ENEREN
renewable energies

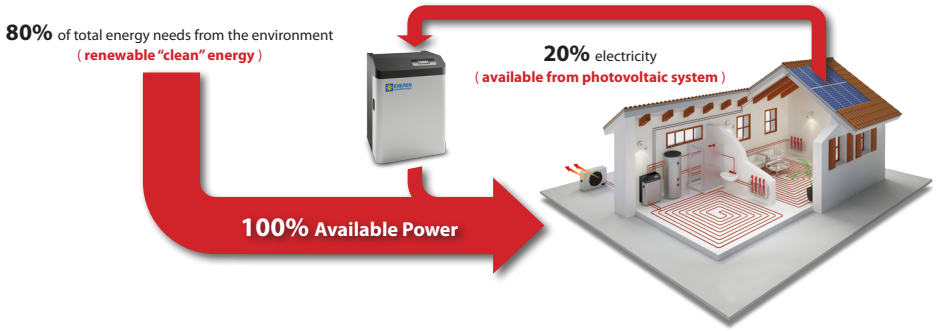
Polyvalent high efficiency integrated solutions for renewable energies

$E = M C^2$

ENEREN = Maximization of **Comfort** per each **Square meter**

Renewable energies

Wind energy and Photovoltaic technology



ENEREN
renewable energies

WE DESIGN AND REALISE HIGH EFFICIENCY SYSTEMS TO BEST EXPLOIT RENEWABLE ENERGIES

ENEREN offers turnkey solutions with the following services:

- Heating/Cooling technology consulting and design
- Plant systems consulting and design
- Ground thermal response tests (GRT) execution
- Geothermal exchangers sizing through FEM software
- Heat pumps supply
- Remote assistance for plant's management and operation
- Hydrogeological and geognostic consulting and study
- Energy efficiency auditing

Integrated polyvalent solutions for geothermal systems

ADVANTAGES OF ENEREN SOLUTIONS

1 » **Environment friendly** through **energy efficiency** (high COP and EER)

2 » **Reduction of** non-renewable energy **consumption** (i.e. coupling with photovoltaic systems)

3 » **No explosion, fire and fuel poisoning** risks inside buildings

4 » **Totally programmable**, with the possibility of **management and remote assistance**

5 » **Less maintenance**, thanks to wear-free components

6 » **Low noise emission**

7 » **No local harmful and CO_2 emissions**

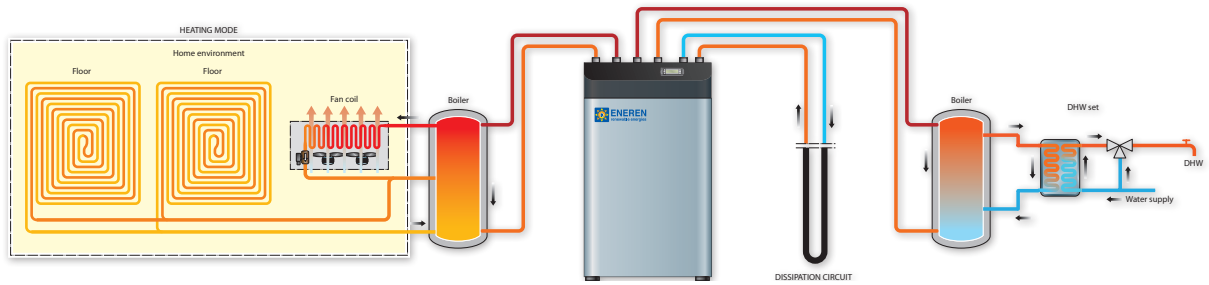
8 » **Endless energy supply**

9 » **No pollution**

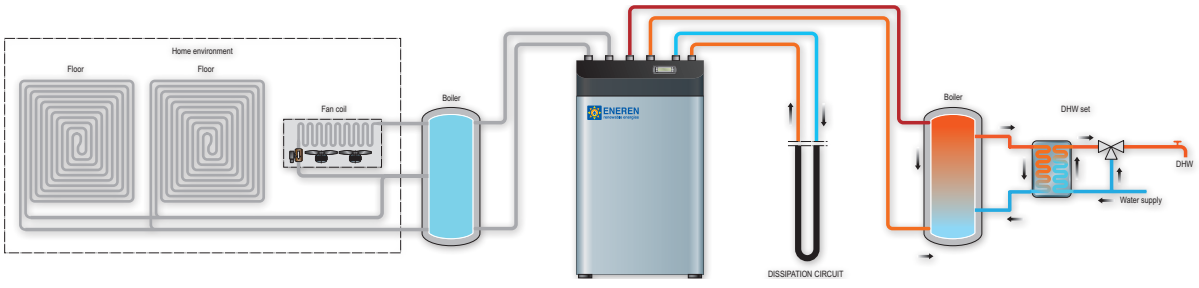
10 » **Low running costs** together with high **environmental sustainability**

