ENERGIE SYSTEME

THE POWER FAMILY

INDIVIDUAL

Ground & air heat pumps

for larger buildings

We take care of your well-being.

Leading technology from IDM. Expertise from installers.

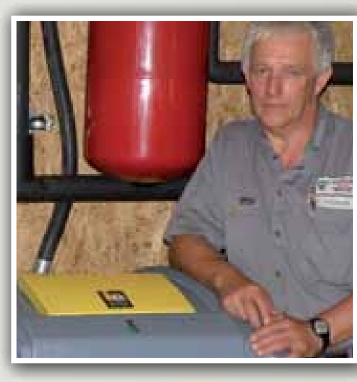
www.idm-energie.com

5 OF 50,000
SATISFIED IDM CUSTOMERS.

We have a large house with enough space for the entire family. We place a significant emphasis on a good indoor climate and a convenient supply of hot water. Our engineer recommended I try an IDM heat pump with HGL technology - and it does its job perfectly.

For me, technology is only smart if it can be operated easily by the layman. Our IDM heat pump is the only technical device that has been able to fully convince me of its suitability for my photography studio, in which I also live. The NAVIGATOR control system adjusts the climate without me having to worry about anything. This leaves me free to concentrate completely on my work.

All of our energy comes from the environment: The heat pump heats, cools and produces hot water, while our power is generated by the photovoltaic system - from a green electricity provider. My IDM system, which is Smart Grid Ready, allows me to make optimum use of the power from the photovoltaic system and to store it in the form of heat. I am therefore able to create my hot water completely independently.



A large workshop and a showroom with lots of glass, as well as hot water for employee showers - these are the reference values for our building. I'm really glad our plumber recommended we try an IDM heat pump system. A surface collector is located in the meadows around our premises, which has enabled us to benefit from cheap environmental energy ever since its installation.

After 25 years of using oil heating we decided to update our heating system. And I wanted to have an efficient and sustainable, high quality solution. This is why we opted for an IDM air heat pump system. All of our rooms feel comfortably warm even when using the lower flow temperature. We now not only feel comfortable, but we are also saving money every day.

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SELECT THE HEAT PUMP THAT SUITS YOUR INDIVIDUAL PROJECT.

Geothermal heat pump
TERRA SW 20/26/35/42 Twin (HGL)

- 20 - 42 kW, certified COP 5,17
- Low power consumption
- 2-stage design
- Power tailored to demand as standard
- HGL technology
- Active & passive cooling and IDM system cooling
- Extremely compact dimensions
- Particularly quiet operation
- Integrated heat pump management NAVIGATOR® 1.7

Air heat pumps
TERRA AL 17/24/32 Twin

- 17 - 32 kW, certified COP 4,64
- 2-stage design
- Power tailored to demand by 2 compressors
- Cooling integrated as standard
- Low construction
- Integrated heat pump management NAVIGATOR® 1.7
- Control system indoor: weather-protected
- Pure outdoor installation

Countless plumbers and heating engineers in the German-speaking region are enthusiastic ambassadors of IDM. This is because it's important for these specialists to sell products from a partner that delivers high quality. This ensures the rate of complaints is reduced. This is an element that is extremely negligible for IDM.

WHATEVER YOU'RE HEATING, WE HAVE THE INDIVIDUAL SOLUTION FOR YOU.

Living and renting. Apartment building in Upper Austria

The facts of this reference project:
- 1* TERRA SW 26 Twin HGL water/water
- 1,000l Hygienik with 50l/min fresh water module
- 4 apartments and 4 studio apartments in one building
- Heating capacity: 26 kW
- Heat supply: underfloor heating with 35°C flow temperature and 28°C return temperature
- 13,000 kWh or approximately EUR 1,600 power consumption per annum (2012)

- **Benefits of IDM TERRA SW:**
- Power adjustment by 2 compressors
- Convenient supply of hot water thanks to HGL technology
- Extremely small space requirements
- Convenient and expandable control system NAVIGATOR 1.7
- Certified COP

WORKSHOP & SALESROOM

The facts of this reference project:

Clean up of oil on heat pump:
- 1 IDM TERRA SW 26 heat pump with surface collector
- Hygienik 1,000 with 25 l/min fresh water station
- Energy delivery system via wall heating and heating of the supply air
- Ventilation system with highly efficient heat recovery (80%)
- 9.8 KWp grid-connected photovoltaic system - also supplies the operating energy for the heat pump

NGO headquarters Christophorushaus

If the heat pump is operated using environmentally friendly energy (e.g. hydro-electric power, photovoltaics), the entire process of energy acquisition is entirely emission-free and CO2-neutral. In this way, natural resources will still be available for us to use in the future.

