

Function of the heat pump

A gift from Mother Earth:

Heat pumps use free energy from the environment, they work on site without emissions and do not need a separate heating room. The TERRA ML uses the energy in the environmental air with the help of electric current. This way, one kW of current becomes 4 kW warmth for heating.

Natural and clean: our modern heat pumps function on site without emissions. No soot, no smoke, no wood dust can impair the air.

Extreme savings: heat and energy from Nature are available to you free of charge – a benefit that really pays off:
3 x environmental energy and 1 x electricity = 4 x heating

Versatile: the TERRA ML air heat pump does not only heat, but also cools. Even during summer, you have comfortable temperatures throughout your home.

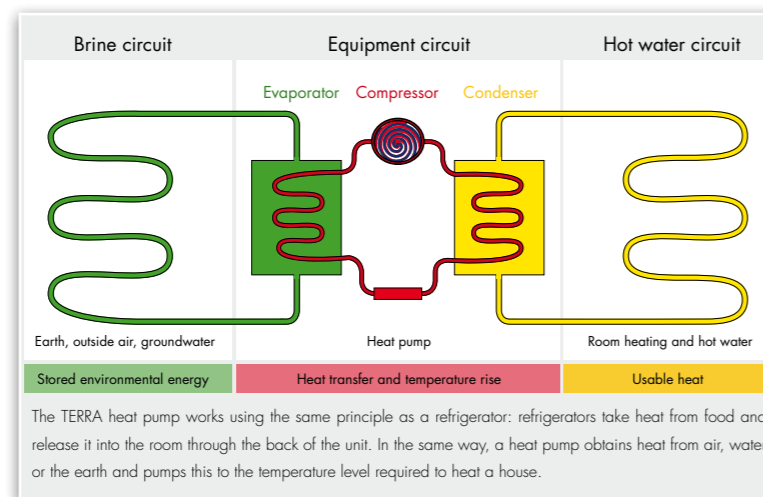
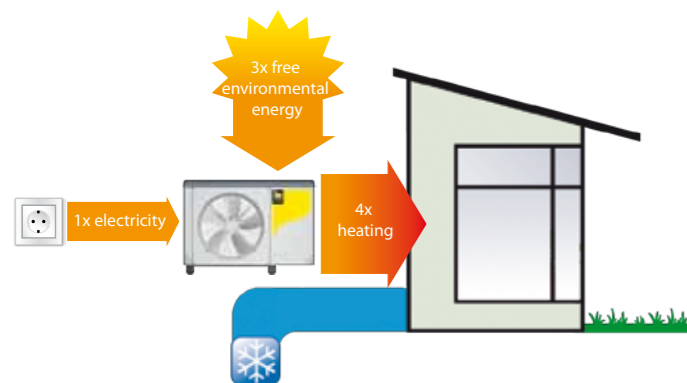


If the heat pump is operated using environmental energy (e.g. hydropower, photovoltaics), the entire process of energy acquisition is entirely emissions-free and CO₂-neutral. This ensures that the natural resources of the earth will still be available for us to use in the future.

Extreme savings:

Heat and energy from Nature (air, earth, water, sun) are available to you free of charge – a benefit that really pays off:

3x environmental energy + 1x electricity = 4x heating



Technical data

Technical data in compliance with EN 14511		TERRA-ML 6 BA	TERRA-ML 12 HGL
Modulating heat capacity in dependence on the immediate exterior temperature.	kW	2 to 8	3 to 17
Sound level (at 1 m distance)	dB	48	55
Electrical connection to the heat pump	V/Hz	1x230/50	3x400/50
Operating current	A	8.4	17
Electrical connection of the heating cartridge	V/Hz	3x400/50	3x400/50
Maximum flow temperature	°C	55	55
Minimum heating water quantity	l/h	1,200	2,100
Heating flow and return connection	R	1" A.G.	1" A.G.
Air volume at the external air unit	m ³ /h	3,300	5,500
Outside device weight	kg	68.	214
Coolant used		R 410 A	R 410 A
Cold piping, gas side	mm	16	18
Cold piping, liquid side	mm	10	12
Max. distance outside device - inner unit	m	30	30

The delivery scope of the **TERRA ML 6 BA** includes the outside device and the interior unit.

