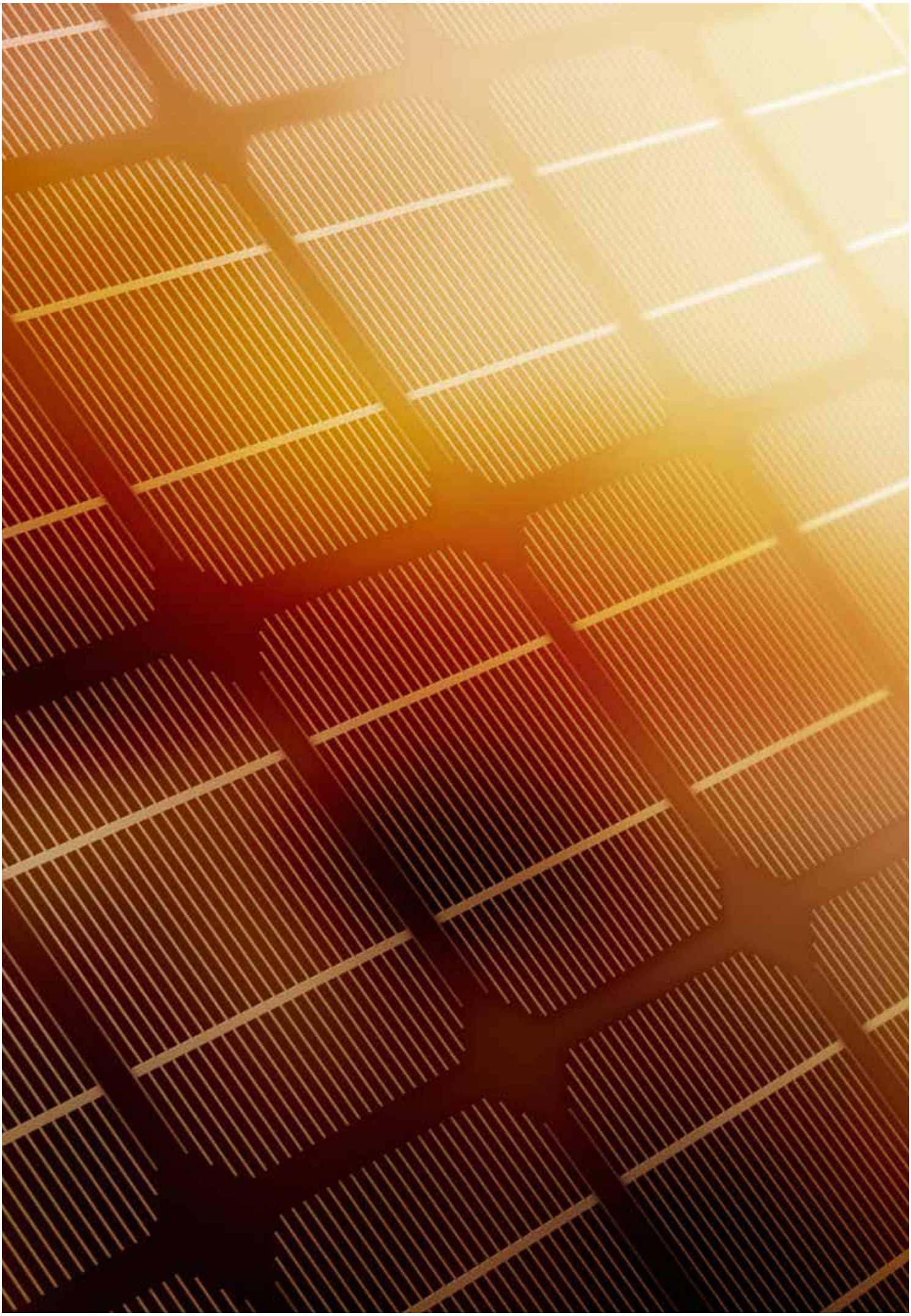
NIBE

NIBE SOLAR PRODUCTS

Premium solar packages and components for a sunny future



HOW TO GET THE BEST OF BOTH WORLDS

Picture it now. You've got solar panels on the roof, capturing nature's best energy source, lowering your heating bills and creating zero emissions. What could be better?

The only snag is, the sun doesn't always shine and its difficult to store solar energy for longer periods. That's why NIBE has come up with a solution for combining solar energy with a heat pump. This means everyone can enjoy free energy from the sun, even if you live in a country where daily sunshine is not guaranteed.

On sunny days, the NIBE controller automatically channels solar energy into your home's heating system. When it's cloudy or dark, your heat pump kicks in to keep your home at a comfortable temperature and ensure hot water is always available.

If you already have a heat pump, you can further reduce costs and emissions by connecting it to a solar energy system. If you're building a new house or refurbishing an old one, why not install a complete system that combines heat pump and solar panels? Or, if you prefer, you can install a heat pump now with a view to adding solar panels later.

Combining a heat pump with a solar energy solution also reduces the wear and tear on the compressor and gives it a longer life span.

And let's not forget that investing in a clean, modern low cost heating system, always increases the value of your home.

WHY CHOOSE SOLAR ENERGY?

WHY CHOOSE SOLAR ENERGY?

The sun is an abundant, free, zero-emission source of energy. It can be used for hot tap water production alone, or in a combined system for both domestic heating and hot water. If you have a swimming pool, solar energy can be used to heat that too.

It's free and it's unlimited

Once your solar solution is up and running, the energy it provides is absolutely free of charge. A lot of effort has been devoted to developing solar heating solutions in recent years, with the result that the price of equipment has steadily decreased. In the meantime, electricity prices have continued to rise and supplies of fossil fuels have become more insecure. This trend is expected to continue in the future, making solar energy a more attractive option than ever.

Your choice makes a difference!

In recent years, concerns about climate change have driven the interest in alternative energy sources from fringe to mainstream. Solar energy is the queen of all 'green' energy sources. It is not only free; it is silent, renewable and produces no air or water pollution. When you install a solar energy solution, you are also helping to reduce CO_2 emissions.

Guaranteed energy supplies

Combine your solar panels with a heat pump, and you can take advantage of solar energy whenever it's available, without being fully dependent upon it. NIBE offers three different kinds of heat pumps – ground source, air source and exhaust air – all of which can be connected to solar panels. Which one you choose will depend on factors such as how big your garden is, whether or not you live by a lake, if the land is suitable for drilling etc. Your NIBE dealer has all the necessary expertise to help you make this decision.

