



Ground source heat pumps



MADE IN SWEDEN



NIBE FIGHTER 1240

The Swedish heat record

The Swedish heat record of +38°C was set in 1947. A few years later, in 1952, Nils Bernerup founded the company that was to become Sweden's leading supplier of domestic heating products. Initially the company manufactured water heaters and copper pressure vessels, and in the 1970s these were supplemented by electric boilers, followed by heat pumps. Since the beginning, NIBE has managed to break a number of its own "heat records". Not least of all by continuously leading developments to produce increasingly efficient products for heating homes and water.

A crystal clear winter's night

The Nordic climate is hardly famous for its temperature records. It is better known for cold, crystal clear winter nights. The fact that NIBE is also the leading player in heating solutions in the rest of Europe is partly due to the fact that our heat pumps are developed, tested and manufactured to cope with the very coldest Swedish nights.

NIBE is based in Markaryd, Sweden, and brings a 60-year-old tradition of unyielding care and quality to everything it does. From the outstanding engineering used in constructing our pumps to the software used to control them, we make attention to detail and quality our watchword. Each heat pump is put through stringent operational tests before delivery.

The complete manufacturing process is ISO certified: ISO 9001 for quality and ISO 14001 for environmental standards.

30 years' experience of heat pumps

The technology behind using heat pumps for home and water heating is relatively new. Demand is increasing steadily, along with higher energy prices and greater environmental awareness. International players have recently started manufacturing, but NIBE is still ahead of the competition. As well as 30 years' experience of the development and manufacture of heat pumps, we have a significant technological lead.

Five times the money

As you probably know already, a ground source heat pump from NIBE produces a dramatic reduction in heating costs, up to 75%, as well as a safe, problem-free, environment-friendly heating solution with a long useful life. The heat pump doesn't pay for itself in the first month, but you will notice it the first month because your heating bill will be lower.

Our NIBE FIGHTER 1240 heat pump has the highest heating factor in the market, COP 5.03*. In simple terms, this means that the heat pump generates five times more energy that it consumes. For every pound you invest, you get back five

But this isn't the only benefit you enjoy if you choose one of our ground-source heat pumps. You will have a simple, user-friendly system. A control panel that anyone can understand how to use. A guaranteed low noise level. A stylish design. And perhaps even a new room in your house, in what used to be the boiler room.

At NIBE we hope you enjoy your choice of heating solution. And we hope that we can help you set a new record, in terms of low heating costs for your home.

* At 0°C for incoming refrigerant and 35°C for outgoing heat carrier temperature for the FIGHTER 11/1240-10. The electric input for the circulation pumps is not included.



NIBE FIGHTER 1250

Solutions to match your situation

The situations described below give you an idea of which of NIBE's various heating solutions would be best suited to your house. There are, of course, many factors to consider, for example, how big the house is that you want to heat, whereabouts in the country you live, whether you're building a new house, etc. The easiest way to find the answer is to phone and ask one of the many installers who work with NIBE's products.

"I'm thinking about replacing my boiler for oil, electricity or wood."

If you already have water-based radiators or under-floor heating at home, there is much to be said for you switching to ground-source heating. This means that you install a heat pump that collects heat from the bedrock via a bore hole. You can also collect heat via a hose buried in the ground or laid at the bottom of a lake.

NIBE has heat pumps to suit all needs. To calculate what capacity you need, we base our considerations on the total energy needs of the house during the very coldest days.

However, if your house is smaller than 100 square metres, it will not be profitable for you to switch to ground source heating. In your case, NIBE's outdoor heat pump is probably a better option.

"I want to keep my boiler, but cut my costs."

If you have a boiler fired by oil, electricity or wood, you also have a water-based heating system. Just keep the boiler you already have and supplement it with a NIBE outdoor heat pump.

This type of a heat pump draws its heat from the air and then generates sufficient energy to heat your radiators or your under-floor heating. Incidentally, NIBE's outdoor heat pump works at temperatures down to -20°C .

Installing an outdoor heat pump will be a significantly reduces your heating costs for a reasonable investment. You can find further details in this brochure or online at www.nibe.eu

"The boiler needs replacing, ideally with an outdoor heat pump."

Do you want to replace your old oil, electricity or wood-fired boiler with an outdoor heat pump? This would be combined with an indoor module, a small

electric boiler, which supplements the system when the air outside is too cold. But as already mentioned, an outdoor heat pump still generates heat even at -20°C .

If you choose the NIBE F2025 heat pump, you combine it with one of the indoor modules NIBE VVM 300, NIBE EVP 270 or NIBE EVP 500. All models also satisfy the house's hot water needs.

Our powerful outdoor heat pump, combined with one of these specially configured modules, gives you the most efficient package solution on the market. And, you can cut your heating costs by up to 65%. Talk to NIBE installer or read more at www.nibe.eu.

