



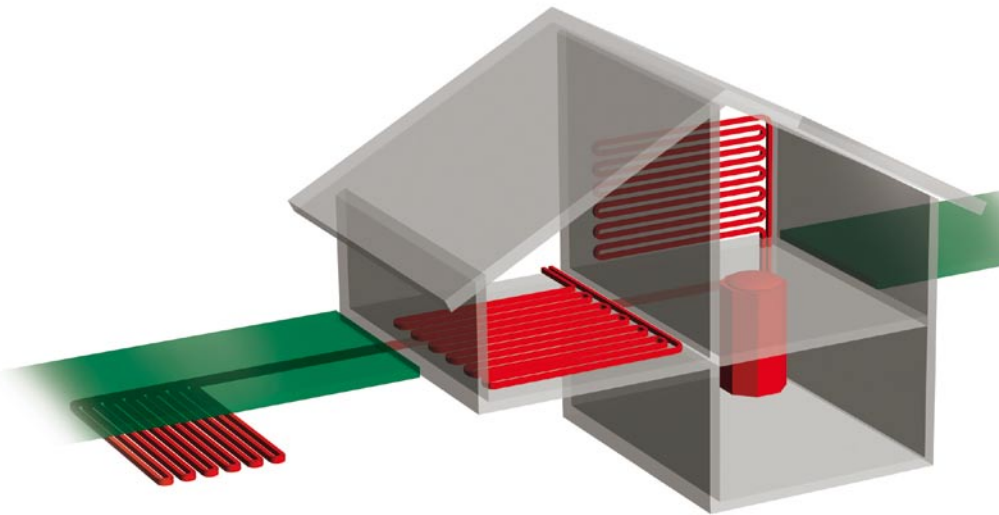
GROUND SOURCE HEAT PUMP

DIRECT SYSTEM

Area of application

The ground source heat pump for the use of **natural, cost-free and renewable solar energy** is perfectly suitable for:

- **Single and multi-family homes**
- **Year-round use** for space heating and hot water production
- As **horizontal and vertical system**
 - a.) Alternatively either terrestrial subsurface collectors (horizontal system)
 - b.) Or the CO₂-heat pipe (self circulating CO₂-heat pipe)



Principle





The **solar energy stored in the ground** is absorbed directly without any auxiliary devices. A harmless working medium circulates in this **closed system**.

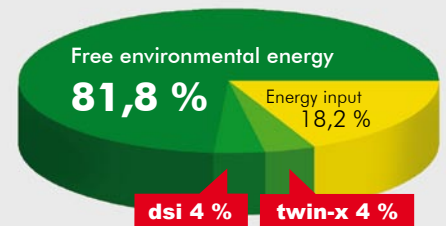
The terrestrial collector comprised of high-quality copper pipe is surrounded with a PE-protective-shell. A high-quality spiral compressor brings the gaseous working medium to a higher pressure and temperature level.

A steel heat exchanger serves as a heat conductor to the heating system.

Through **dsi-technology® developed by Heliotherm**, the working medium is decompressed for subsequent energy absorption.

Special characteristics

-  **High efficiency decreases operating costs due to:**
 - **Heliotherm twin-x tech-nology®** for even more efficient use of the stored solar energy
 - **Heliotherm dsi-technology®** (electronic injection system with automatic adjustment to individual operating conditions)
-  **Quieter operation** due to the new Heliotherm-DSG shell
-  **Heliotherm web control®** regulation system for worldwide remote control over the Internet
-  The **Heliotherm tele control remote maintenance system** offers reliability and easy customer control
-  **International quality inspection seal**



Advantages ground source heat pump

- **Best cost-performance ratio**
- **Low operating costs**
- **Time-tested system technology**
- **High working reliability**
- **Small space requirement in the central heating installation**
- **Long life span**
- **Highest reduction of CO₂-emission of all heat pump systems**



TECHNICAL DATA

HEAT PUMP	HP05E -WEB	HP07E** -WEB	HP08E -WEB	HP10E** -WEB	HP12E -WEB	HP16E -WEB	HP20E -WEB	HP28E -WEB
Heat output E4/W35*	6,79 kW	7,68 kW	9,45 kW	12,11 kW	15,95 kW	19,79 kW	25,77 kW	34,36 kW
Power input E4/W35	1,19 kW	1,35 kW	1,66 kW	2,16 kW	2,85 kW	3,53 kW	4,77 kW	6,36 kW
Working medium	R410a	R410a	R410a	R410a	R410a	R410a	R410a	R410a
Design compressor	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Terrestrial collector overall length in m	420	490	560	630	770	980	1260	1540
Dimensions in cm	138x46x52	138x46x52	138x46x52	138x46x52	138x46x52	138x46x52	138x55x62	138x55x62

* Performance ratings after EN 255. Heating temperature difference at aforementioned operating point of 9,9 Kelvin. For interpretation the exact system data must be calculated.

** Technical production examination conducted by the international inspection agency arsenal research, A-Wien

Certificated quality

twin-x

Heliotherm twin-x cooling technology®:

Patented technology for better use of stored solar energy - SPF > 5

web Control

Internet-controller Heliotherm web control®:

- Worldwide remote control
- Internet-compliant regulation equipment
- Easy operation

tele Control

Heliotherm tele control

Internet remote control system:

New remote operation and diagnostic system in conjunction with online data recording and trend analysis



Electronic injection system

Heliotherm dsi-Technik®:

Heliotherm dsi-technology® is an electronic injection system which regulates heat pump settings to optimise efficiency. Dsi® automatically adjusts to changing operating conditions thus significantly lowering operating costs.

Terrestrial collector material: copper in PE-shell

Condenser design: plate type heat exchanger

Service / Maintenance

Specially trained and competent regional affiliates ensure reliable and consistent service.

Financial incentives

Heat pump are considered a renewable energy source and are thereby often financially subsidized by national, regional and county agencies as well as energy suppliers. Further information regarding subsidy programs may be acquired through your Heliotherm-supplier.

Heliotherm ranks high amongst the leading European manufacturers of heat pump system technology. Heliotherm's 20 years of experience contribute to the development and production of high quality heat pumps. Over 12,000 satisfied customers attest to our success. We offer to our success. We offer to our customers reliable and innovative products with the highest performance ratings.

Your partner for **reliable planning, consultation and installation!**