11 » Single units **replace boilers and air-conditioning units**

HEATING MODE WITH DOMESTIC HOT WATER PRODUCTION



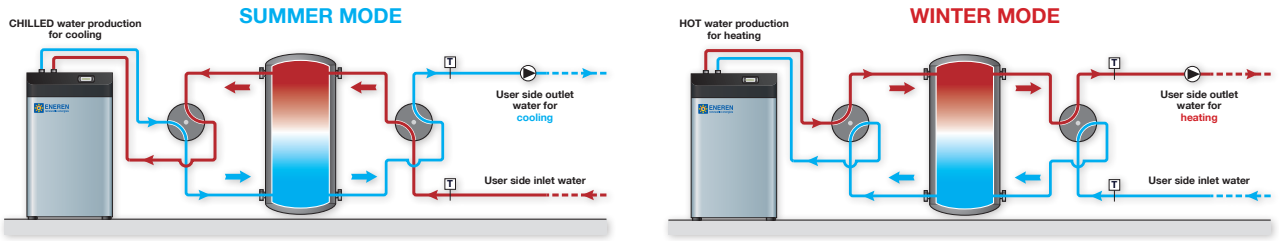
DOMESTIC HOT WATER PRODUCTION ONLY



COOLING MODE WITH DOMESTIC HOT WATER PRODUCTION AND TOTAL HEAT RECOVERY

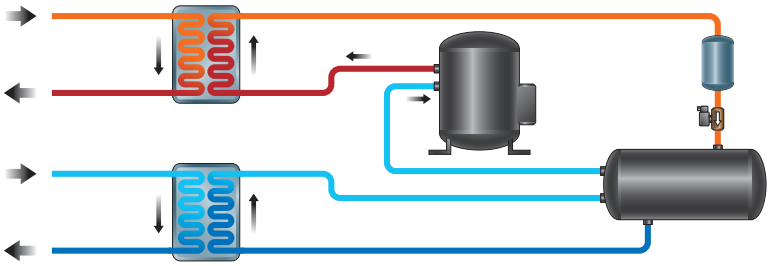
ENEREN innovation and efficiency

SEASONAL INVERSION OF FLOW DIRECTIONS



Seasonal inversion of flow direction with 4-way valves
completely managed by the heat pump itself. Optional for all our heat pumps.

FLOODED EVAPORATOR

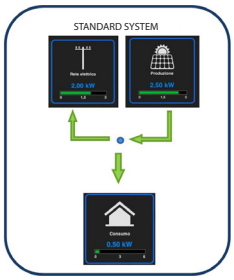


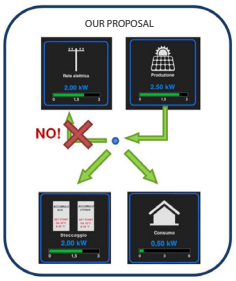
The flooded evaporator reduces the length of geothermal borehole arrays by up to 30%,
moreover allowing the use of water without antifreezing mixtures. Optional for the GSP unit.