"I'm building a new house and I want a smart heating solution."

In newly-built houses it is important that the indoor air is replaced often and that as little energy as possible is used per square metre.

The most common, and often the most cost-effective solution is to recycle the energy from the ventilation air and to install an exhaust air heat pump.

When building larger houses, it may be best to have a ground-source heat pump supplemented by NIBE's FML exhaust air module.

As well as the choice of an exhaust air heat pump, you have lots of different heating systems to choose from: water radiators, under-floor heating in concrete or under-floor heating in wooden joists. The choice you make is, of course, a question of cost, opinion and taste. Combine the systems in whichever way you want – NIBE's heat pumps can deal with any solution.

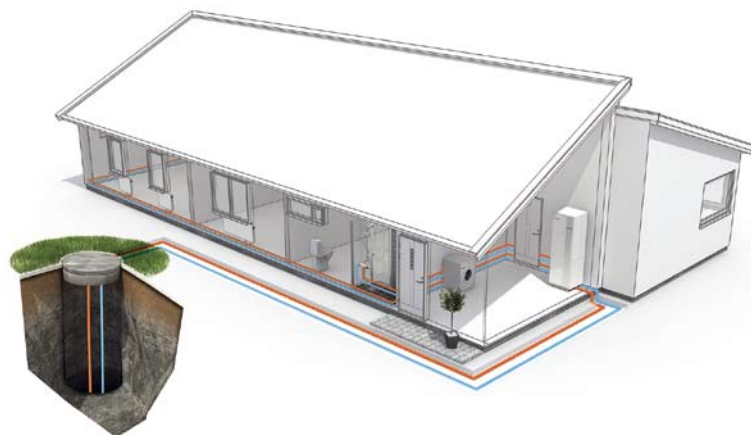
You can find more details about exhaust air heat pumps and heating systems at www.nibe.eu.

"Unfortunately I can't install ground-source heating in my house."

Maybe you live in an area where you're not allowed to drill or dig for ground source heating, perhaps because there is a water collection close to your house, for example. Or perhaps there is no suitable bedrock under your land, or your plot of land is too small to be able to excavate and lay a hose underground.

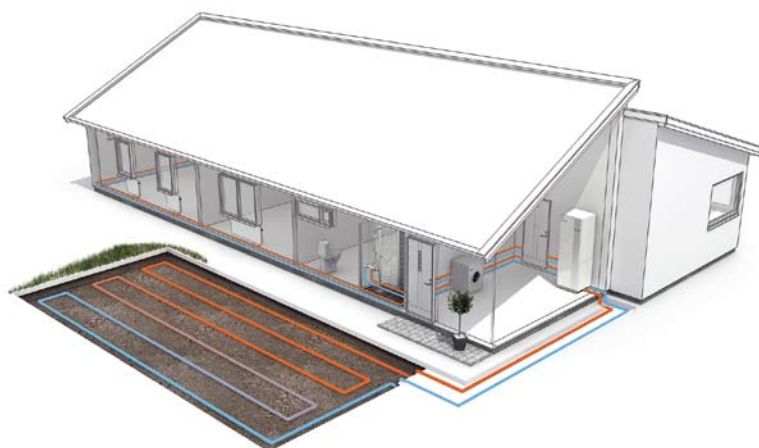
A good choice in this case, is an outdoor heat pump, as described above. Read more in our special brochure or at www.nibe.eu.

Three different heat sources



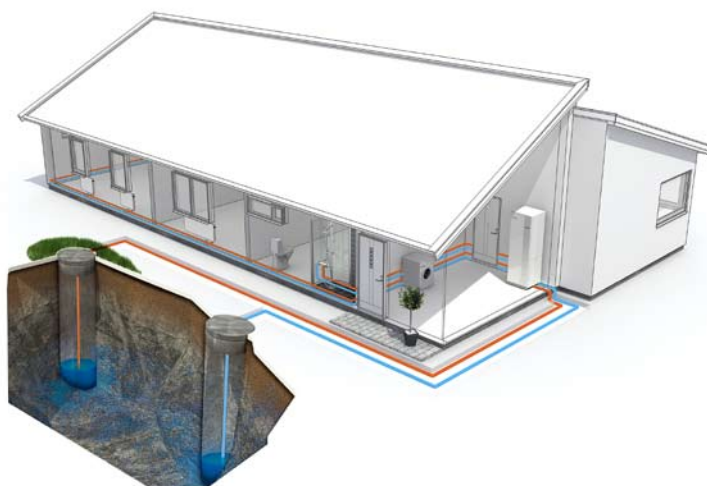
Rock

The heat pump collects stored solar energy from a collector in a hole drilled into the rock. The depth of the hole can vary between 70 – 200 metres, depending on the heat pump selected.



