

Water-water geothermal heat pumps

GEO HF 40-100

Reversible geothermal heat pump with highly efficient domestic hot water production unit

Power from 40 to 100 kW

Functions

- ✓ Production of hot water for installation
- ✓ Production of cold water for installation
- ✓ Production of high temperature domestic water
- ✓ Production in priority of DHW simultaneous with the production for the installation

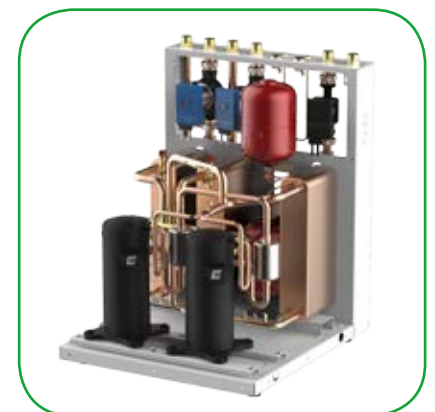
Main features

- ✓ high efficiency scroll-compressor
- ✓ inverter circulators on the three circuits (device, domestic, geothermal)
- ✓ total DHW recovery
- ✓ DHW production up to 65°C
- ✓ Galileus regulation for the whole system
- ✓ up to 5 heat pumps in series

Applications

Exchange on probe

Exchange on well



Models

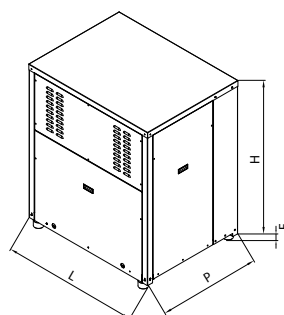
GEO/R	Heating-cooling for device and DHW production with geothermal probe
GEO/R/P	Heating-cooling for device and DHW production with well
GEO	Heating-cooling for device with geothermal probe
GEO/P	Heating- cooling for device with well

Technical data

GEO HF 40-100

Sizes		40	50	60	80	100
Winter functioning B0/W35						
Energy label		A++	A++	A++	A++	A++
Thermal power	kW	32.2	42.8	57.6	70.6	86.4
Compressor absorbed power	kW	7.1	9.7	12.9	16.0	19.4
COP		4.51	4.41	4.46	4.41	4.45
Device						
Device's water flow rate	m ³ /h	5.54	7.36	9.91	12.14	14.86
Head pressure	mca	16.1	13.3	14.3	13.0	13.3
Pump's absorbed power	kW	0.82	0.82	1.12	1.12	1.44
Geothermal						
Cooling power to exchange in probe	kW	25.5	33.6	45.4	55.4	68.0
Probe liquid flow rate	m ³ /h	7.31	9.63	13.01	15.88	19.49
Head pressure	mca	12.5	13.8	11.2	11.4	10.0
Pump's absorbed power	kW	0.82	1.12	1.12	1.44	1.44
Domestic B0/W50						
Thermal power	kW	30.6	39.2	52.6	64.8	81.8
Domestic water flow	m ³ /h	5.26	6.74	9.05	11.15	14.07
Head pressure	mca	4.3	3.1	3.8	3.0	3.5
Pump's absorbed power	kW	0.14	0.14	0.31	0.31	0.31
Winter functioning W5/W35						
Thermal power	kW	42.6	54.8	76.4	92.4	114.6
Compressor's absorbed power	kW	7.8	10.6	14.3	17.4	21.8
COP		5.46	5.16	5.34	5.31	5.25
Device						
Device's water flow rate	m ³ /h	7.33	13.14	11.35	15.89	19.71
Head pressure	mca	4.80	11.70	11.00	9.80	10.00
Well						
Cooling power to exchange in well	kW	35.3	44.8	62.8	75.8	94.0
Well's liquid flow rate	m ³ /h	6.07	7.71	10.80	13.04	16.17
Exchanger's pressure loss	mca	1.4	8.7	1.5	1.4	2.9
Summer functioning B30/W18						
Cooling power	kW	44.2	58.2	81.0	96.4	120.0
Compressor's absorbed power	kW	8.9	11.7	16.2	19.0	24.0
EER		4.96	4.97	5.00	5.07	5.00
Device						
Device's water flow rate	m ³ /h	7.60	10.01	13.9	16.58	20.64
Device's head pressure	mca	12.2	6.8	11.1	9.3	8.7
Geothermal						
Thermal power to exchange in probe	kW	52.8	69.4	96.4	114.4	142.8
Probe liquid flow rate	m ³ /h	9.08	11.94	16.58	19.68	24.56
Head pressure	mca	8.8	13.1	10.9	10.8	7.1
Compressor type				Scroll		
Number of compressors				2		
Refrigerant				R407c		
Power supply	V/Ph/Hz			400-3N-50		
Diametric hydraulic couplings		1" 1/2	1" 1/2	1" 1/2	2"	2"
Expansion vessels (device and geothermal)	litri	-	-	-	-	-
Water circuit max content	litri	-	-	-	-	-
Sound pressure at 1m	dB(A)	63	70	70	70	73
Weight (unpacked)	Kg	495	647	656	732	784
Weight (packed)	Kg	510	662	671	747	799