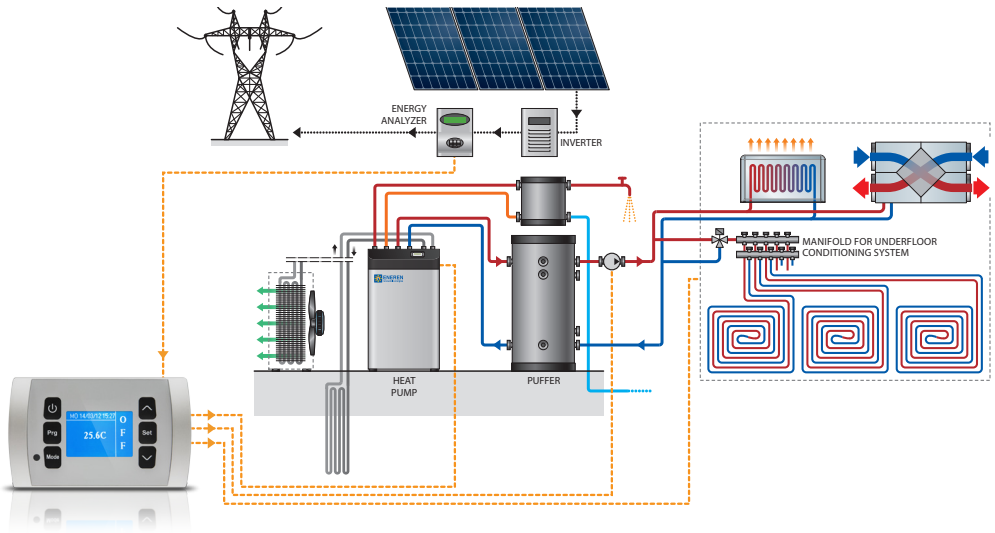
MY ECONOMY SYSTEM:
MODULATING HEAT PUMP SYNCHRONIZED WITH PHOTOVOLTAIC SYSTEM

MODULATING HEAT PUMP + PHOTOVOLTAIC SYSTEM + CONTROL UNIT =

√ HIGH ENERGETIC EFFICIENCY √ NO MANAGEMENT COSTS





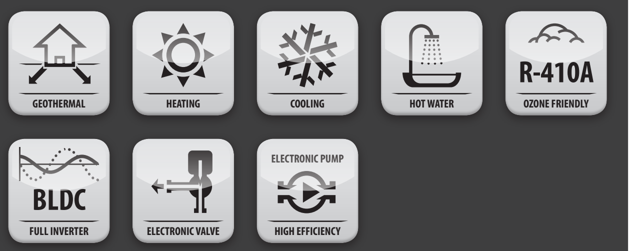


A UNIQUE CONTROL UNIT
TO MANAGE ALL COMPONENTS... AND MORE!

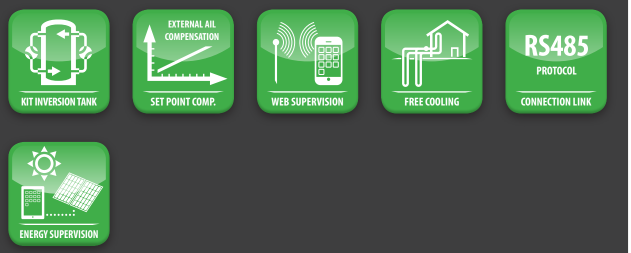
ENX

REVERSIBLE FULL INVERTER GEOTHERMAL HEAT PUMP
WITH DOMESTIC HOT WATER PRODUCTION

STANDARD FEATURES



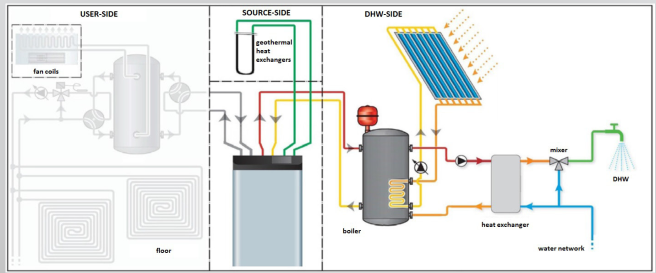
OPTIONAL ACCESSORIES

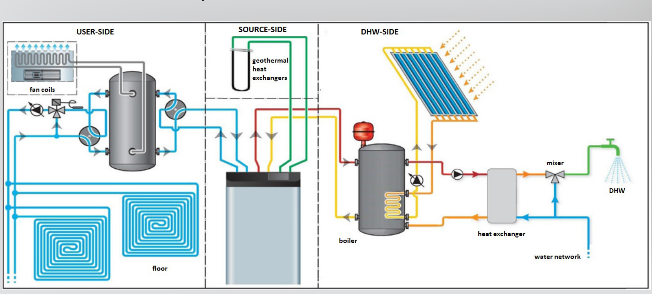


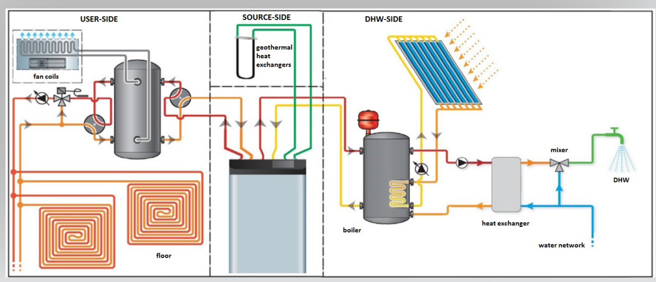
ENX is a water-condensed reversible modulating heat pump for residential use.