Surface soil

The heat pump collects stored solar energy from a buried collector, that is, a hose filled with refrigerant. Buried at a depth of about 80 – 100 cm, the length of the hose varies between 200 – 800 m, depending on the heat pump selected.



Groundwater

The heat pump collects stored solar energy from the groundwater. Normally, there is one well for drawing up water and one for returning it.

The fifth element

Ground source heating is pure solar energy. This is because solar heat is stored in the ground. First on the surface, as you tidy up your garden in the spring. Then further down, as you spend the summer evenings in your hammock. And when you're brushing up the last of the autumn leaves, enough free energy has been stored to heat your house even in the coldest winter.

Perhaps we should add one thing. Even the most miserable summer will be warm enough for sufficient heating energy to be stored beneath your land.

The collector brings up the heat

Using a hose filled with liquid, known as a collector, you can bring up solar energy stored deep down in the rock, at the bottom of the lake or a metre or so beneath your lawn.

The one collective term 'ground source heat' is often used to cover all three sources of heat, that is, rock heat, surface soil heat and lake heat.

The specific heat source that you should use is decided by the house's energy needs, your heating system and the nature of your plot of land.

The heat pump concentrates the energy

It is the heat pump that concentrates the stored heat energy in such a way that it can heat the water, in both showers and radiators.

This is how it works. The liquid in the hose circulates and is heated up by the stored solar heat down in the ground or in the lake. When the liquid passes up into the heat pump, it meets another closed system. This contains a refrigerant that can turn into gas at a very low temperature.

Under high pressure, a compressor considerably increases the temperature of the refrigerant, which is now gaseous. Then, using a condenser, the heat is transferred to the house's heating system, while at the same time the refrigerant reverts to liquid form, ready to turn into gas once more and to collect new heat energy.

The result is the main thing

The principle behind ground source heating is basically very simple, but as we have developed the technology down the years, we have created increasingly sophisticated and advanced products. In parallel with this, our heat pumps have become increasingly simple to install and use. In effect, they look after themselves, year after year.

What NIBE can offer now is a level of performance that guarantees both safe operation and astonishing savings. In terms of both heating costs and the environment. We have the right solution for all needs and for all houses/properties.

The Climate-friendly alternative

Awareness of the greenhouse effect has grown in recent times, with alarming reports and increasing concern all over the world. At NIBE we are noticing that interest in our ground source heat pumps no longer relates solely to the major savings they generate. It is also about the long-term benefits for the environment.

In this context it is of course pleasing that ground source heating has been proven to be the form of heating that is best for the environment

If all single-family houses in the Nordic region were to install a heat pump, total energy consumption would fall by as much as 43%. This is the conclusion of a survey conducted by SIS Miljömarkning. Furthermore, nitrogen oxide emissions would fall by almost 30%, hydrocarbon emissions by 80% and carbon dioxide emissions by 36%.

No combustion

How this is achieved is simple. In contrast to biofuel and district heating, a heat pump does not use any combustion process or other energy to generate heat. Ground source heating is nothing more than stored solar energy. All that is needed is to collect it and to use a heat pump to transform it into usable heat.

However, the ground source heat technology is not entirely without environmental impact. We need to use electricity to collect the solar energy. But in comparison with other "transport costs", this is a relatively modest impact.

Long-term development

Every house heated by electricity that goes over to ground source heating reduces its electricity requirement by up to 75%. The more people who switch to ground source heating, the more electricity we can buy from clean sources. We then reduce our reliance on coal, oil and woodchip-fired power plants to provide our electricity needs.

At NIBE, we have a continuous research and development process that aims to further minimise the need for additional energy sources in our ground source heat pumps.





Possibilities

with your heat pump

A NIBE ground source heat pump is not just for heating your house and the hot water. With our broad range of accessories, you can, for example, to control your heat pump remotely, heat the pool and cool the house. Your NIBE installer can give you more information.



The NIBE FLM 30 and FLM 40 are exhaust air modules that take energy from the indoor air and increase the output of your heat pump. The integrated fans draw in air from the house's wet areas, like the bathroom, to the recycling unit, where the energy is transferred and increases the heat pump's heat factor.

Cheaper pool heating

If you have a pool or are planning to get one, it's a good idea to tell your installer about this in good time. This gives you an opportunity to adapt the size of the heat pump and the depth of the bore hole according to the pool's heating requirement. Heating your pool using ground source heating saves money and banishes those icy cold dips. The NIBE Pool 11 is an accessory that we have developed to make it easy to control the heating of your pool.

Better indoor climate

The NIBE FLM 30 and NIBE FLM 40 exhaust air modules are complete exhaust air module solutions developed to work together with NIBE FIGHTER ground source heat pumps, regardless of output size. The exhaust air modules recycle mechanical exhaust air and improve your indoor climate. At the same time they reduce your heating costs. The NIBE FLM 40 has an integrated DC fan, which enables you to adjust the fan's speed and thus obtain more or less ventilation. The module can be fitted directly to the heat pump. You can also hang it on the wall.

