/45, nominal	dB(A)	51	55	58	62
Rated voltage		230V ~50Hz			
CO ₂ -equivalent	ton	3.13	5.32	6.06	8.35
Height / Width / Depth – AMS 10	mm	640/800/290	750/880/340	845/970/370	1300/970/370
Height (with pipe) / Width / Depth – HBS 05	mm	565/404/472	565/404/472	565/404/472	565/404/472
Weight (excluding packaging) AMS 10 / HBS 05	kg	46/13	60/15	74/15	105/19.5

¹⁾Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with an external additional boiler or solar heating the total efficiency of the system must be recalculated.

Indoor and control modules

The flexible indoor and control modules from NIBE provide efficient heating, cooling, and hot water supply at high performance. With our advanced technology, you will be able to control your indoor comfort from wherever you are.

- Intelligent integrated controller, advanced technology, easy to understand, simple to use.
- Control your comfort online and stay in touch with your system wherever you are via Uplink also available as an app.
- Smart Energy Source function with NIBE VVM and NIBE SMO 40 for optimal integration of prioritised heating sources such as wood boilers.

The NIBE VVM indoor modules are all-in-one units that include a smart and user-friendly control system, water heater, electrical addition, self-regulating circulating pump, and further functions that will help you create an efficient indoor climate.

NIBE VVM 320 and NIBE VVM 325 also includes the filling loop, pressure gauges, safety valves and expansion vessel, everything needed for the normal installation.

The control modules, NIBE SMO, provide a flexible solution that easily can be customised. System components such as water heaters, additional heat sources, and other accessories are chosen depending on the specific setup.

NIBE VVM indoor modules

Heating

Each NIBE VVM indoor unit has a maximum recommended heating output to your climate system. Combining a larger heat pump will increase the energy coverage by the heat pump.

The NIBE VVM 310 and NIBE VVM 500 offers a two-circuits solution where the heating system flow is independent of the flow over the heat pump. The NIBE VVM 320 and NIBE VVM 325 has a single circuit system, which requires the heating system flow to be maintained not below a minimum level.





Domestic hot water

In NIBE VVM 310 and NIBE VVM 500, domestic hot water is prepared on demand in a coil tap. The NIBE VVM 320 has a built-in DHW storage tank of 185 litres.

Docking

NIBE offers a broad range of accessories, dockings, and system solutions for a complete climate solution. See section on additional functions.

Choosing the right NIBE VVM for my home

	NIBE VVM 310	NIBE VVM 500	NIBE VVM 320	NIBE VVM 325
				
Compatible outdoor units	NIBE F2120 all sizes NIBE F2040 all sizes NIBE SPLIT HBS05 all sizes		NIBE F2120 all sizes NIBE F2040-6/8/12 NIBE SPLIT HBS05-6/8/12	
Recommended maximum heating output	Up to 14 kW	Up to 22 kW	Up to 10 kW	
Electrical heater built-in	12 kW	9 kW	9 kW	
Hot water volume, normal mode	250l at 12l/min	350l at 12l/min	240l	
Connection	Top	Top	Top	Bottom
Docking	Smaller heat sources without accumulator. Built-in accumulator, VVM310 270 l, VVM500 500l.		High power heat sources with external accumulators. No built-in accumulator volume.	
Dimensions H/W/D (mm)	1800/600/615	1900/760/900	1800/600/615	
Net weight	140 kg	240 kg	146 kg	

NIBE SMO Control module

NIBE SMO Control modules provide a flexible solution that you easily can customise, allowing you to integrate your heat pump with both existing or new systems. Additional heat sources and other accessories are chosen specifically for the actual set-up.

The entry model NIBE SMO 20 is a perfect choice for a system with heating, cooling and hot water supply. It handles one heat pump and has a limited range of accessories. Onboard functionality supports control of charge pump, 3-step addition both for heating and hot water, main circulator pump, a switching valve for hot water and an AUX relay.

The more advanced NIBE SMO 40 can handle up to eight heat pumps. It has all the onboard functionality that NIBE SMO 20 offers, but also allows you to add extra functions, advanced dockings, and also supports an external heat source.

Docking

NIBE offers a broad range of accessories, dockings and system solutions, all to make a complete climate solution. See section on additional functions to explore how you can create the perfect indoor climate for your needs.