It can be coupled with open-loop (aquifer) or closed-loop (boreholes) geothermal systems.

Thanks to BLDC compressors it heats or cools the entire home and produces domestic hot water, giving priority to the latter, in a fully autonomous way and without back-up heaters.







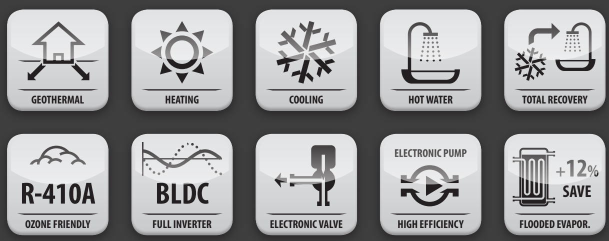
Technical data

		ENX 012		ENX 022		ENX 033	
		MIN	MAX	MIN	MAX	MIN	MAX
Heating B0 / W35	kW	2.7	10.9	8.8	21.6	11	29.5
Heating B10 / W35	kW	3.5	14.0	11.2	27.3	14.1	37.7
Cooling B30 / W7	kW	3.1	11.0	9.2	20.8	11.8	28.7
Cooling B30 / W18	kW	4.2	15.4	12.9	29.2	16.8	40.4
DHW B10 / W55	kW	3.1	12.6	10.2	25.0	12.3	33.3

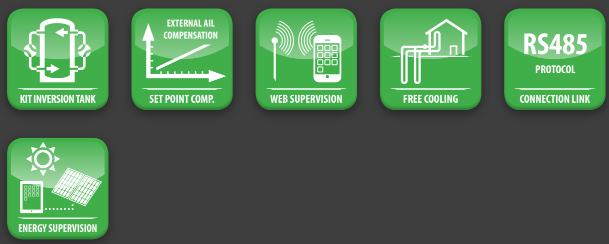
GSP

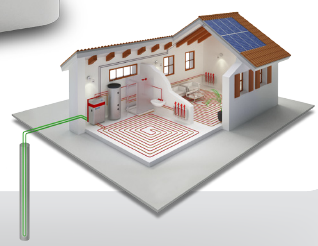
POLYVALENT FULL INVERTER GEOTHERMAL HEAT PUMP
WITH DOMESTIC HOT WATER PRODUCTION **IN TOTAL HEAT RECOVERY MODE**
COUPLED WITH **FLOODED EVAPORATOR TECHNOLOGY**

STANDARD FEATURES



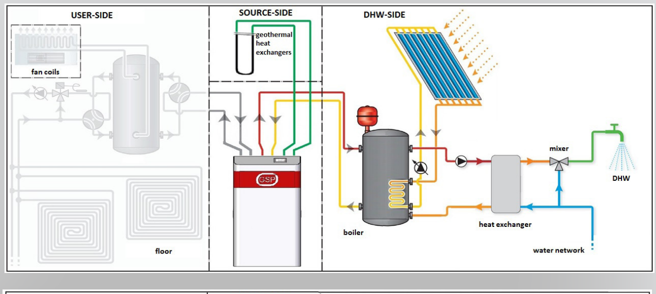
OPTIONAL ACCESSORIES

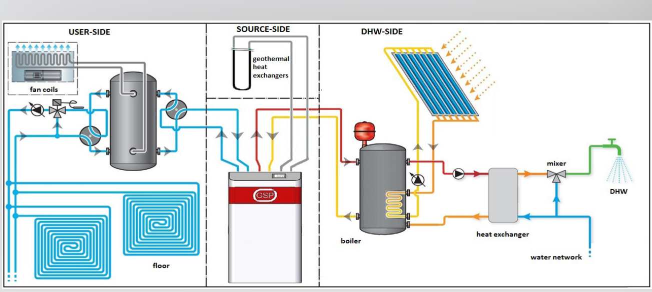


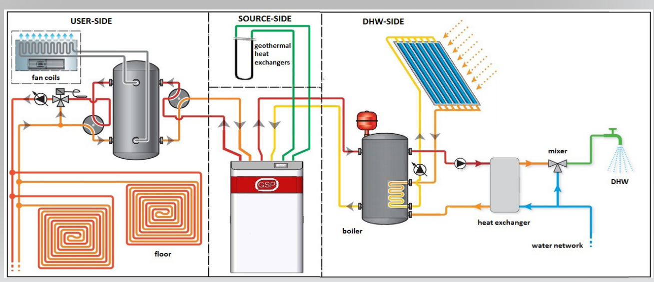


GSP is a water-condensed modulating and polyvalent heat pump for residential use with the possibility of producing DHW in total heat recovery mode.