Hot water storage tank

The NIBE VPA is a storage tank that you can connect to your heat pump. The VPA stores hot water and is used together with heating pump models that do not have water heaters, or when there is a high demand for hot water. The VPAS gives you the same function, but, as it is fitted with a solar loop, you can use solar energy for both heating and hot water.

The storage tank consists of a hot water tank with anti-corrosion protection made of copper or enamel. The water tank's insulation consists of polyurethane, which provides very good heat insulation.

The NIBE UKV is a surge vessel that is used together with heat pumps to increase the volume of water in the system for more even operation. The UKV is available in capacities of 40, 100, 200, 300 and 500 litres.

The heat pump cools the house

A ground source heat pump is not just for heating up your house and the hot water. You can also use it to cool your house. There are various ways of doing this. The simplest way to cool your home is to supplement your heat pump with a fan convector. This provides efficient, comfortable cooling during the summer months.

The NIBE HPAC (models 28 and 42) climate switching module gives you a complete climate system. The HPAC module is connected to an external collector and the house's distribution system for heating and cooling. The heat exchange from the heat source (rock, soil or lake) takes place in a closed refrigerant system, in which water mixed with anti-freeze circulates to the heat pump. This extracts the cold in the ground or in your bore hole.

The NIBE PKM range (models 05, 10, and 20) enables you to obtain passive cooling from a rock collector, groundwater collector or surface soil collector. The ideal distribution system is a floor system, which then becomes the emitter of both cooling and heat. Cooling starts when the external temperature exceeds a preset temperature and is then regulated with a selected cooling curve. The PKM 05 is intended for a floor system, which then becomes the emitter of both cooling and heat.

Alternatively, you can install a NIBE FIGHTER 1127, which incorporates heating and integrated active cooling.

Remote control of the heat pump

You can use our NIBE RCU 10 communication module to control and monitor your heating system remotely. From your hotel or summer cottage, you can control room temperature, operating mode, heating and water. The system also allows monitoring with an alarm function. Read more at www.nibe.eu.



The NIBE VPA is a hot water storage tank that is connected to the heat pump. This tank is used together with heat pump models that do not have a water heater, or when there is a particularly high demand for hot water.



The NIBE UKV is a range of surge tanks for heat pumps operation of the heat pump more even.



The NIBE HPAC is a climate switching module that together with the FIGHTER 1140/1240 ground source heat pump creates a complete climate system in your house. With this, you can both heat and cool your house using your heat source.