Increase your home's resale value

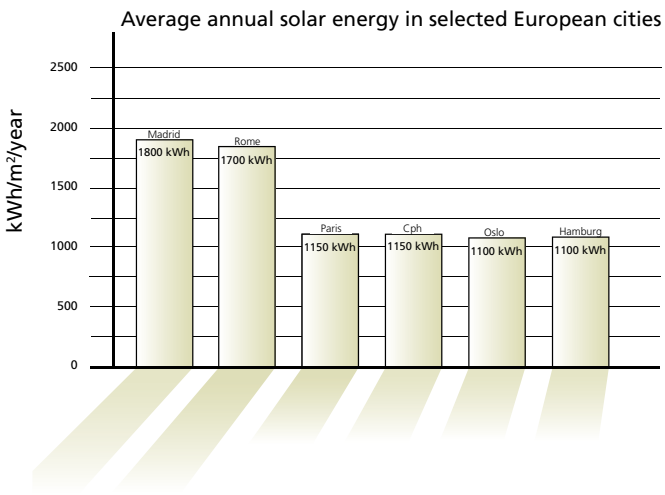
Any property with a modern, low energy heating system is highly attractive in today's market. It's a comfort for potential buyers to know that once installed, a NIBE solar energy/heat pump solution not only provides reliable, environmentally friendly energy, but that it more or less takes care of itself!

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 both solar energy and heat pumps are classified as renewable energy sources, their installation will help member states reach this ambitious target.

What's more, some local or regional authorities are offering homeowners subsidies to switch their existing heating systems to a renewable source. Why not find out what rules apply in your area. See www.nibe.eu for more information.

Invest in a combined solar energy /heat pump system when you refurbish and enjoy low cost, low emission energy for years to come.



You might be surprised by just how often solar energy is available. Take a look at the sun energy chart above!

HOW DOES IT WORK?

Solar energy is created by light and heat which is emitted by the sun, in the form of electromagnetic radiation. With today's technology, it is possible to capture this radiation and turn it into usable forms of energy, such as heating.

Normally, the technical feasibility and economical viability of using solar energy would depend on the amount of available sunlight (solar radiation) in the area where you live. Now, thanks to NIBE's combined solar energy/heat pump system many more people can enjoy this clean, free energy source on sunny days.

Step by step

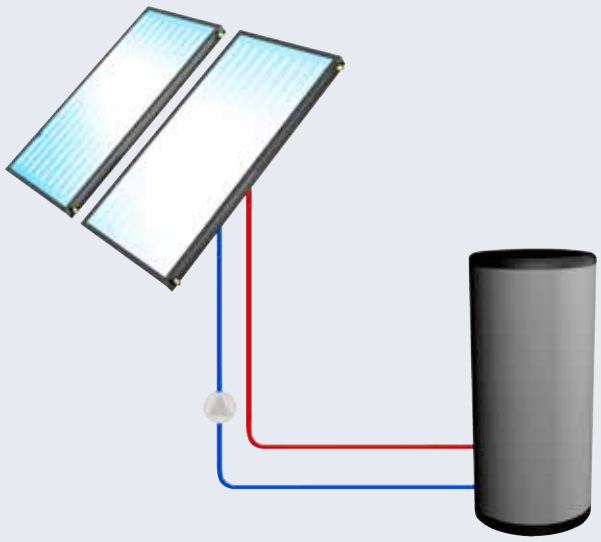
1. When the temperature in the solar panels is higher than the temperature in the storage tank, the solar station is automatically triggered into action and starts transferring the heat which has been collected from the sun into the tank.

2. When it's no longer sunny, the solar panels cool off and the solar station stops and uses energy from the heat pump instead.

3. If the sun shines again, the panels warm up and the solar station starts up again. In fact, it can switch back and forth all day long. In a well-insulated NIBE water tank, heat from solar panels can be stored for several days.

4. When the temperature in the tank reaches the desired level, the solar station stops and is in fact inhibited from transferring heat until the temperature has dropped again, thus preventing overheating.

5. During extended dull or dark periods, the heat pump becomes your main energy source. It automatically takes over the job of generating the energy your home needs to remain at a comfortable temperature and provides sufficient domestic hot water.



In a combined solution including solar panels and a heat pump, the system prioritises solar energy when available, since it is cost and emission free. The NIBE heat pump is the next most efficient energy source, which generates approximately four times as much energy than is needed to drive the pump.

A ‘greener’ heating system installed in your home

Given widespread concerns about climate change and the rapid development of legislation regarding permissible CO_2 emissions levels, it’s smart to equip your home with a modern heating system that gives you access to two renewable energy supplies. Choose this option today, and you’ll be all set for many years to come.

This illustration shows how solar energy can be used in combination with an air/water heat pump. For more information about using different kinds of heat pumps, see the product pages which follow.

Green energy connection:
EMISSION FREE HEATING
Complementing the energy supply from your NIBE heat pump with solar energy results in a system that’s almost emission free.