Thanks to the flooded evaporator technology the geothermal borehole array is reduced by up to 30%; furthermore most applications do not require antifreezing mixtures (i.e. glycol) anymore increasing the system efficency by up to 12%.







Technical data		GSP 012		GSP 022		GSP 033		GSP 044	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Heating B0 / W35	kW	2.7	11.1	8.6	21.6	8.7	34.1	11.1	41.6
Heating B10 / W35	kW	3.5	14.3	11.1	27.6	11.2	43.5	14.4	53.5
Cooling B30 / W7	kW	3.2	12.8	10.0	24.7	10.1	38.0	13.3	46.5
Cooling B30 / W18	kW	4.2	17.6	13.5	38.7	13.5	52.6	16.2	58.8
DHW B10 / W55	kW	3.1	12.8	10.0	25.1	10.0	39.9	12.4	47.9

ENE

REVERSIBLE GEOTHERMAL HEAT PUMP
WITH DOMESTIC HOT WATER PRODUCTION

STANDARD FEATURES

- GEOTHERMAL
- HEATING
- COOLING
- HOT WATER
- R-410A OZONE FRIENDLY
- ELECTRONIC VALVE

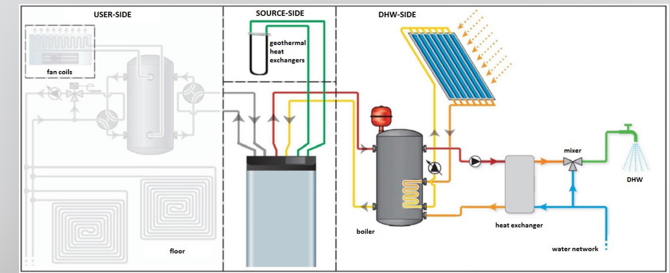
OPTIONAL ACCESSORIES

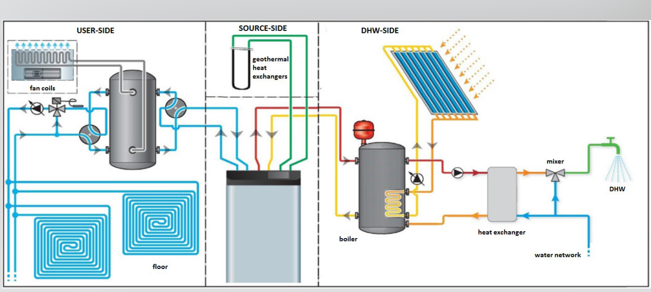
- KIT INVERSION TANK
- EXTERNAL AIR COMPENSATION SET POINT COMP.
- WEB SUPERVISION
- FREE COOLING
- RS485 PROTOCOL CONNECTION LINK
- ELECTRONIC PUMP HI EFFICIENCY
- LOW NOISE

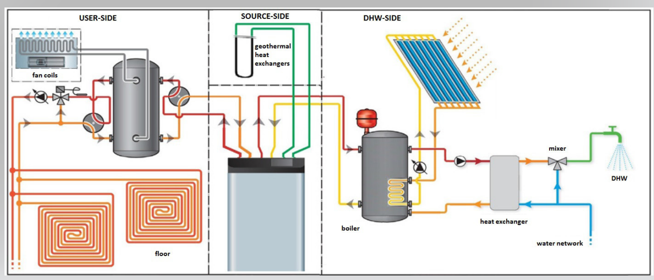
ENE is a water-condensed reversible heat pump for residential use.

It can be coupled with open-loop (aquifer) or closed-loop (boreholes) geothermal systems.

It heats or cools the entire home and produces domestic hot water, giving priority to the latter, in a fully autonomous way and without back-up heaters.