The facts of this reference project:
- 1 IDM TERRA SW 42 heat pump with 8 duplex geothermal probes
- "Direct cooling" via IDM heat pump
- Energy delivery system as a combination of ventilation, panel heating and cooling
- Ventilation system with highly efficient heat recovery (80%)
- 9.8 KWp grid-connected photovoltaic system - also supplies the operating energy for the heat pump

WE MAKE IT EASY FOR YOU TO CHOOSE IDM.

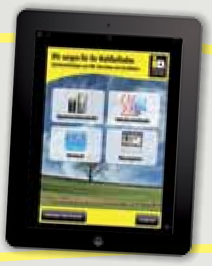
THE IDM SYSTEM TECHNOLOGY

Regardless whether it's our development of HGL (hot gas charging) technology, which is more energy efficient than other systems; our stratified storage tank technology, which ensures optimum use of energy; or our hygienic fresh water technology, which produces and provides bacteria-free fresh water exactly when you need it. Our research and development department has been developing solutions for over 35 years that our customers love.

SAFETY

High operational safety is ensured by 2 compressors with tried and tested scroll compressors

SMART PHONE



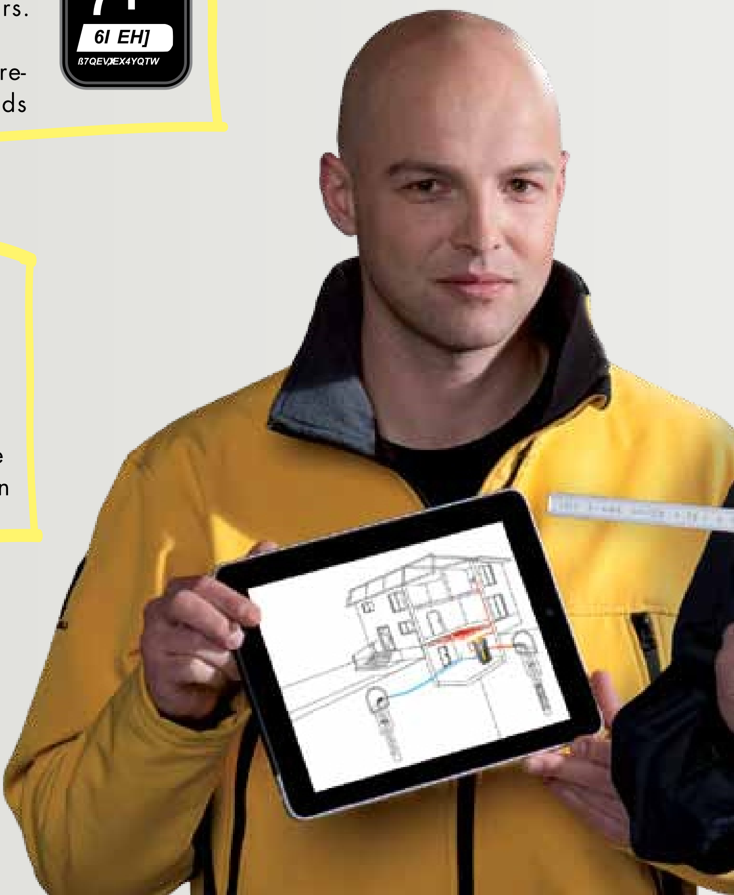
Unique in the market. Control your new IDM heating extremely easily with the Navigator® control system. The Navigator® lies at the heart of IDM's system technology. You can control your heating system by using the Navigator, regardless of whether it's via a mobile phone, tablet PC, notebook or a BUS system.

SMART GRID

All of our heat pumps are Smart Grid ready. Smart grids connect power generators, power plants and electricity consumers. They distribute the load intelligently in the network.
The heat pump gathers information from the energy supplier regarding whether the tariff is high, normal or low, and responds accordingly.