The **outside device** contains all the relevant cold circuit components up to the condenser such as the speed controlled TWIN rotary compressor, the finned evaporator with quiet running axial ventilator and the electronic expansion valve.

The interior unit contains a generously dimensioned copper brazed stainless steel plate as condenser, from which a heating circuit can be directly supplied as needed or the heated water diverted to the **hot water tank**. The pumps for loading the hot water tank or to supply the heating circuit are included. The tank is equipped with a sufficient **storage capacity of about 300 litres**. Additionally, the interior unit contains a **25 litre hot water station** to guarantee hygienic hot water preparation. Even at exterior temperatures outside the application range, the contained 6 kW electric heating element still maintains hot water temperatures of 55° C. This type of construction guarantees a practically noiseless interior unit.

The delivery scope of the **TERRA ML 12 HGL** includes the outside device and inner unit.

The outside device contains all the relevant cold circuit components up to the condenser such as the speed controlled TWIN scroll compressor, the generously dimensioned finned evaporator, the quiet running axial ventilator and the electronic expansion valve.

The inner unit contains a generously dimensioned copper brazed stainless steel heat plate heat exchanger as condenser, the hot gas plate exchanger for the HGL technology, the HGL control valve, a 6 kW heating element and the loading pump. This type of construction guarantees a practically noiseless inner unit.

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With the kind help of our models

Daniela & Verena Patterer, Julia Jestl, Markus & Annika Hainzer, Emma Lewis, Moritz Hysek, Walter Jans, Anton Oberhauser,

Layout & graphic design Lobster Vienna. Changes and errors excepted.



IDM-Energiesysteme GmbH

A-9971 Matrei in Osttirol

Seblas 16-18

PHONE +43(0)4875 6172

FAX +43(0)4875 6172-85

EMAIL team@idm-energie.at

www.idm-energie.at

TERRA ML air heat pump

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Leading technology from IDM. Expertise from installers.



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Heat performance just as needed.

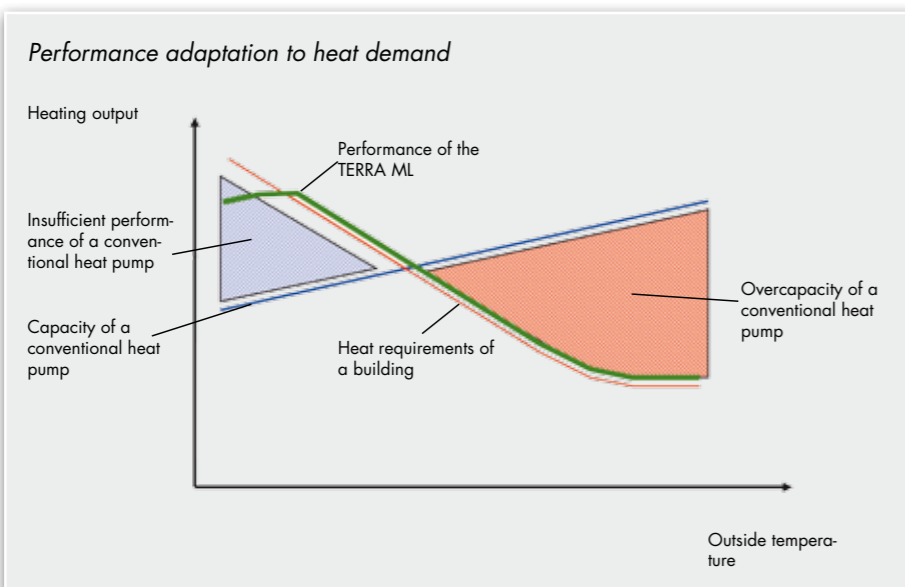
During a cold winter, naturally higher heat performance is needed in the home than in spring, fall or summer. The TERRA ML modulating air heat pump takes this into consideration and with Terra ML 6 as an example, delivers between 2 and 8 kW.