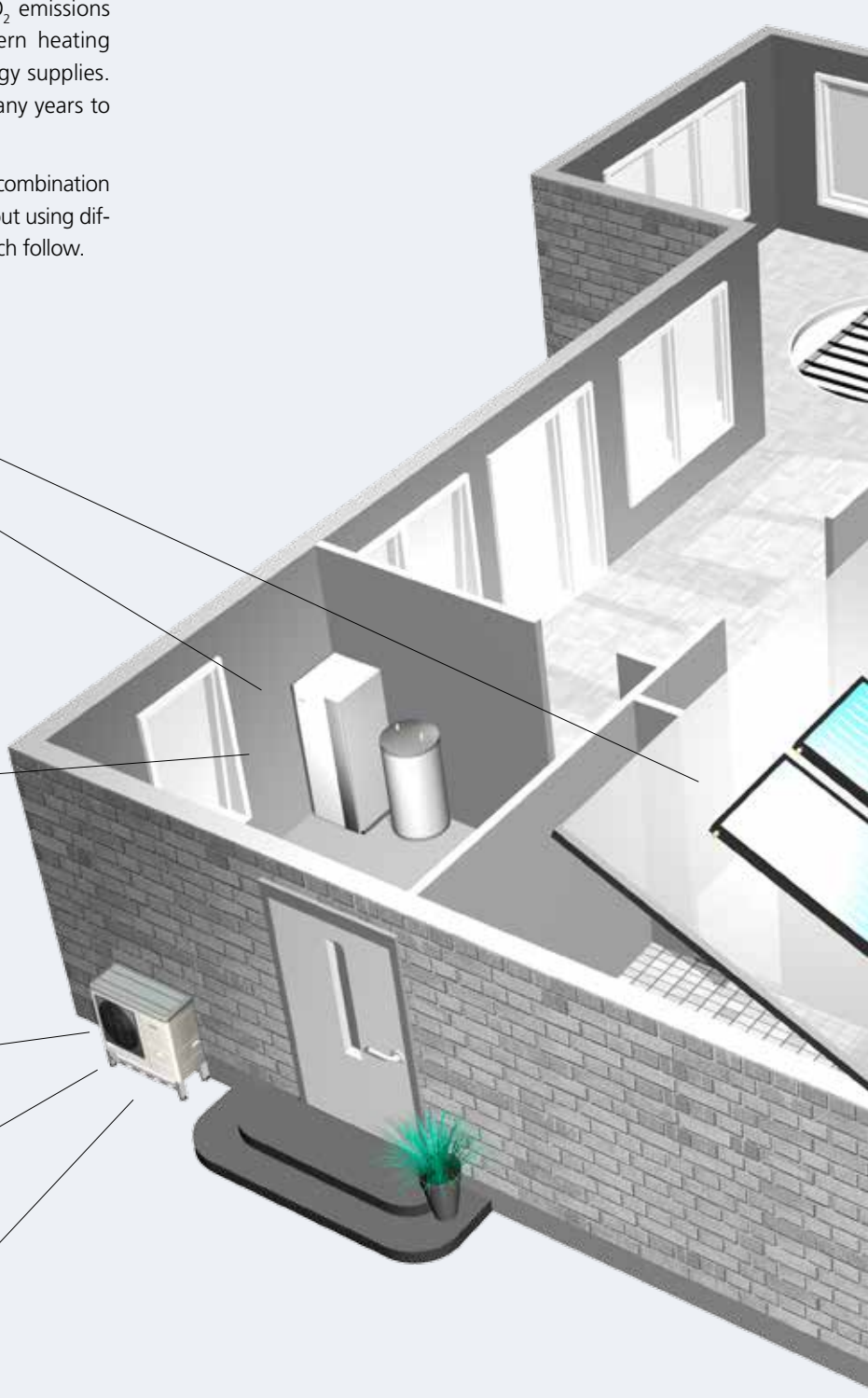
Triple function:
HEATING/COOLING/DOMESTIC HOT WATER
This system meets all your needs: heating, cooling and domestic hot water.

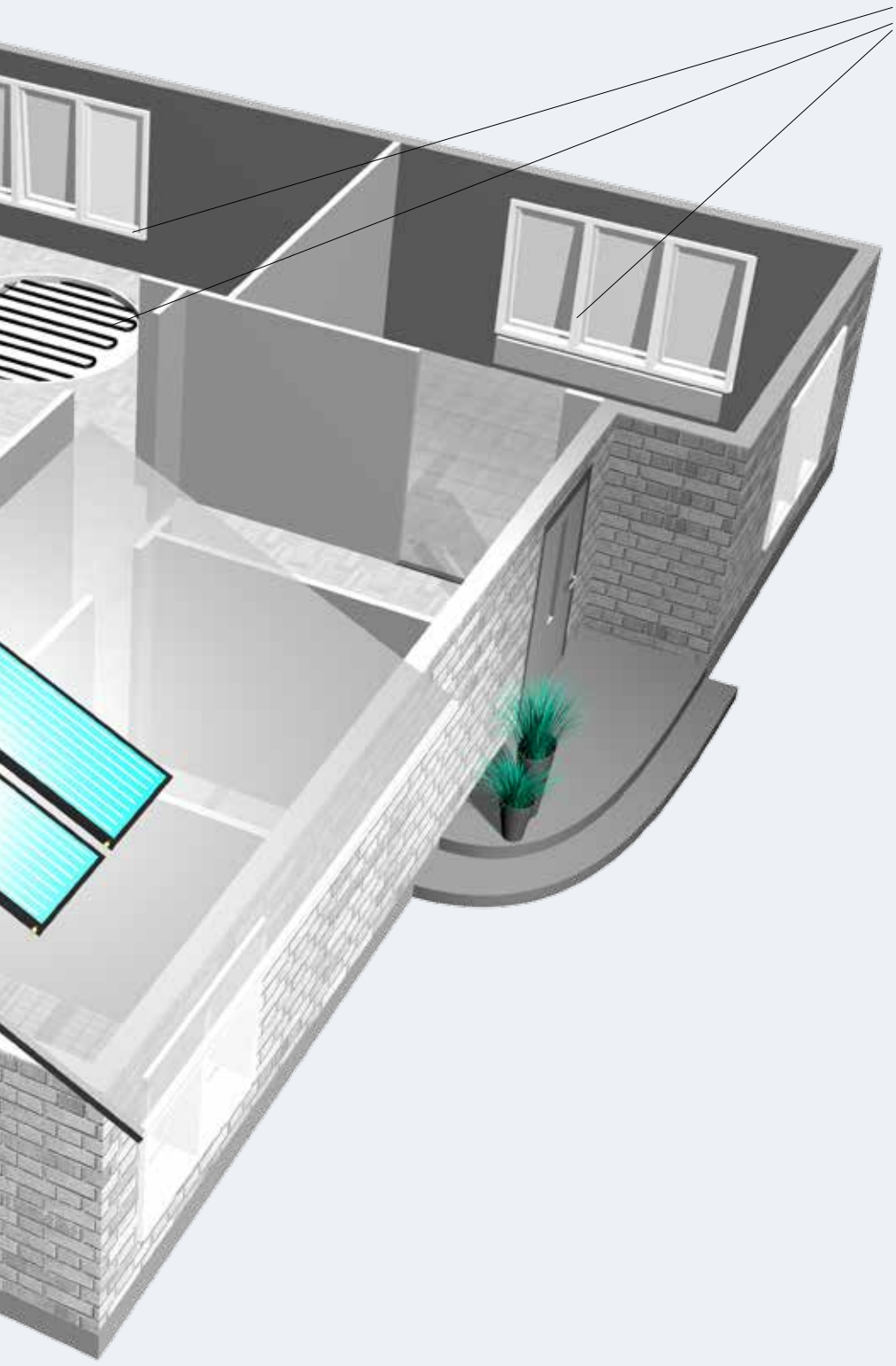
Indoor unit:
SINGLE, NEATLY PACKAGED MODULE
The neat indoor module of this air/water heat pump fits into a standard 60 cm x 66 cm space.

Electrical installation:
CONTRIBUTES TO EASE OF INSTALLATION
The outdoor unit does not need a separate electrical connection. It is linked by cable to the indoor unit, which is connected to the power supply.