Choosing the right NIBE SMO for my home

	NIBE SMO 20	NIBE SMO 40
		
Compatible outdoor units	All sizes of: NIBE F2120, NIBE F2040, NIBE SPLIT HBS05	
Controls up to	1 heat pump	8 heat pumps
Self-regulating circulator pump	Available in 2 sizes, CPD11	Available in 2 sizes, CPD11
External heat sources	3 step electrical heater	3 step electrical heater or boiler with mixing valve
Accessories	Room sensor	See the accessory range, page 18
Dimensions H/W/D (mm)	410/360/110	410/360/120
Net weight	4,3 kg	5,2 kg

For your everyday comfort



Additional functions

Turn your climate system complete with accessories, dockings, and solutions for your NIBE VVM and NIBE SMO 40 units.

Active cooling

Cooling is supported onboard on all NIBE VVM and SMO units. More advanced cooling system solutions are available within the accessory range. The extra climate system function can also be used for cooling applications.

Energy meter

Measures the amount of energy provided by the heat pump system.

External heat sources & thermal solar

Add an additional heat source to your system. Choose between an intermittent heat source such as a wood boiler, or a fully controlled such as oil boilers or electrical heaters.

An intermittent heat source can be connected with the prioritization function. This way, if the heat source becomes available, it will become the primary energy source for your system.

NIBE VVM 310 and NIBE VVM 500 offers an easy and efficient way of docking an external heat source using the built-in water volume as an accumulator. The NIBE VVM 500 also offers a built-in solar coil for easy connection of thermal solar panels.

If the external heat source is of higher power and includes a buffer volume larger than the volume of the NIBE VVM, a solution with NIBE VVM 320 or NIBE SMO 40 is more suitable.

Extra climate system

Adding an extra climate system enable you to control different supply temperatures in the climate system. The extra climate system can be configured to be used for heating, cooling, or combined heating and cooling applications.

Air/water heat pumps from NIBE
For your everyday comfort

<i>Exhaust air module</i>	Recycles energy from the warm exhaust air inside the property.
<i>GSM remote control</i>	Communication unit for remote control and monitoring.
<i>Modbus</i>	Monitor and control your heat pump via Modbus.
<i>Pool</i>	Since the outdoor unit has an excessive heating capacity, the pool doesn't need to be taken in consideration when sizing the outdoor unit. Although, it depends on the type of your pool and how you use it.
<i>PV solar package</i>	Our solar panels are available in packs of 3 kW, 6 kW, 9 kW, 12 kW and 21 kW, and are suited to fit on most types roofs – tiles, metal roofing, seamed metal roof and felt roof.
<i>Room display</i>	Control and monitor your heat pump from rooms outside of the one containing the heat pump. The room display also has a built-in temperature sensor.
<i>Ventilation</i>	Ventilation solutions both for mechanical extract ventilation and balanced ventilation with heat recovery, HRV, are available. The solution for mechanical extract ventilation extracts energy from the exhaust air and put the energy back in the system and works in the same way as the outdoor unit. The HRV offers a balanced ventilation where heat from the exhaust is direct transferred to the incoming fresh air.
<i>Water heaters</i>	Regardless of your hot water needs, we have the right solution for you. Our full range of hot water solutions complement our selection of heat pumps and biomass boilers.

Air/water heat pumps from NIBE
For your everyday comfort

A connected indoor system

We strive to maximise the outcome of every product carrying the NIBE name, while always focusing on the system as a whole through connectivity and flexibility. Controlling everything with its software, the system allows you to integrate products within your home to create a balanced indoor climate with minimal impact on the environment.



Air/water heat pumps from NIBE
For your everyday comfort

NIBE UPLINK

Freedom – anywhere, any time

Using the Internet and NIBE Uplink you can get a quick overview and the present status of your heat pump and the heating in your property. You get a good overall view where you can follow and control your heating and hot water production. If your system is affected by an operational disturbance you receive an alert via e-mail that allows you to react quickly.

- *An efficient tool that gives you quick and easy control over your property's heat pump wherever you are.*
- *Clear, easy way of monitoring and controlling heating and water temperatures for maximum comfort.*
- *Provides logging of heat pump parameters presented in a user-friendly history chart.*