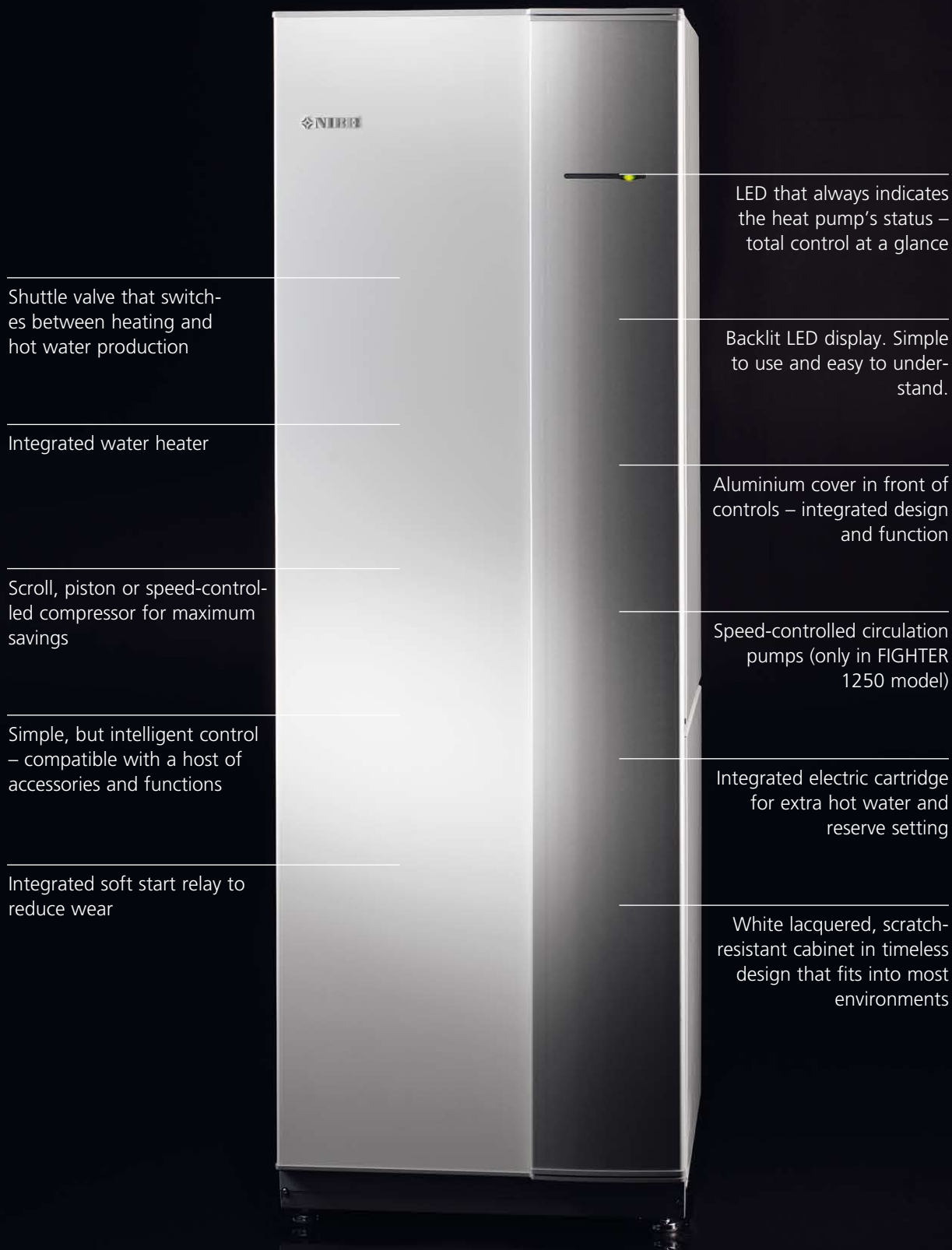


The NIBE PKM is a cooling module that makes it possible to receive passive cooling from your heat source.



Advanced technology

– easy to use



Shuttle valve that switches between heating and hot water production

Integrated water heater

Scroll, piston or speed-controlled compressor for maximum savings

Simple, but intelligent control – compatible with a host of accessories and functions

Integrated soft start relay to reduce wear

LED that always indicates the heat pump's status – total control at a glance

Backlit LED display. Simple to use and easy to understand.

Aluminium cover in front of controls – integrated design and function

Speed-controlled circulation pumps (only in FIGHTER 1250 model)

Integrated electric cartridge for extra hot water and reserve setting

White lacquered, scratch-resistant cabinet in timeless design that fits into most environments



NIBE FIGHTER 1127

- Heat for heating system Yes
- Active cooling Yes
- Sizes 1-phase 8: Heating 8 kW/Cooling 11 kW
1-phase 12: Heating 12 kW/Cooling 15 kW
- Integrated water heater No
- Compressor Piston/Scroll
- Delivery temperature 60°
- Soft start Yes
- Output monitor Accessory
- Electric cartridge Accessory

Efficient heat pump for heating and cooling of small houses. Easy to install and use. With integrated shuttle valve for the climate system, making it possible to both heat and cool the house. Possible energy sources include ground, rock or lake.

The FIGHTER 1127 has no integrated water heater. This is an advantage if there is a low ceiling or if a larger volume of hot water is required. Suitable hot water volume is selected from NIBE's VPA range. For detached houses and semi-detached/terraced houses with water-based systems, radiators, under-floor heating or convectors.

Height: 1,000 mm Width: 600 mm Depth: 625 mm



NIBE FIGHTER 1217

- Heat factor 4.80*
- Sizes 3-phase 5,6,8,10,12 kW
- Integrated water heater Yes
- Compressor Piston/Scroll
- Delivery temperature 60°
- Soft start Yes, 6–12 kW
- Output monitor Accessory
- Electric cartridge Yes

Easy to install and use. Efficient with a heat factor (COP) of 4.8*. This means that it generates almost five times as much energy as it consumes. For detached houses and semi-detached/terraced houses with water-based systems, radiators, under-floor heating or convectors.

The integrated water heater has stainless steel anti-corrosion protection.

*At 0°C for incoming refrigerant and 35°C for outgoing heat carrier temperature for the FIGHTER 1217-10.

Height: 1,750 mm Width: 600 mm Depth: 625 mm



NIBE FIGHTER 1140

- Heat factor 5.03*
- Sizes 3-phase 6,8,10,12,15,17 kW
1-phase 5,8,12 kW
- Integrated water heater No
- Compressor Piston/Scroll
- Delivery temperature 70°**
- Soft start Yes
- Output monitor Yes
- Electric cartridge Yes

Identical with the FIGHTER 1240 on the right, but without water heater. This is an advantage if there is a low ceiling or if a larger volume of hot water is required. Suitable hot water volume is selected from NIBE's VPA range. For detached houses and semi-detached/terraced houses with water-based systems, radiators, under-floor heating or convectors. Facility to communicate via the Internet/text message using accessory RCU.

*At 0°C for incoming refrigerant and 35°C for outgoing heat carrier temperature for the FIGHTER 11/1240-10.