Outdoor unit:
COMPACT SMALL FOOTPRINT
The outdoor unit is unusually small and has an appealing timeless, design.

Flexible positioning:
CHOOSE A DISCREET LOCATION
The outdoor unit can be moved to any location up to 12 metres from the indoor unit.





Flexible indoor installation:

SWITCH THE FUNCTION
TO SUIT THE SEASON

With a NIBE air/water heat pump, water-borne distribution of heating takes place via radiators or underfloor system; cooling takes place via fancoils or your underfloor system.

NIBE SOLAR PACKAGES & ACCESSORIES

READY TO GO SOLAR PACKAGES

The following packages are tailor-made for NIBE heat pumps. You can find quick facts under each package. For more information about the packages visit www.nibe.eu.

NIBE™ SOLAR 1145/VPBS FP215 P / PL

for NIBE F1145 heat pump and NIBE VPBS tank

The included solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing, solar glycol and collector quick connections with compensators. All necessary sensors are included.

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

NIBE SOLAR packages, content and number	**NIBE SOLAR 1145/VPBS FP215 P2** Art No. 069 056	**NIBE SOLAR 1145/VPBS FP215 P3** Art No. 069 057	**NIBE SOLAR 1145/VPBS FP215 PL2** Art No. 069 058	**NIBE SOLAR 1145/VPBS FP215 PL3** Art No. 069 059
FP215 P Art No. 057 001	2	3		
FP215 PL Art No. 057 002			2	3
SPS 10 Art No. 057 027	1	1	1	1
SCS 10 Art No. 057 029	1	1	1	1
Solar glycol Art No. 434 795	1	1	1	1
SOLAR 42 Art No. 067 153	1	1	1	1
Solar exp. vessel Art No. 524 306	1	1	1	1
SVP-FD 3/4" Art No. 057 024	1	1	1	1
SVP-WR Art No. 057 025	1	2	1	2

NIBE™ SOLAR 1145/VPAS FP215 P / PL

for NIBE F1145 heat pump and NIBE VPAS tank

The included solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing, solar glycol and collector quick connections with compensators. All necessary sensors are included.

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

NIBE SOLAR packages, content and number	**NIBE SOLAR 1145/VPAS FP215 P3** Art No. 069 061	**NIBE SOLAR 1145/VPAS FP215 P4** Art No. 069 062	**NIBE SOLAR 1145/VPAS FP215 P5** Art No. 069 064	**NIBE SOLAR 1145/VPAS FP215 PL3** Art No. 069 065	**NIBE SOLAR 1145/VPAS FP215 PL4** Art No. 069 066	**NIBE SOLAR 1145/VPAS FP215 PL5** Art No. 069 067
FP215 P Art No. 057 001	3	4	5			
FP215 PL Art No. 057 002				3	4	5
SPS 10 Art No. 057 027	1	1	1	1	1	1
SCS 10 Art No. 057 029	1	1	1	1	1	1
Solar glycol Art No. 434 795	1	1	2	1	1	2
Solar glycol Art No. 434 796		1			1	
SOLAR 40 Art No. 067 084	1	1	1	1	1	1
Solar expansion vessel Art No. 524 306	1			1		
Solar expansion vessel Art No. 524 166		1	1		1	1
SVP-FD 3/4" Art No. 057 024	1	1	1	1	1	1
SVP-WR Art No. 057 025	2	3	4	2	3	4

NIBE™ SOLAR SPLIT FP215 P / PL

for NIBE SPLIT air/water heat pump

The included solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing, solar glycol and collector quick connections with compensators. All necessary sensors are included.

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

NIBE SOLAR packages, content and number	**NIBE SOLAR SPLIT FP215 P2** Art No. 069 039	**NIBE SOLAR SPLIT FP215 P3** Art No. 069 052	**NIBE SOLAR SPLIT FP215 PL2** Art No. 069 054	**NIBE SOLAR SPLIT FP215 PL3** Art No. 069 055
FP215 P Art No. 057 001	2	3		
FP215 PL Art No. 057 002			2	3
SPS 10 Art No. 057 027	1	1	1	1
SCS 10 Art No. 057 029	1	1	1	1
SCU 10 Art No. 518 467	1	1	1	1
Solar glycol Art No. 434 795	1	1	1	1
MCU 10 Art No. 067 128	1	1	1	1
SRB 22 Art No. 067 109	1	1	1	1
UKVS 230 Art No. 080 320	1	1	1	1
SOLAR 42 Art No. 067 153	1	1	1	1
Solar exp. vessel Art No. 524 306	1	1	1	1
SVP-FD 3/4" Art No. 057 024	1	1	1	1
SVP-WR Art No. 057 025	1	2	1	2

NIBE™ SOLAR VVM 500 FP215 P / PL

for NIBE VVM 500 Indor module

The included solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing, solar glycol and collector quick connections with compensators. All necessary sensors are included.

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

NIBE SOLAR packages, content and number	**NIBE SOLAR VVM 500 FP215 P2** Art No. 057 102	**NIBE SOLAR VVM 500 FP215 P3** Art No. 057 103	**NIBE SOLAR VVM 500 FP215 P4** Art No. 057 104	**NIBE SOLAR VVM 500 FP215 P5** Art No. 057 105	**NIBE SOLAR VVM 500 FP215 PL2** Art No. 057 106	**NIBE SOLAR VVM 500 FP215 PL3** Art No. 057 107	**NIBE SOLAR VVM 500 FP215 PL4** Art No. 057 108	**NIBE SOLAR VVM 500 FP215 PL5** Art No. 057 109
FP215 P Art No. 057 001	2	3	4	5				
FP215 PL Art No. 057 002					2	3	4	5
SPS 10 Art No. 057 027	1	1	1	1	1	1	1	1
SCS 10 Art No. 057 029	1	1	1	1	1	1	1	1
Solar glycol Art No. 434 795	1	1	1	2	1	1	1	2
Solar glycol Art No. 434 796			1				1	
SCA 30 Art No. 067 179	1	1	1	1	1	1	1	1
Solar exp. vessel 18 litres Art No. 524 306	1	1			1	1		
Solar exp. vessel 24 litres Art No. 524 166			1	1			1	1
SVP-FD 3/4" Art No. 057 024	1	1	1	1	1	1	1	1
SVP-WR Art No. 057 025	1	2	3	4	1	2	3	4

NIBE™ SOLAR 370/470 FP215 P / PL

for NIBE F370/470 heat pumps

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

The solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing.