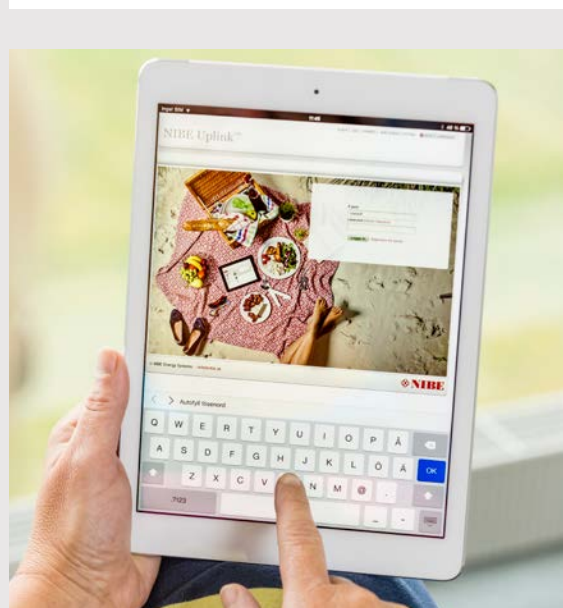


IFTTT

A free web-based service that enables you to really make full use of your smart home technology. Connect products and services in your home for maximum comfort.

SMART PRICE ADAPTION

This is a clever feature if you have the option to choose variable pricing for your energy plan. You will then automatically purchase energy when the price is low, and use self-produced or stored energy when the price is high.



Air/water heat pumps from NIBE
For your everyday comfort

Smart, sustainable energy solutions from NIBE

NIBE Energy Systems offers a complete range of energy-efficient solutions for heating, ventilation, cooling, hot water and heat recovery that enable private and commercial property owners to choose a system that best suits their indoor climate needs.



Air/water heat pumps from NIBE

For your everyday comfort

Ground source heat pumps

Ground source heat is stored solar energy harvested from deep within the ground, the bottom of lakes or simply just below your lawn. The system supplies your home with both heat and hot water during colder winter months, as well as cooling during hot summer days.

Air/water heat pumps

Investing in an air/water heat pump, gives you two systems to choose from – Monobloc and Split. Both contains an outdoor and indoor module creating a complete heating and hot water system. Using one of nature's free and renewable energy sources, the air/water heat pump will in the long run pay for itself.

Exhaust air heat pumps

Installing an exhaust air heat pump is a profitable and easy way to warm up your home, supply it with hot water and keep it well-ventilated. Reuse the energy from the warm indoor air as it passes through your ventilation system to create an ideal solution for your modern home.

Air/air heat pumps

If you still rely on electrical heating, an air/air heat pump is a suitable and economical solution for an ideal indoor climate. It enables you to regulate your energy consumption in a cost-effective and environmentally responsible way.

Solar panels

Start producing your own energy with solar products from NIBE. When connected to your smart heat pump, the pump will multiply the energy you harvest. By integrating products into one system, you can reduce your energy costs and use renewable energy efficiently.