SMART WEB

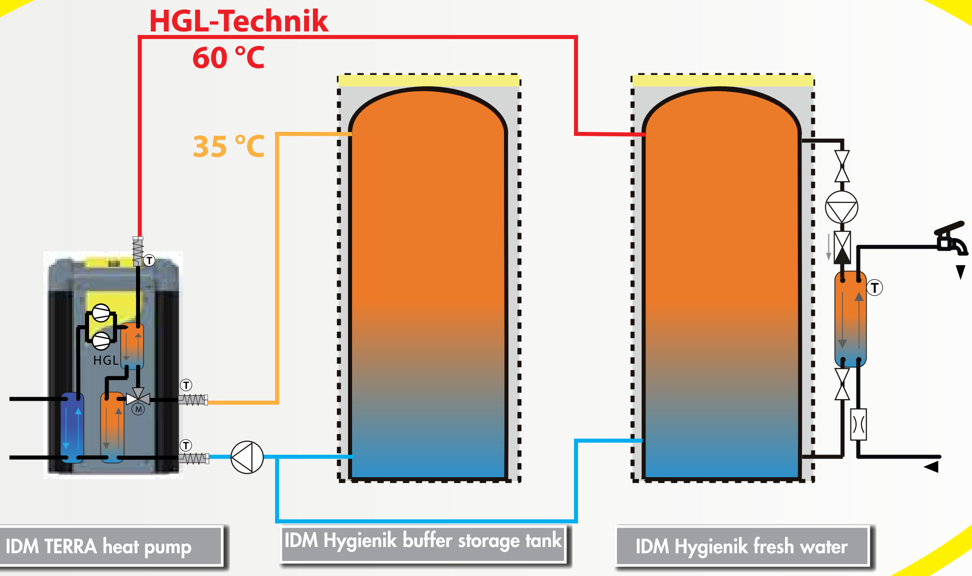
The operating data generated by the system is available in "myIDM" as soon as the commissioning phase has been completed. This means that if the worst comes to the worst and your heating system should develop a problem, then our service technician will know about it before you have chance to feel cold. And then the issue is often resolved before it can become a problem.



QUALITY

tested heat pumps with the EHPA seal

WHILE THE TECHNOLOGY MAY BE COMPLEX, OPERATION IS KEPT SIMPLE.



HOT WATER WITH IDM'S HOT GAS CHARGING TECHNOLOGY

The IDM TERRA SW Twin heat pump with HGL technology not only offers twice the comfort, but also helps save on the use of additional energy sources and their associated costs. This is because this innovative technology makes your energy go a long way. It divides the energy accordingly: 85% of the energy goes into the heating circuit at 35°C. The second part reaches around 60°C and is made available for hot water supply via the Hygienik buffer storage tank.

The excellent service offered by IDM.
Support for planning large-scale heat pumps.
We would be happy to help you develop a customised solution for your property. A brief e-mail or a quick phone call is all it takes.

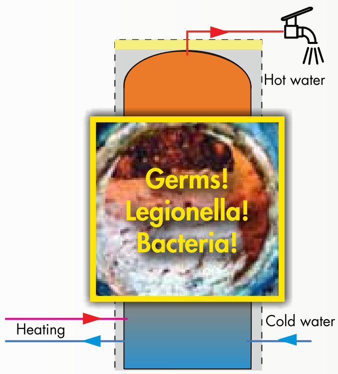
Seminars on planning heat pumps
for planners, energy consultants, architects and builders with the TERRA OPT planning software.

OUR FRESH WATER TECHNOLOGY ENSURES ENHANCED COMFORT AND WELL-BEING.

Hot water refreshes you when you take your morning shower and relaxes you when you take a hot bath after a long day. And, above all, hot water symbolises well-being, relaxation and cleanliness. However, this can be a misconception. All manner of germs can accumulate in conventional hot water tanks.
The IDM power family has been setting its own standards in terms hygiene for more than 25 years with the Hygienik fresh water system: fresh water heating according to the flow principle, with large stainless steel heat exchangers, provides clean, healthy water for your home.
You will soon notice that the Hygienik buffer storage tank with fresh water technology makes taking a shower one of your family's favourite pastimes.