All necessary sensors are included.

NIBE SOLAR packages, content and number	**NIBE SOLAR F370/470 FP215 P2** Art No. 069 068	**NIBE SOLAR F370/470 FP215 P3** Art No. 069 069	**NIBE SOLAR F370/470 FP215 PL2** Art No. 069 070	**NIBE SOLAR F370/470 FP215 PL3** Art No. 069 071
FP215 P Art No. 057 001	2	3		
FP215 PL Art No. 057 002			2	3
SPS 10 Art No. 057 027	1	1	1	1
SCS 10 Art No. 057 029	1	1	1	1
Solar glycol Art No. 434 795	1	1	1	1
MCU 10 Art No. 067 128	1	1	1	1
SOLAR 41 Art No. 067 127	1	1	1	1
UKVS 230 Art No. 080 320	1	1	1	1
Solar exp. vessel Art No. 524 306	1	1	1	1
SVP-FD 3/4" Art No. 057 024	1	1	1	1
SVP-WR Art No. 057 025	1	2	1	2

NIBE™ SOLAR FOR COIL FP215 P

for storage tanks and water heaters with internal solar coil

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

The solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing.

All necessary sensors are included.

NIBE SOLAR packages, content and number	**NIBE SOLAR FOR COIL FP215 P2** Art No. 060 75	**NIBE SOLAR FOR COIL FP215 P3** Art No. 069 073
FP215 P Art No. 057 001	2	3
SPS 10 Art No. 057 027	1	1
SCS 10 Art No. 057 029	1	1
SCU 10 Art No. 518 467	1	1
Solar glycol Art No. 434 795	1	1
Solar exp. vessel Art No. 524 306	1	1
SVP-FD 3/4" Art No. 057 024	1	1
SVP-WR Art No. 057 025	1	2

NIBE™ SOLAR NO COIL FP215 P

for boilers and tanks without an internal solar coil

The P (Premium) panel is mounted vertically. The PL (Premium Landscape) is mounted horizontally.

The solar pump station has a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Also included are a solar expansion vessel and a wall bracket with a two-way check valve for easy servicing.

All necessary sensors are included.

NIBE SOLAR packages, content and number	**NIBE SOLAR NO COIL FP215 P2** Art No. 069 74	**NIBE SOLAR NO COIL FP215 P3** Art No. 069 072
FP215 P Art No. 057 001	2	3
SPS 20 Art No. 057 038	1	1
SHE 10 Art No. 057 028	1	1
SCS 10 Art No. 057 029	1	1
SCU 10 Art No. 518 467	1	1
Solar glycol Art No. 434 795	1	1
Circulating pump Art No. 424 334	1	1
Union nut Art No. 424 319	2	2
Check valve Art No. 424 285	1	1
Gasket Art No. 033 330	2	2
Flanged copper pipe Art No. 008 721	2	2
Solar exp. vessel Art No. 524 306	1	1
SVP-FD 3/4" Art No. 057 024	1	1
SVP-WR Art No. 057 025	1	2

NIBE SOLAR THERMAL COLLECTORS

Presenting NIBE solar thermal collectors FP215 P and FP215 PL.
For more information, visit www.nibe.eu.

NIBE™ SOLAR FP215 P

NIBE premium thermal collectors

The solar thermal collector NIBE FP215 is a high class collector with a serpentine laser welded selective absorber and innovative lightweight design.
The collector has a empty weight of only 32,5 kg and high thermal efficiency due to an exceptional insulation solution. The combination of highly temperature-resistant PIR Plate and rock wool insulation enables a flat collector only 81 mm thick.

Wide range of applications:

- Suitable for hot water, heating support and process energy systems
- Suitable for high- and low-flow operation

Guarantees and certification:

- Complies with European Standards
- Solar Keymark certified

Installation friendly system:

- Easy to transport with carry-friendly circulating handle bar and easy weight design
- Easy to install on the pre-designed mounting system
- Easy to install due to quick connection design

NIBE Solar collector FP215 P	
Article number	057 001
Frame	Anodized black
Dimensions	2088×1030×81mm
Total area	2.15 m²
Aperture area	1.91 m²
Glass thickness	3.2 mm
Glass structure	Low-iron tempered solar safety glass
Collection tube	22 mm
Flow tube	10 mm
Empty weight	32.5
Absorber type	serpentine pipe, blue highly selective absorber coating
Optical efficiency	80.6%
Upper insulation	20 mm rock wool
Lower insulation	20 mm PIR-ALU sandwich insulation
Fluid content	1.65 litres
Heat transfer fluid	Propylene glycol or water in drain-back applications
Max. working pressure	10 bar/MPa
Stagnation temperature	191.2 °C *

* at irradiation of 1000 W/m² and 30 °C outdoor temperature

NIBE™ SOLAR FP215 PL

NIBE premium thermal collectors

The solar thermal collector NIBE FP215 is a high class collector with a serpentine laser welded selective absorber and innovative lightweight design.
The collector has a empty weight of only 32,5 kg and high thermal efficiencyiy due to an exceptional insulation solution. The combination of highly temperature-resistant PIR Plate and rock wool insulation enables a flat collector only 81 mm thick.

Wide range of applications:

- Suitable for hot water, heating support and process energy systems
- Suitable for high- and low-flow operation

Guarantees and certification:

- Complies with European Standards
- Solar Keymark certified

Installation friendly system:

- Easy to transport with carry-friendly circulating handle bar and easy weight design
- Easy to install on the pre-designed mounting system
- Easy to install due to quick connection design

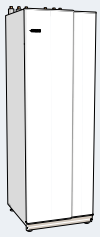
NIBE Solar collector FP215 PL:	
Article number	057 002
Frame	Anodized black
Dimensions	2088×1030×81mm
Total area	2.15 m²
Aperture area	1.91 m²
Glass thickness	3.2 mm
Glass structure	Low-iron tempered solar safety glass
Collection tube	22 mm
Flow tube	10 mm
Empty weight	33 kg
Absorber type	serpentine pipe, blue highly selective absorber coating
Optical efficiency	82.4 %
Upper insulation	20 mm rock wool
Lower insulation	20 mm PIR-ALU sandwich insulation
Fluid content	1.65/2.3 litres
Heat transfer fluid	Propylene glycol or water in drain-back applications
Max. working pressure	10 bar/MPa
Stagnation temperature	191.2 °C *

* at irradiation of 1000 W/m² and 30 °C outdoor temperature

NIBE SOLAR COMPONENTS

The following components are all suitable together with NIBE solar thermal collectors FP215 P and FP215 PL. You can find quick facts under each component.
For more information, visit www.nibe.eu.

