

REGESS[®] ENERGY

GROUND SOURCE HEAT PUMPS



www.regessenergy.com

Why to choose REGESS® ENERGY?

Reduction of the costs by up to 75%, independence of fuel type, environmental-friendly system – these are the most important advantages of heat pumps. The installation is completely safe and consists in collecting and transforming solar energy that is accumulated in the surrounding environment: in the air, soil, rocks or water, regardless of weather conditions.



Of numerous advantages that are characteristic of heat pumps, the following are worth mentioning: lack of additional elements that have to be used in the models with traditional boilers, small overall dimensions that usually do not exceed one square meter, lack of chimney or a separate utility room. Apart from the essential function of heating that is fluently operated, only some people know that it may also generate cooling.

We care for ecology

The operational easiness and functionality make heat pumps the ideal solution for those who wish to live far away from large urban agglomerations and think of becoming independent of mass energy suppliers. Quiet work and long-term trouble-free utilization as well as the possibility to expand the machine with solar installations and recuperation systems enhance, in the face of economic crisis and constantly increasing fuel prices, their attractiveness and make them almost unbeatable.

5-year warranty on parts and 3 on electronics



25 years durability



easy to use



ecology



energy efficiency



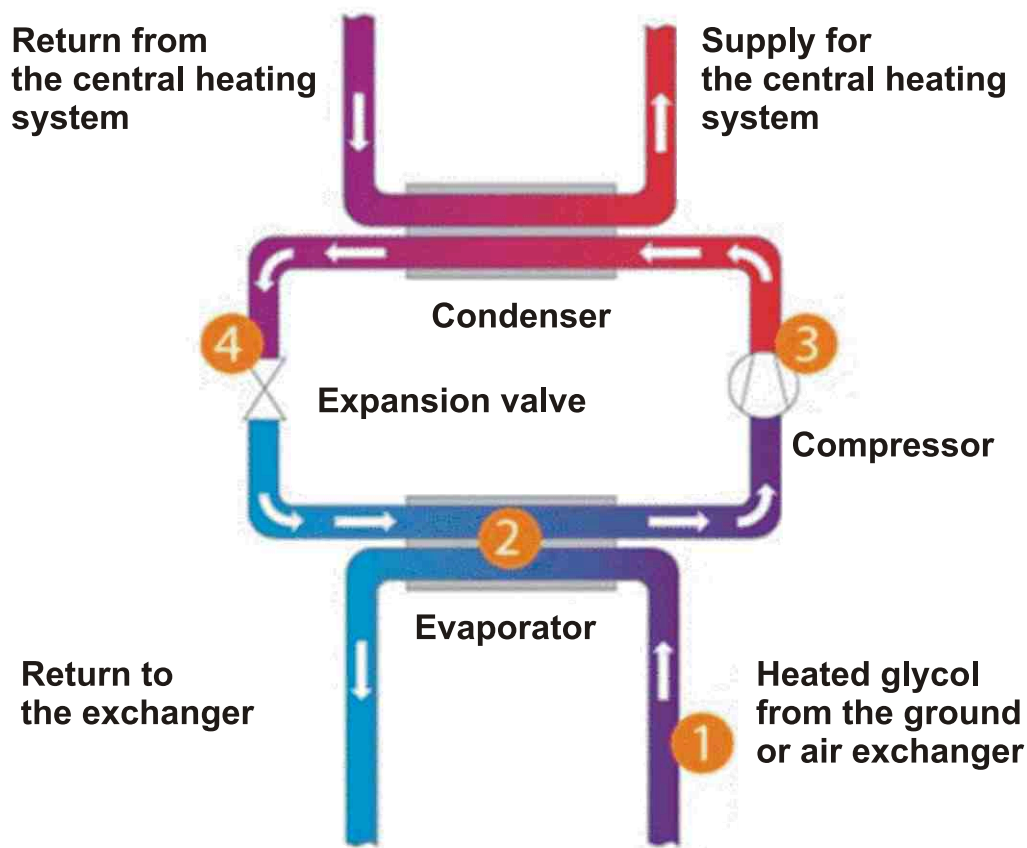
up to 5-year warranty

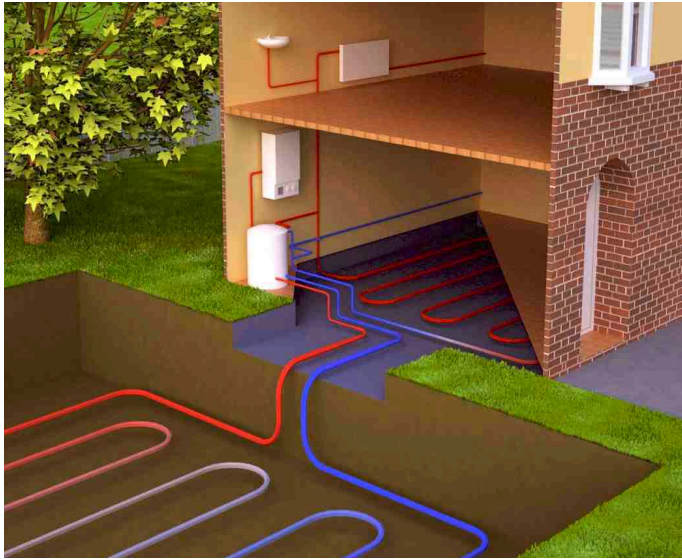


design

How does it work?

A factor of bottom source, while passing through an exchanger, receives heat energy from the ground. In an evaporator, the factor gives back its heat to a cold cooling factor. Next, the cooling factor evaporates and is transformed into gas that, compressed by a compressor (an increase in temperature) is transferred in a condenser to a CO system. Liquefied gas, after passing through an expansion valve, reduces its pressure and temperature and flows into the evaporator where the whole process is repeated.

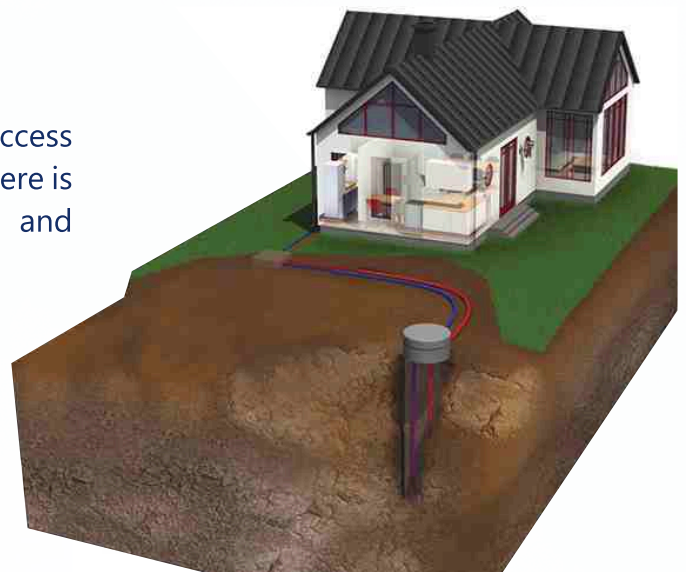




Where does a heat pump take energy from?

Horizontal ground exchanger is fitted at 1.5-2 m deep under the ground. The potential for using a large building plot and the cooling option make this method increasingly popular. Installation of the heat pump is limited to connecting the device to the ground collector, warm water tank and already existing heating installations.

Second way is ground water to which we get an access by bores or wells. The heat that is accumulated there is pushed through an intermediate exchanger and transferred back beneath the ground.



*Warmth
by nature*



The original controlling software marks us out of our competition because it allows for:

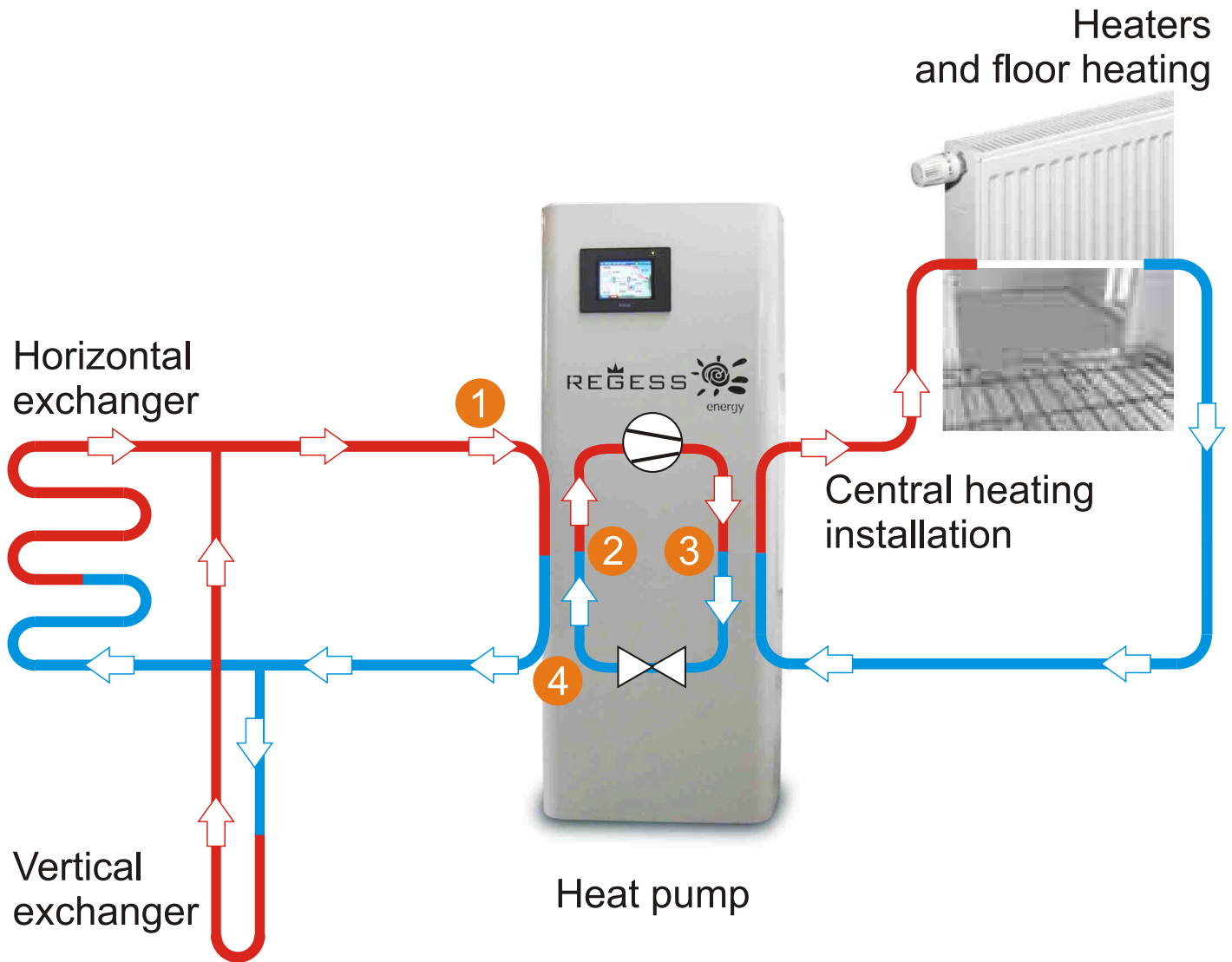
- ✓ weather programming that enables the user to set an increase or a decrease of temperature in heated rooms depending on external temperature
- ✓ daily programming that enables the user to set different temperatures, for instance comfortable at 22°C or economic at 18°C at different day times and days of the week
- ✓ economic programming that enables the user to set the intensive water heating in the CO system and hot utility water at the periods of off-peak tariff
- ✓ controlling the system of several heat sources, for instance a fire-side, a gas boiler, and solar collectors
- ✓ supplying and controlling the additional heat receivers such as a pool, ventilation centre etc.
- ✓ supplying and controlling the air-conditioning system



! In our standard range, we offer the pumps with the power of 8 to 19 kW. The company also produces the machines with different power, even up to 100 kW, on request.