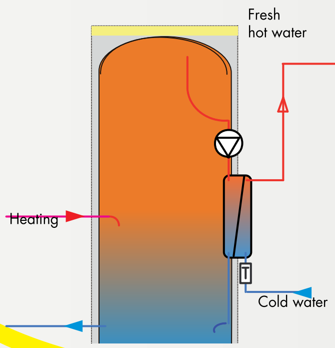
Conventional hot water tank:

The hot water is maintained here in the storage tank for a prolonged period. Mud and dirt are deposited at the bottom, which is an ideal breeding ground for germs.



IDM Hygienik buffer storage tank:

Water is only heated whenever you need it. Only heating water is contained in the storage tank. This ensures the hot water for drinking, washing and flushing is always fresh.

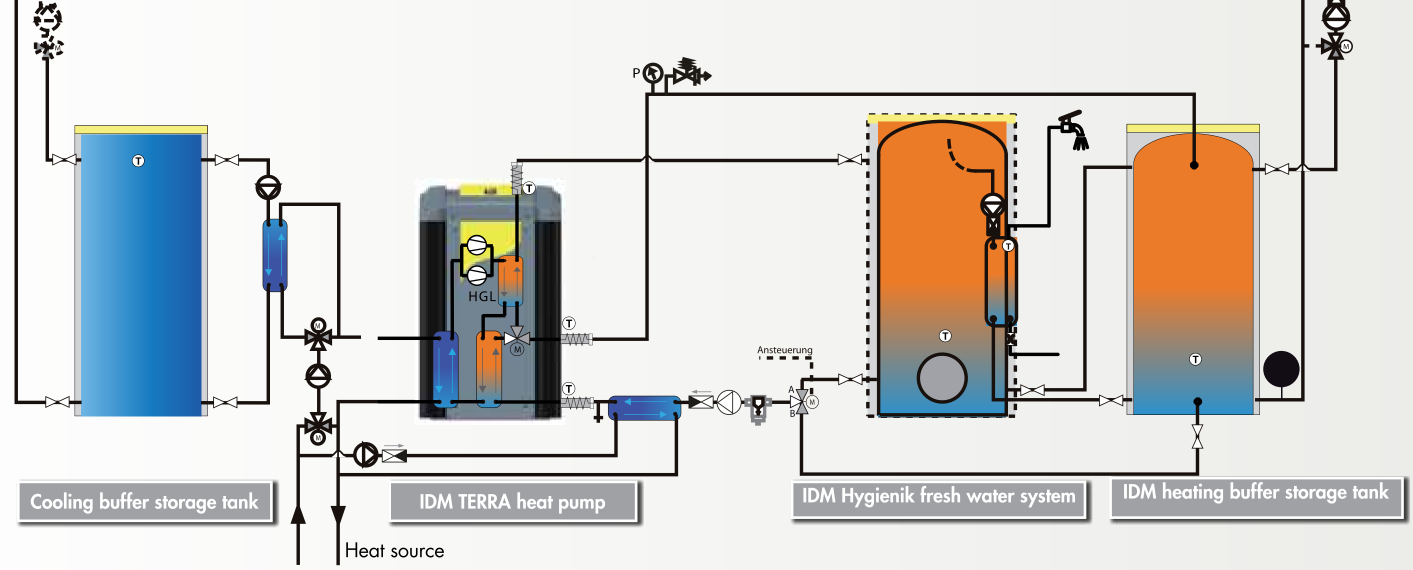


Info: Legionella are pathogens found in water. They multiply rapidly at temperatures between 30°C and 40°C and can cause Legionnaire's disease. Legionella is a serious infectious disease of the lungs which can be fatal for anyone with a weak immune system.

The Hygienik fresh water technology provides fresh hot water in a matter of seconds. Only the water required for heating is stored; drinking water is always heated fresh. This prevents the formation of microorganisms such as Legionella and other bacteria.My customers shower and bathe hygienically.

COOLING

In addition to the energy-saving passive cooling function and the effective active cooling function with reversible heat pump, you can also use IDM's system cooling feature (see illustration). The cooling circuit is incorporated at the side of the heat source in this setup. The waste heat from the cooling operation can then be used to support the heating process for domestic hot water.