NIBE™ VPBS 300



NIBE VPBS is a hot tap water accumulator tank. Suitable for connection to and in combination with heat pumps and solar panels. For a truly comprehensive installation NIBE VPBS 300, with it's integrated design, is best combined with NIBE F1145.

Article number: 083 012

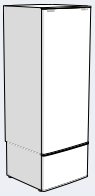
NIBE™ VPAS 300/450

NIBE VPAS is an accumulator tank optimally prepared for connection to heat pumps in combination with solar panels.

The NIBE VPAS is primarily designed for connection to heat pumps in combination with solar panels.

Article number: Copper 087 720
Enamel 087 710

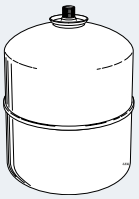
NIBE™ COMPACT 300 SOL



NIBE COMPACT 300 SOL is a copper lined electric water heater designed to run on solar energy.

Article number: 078504

NIBE™ SOLAR VESSEL



Solar expansion vessel for max pressure of 8 bar. Comes with a pre pressure of 3 bar.

Solar vessel, 18 litres
Article number: 524 306

Solar vessel, 24 litres
Article number: 524 166

NIBE™ UKVS 230

NIBE UKVS 230 is an accumulator tank with coil for solar panels.

UKVS 230 is intended to be used for heat storage when a smaller heat pump is docked with solar panels. It is also possible to dock another heat source.

The UKVS 230 has a total volume of 230 litres.

Article number: 080 320

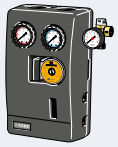
NIBE™ MCU 10

NIBE MCU 10 is a multi charging unit. This component is being used in NIBE solar package with F470 and NIBE SPLIT.

This multi charging unit limits the chargin temp to 65 °C. MCU 10 is also suitable for use in other applications.

Article number: 067 128

NIBE™ SPS 10



Solar pump station NIBE SPS 10 has 3/4" male threads, a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

Article number: 057 027

NIBE™ SPS 20

Solar pump station NIBE SPS 20 has 22 mm clamp fittings, a low-energy solar pump, deaerator, thermometers, adjusting valve, safety valve, pressure gauge, isolating valves and double check valves.

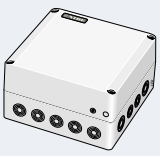
Article number: 057 038

NIBE™ SHE 10

NIBE SHE 10 is a compact and powerful solar heat exchanger, with protective insulating cover and internal connections with connection pipes. SHE 10 fits directly under the Solar pump station SPS 20. SHE 10 can transfer energy well from 6 NIBE FP215 collectors.

Article number: 057 028

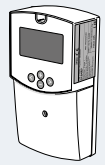
NIBE™ SRB 22



Relay box needed with the Solar tank NIBE UKVS connected to NIBE SPLIT in order to block compressor and immersion heater when solar energy is available.

Article number: 067 109

NIBE™ SCU 10

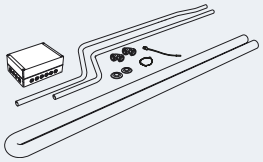


NIBE SCU 10 is a universal external solar controller with 8 pre-defined systems.

4 sensors included (one high temp for the solar collectors). 5 inputs and 3 outputs. 2 triac outputs for the possibility to speed control the solar pump.

Article number: 518 467

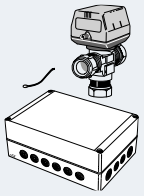
NIBE™ SCA 30



Allows connection and control of an external heat source.

Article number: 067 179

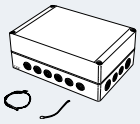
NIBE™ SOLAR 40



NIBE SOLAR 40 is the perfect solar controlling device for enabling first of all the NIBE heat pump F1145 to control a solar system installed with the NIBE VPAS tank or similar tanks. SOLAR 40 enables an optimal hydraulic principle for both hot tap water and domestic heating from the solar collectors.

Article number: 067 084

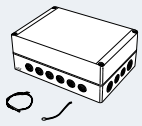
NIBE™ SOLAR 41



NIBE SOLAR 41 is a tailored solar controlling device for enabling the NIBE heat pumps F370 and F470 to control a solar system installed with the NIBE UKVS tank. SOLAR 41 enables both hot tap water and domestic heating from the solar collectors.

Article number: 067 127

NIBE™ SOLAR 42



NIBE SOLAR 42 is a solar controlling device for enabling first of all the NIBE heat pump F1145 to control a typical "standard" solar system.

Perfect when you want to connect, for example, the hot water tank NIBE VPBS with the NIBE F1145 heat pump.

Article number: 067 153

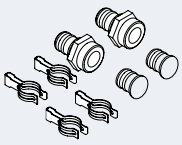
NIBE™ SOLAR GLYCOL

Solar glycol 54 vol % (-35 °C)

10 litre article number: 434 796

25 litre article number: 434 795

NIBE™ SVP-FD 3/4"

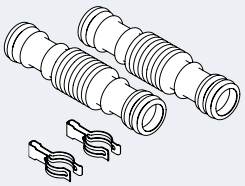


Quick O-ring connections for the FP 215 collectors.

2 fittings 3/4" male thread, needed to connect 16 mm solar pipes. 2 plugs for tight and slim connection. 4 safety clamps. 1 of this set is needed for every collector field.

Article number: 057 024

NIBE™ SVP-WR



2 Quick fittings with built in compensators. 2 safety clamps. Connects 2 collectors to each others.

Article number: 057 025

NIBE REFERENCE CASES

REFERENCE CASE 1

SOLAR ENERGY - NATURAL WARMTH THAT DOESN'T COST THE EARTH.

The background

Eino Haikio from Torslanda, western Sweden knew that the best alternative for drastically reducing his own heating bills, and making the least impact on energy resources, was solar energy. Eino lives in a 150 sq metre house with a large cellar area. He required a system to use as his main source of heating and hot water and one that could generate surplus heat to keep his cellar dry and at a constant 20 degrees throughout the year.

Solution

Eino installed a NIBE SPLIT air/water heat pump combined with NIBE SOLAR SPLIT FP215 PL 3, a solar pack tailor-made for the NIBE SPLIT air/water heat pump. Three lightweight solar collectors with a buffer tank.

Results

The system has already generated over 6200 kWh of free energy in 1920 hours in operation. Eino has calculated that the system with the heat pump will pay for itself within five years, after which he can enjoy free hot tap water and most of his heating needs from the sun.