Technical data		ENE 006	ENE 009	ENE 012	ENE 017	ENE 022	ENE 025	ENE 030	ENE 033	ENE 040
Heating B0 / W35	kW	7.0	9.0	12.8	17.2	21.5	24.2	28.6	32.1	36.7
Heating B10 / W35	kW	9.1	11.5	16.2	21.8	27.3	30.7	36.3	40.7	46.5
Cooling B30 / W7	kW	7.1	8.9	12.7	17.1	21.0	24.0	28.1	31.9	35.9
Cooling B30 / W18	kW	10.0	12.4	17.6	23.5	28.9	33.0	38.7	44.0	49.5
DHW B10 / W55	kW	8.1	10.3	14.5	19.7	24.4	27.6	32.3	36.1	41.4

GSE

POLYVALENT GEOTHERMAL HEAT PUMP
WITH DOMESTIC HOT WATER PRODUCTION IN TOTAL HEAT RECOVERY MODE

STANDARD FEATURES

- GEOTHERMAL
- HEATING
- COOLING
- HOT WATER
- TOTAL RECOVERY
- R-410A OZONE FRIENDLY
- ELECTRONIC VALVE

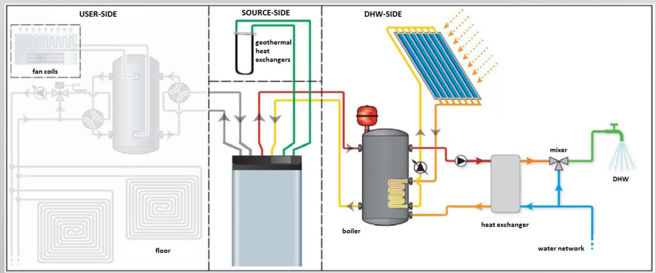
OPTIONAL ACCESSORIES

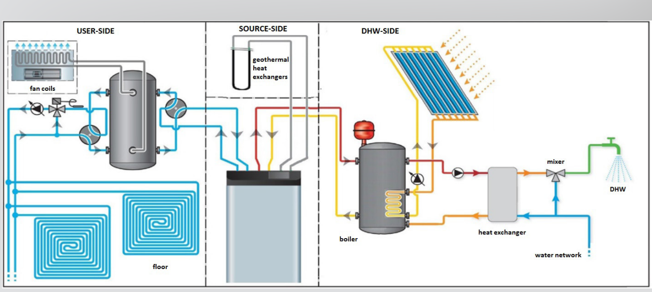
- KIT INVERSION TANK
- EXTERNAL AIL COMPENSATION SET POINT COMP.
- WEB SUPERVISION
- FREE COOLING
- RS485 PROTOCOL CONNECTION LINK
- ELECTRONIC PUMP HI EFFICIENCY
- LOW NOISE

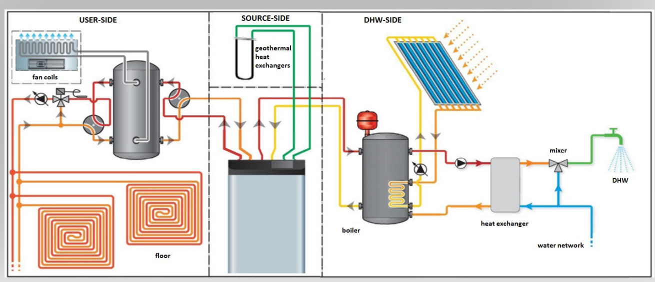
GSE is a water-condensed polyvalent heat pump for residential use with the possibility of producing DHW in total heat recovery mode.

It can be coupled with open-loop (aquifer) or closed-loop (boreholes) geothermal systems.

It heats or cools the entire home and produces domestic hot water, giving priority to the latter, in a fully autonomous way and without back-up heaters.







Technical data		GSE 006	GSE 009	GSE 012	GSE 017	GSE 022	GSE 025	GSE 030	GSE 033	GSE 040
Heating B0 / W35	kW	7.0	9.0	12.8	17.2	21.5	24.2	28.6	32.1	36.7
Heating B10 / W35	kW	9.1	11.5	16.2	21.8	27.3	30.7	36.3	40.7	46.5
Cooling B30 / W7	kW	7.1	8.9	12.7	17.1	21.0	24.1	28.1	31.9	35.9
Cooling B30 / W18	kW	10.0	12.4	17.6	23.5	28.9	33.0	38.7	44.0	49.5
DHW B10 / W55	kW	8.1	10.3	14.5	19.7	24.4	27.6	32.3	36.1	41.4