**The compressor produces up to 65°C, the rest is achieved by means of supplementary heating. Max. return temperature 58°C.

Height: 1,000 mm Width: 600 mm Depth: 625 mm



NIBE FIGHTER 1240

- Heat factor 5,03*
- Sizes 3-phase 6,8,10,12 kW
1-phase 5,8,12 kW
- Integrated water heater Yes
- Compressor Piston/Scroll
- Delivery temperature 70°**
- Soft start Yes
- Output monitor Yes
- Electric cartridge Yes

Ground source heat pump with the highest heat factor on the market, COP of 5.03*. Can deliver a water temperature of up to 70°C** to the heating system. Fitted with intelligent control. For detached houses and semi-detached/terraced houses with water-based systems, radiators, under-floor heating or convectors. Facility to communicate via the Internet/text message using accessory RCU.

*At 0°C for incoming refrigerant and 35°C for outgoing heat carrier temperature for the FIGHTER 11/1240-10.

**The compressor produces up to 65°C, the rest is achieved by means of supplementary heating. Max. return temperature 58°C.

Height: 1,750 mm Width: 600 mm Depth: 640 mm



NIBE F1150

• Size	4–16 kW
• Annual heat factor	3-phase 3.32*
• Integrated water heater	No
• Compressor	Speed-controlled scroll
• Delivery temperature	65°
• Soft start	Yes
• Output monitor	Yes
• Electric cartridge	Yes

The NIBE F1150 is a complete heat pump for heating detached and terraced houses with rock, the ground or lakes as heat source. The heat pump adjusts itself automatically to the power demand of the house. This results in optimal savings as the heat pump always runs at the correct performance all year round without the addition of extra electrical peaks.

It is prepared for connection to several different products and accessories, for example, hot water heater, ventilation recovery, pool, free cooling and heating systems with different temperatures.

*At 0°C for incoming refrigerant and 45°C at 60Hz speed frequency.
Height: 1,000 mm Width: 600 mm Depth: 625 mm



NIBE FIGHTER 1250

• Size	4–16 kW
• Annual heat factor	3-phase 3.32*
• Integrated water heater	Yes
• Compressor	Speed-controlled scroll
• Delivery temperature	65°
• Soft start	Yes
• Output monitor	Yes
• Electric cartridge	Yes
• Liability insurance	Yes

NIBE's most advanced ground source heat pump, with the best annual heat factor on the market. An intelligent heat pump fitted with speed-controlled compressor and speed-controlled circulation pumps. This makes it possible to avoid using an electric heating element. For detached houses and semi-detached/terraced houses with water-based systems, radiators, under-floor heating or convectors. Facility to communicate via the Internet/text message using accessory RCU.

*At 0°C for incoming refrigerant and 45°C at 60Hz speed frequency.
Height: 1,750 mm Width: 600 mm Depth: 640 mm



NIBE FIGHTER 1330

- Heat factor 4,50*
- Sizes 3-phase 22,30,40 kW
- Integrated water heater No
- Compressor Scroll
- Delivery temperature 65°
- Soft start Yes
- Output monitor Yes
- Electric cartridge Accessory

Our most powerful ground source heat pump. A real power station for apartment blocks, industrial premises, churches, etc. The biggest model is 40 kW. 2 – 9 heat pumps can be connected and controlled in one system. Facility to communicate via the Internet/text message using accessory RCU.

*At 0°C for incoming refrigerant and 35°C for outgoing heat carrier temperature for the F 1330-30.

Height: 1,580 mm Width: 600 mm Depth: 625 mm



NIBE F1330 - 60kW

- Heat factor 4,50
- Sizes 3-phase 60 kW
- Integrated water heater No
- Compressor Scroll
- Delivery temperature 65°
- Soft start Yes
- Output monitor Yes
- Electric cartridge Accessory

With its two large scroll compressors, NIBE F1330 is the ideal geothermal heat pump for multi-occupancy buildings, industrial premises, churches and other large heat-consuming buildings. The NIBE F1330 is a flexible product with advanced control equipment and can be adapted to several system solutions. The NIBE F1330 is prepared for control of oil, gas, pellet-fired or electric boilers.