Thanks to a special adjustment that Eino requested, the cellar stays warm and dry all the year round. Two added bonuses for Eino is that the system is automatic, switching from solar power to the air/water heat pump so he never has to use the controls. The second bonus is that heat from the sun is what you would expect. Bright, silent, and like fresh air, you always know what it will cost once it's installed. Nothing.

REFERENCE CASE 2

NEWTON HALL, NORTHUMBERLAND

The background

The Newton Hall mansion, built in 1722, is one of Northumberland's finest historic homes and when Paul Hindhaugh purchased the Grade II listed country house in July 2010, he wanted to restore it back into a beautiful home for his family.

He's since extensively remodelled the 900m2 property, creating a large open plan ground floor based around a stylish kitchen and revitalising the old cellar network into a cinema room and wine cellar.

Whilst the size of the property offered huge potential, it also presented a key problem. Paul knew that from the huge off-mains house would mean exhorbitant utility bills. Having used NIBE on a previous project, however, Paul decided to investigate a renewable heating solution - particulary as the listed nature of the building prevented traditional energy conservation measures being considered.

Solution

Initial calculations considered what the running cost of the house might be without a green solution. Based on oil, which was the previous heating fuel method for the property, it was estimated that the house would cost nearly £2,000 per month in order to maintain a temperature of 21 degrees, at the current cost of oil (roughly 65p/litre).

Paul called in the help of Howard Tribick of HT Energy Limited, NIBE VIP Installer and winner of the NIBE Installer of the Year Award 2010, based in Northallerton. HT Energy Limited were able to design a very specific system that could conquer the problems that came with a 289 year old Grade II listed Country House.

Initially, a NIBE ground source system was looked at, but it was worked out that the property would need 10 boreholes, which would have meant a large captial expenditure and significant disruption to the existing large formal gardens. Additionally the only feasible places that the boreholes could be located, where in a wooded area close to the property, which created extra design problems.

So, the viable alternative was to install a NIBE air source system. Paul could allocate a dedicated area - too small in size to situated 10 boreholes, but large enough to situate an air source system.

The heating system comprises of four F2015-11kW's that are controlled by an SMO 10, running in a cascade system. The first NIBE air source unit is dedicated to hot water. There is also a VPB500 - a 500 litre hot water tank that is also linked to a NIBE solar thermal system - as well as a 500 litre buffer tank for the central heating.

The solar thermal collectors from NIBE are specifically designed to work with NIBE heat pumps, which means that it is not necessary to have a seperate solar controller, as the existing built-in heat pump controller is able to control the solar panels also.

NEW TIMES CALL FOR A NEW APPROACH

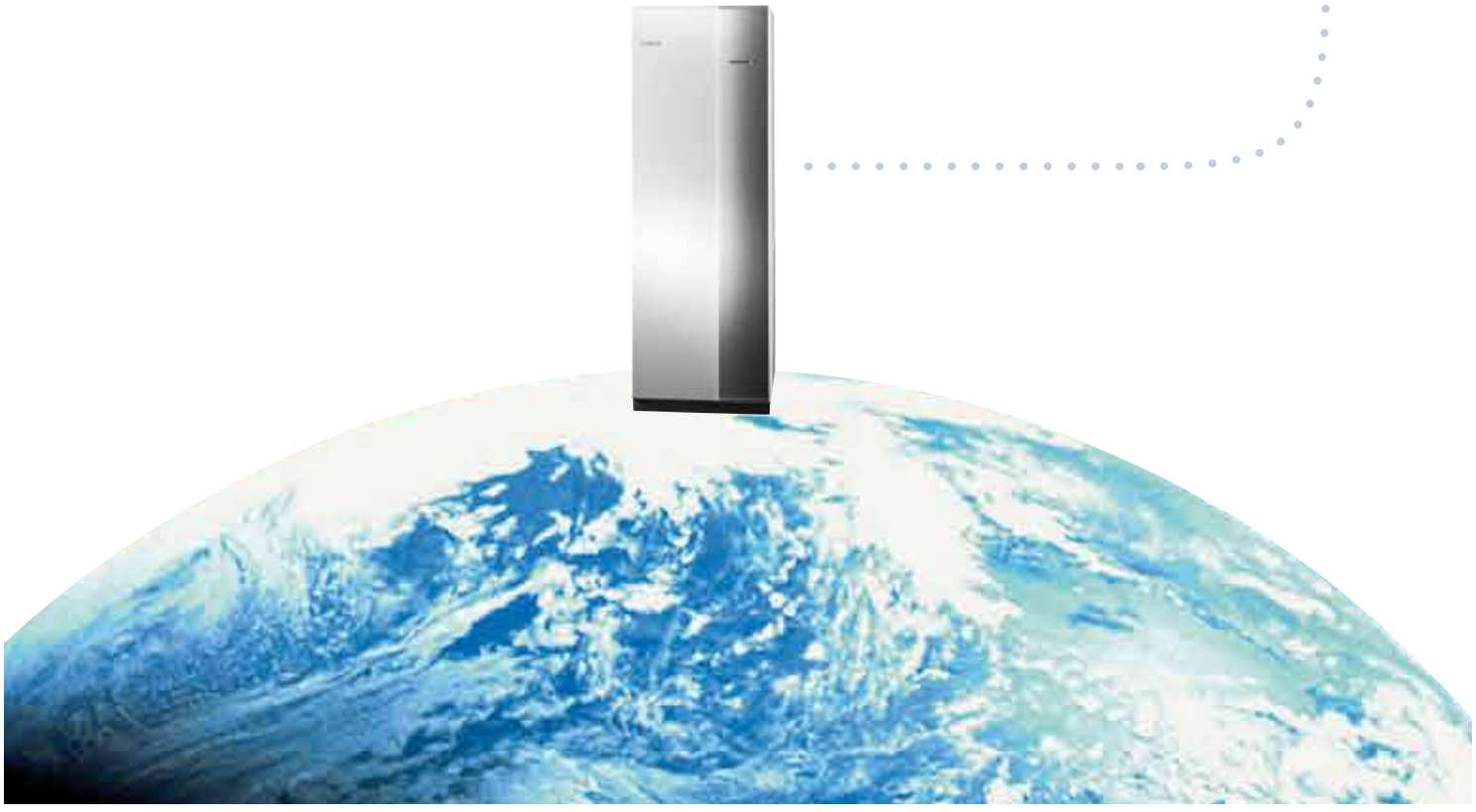
We all know we've got to reduce emissions. The question is how.