ENP

POLYVALENT GEOTHERMAL HEAT PUMP
WITH DOMESTIC HOT WATER PRODUCTION OR 4-PIPE VERSION
IN TOTAL HEAT RECOVERY MODE

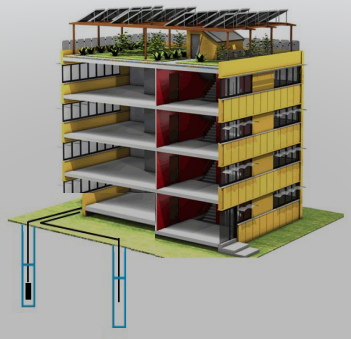
STANDARD FEATURES

OPTIONAL ACCESSORIES

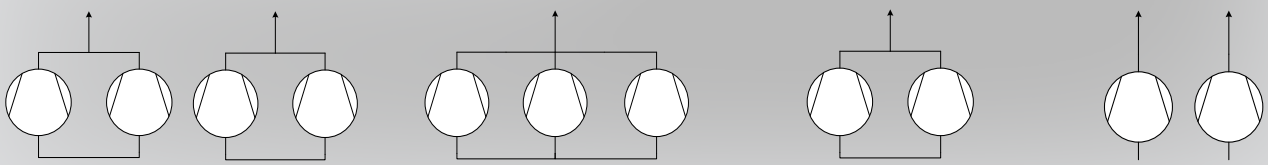
ENP is a water-condensed polyvalent heat pump for with the possibility of producing DHW in total heat recovery mode.

ENP units are suitable for medium-large capacity applications, such as multi-residential units or commercial applications.

Thanks to a dedicated refrigerating circuit in total heat recovery mode, ENP units can be used for DHW production or coupled with 4-pipes systems.



STANDARD COMPRESSORS / CIRCUITS CONFIGURATIONS



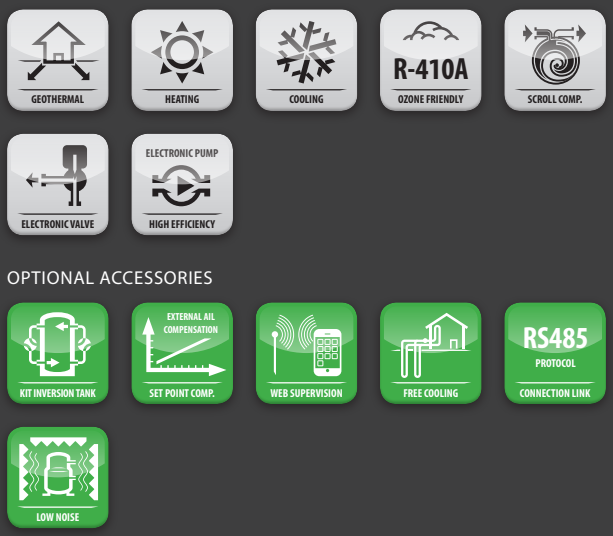
4 / 2 3 / 1 2 / 1 2 / 2

Technical data		ENP
Heating B0 / W35	kW	from 43 to 400
Heating B10 / W35	kW	from 54 to 508
Cooling B30 / W7	kW	from 48 to 445
Cooling B30 / W18	kW	from 68 to 610
DHW B10 / W55	kW	from 49 to 460

ENW

REVERSIBLE GEOTHERMAL HEAT PUMP

STANDARD FEATURES

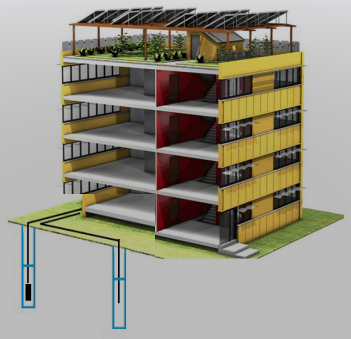


OPTIONAL ACCESSORIES

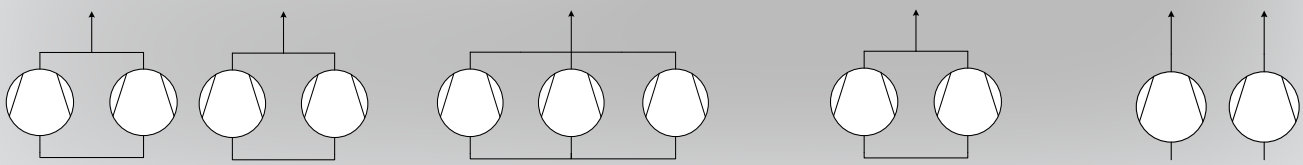
ENW is a water-condensed reversible heat pump.

ENW units are suitable for medium-large capacity applications, such as multi-residential units or commercial applications.

The high versatility of the system allows customers to choose from various efficency packs, with different numbers of compressors and refrigerating circuits, increasing both efficency and redundancy.