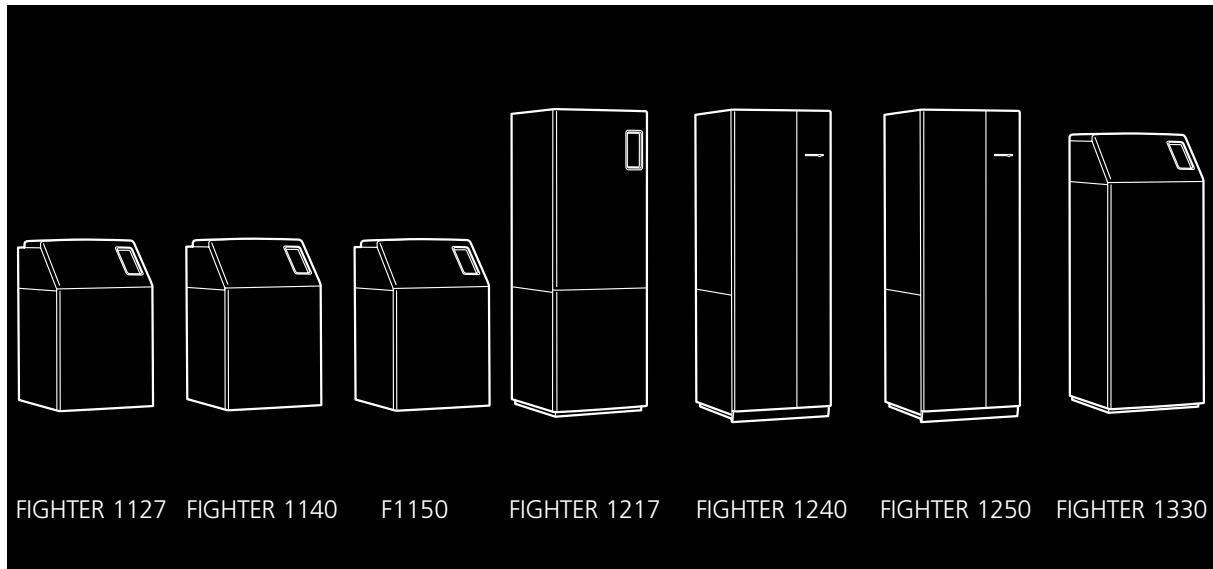
Height: 1,645 mm Width: 600 mm Depth: 625 mm



NIBE F1330 - 60kW

Compare our ground source heat pumps

Here is a simple table to compare the versions, functions, equipment, performance, etc. of the various models.



FIGHTER	1127	1140	1150	1217	1240	1250	1330 22-40 kW	1330 60 kW
• Refrigerant	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R410a
• Soft start	Yes	Yes	Yes	Yes**	Yes	Yes	Yes	Accessory
• Integrated water heater	No	No	No	Yes	Yes	Yes	No	No
• Output monitor	Accessory	Yes	Yes	Accessory	Yes	Yes	Yes	Yes
• Electric cartridge	No	Yes	Yes	Yes	Yes	Yes	Accessory	Accessory
• Delivery temperature/hot water	60°	70°*	65°	60°	70°*	65°	65°	65°
• Speed-controlled compressor	-	-	Yes	-	-	Yes	-	-
ACCESSORIES								
• Output monitor	Yes	-	-	Yes	-	-	-	-
• Integrated electric additive 9kW	Yes	Yes	-	-	-	-	-	-
• RCU communication module	-	Yes	Yes	-	Yes	Yes	Yes	Yes
• FLM exhaust air module	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Hot water control	Yes	Yes	Yes	-	-	-	Yes	Yes
• Pool control	-	Yes	Yes	-	Yes	Yes	Yes	Yes
• RG10 room sensor	-	Yes	Yes	-	Yes	Yes	Yes	Yes
• RG20 room sensor	Yes	-	-	Yes	-	-	-	-
• Control of 2 heating systems	-	Yes	Yes	-	Yes	Yes	Yes	Yes
• Re 10	-	Yes	Yes	-	Yes	-	-	-

* The compressor produces up to 65°C, the rest is achieved by means of supplementary heating. Max. return temperature 58°C.

** Not for the NIBE FIGHTER 1217-5.

A cash machine in the utility room

– you save up to 75%

Below is a simple overview of what our various ground source heat pumps can save you. The templates are based on the climate in Stockholm, Sweden and are only approximate guideline values.

For a more accurate savings projection, please contact a NIBE installer.

Detached house heated by the NIBE FIGHTER 1150/1250

(Household electricity added at approx. 5,000 kWh/year)

NIBE FIGHTER 1150/1250	3	3.5	4	4.5	5
Current total oil requirement (m ³ /year)	3	3.5	4	4.5	5
Or corresponding total electricity requirement (kWh/year)	22,500	26,250	30,000	33,750	37,500
Ground source heat, drilled depth (active)*	130-140	140-150	150-160	160-170	170-190
Ground heat, hose length m*	350-400	400-2x250	2x250-2x300	2x275-2x325	2x300-2x350
Saving, kilowatt hours/year*	16,100	18,900	21,600	24,300	27,000

*Values quoted are only approximate guideline values. For correct dimensioning, always consult your installer.