'Green' thinking might once have been a luxury but nowadays it is a necessity that none of us can afford to ignore. Increasingly, the reduction of CO_2 emissions is becoming a legal obligation and environmental requirement.

Over 70% of the CO_2 emissions from an average home are caused by its heating and hot water systems. If we are to reduce this figure, we need to start implementing greener, more sustainable technologies across the board. Only then, will we see a significant reduction in CO_2 emissions.

Meanwhile the prices of traditional energy sources are rising steadily, with the result that more and more people are considering alternative, more efficient power sources.

Now that customers have started demanding a solution, builders, architects and property developers can no longer ignore the need to employ alternative technologies that make better use of our planet's energy resources.



START WITH A HEAT PUMP!

It is a proven fact that heating your house with a heat pump is the best environmental option.

One obvious reason is that a heat pump does not use a combustion process to generate heat. It simply extracts the heat that already exists in the outside air and puts it to use to heat your home. This greatly reduces emissions in comparison to traditional fossil fuel-based systems.

Secondly, the amount of electricity needed is relatively low. That's because electricity is not the main energy source. It is only needed to drive the pump and enable the heat extraction process.

Actual energy savings vary depending on the benchmark, but generally measure between 60% and 75%.

A third point to consider is that heat pumps, like every manufactured item, contain what we call 'embedded energy'. That's the energy required to make and transport the product from the factory to where it will be used. NIBE is continually improving its processes to minimise the amount of embedded energy in its products and seeking more environmentally-friendly ways to build and transport them.

Once installed in your home, a NIBE heat pump immediately starts to deliver an environmental payback in the form of reduced energy consumption and emissions.

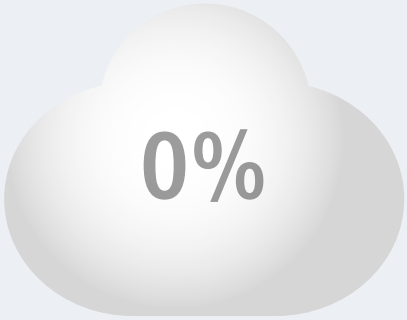
Towards a zero carbon future

The drive to reduce the consumption of energy and its impact on the environment is crucial and increasingly important to us all. If you switched to a renewable energy source, such as wind, solar or tidal, you would be taking a step closer towards a zero carbon future.

Classified as renewable energy

Some governments and regional authorities offer subsidies to home owners to switch from fossil fuel-based heating to renewable sources of energy. Since heat pumps are now officially classified as renewable energy, there couldn't be a better time to change!

For more information, please visit the NIBE website in your country.



‘Do what you can
with what you’ve got’.

Heat from the sun, the air, the ground
or the lake?

It’s all natural!

NIBE OF SWEDEN

Living in harmony with nature

The Swedes have a long and impressive track record of clever, money-saving innovations that use resources sparingly. The simple reason for this is that Sweden was historically a poor agrarian country. A harsh winter climate made food scarce for many months, necessitating careful, forward planning.

Today, Sweden is a technologically advanced country with a successful economy, so this is no longer necessary. However, the mindset continues to be manifested in the form of fabulous, cost-saving innovations.

NIBE is a perfect example of the economical Swedish mind at work!

The company was founded by Nils Bernerup in 1952, after a particularly cold winter. Over the past 60 years, it has become Sweden's leading supplier of domestic heating products, continually driving the development of ever-more efficient heating methods.

Early products included water heaters and pressure vessels. Electric boilers joined the range in the 1970s. Heat pumps and a wide selection of other heating products that meet the needs of European markets have been added successively to the company's portfolio.

Nowadays, NIBE has a leading position in the market for heating and cooling solutions around Europe. We are committed to offering innovative solutions that not only save energy but which also reduce CO_2 emissions.

Together with our customers, we're working towards a more sustainable future, one home at a time.

SMART, ECONOMICAL ENERGY SOLUTIONS FROM NIBE

Complete range of products and systems

NIBE Energy Systems offers a complete range of energy-efficient solutions for heating, ventilation, cooling and heat recovery that reflect today's demand for sustainable construction. Our products and services make it easy for private and commercial property owners to choose a system that best suits their needs for indoor climate comfort and hot water. Visit www.nibe.eu for more information.

Exhaust air heat pumps

Ideal for heating domestic premises and tap water, an exhaust air heat pump ventilates your building and recovers energy in warm air, reusing it to heat your household water or fuel your central heating system.

Ground source heat pumps

Drawing heat from surface soil, bedrock or the water in a nearby lake, ground source heat pumps are a great option for heating houses, multiple-unit properties and other larger buildings. Available with or without an integrated water heater.

Air/water heat pumps

These pumps extract heat from the ambient outside air. Connected to your building's heating system they produce both heating and hot water, a big improvement on simpler types of air-to-air heat pumps.

Water heaters

For over fifty years, NIBE has been manufacturing products to supply hot water. During that time, we've kept pace with advances in heating efficiency and continually developed new models. We're pursuing the same mission today - to develop even better, even more efficient water heaters, for those chilly mornings in millions of bathrooms all over the world.

Domestic boilers

With a NIBE domestic boiler you have the flexibility to use almost any other kind of additional energy source as and when it's needed. Examples of docking options include air/water heat pumps, solar panels and, of course, electricity.

Solar panels

Our solar thermal collectors absorb the sun's rays, delivering free, clean energy to your heating system. They become an integral part of your total energy supply supported by our heat pumps which supply this extra free energy in a smart, controlled way. You can also use our solar collectors in combination with a NIBE bio mass boiler (logs or pellets) or a NIBE water heater powered by electricity or gas.

GROUNDSOURCE HEAT PUMP

EXHAUST AIR HEAT PUMP

SOLAR PANEL

WATER HEATER

DOMESTIC BOILER

AIR/WATER HEAT PUMP

AIR/AIR HEAT PUMP

YOUR NEXT STEP?

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

20/20/20

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 NIBEs 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.

639337 GKB GB NIBE SOLAR HEAT PUMP SYSTEMS 1632--4

ENERGY FOR LIFE

We've been designed and developed for you and your home. No matter what type of house you have or what your energy requirements are, we'll give you the perfect indoor climate. Year in and year out. We're a smart family, packed with technical innovations that you can easily control as and when you want. Keep tabs on us or tell us what to do through your mobile phone or tablet. From your office or hammock. Our long experience and thousands of hours spent on development are reflected in our extensive range of products.

You can find out more about the NIBE family and other innovations at nibe.eu

NIBE

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