In the buildings constructed according to the current standards we use the following models of heat pumps:

Cat. No	Name	Usable floor area
03-REG-SSPC8	Heat Pump Smart & Solid 8 kW	up to 120 m ²
03-REG-SSPC10	Heat Pump Smart & Solid 10 kW	100 up to 150 m ²
03-REG-SSPC12	Heat Pump Smart & Solid 12 kW	140 up to 170 m ²
03-REG-SSPC14	Heat Pump Smart & Solid 14 kW	150 up to 200 m ²
03-REG-SSPC16	Heat Pump Smart & Solid 16 kW	200 up to 300 m ²
03-REG-SSPC19	Heat Pump Smart & Solid 19 kW	280 up to 350 m ²



! Our heat pumps are designed for direct connection to solar collector with built-in plate exchanger.

Energy for free

BASIC PARAMETERS

BASIC DATA		Heat Pump Smart & Solid 8 kW	Heat Pump Smart & Solid 10 kW	Heat Pump Smart & Solid 12 kW
1	Type	BRINE / WATER	BRINE / WATER	BRINE / WATER
2	Heating power	8,0 kW	10,0 kW	12,0 kW
3	Cooling power	5,8 kW	6,9 kW	8,9 kW
4	COP 0/35	3,5	3,9	3,6
MAIN COMPONENTS AND MATERIALS (TYPE/MANUFACTURER)				
1	Compressors	scroll / SANYO	scroll / SANYO	scroll / SANYO
2	Soldered plate heat exchangers Cu	type B / SWEP	type B / SWEP	type B / SWEP
3	Expansion valve	Thermostatic / ALCO CONTROLS	Thermostatic / ALCO CONTROLS	Thermostatic / ALCO CONTROLS
4	Working medium/quantity	R 407 C / ~ 1,4 kg	R 407 C / ~ 1,5 kg	R 407 C / ~ 1,6 kg
ELECTRICAL SPECIFICATION				
1	Power input 0/35	2,3 kW (Zař. 4)	2,7 kW (Zař. 4)	3,3 kW (Zař. 4)
2	Current input 0/35	4,4 A (Zař. 5)	4,9 A (Zař. 5)	6,0 A (Zař. 5)
3	Current type	3-phase / 50 Hz	3-phase / 50 Hz	3-phase / 50 Hz
4	Supply voltage	380 – 415 V	380 – 415 V	380 – 415 V
5	Operational voltage	± 10 % of rated current	± 10 % of rated current	± 10 % of rated current
6	Starting voltage	min. 85 % of rated voltage	min. 85 % of rated voltage	min. 85 % of rated voltage
7	Working current, RLA	7,3 A	7,9 A	10,1 A
8	Maximum continuous current, MCC	10,2 A	11,1 A	14,1 A
9	Locked rotor current, LRA	48 A	48 A	48 A
OVERALL DIMENSIONS				
1	Dimensions : width / depth / height	580 / 550 / 1480 mm	580 / 550 / 1480 mm	580 / 550 / 1480 mm
2	Weight	~ 75 kg	~ 85 kg	~ 95 kg
OUTFIT AND OPERATIONAL PARAMETERS OF BOTTOM SOURCE CIRCUIT				
1	Connecting ports: type / diameter	Screwed / 1 "	Screwed / 1 "	Screwed / 1 "
2	Circulation pump / manufacturer	UPS 25-80 / Grundfos	UPS 25-80 / Grundfos	UPS 25(32)-80 / Grundfos
3	Membrane expansion vessel	REFLEX 02	REFLEX 02	REFLEX 02
4	Manometer	radial MTR 63/4x3	radial MTR 63/4x3	radial MTR 63/4x3
5	Minimum brine temperature (glycol)	-10° C	-10° C	-10° C
OUTFIT AND PARAMETERS OF HEATING CIRCUITS				
1	Connecting ports: type / diameter	Screwed / 1"	Screwed / 1"	Screwed / 1"
2	Circulation pump for central heating / manufacturer	UPS 25-65 / Grundfos	UPS 25-80 / Grundfos	UPS 25-80 / Grundfos
3	Circulation pump for hot utility water / manufacturer	UPSO 25-65K / Grundfos	UPSO 25-65K / Grundfos	UPSO 25-65K / Grundfos
4	Non-return valves for circulation pumps	1" with head	1" with head	1" with head
5	Membrane expansion vessel	REFLEX 08	REFLEX 08	REFLEX 08
6	Manometer	radial MTR 63/4x3	radial MTR 63/4x3	radial MTR 63/4x3
7	Maximum temperature of boiler water	55° C	55° C	55° C