Detached house heated by the NIBE FIGHTER 1140/1240

(Household electricity added at approx. 5,000 kWh/year)

NIBE FIGHTER 1140/1240	6 kW		8 Kw		10 kW		12 kW (not 1240)		15 kW (not 1240)		17 kW (not 1240)	
Current total oil requirement (m ³ /year)	2.5	3	3.5	4	4.5	5	6	6.5	6.5	8	8	9
Or corresponding total electricity requirement (kWh/year)	18,750	22,500	26,250	30,000	33,750	37,500	45,000	48,750	48,750	60,000	60,000	67,500
Ground source heat, drilled depth (active)*	90-110		120-140		140-170		160-190		2x100-2x120		2x110-2x140	
Ground heat, hose length m*	250-400		325-2x250		400-2x300		2x250-2x350		2x300-2x400		2x350-3x300	
Saving, kilowatt hours/year*	13,200	15,600	18,700	21,100	24,300	26,600	31,100	33,300	34,500	41,700	42,000	46,500

*Values quoted are only approximate guideline values. For correct dimensioning, always consult your installer.

Detached house heated by the NIBE FIGHTER 1217

(Household electricity added at approx. 5,000 kWh/year)

NIBE FIGHTER 1217	5 kW		6 Kw		8 kW		10 kW		12 kW	
Current total oil requirement (m ³ /year)	2	2.5	2.5	3	3.5	4	4.5	5	6	8.5
Or corresponding total electricity requirement (kWh/year)	15,000	18,750	18,750	22,500	26,250	30,000	33,750	37,500	45,000	48,750
Ground source heat, drilled depth (active)*	70-90		90-110		120-140		140-170		160-190	
Ground heat, hose length m*	200-300		250-400		325-2x250		400-2x300		2x250-2x350	
Saving, kilowatt hours/year*	9,800	12,000	12,800	15,200	18,200	20,600	23,800	26,200	31,100	33,300

*Values quoted are only approximate guideline values. For correct dimensioning, always consult your installer.

Property heated by the NIBE FIGHTER 1330

(Household electricity added at approx. 5,000 kWh/year)

NIBE FIGHTER 1330	22 kW			30 kW			40 kW			60 kW		
Current total oil requirement (m ³ /year)	10	12	14	16	18	20	21	23	25	30	34	38
Or corresponding total electricity requirement (kWh/year)	75,000	90,000	105,000	120,000	135,000	150,000	157,500	172,500	187,500	225,000	255,000	285,000
Ground source heat, drilled depth (active)*	2x150-3x150			3x150-5x150			4x170-5x200			6x150-8x180		
Ground heat, hose length m*	3x300-4x400			3x450-4x450			5x450-7x450			6x450-8x450		
Saving, kilowatt hours/year*	53,800	63,300	71,400	83,500	91,700	98,900	108,200	116,000	123,100	159,000	177,000	192,000

*Values quoted are only approximate guideline values. For correct dimensioning, always consult your installer.

An easy way to order ground source heating

Contact your local NIBE office at www.nibe.eu. They will help you to locate your local NIBE installer.

Drilling for ground source heating

When you are intending to install ground source heating it is important that the analysis is conducted by a NIBE installer and that drilling is undertaken by a professional drilling contractor, who will be engaged as a subcontractor of the installer responsible for your project.

The required depth of the bore hole is determined by several different factors: the level of the bedrock, of course, but also the output requirement that the hole needs to deliver. The hole must therefore not

be under-dimensioned. The depth of the bore hole is usually about 70–200 metres with a diameter of the bore hole is 110-140 mm.

The drilling contractor will be used to working in existing gardens and will do everything to ensure that the visit leaves no other traces apart from the bore hole. Drilling takes a day or so, and in most cases there will be no impact on the garden. The so-called energy well and connections are concealed beneath the ground surface.





Rather a little hole in the ground than a big one in your finances

When Greger Pettersson in Halmstad wanted to build a new house, he was in no doubt about the kind of heating he would choose. As he also wanted to have the ability to cool his house in the summer at no significant extra cost, the choice was straightforward.

“As I see it, there’s not really an alternative to ground-source heating at present. I also had a ground source heat pump in my old house, and it worked excellently for years.”

He mentions the environment as the strongest argument for ground source heating. Now that the climate debate is raging, it’s good to know that ground source heating is the form of heating that has least impact on the greenhouse effect. And the fact that there are such dramatic savings doesn’t do any harm, believes Greger.

“For me it’s also about a nice feeling of independ-

ence. There’s no future in oil, and now I don’t have to worry about global market prices and other price increases.”

Greger also believes that operating reliability is a strong argument. The heat pump more or less takes care of itself once it’s installed.

“Installation is quick and absolutely undramatic. The installers are so skilled and experienced now. They create the actual bore hole in one day.

The actual heat pump is kept in a shed in the garden. Greger opted for NIBE’s flagship NIBE FIGHTER 1250 with speed-controlled compressor. It’s no bigger than a wardrobe.

“If I have to go outside to fetch something, the ground source heat pump’s little green LED is shining in the darkness. A nice reminder that I made a smart choice.”

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