TECHNICAL DATA:

TERRA SW Twin geothermal heat pump

TERRA Type		SW 15 Twin	SW 20 Twin (HGL)	SW 26 Twin (HGL)	SW 35 Twin (HGL)	SW 42 Twin (HGL)
230V/400V		•/–	•/•	•/•	–/•	–/•
S0/W35	Heating capacity [1]		20.42 kW	26.21 kW	35.25 kW	41.97 kW
	Power consumption [1]		4.18 kW	5.47 kW	7.11 kW	8.82 kW
	COP [1]		4.89	4.79	4.96	4.76
S0/W35 SINGLE-STAGE	Heating capacity [1]		10.58	13.65	18.39	21.86
	Power consumption [1]		2.09	2.73	3.56	4.41
	COP [1]		5.10	4.99	5.17	4.96
W10/W35	Heating capacity [1]		27.32 kW	35.07 kW	46.38 kW	55.38 kW
	Power consumption [1]		4.18 kW	5.48 kW	7.24 kW	9.14 kW
	COP [1]		6.53	6.40	6.41	6.06
	Dimensions in mm(H*W*D)			1323 *760*760		

1: according to EN14511 with 5K splay between flow and return

The **TERRA SW Twin HGL** package includes: a heat pump unit with two suction gas-cooled scroll capsule compressors, a copper brazed stainless steel plate heat exchanger as a condenser, a copper brazed stainless steel plate heat exchanger as an evaporator, a HGL exchanger with control valve including an actuator, refrigerant dryer, refrigerant sight glass, electronic expansion valve, electronic high and low pressure monitoring unit, control panel with navigator control, sturdy base frame, cladding for thermal and acoustic insulation, 5 x flexible connecting hoses.
The TERRA SW Twin HGL is available in a 26 and 42 series model, as well as in a version with process reversal. In order to enable a cooling procedure (reversible operation) a four-way reversing valve is incorporated in the refrigerant circuit. This valve is controlled via the NAVIGATOR® 1.7 control system.
The **TERRA SW Twin** package includes: a heat pump unit with two suction gas-cooled scroll capsule compressors, a copper brazed stainless steel plate heat exchanger as a condenser, a copper brazed stainless steel plate heat exchanger as an evaporator, refrigerant dryer, refrigerant sight glass, electronic expansion valve, electronic high and low pressure monitoring unit, control panel with navigator control, 4 x flexible connecting hoses and all of the necessary sensors.

TERRA AL Twin air heat pump

Technical data in compliance with EN 14511	UNIT	TERRA AL 17 Twin	TERRA AL 24 Twin	TERRA AL 32 Twin
Heating capacity with A2/W35	[kW]	17,24	23,68	31,56
Heating capacity with A7/W35	[kW]	21,67	29,17	38,51
Power consumption with A2/W35	[kW]	4,23	5,85	7,87
Power consumption with A7/W35	[kW]	4,43	5,98	7,99
COP with A2/W35		4,08	4,05	4,01
COP with A7/W35		4,89	4,88	4,82
Heating capacity with A2/W35 (1 stage)	[kW]	10,26	13,09	18,55
Power consumption with A2/W35 (1 stage)	[kW]	2,21	2,83	4,07
COP with A2/W35 (1 stage)		4,64	4,62	4,56
Dimensions H/W/D	mm	1199/1950/925	1399/1950/925	

The TERRA AL Twin package includes:
Two scroll capsule compressors for two-stage operation, a copper brazed stainless steel plate heat exchanger as a condenser, fin evaporator package, a high-efficiency, variable-speed axial fan, refrigerant receiver and dryer, electronic expansion valve, refrigerant sight glass, reversing valve for cooling and defrosting, pressure sensors for high and low pressure monitoring, cartridge pressure switch for high pressure monitoring, two starting current limiters with rotary field control, intake air sensors, high efficiency charge pump, cladding for thermal and acoustic insulation, 2 x flexible connecting hoses, control cabinet with NAVIGATOR control system for optimised control of the heat pump and heating circuit, with all of the necessary temperature sensors, for indoor installation.
A separate version for active cooling with reversible process is available.