All indicated working conditions comply with the regulation EN14511



Dim.	Sizes				
	40	50	60	80	100
L	1200	1200	1200	1200	1200
P	914.7	914.7	914.7	914.7	914.7
H	1344	1344	1344	1344	1344
F	60	60	60	60	60

Code GEO HF 40-100



gas	Model	probe		well	
		Without recovery GEO HF Code Price	With recovery GEO HF/R Code Price	Without recovery GEO HF/P Code Price	With recovery GEO HF/R/P Code Price
R407c	40 T	444050038	444050015	444050054	444050040
	50 T	444050039	444050008	444050055	444050041
	60 T	444050009	444050011	444050056	444050042
	80 T	444050013	444050012	444050057	444050043
	100 T	444050071	444050070	444050073	444050072

Accessories

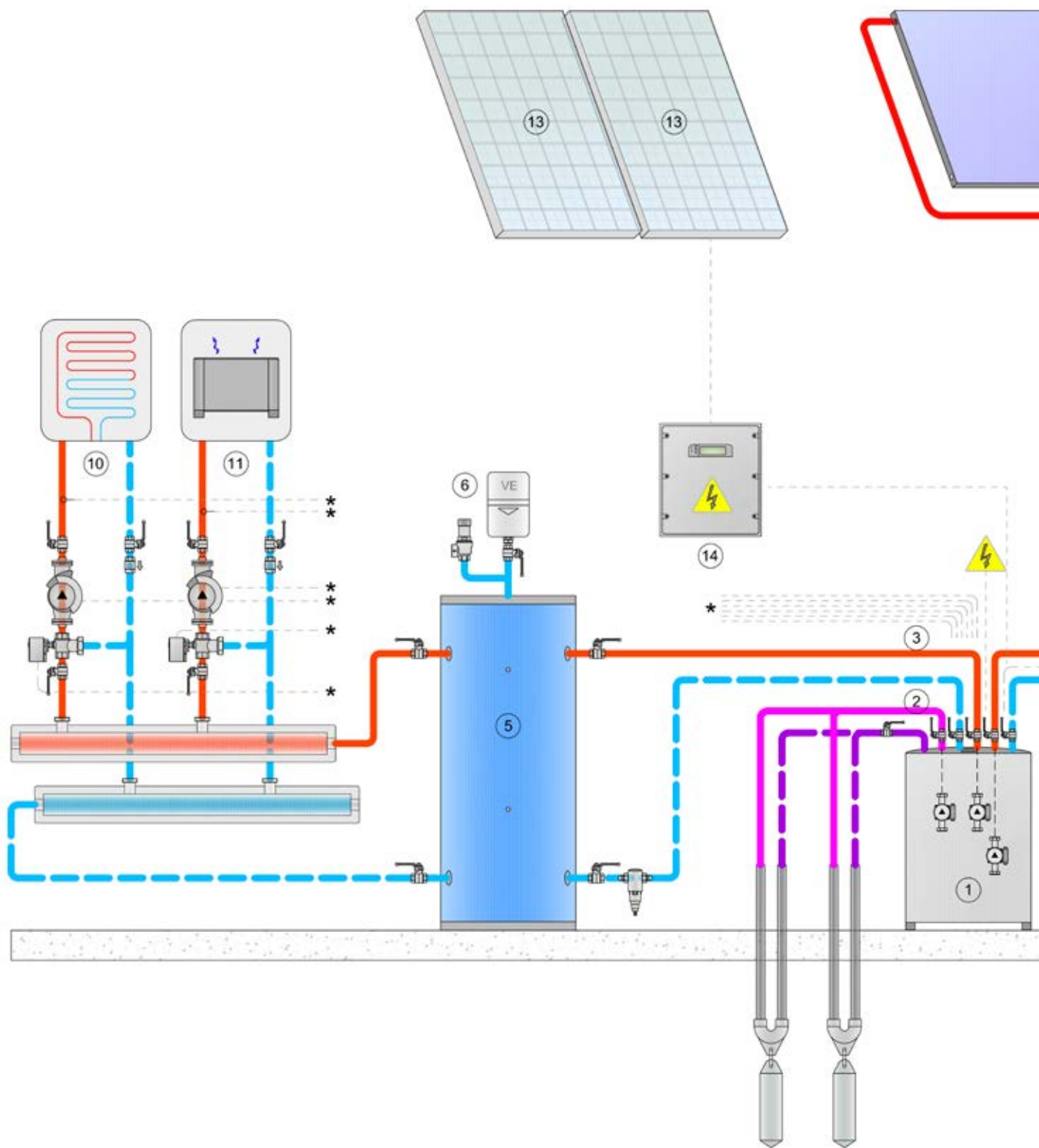
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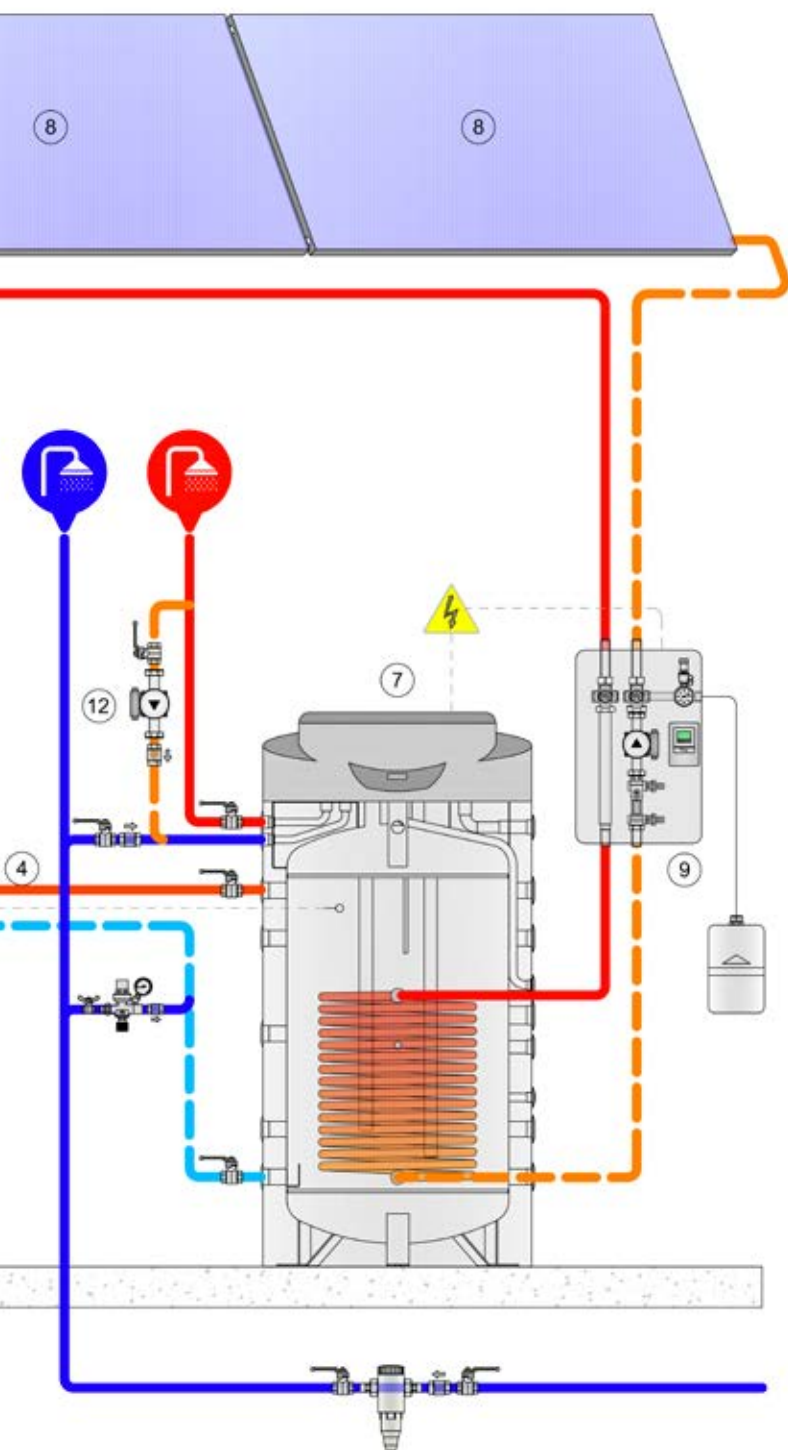
Control/regulation accessories			
code	description	price	function
452010006	Web Kit (remote control)		Makes it possible to control and supervise the installation via internet
452010010	Serial port kit RS485 Modbus		Makes it possible to communicate with the supervision systems through the Modbus protocol
452010074	Serial port kit Konnex		Makes it possible to communicate with the supervision systems through the Konnex protocol
452010075	Serial prot kit RS485 BACnet		Makes it possible to communicate with the supervision systems through the Bacnet protocol
452010050	My-zone kit with T/U thermostat		Thermostat for temperature and humidity. Max 30
452010051	My-board kit expansion kit for My-zone		Expansion kit to control the dehumidifier, the circulation pump, zone valve and mixing valve
452010053	Field-bus for zone RS485 kit		Necessary for connection of Galileus5 with Myzone and Myboard
452010061	My-power 3PH kit		Records and optimizes the auto-consumption of the energy produced by the photovoltaic installation. Version for three-phase meter
452010069	MY power 1ph kit		Records and optimizes the auto-consumption of the energy produced by the photovoltaic. Version for single phase meter
452010070	MY Touch 7 kit environment supervision panel		7" touchscreen screen for the management of the installation
452010065	Meter Source-installation-24x33 kit		Meter that measures the energy produced for cooling and exchange with the source. Size from 24 to 33 kW.
452010066	Meter Source-installation-sanitary 40>100 kit		Meter that measures the energy produced for cooling, DHW production and exchange with the source. Size from 40 to 100 kW
452010067	Meter Source-installation 40>100 kit		Meter that measures the energy produced for cooling and exchange with the source. Size from 40 to 100 kW