STANDARD COMPRESSORS / CIRCUITS CONFIGURATIONS



4 / 2 3 / 1 2 / 1 2 / 2

Technical data

		ENW
Heating B0 / W35	kW	from 43 to 460
Heating B10 / W35	kW	from 56 to 576
Cooling B30 / W7	kW	from 48 to 508
Cooling B30 / W18	kW	from 68 to 695

HHP

REVERSIBLE FULL INVERTER SPLITTED AIR-TO-WATER HEAT PUMP WITH DOMESTIC HOT WATER PRODUCTION

STANDARD FEATURES

AERO THERMAL · HEATING · COOLING · HOT WATER · R-410A OZONE FRIENDLY

BLDC FULL INVERTER · ELECTRONIC VALVE · ENERGY SAVING · ELECTRONIC PUMP HIGH EFFICIENCY · COUNTERCURRENT

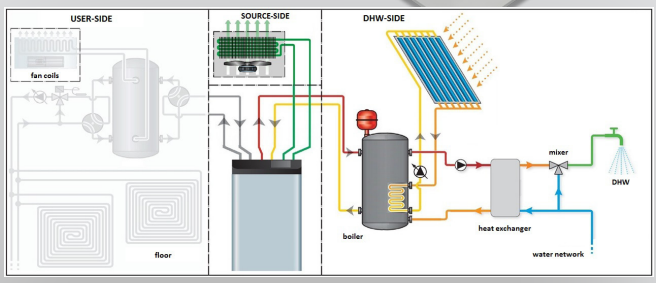
OPTIONAL ACCESSORIES

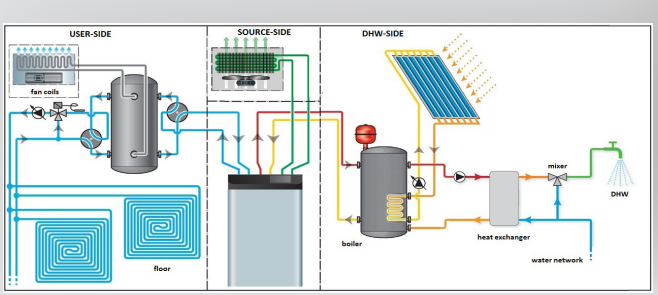
KIT INVERSION TANK · EXTERNAL AIL COMPENSATION SET POINT COMP. · WEB SUPERVISION · VARIABLE SPEED · RS485 PROTOCOL CONNECTION LINK

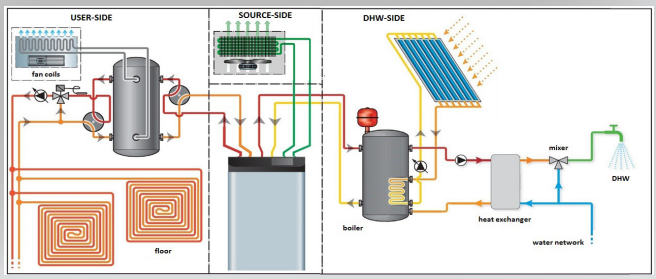
ENERGY SUPERVISION · LOW NOISE

HHP is a reversible air-to-water heat pump specific for residential use.

Thanks to BLDC compressors it heats or cools the entire home and produces domestic hot water, giving priority to the latter, in a fully autonomous way and without back-up heaters.







Technical data		HHP 008		HHP 012		HHP 022		HHP 033	
	Hz	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Heating A7 / W35	kW	3.1	8.2	3.2	12.6	10.0	24.0	10.2	37.0
Cooling A35 / W7	kW	3.0	7.5	3.1	11.3	9.4	21.6	9.7	32.5
Cooling A35 / W18	kW	3.9	10.4	4.0	15.8	12.8	30.1	12.9	44.9
DHW A7 / W55	kW	2.8	7.5	2.8	11.4	9.2	22.4	9.3	35.5

NOTES

NOTES

Key to symbols used

Heating mode

Cooling mode

DHW priority production

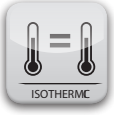
R 410 A refrigerant

BLDC compressors

Scroll compressors

Geothermal heat pump

Glycol free geothermal field



Isothermic version

Air filter

Low noise version

Electronic valve

Inversion tank kit

External temperature sensor for set point compensation

High efficiency fans

Remote supervision

High efficiency electronic pumps

DHW production with heat recovery

Dehumidification

High temperature water production

Aerothermal heat pump

Double cycle inversion

Flooded evaporator

Geothermal field reduction due to flooded evaporator

Free-cooling kit

Variable speed fans

RS485 serial board

R 134 A refrigerant

Heat recovery

Photovoltaic energy supervision

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