Your profits are manifold:

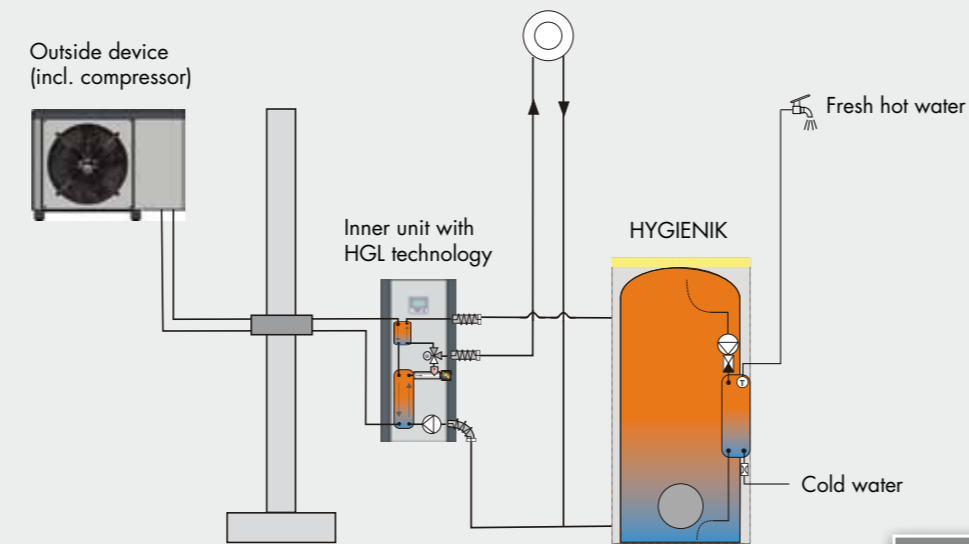
- Higher annual performance coefficient yields less electricity consumption.
- Higher comfort through adaptive control system.
- Higher heat performance when exterior temperatures drop.
- Higher life span through heat pump soft start.
- Up to 20 % lower energy costs compared to conventional heat pumps.



The colder it gets, the more heat performance is needed by your home. Thanks to the performance modulation, the heat pump adapts precisely to current demand. Energy is saved and your comfort increases.

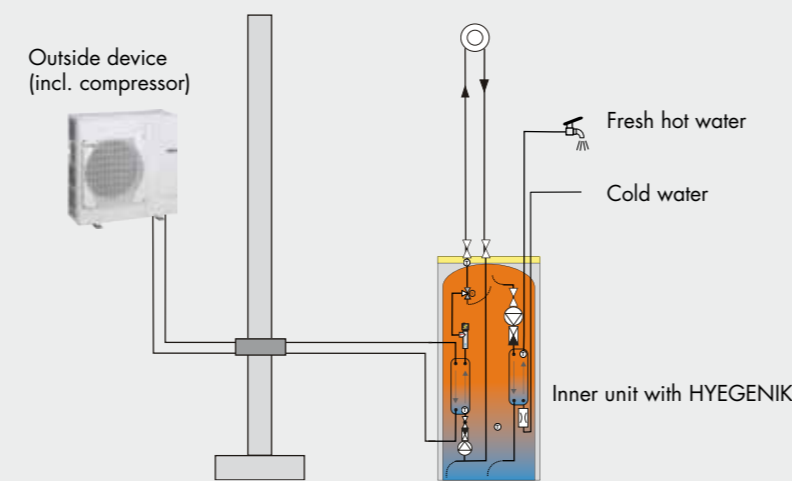


Simply clean - hygienic fresh water heating.