Accessories for the device			
code	description	price	function
421120020	MFREE A		Module for passive cooling – application size 40-50
421120022	MFREE B		Module for passive cooling – application size 60
421120016	MFREE C		Module for passive cooling – application size 80-100
452010003	Mixing kit		Makes it possible to regulate the supply temperature of the cooling device
452010004	GEO SOL		Makes it possible to regulate the solar thermal device. Solar circulator not provided.

Machinery Accessories			
code	description	price	function
452020118	GEO 40 soundproof cover kit		Soundproofing for compressor, size 40 kW
452020089	GEO 50-60-80 soundproof cover kit		Soundproofing for compressor, size 50 to 80 kW
452020079	GEO 100 soundproof cover kit		Soundproofing for compressor, size 100 kW

Installation chart GEO HFE - HF





- 1 GEO heat pump
- 2 Geothermal or well circuit with inverter pump
- 3 System circuit with inverter pump
- 4 DHW circuit with inverter pump
- 5 Accumulator tank, VKG-HC model
- 6 Safety kit
- 7 AQUAMATIC Accumulator tank with integrated DHW preparatero
- 8 Thermal solar collector
- 9 Solar pump kit
- 10 Heating system 1
- 11 Heating system 2
- 12 DHW recirculation sytem
- 13 PV system
- 14 PV inverter