BASIC DATA		Heat Pump Smart & Solid 14 kW	Heat Pump Smart & Solid 16 kW	Heat Pump Smart & Solid 19 kW
1	Type	BRINE / WATER	BRINE / WATER	BRINE / WATER
2	Heating power	14,6 kW	16,2 kW	19,0 kW
3	Cooling power	10,9 kW	12,1 kW	14,1 kW
4	COP 0/35	3,8	3,8	3,7
MAIN COMPONENTS AND MATERIALS (TYPE/MANUFACTURER)				
1	Compressors	scroll / SANYO	scroll / SANYO	scroll / SANYO
2	Soldered plate heat exchangers Cu	typE B / SWEP	type B / SWEP	type B / SWEP
3	Expansion valve	thermostatic / ALCO CONTROLS	thermostatic / ALCO CONTROLS	thermostatic / ALCO CONTROLS
4	Working medium/quantity	R 407 C / ~ 1,8 kg	R 407 C / ~ 2,0 kg	R 407 C / ~ 1,5 kg
ELECTRICAL SPECIFICATION				
1	Power input 0/35	3,8 kW (Zař. 4)	4,3 kW (Zař. 4)	5,3 kW (Zař. 4)
2	Current input 0/35	6,9 A (Zař. 5)	7,7 A (Zař. 5)	9,7 A (Zař. 5)
3	Current type	3-phase / 50 Hz	3-phase / 50 Hz	3-phase / 50 Hz
4	Supply voltage	380 – 415 V	380 – 415 V	380 – 415 V
5	Operational voltage	± 10 % of rated current	± 10 % of rated current	± 10 % of rated current
6	Starting voltage	min. 85 % of rated voltage	min. 85 % of rated voltage	min. 85 % of rated voltage
7	Working current, RLA	10,4 A	12,2 A	15,9 A
8	Maximum continuous current, MCC	14,5 A	17,2 A	22,2 A
9	Locked rotor current, LRA	66 A	73 A	88 A
OVERALL DIMENSIONS				
1	Dimensions : width / depth / height	580 / 550 / 1480 mm	580 / 550 / 1480 mm	580 / 550 / 1480 mm
2	Weight	~ 105 kg	~ 115 kg	~ 130 kg
OUTFIT AND OPERATIONAL PARAMETERS OF BOTTOM SOURCE CIRCUIT				
1	Connecting ports: type / diameter	Screwed / 1 "	Screwed / 1 "	Screwed / 1 "
2	Circulation pump / manufacturer	UPS 25-80 / Grundfos	UPS 25-80 / Grundfos	UPS 32-100 / Grundfos
3	Membrane expansion vessel	REFLEX 02	REFLEX 02	REFLEX 02
4	Manometer	radial MTR 63/4x3	Radial MTR 63/4x3	radial MTR 63/4x3
5	Minimum brine temperature (glycol)	-10° C	-10° C	-10° C
OUTFIT AND PARAMETERS OF HEATING CIRCUITS				
1	Connecting ports: type / diameter	Screwed / 1"	Screwed / 1"	Screwed / 1"
2	Circulation pump for central heating / manufacturer	UPS 25-80 / Grundfos	UPS 32-80 / Grundfos	UPS 32-100 / Grundfos
3	Circulation pump for hot utility water / manufacturer	UPSO 25-65K / Grundfos	UPSO 25-80K / Grundfos	UPSO 25-80K / Grundfos
4	Non-return valves for circulation pumps	1" with head	1" with head	1" with head
5	Membrane expansion vessel	REFLEX 08	REFLEX 08	REFLEX 08
6	Manometer	radial MTR 63/4x3	radial MTR 63/4x3	radial MTR 63/4x3
7	Maximum temperature of boiler water	55° C	55° C	55° C

Where to find us?

The **REGESS® ENERGY** products are being sold in Europe,
Asia, Latin and Central America and Africa.



SOLAR COLLECTORS
HEAT PUMPS
PELLET BURNERS AND BOILERS
PELLET STOVES
PHOTOVOLTAICS

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