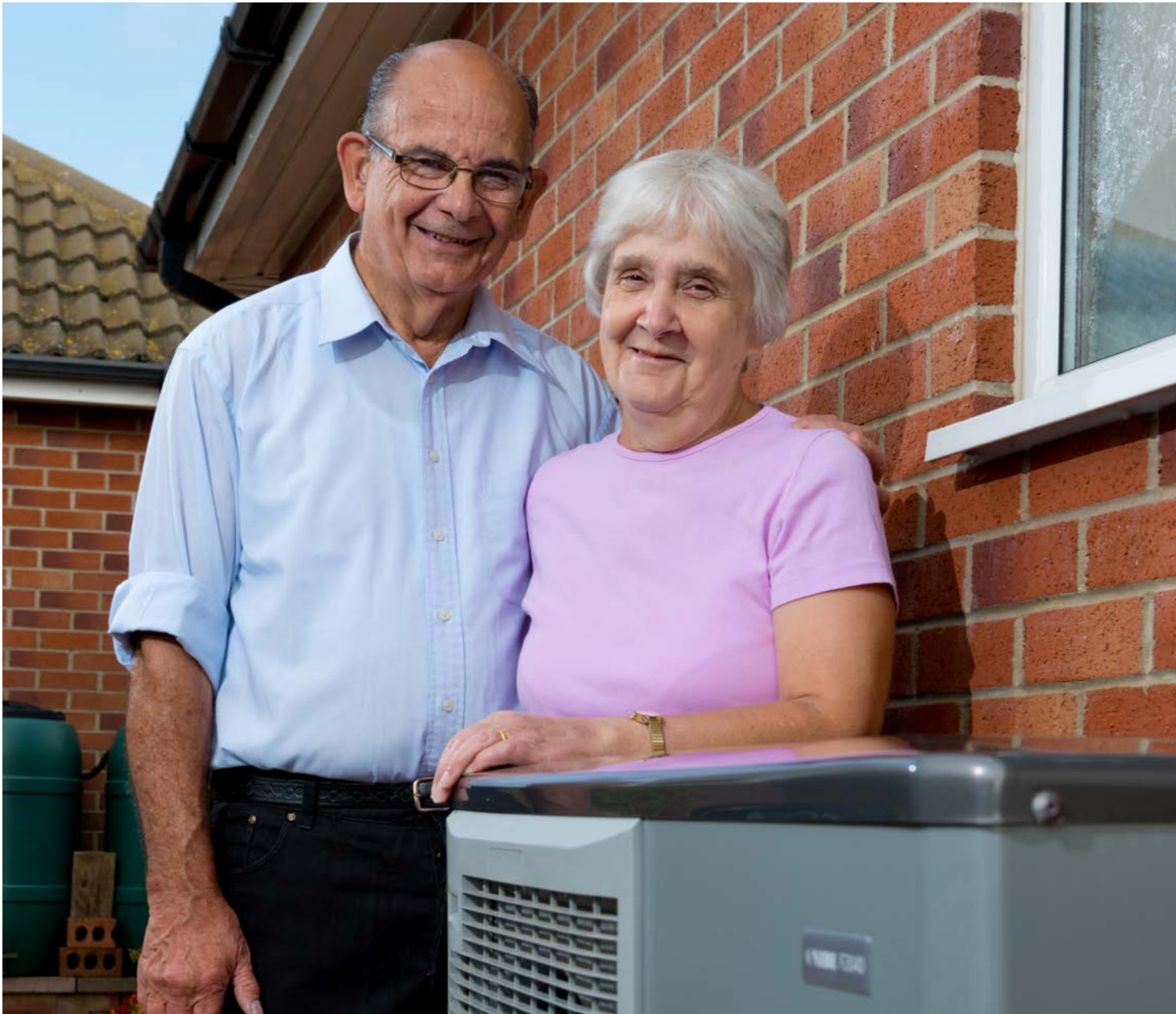
Domestic boilers

If you want to use a renewable biofuel, a wood-fired boiler is an ideal solution for a countryside home. Combine a biomass boiler with other energy sources and connect these to your heat pump. Use Smart Energy Source to establish the most sustainable and economical indoor system.

Water heaters

Creating water solutions for over 60 years, NIBE now enables controlling your water heater remotely with smart technology. Recognizing user patterns and adapting to improve energy usage, our full range of hot water solutions complements our selection of heat pumps and biomass boilers.

A case of empowering people



When thrifty couple Malcolm and Christine West found their dream house, renewable heating systems weren't as established as they are today. Technological advancement now allows anyone to build a home reflecting their individual way of life.

Air/water heat pumps from NIBE

For your everyday comfort

Background

When the Wests' anthracite boiler reached the end of its lifespan, the couple faced the challenge of finding a new system for their countryside home. Put in this uncertain situation where they were unaware of the available options, they still knew they had to find a solution that would benefit their lifestyle financially.

Solution

With the help of a NIBE VIP installer and a thorough analysis of their specific needs, the couple was guided to the solution most suitable for their situation. Since they were living off-grid, the team of experts equipped the couple with a NIBE F2040 air source heat pump system, made up of an 8 kW ASHP and complete with hot water storage and intelligent controls for smarter usage. This provided them with a consistent and convenient supply of space heating and hot water all year round. The installer also made sure the property was sufficiently insulated to enable the system to perform at its full potential, as well as advising the couple to increase the loft insulation to ensure full heat-loss protection.

"By making this switch to a greener, less demanding system, the couple will save a lot of money in the long run."

Results

Thanks to the NIBE installer's expertise, a whole new system was recommended, designed and delivered, also making it possible for the Wests to utilise renewable energy from the outside air. By making this switch to a greener, less demanding system, the couple will save a lot of money in the long run. This also allowed the Wests to successfully be accepted onto the government's Renewable Heat Incentive scheme, where they will receive annual payments from the government for the upcoming seven years.

Air/water heat pumps from NIBE
For your everyday comfort

Your next step?

Find your local NIBE office at nibe.eu. They'll help you locate your nearest NIBE installer and select the best kind of heat pump for your needs.



European Directive 20/20/20

The 20/20/20 European directive imposes compulsory targets on the EU's 27 member states, specifying that 20% of energy consumption must be met by renewable sources by 2020. Since NIBE's heat pumps are now classified as a renewable energy source, their installation will help member states reach this ambitious target. And in many cases, local or regional authorities are offering home owners subsidies to switch their existing heating systems to a renewable source such as a heat pump.



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