TERRA ML 12 with hygienic fresh water system:

Water is only heated when hot water is tapped because only heating water is contained in the tank. This means the hot water is always fresh.

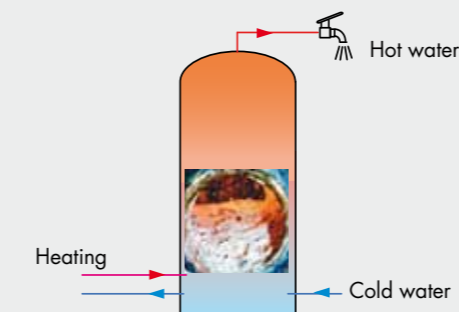


TERRA ML 6 with hygienic fresh water system:

300 litres heating water save heat which can be transferred to hot water as needed.



Hygienic fresh water technology provides fresh heating water in a matter of seconds. Only the heating water is saved; drinking water is always freshly warmed. This way, microorganisms such as legionella and other bacteria have no chance. My customers shower and bathe completely hygienically.



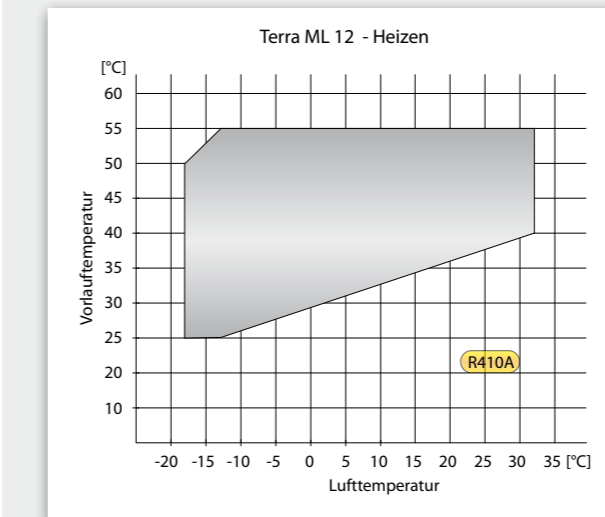
Conventional hot water tank:

The water remains in the tank over a longer period of time. Sludge and dirt accumulate along the bottom – an ideal breeding ground for pathogens.

Information: Legionella are pathogenic agents present in water. At temperatures between 30°C and 40°C they increase rapidly and can cause legionellosis (Legionnaire's disease). Legionellus is a serious infectious disease of the lungs which in the cases of weakened individuals which can result in death.

A heating system according to your needs.

The TERRA ML can be used between -18 to +35° C. When temperatures are especially cold, the heat pump is supported by a built-in heating rod. In cold operation, the use limits are between -5 °C and 46° C.



Benefits

- Heating and cooling through one system
- Minimal investment costs
- Minimal electricity consumption through the most modern inverter technology
- Lower exterior noise level through quiet running axial ventilator
- Minimal space requirements in the house
- No risk of frost – high operating security
- Flexible installation through the possibility of positioning inner and outer units up to 30 m away from each other.



NAVIGATOR® control

NAVIGATOR® control

All IDM TERRA heat pumps are controlled with the NAVIGATOR®. And you can regulate when and where each temperature setting is activated.

COMMUNICATIVE:

The NAVIGATOR® from IDM is ready for anything: whether you want to control your heating via the internet, via your mobile phone, via your BUS system or directly. The NAVIGATOR® can do it all, and it takes notes, too - in an operation logbook on an SD card



The NAVIGATOR® represents an especially intelligent development. The NAVIGATOR® is highly adaptable. Up to seven heating circuits can be controlled individually. That means seven different time schedules for heating and seven different temperature zones in the house.



My customers just love the NAVIGATOR®. Operation could not be easier and everything runs just as they want it to. An end to heating worries, providing well-being for the whole family.