EPH HE GEO

Geothermal water heat pump

- **Reversible heat pump**
- **A++ high efficiency**
- **Load-bearing and robust structure**
- **Low noise level**

EPH HE GEO are high efficiency geothermal heat pumps for indoor installation.

Available in 14 models with 1 or 2 compressor and 1 circuits with cooling capacity from 41 kW a 82.0 kW and heat capacity from 38 kW to 76 kW.

All groups are fitted with hermetic scroll type compressor sized for use with refrigerant type R407C.

The EPH units are scaled to satisfy installation requirements in commercial and industrial building, with particular focus on encumbrance and noise level and a series of accessory designed to facilitate installation and servicing.

The heat pumps of the EPH HE GEO series (previewed for the connection to geothermal exchangers) have been planned in order to guarantee one high efficiency also in particularly onerous conditions of job. The units mounted on a self supporting structure in galvanized steel section, painted with stove dried polyester powder.

All the groups are supplied completely wired and ready for connection to the user's system. Before delivery each machine is tested while functioning and the intervention of all the safety devices present is checked.

Accessories

Refrigerants gauges
Top remote control
Anti-vibration mount feet
Crankcase heater (INCLUDED)
Amb. temp. Sensor (DYNAMIC SET POINT)

Eph HE GEO Technical Data

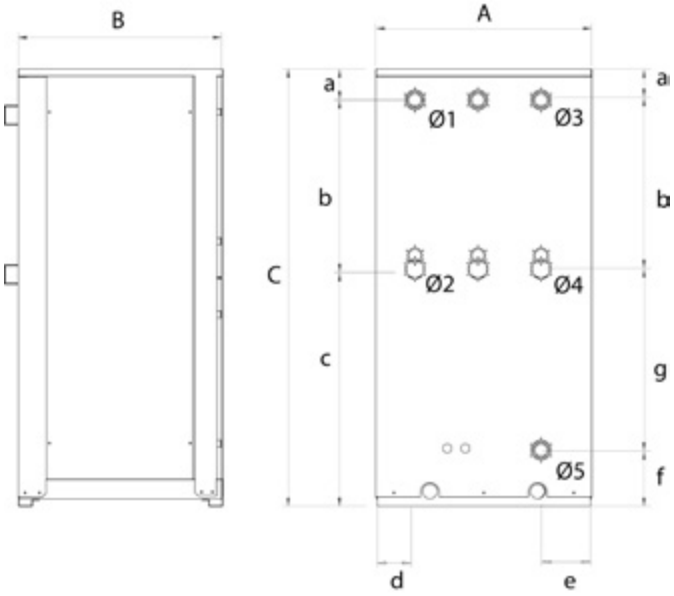
EPH HE GEO		151	092	102	122	152
Energetic class		A++	A++	A++	A++	A++
Cooling capacity (1)	kW	40,9	47,0	54,7	71,3	81,3
Heating capacity ((2)	kW	37,9	43,0	50,8	66,0	75,8
EER (1)	-	4,0	4,0	4,0	4,0	4,0
COP (2)	-	4,1	4,0	4,1	4,1	4,1
Scroll Compressors	n°	1	2	2	2	2
Refrigerant Circuits	n°	1	1	1	1	1
Capacity steps	n°	1	2	2	2	2
Supply voltage	V/Ph/Hz	400/3/50				
Sound power LwA	dB(A)	79,7	76,1	78,3	78,8	82,7
Sound pressure LpA	dB(A)	68,7	65,1	67,3	67,8	71,7
COMPRESSOR						
Power input *	kW	10,3	6,0	6,9	9,1	10,3
Current input *	A	20	12	14	17	20
Max current *	A	35	20	29	32	35
Current at start *	A	175	130	130	145	175
USER PLANT SIDE						
Brazed plate exchanger	n°	1	1	1	1	1
Water flow	l/s	2,39	2,75	3,19	4,18	4,76
Pressure drops	kPa	13,0	17,2	18,4	19,4	17,0
EXTERNAL SOURCE						
Brazed plate exchanger	n°	1	1	1	1	1
Water flow	l/s	2,39	2,75	3,19	4,18	4,76
Pressure drops	kPa	13,0	17,2	18,4	19,4	17,0
Water flow in winter	l/s	2,31	2,60	3,05	4,06	4,63
Pressure drops	kPa	12,2	15,4	16,8	18,4	13,5
TOTAL ELECTRIC ABSORPTION						
Power input in summer (1)	kW	10,14	11,69	13,43	17,78	20,28
Current input in summer (1)	A	19,9	23,9	27,8	33,8	39,7
Power input in winter (2)	kW	9,30	10,74	12,41	16,17	18,60
Current input in winter (2)	A	18,7	22,9	26,5	31,9	37,4
Max current	A	35,0	40,0	58,0	64,0	70,0
Current at start	A	175	142	144	162	195
SIZES AND WEIGHT						
Length	mm	600	1300	1300	1300	1300
Depth	mm	570	680	680	680	680
Height	mm	1375	1220	1220	1220	1220
Weight	Kg	270	365	370	372	422

(1) Cooling Operating conditions: plant exchanger water (inlet/outlet) 12/7°C - external source water temperature(inlet/outlet) 15/30°C
(2) Heating Operating conditions: plant exchanger water (inlet/outlet) 30/35°C - external source water temperature (inlet/outlet) 0/-3°C
Noise pressure according to ISO 3744

Sound pressure at 1 meters in free field
* Consumptions refered to a single compressor
Water flow and pressure drop plant exchanger are calculated with clean water.
COP Referred to compressor only

Technical Drawings

EPH HE GEO 151



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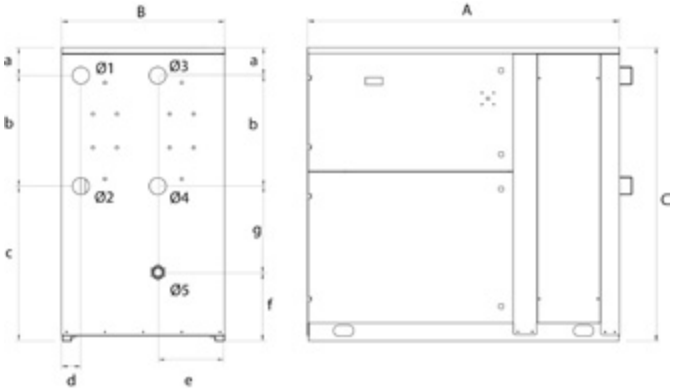

EPH HE GEO																	
	A	B	C	a	b	c	d	e	f	g	h	i	Ø1	Ø2	Ø3	Ø4	Ø5
151	600	570	1365	65	442	838	80	85	442	714	125	240	2"	2"	2"	2"	2"
092	1300	680	1220	116	460	624	80	116	460	360	284	280	2"	2"	2"	2"	2"
102	1300	680	1220	116	460	624	80	116	460	360	284	280	2"	2"	2"	2"	2"
122	1300	680	1220	116	460	624	80	116	460	360	284	280	2"	2"	2"	2"	2"
152	1300	680	1220	116	460	624	80	116	460	360	284	280	2"	2"	2"	2"	2"

EPH HE GEO	
Ø1	uscita acqua impianto
Ø2	ing. acqua impianto
Ø3	ing. acqua geo
Ø4	uscita acqua geo