HPE 66÷115 INVERTER

Air / water inverter heat pumps with double cooling circuit axial fans

DOUBLE REFRIGERANT CIRCUIT

CONTINUOUS PARTIALIZATION

UP TO 6% OF THE POWER

Model	Power Refrigeration kW	Power Thermal kW	Code	€
HPE 66 INVERTER	**79,7**	**72,7**	**37981801**	**37.190,00**
HPE 75 INVERTER	**90,5**	**78,6**	**37981802**	**37.900,00**
HPE 85 INVERTER	**102,8**	**90,5**	**37981803**	**40.630,00**
HPE 95 INVERTER	**116,5**	**108,1**	**37981804**	**45.200,00**
HPE 105 INVERTER	**127,3**	**114,0**	**37981805**	**47.350,00**
HPE 115 INVERTER	**139,3**	**125,8**	**37981806**	**47.920,00**

Accessories HPE 66÷115 INVERTER

A_CF External thermal flywheel for storage of technical water insulated with rigid polyurethane insulation 50 mm thick for mod. up to 1000 liters 100 mm thick flexible polyester treatment for mod. 1500 and 2000 liters	**A_CF 200**	**37306120**	**610,00**
	A_CF 300	**37306130**	**710,00**
	A_CF 500	**37306150**	**1.000,00**
	A_CF 800	**37306160**	**1.480,00**
	A_CF 1000	**37306170**	**1.660,00**
	A_CF 1500	**37306180**	**2.530,00**
	A_CF 2000	**37306190**	**3.180,00**
First ignition		**37980000**	**740,00**
Integrated Brushless Circulator		**37981001**	**2.130,00**
Antifreeze kit		**37981002**	**620,00**
Form GI		**37981003**	**550,00**

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Accessories HPE 66÷115 INVERTER	Code	€
Super silencing HPE 66 - 75 - 85 - 95 INVERTER	**37981004**	**2.430,00**
Super silencing HPE 105 - 115 INVERTER	**37981005**	**3.790,00**
Anti-corrosion treatment	**37981006**	**4.780,00**
Magnetothermic switches	**37981008**	**700,00**
Touchscreen remote control	**37980013**	**570,00**
Anti-vibration mounts	**37981009**	**420,00**

Refrigerant circuits

Refrigeration circuits are made using components from leading international companies and according to the UNI EN 13134 regulation concerning braze-welding processes.
The refrigerant used is R410A.
Each refrigerant circuit includes in its basic version: 4-way reversing valve valve, valve electronic expansion, liquid separator, liquid receivers, auxiliary circuit to reduce the times defrost, oil recovery circuit, non-return valves, inspection valves for maintenance and control, safety device according to PED regulation (high pressure switch), transducers of pressure, precision probes, high capacity dehydrating filter, mechanical filters.

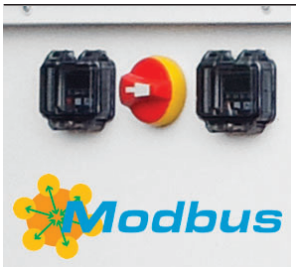
Compressors

The compressors are of the scroll type, mounted on rubber anti-vibration mounts. For each of the 2 circuits is present a DC inverter compressor.
In this way it is possible, in each circuit, to continuously modulate between minimum power of the inverter compressor only and the sum of the maximum powers of all the compressors of the circuit.
On all the units it is therefore possible to divide the output power and the absorbed power up to 9% of the maximum on models with 4 compressors and up to 6% in models with 6 compressors.
The crankcase heater is standard. The inspection of the compressors is possible through the front panel of the unit that allows the maintenance even with units in operation.

Electrical cabinet

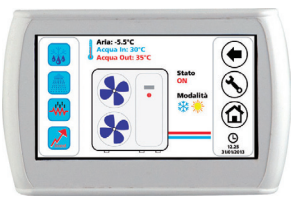
The electrical panel made in compliance with current European regulations, with IP54 protection rating and contains all the electromechanical and electronic components for regulation and control.
The electrical panel equipped with a terminal board with clean contacts for remote ON-OFF, summer switching / winter, the sanitary water sensor, and the remote control panel.
The addition of the optional GI module allows the management of additional plant functions.

Control system



All HPE 66 ÷ 115 INVERTER units are equipped with a microprocessor control unit with overheating control logic, electronic thermostatic valve and solenoid valves, of pressure transducers and temperature probes. The CPU also controls the following functions:
water temperature regulation, antifreeze protection, timing and insertion in compressor sequence, alarm management and reset, fan and pump modulation.
On request the microprocessor can be connected to remote control BMS systems by protocol ModBus. The control system, together with the INVERTER technology and the on-board sensors, monitors and quickly and continuously adapts the performance of the inverter compressor, the circulator and of the fan.

Control and protection devices



All units are supplied as standard with the following control and protection devices: temperature probe return water, working and antifreeze probe, high and low pressure transducers, temperature probes compressor suction and discharge, fans thermal protection, water side flow switch, pressure switch high pressure.

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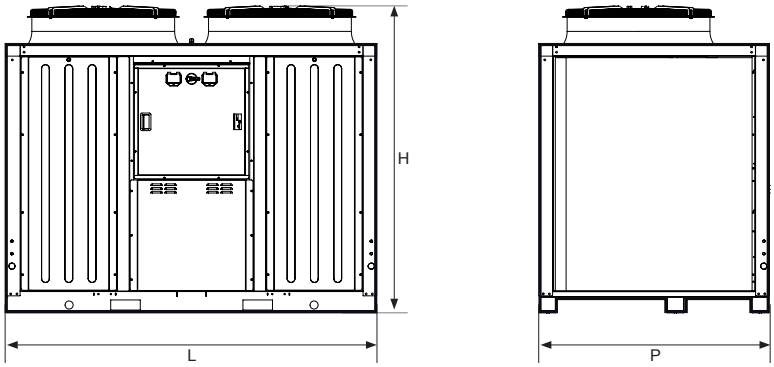
Dimensions HPE HPE 66÷115 INVERTER



Models	U.M.	HPE 66	HPE 75	HPE 85
L	mm	2250	2250	2250
P	mm	1170	1170	1170
H	mm	1985	1985	1985
Weight	Kg	767	771	793

Models	U.M.	HPE 95	HPE 105	HPE 115
L	mm	2250	2250	2250
P	mm	1170	1450	1450
H	mm	1985	1985	1985
Weight	Kg	835	923	929

Technical data table HPE 66 ÷ 115 INVERTER

DESCRIPTION	U.M.	HPE 66	HPE 75	HPE 85	HPE 95	HPE 105	HPE 115
Cooling capacity (1)	kW	79,6	90,2	102,8	113,2	127,2	139,3
Power consumption (1)	kW	21,8	24,6	28,1	31,0	34,9	38,1
EER (1)	W/W	3,65	3,66	3,65	3,60	3,65	3,65
Cooling capacity (2)	kW	65,5	74,6	83,8	94,7	105,5	114,2
Power consumption (2)	kW	22,6	25,7	28,7	32,6	36,0	39,4
EER (2)	W/W	2,90	2,90	2,91	2,90	2,92	2,9
ESEER (2)	W/W	4,16	4,15	4,18	4,10	4,15	4,10
Thermal power (3)	kW	72,8	78,4	90,4	108,7	114,3	126,3
Power consumption (3)	kW	18,0	19,3	22,3	26,7	28,1	31,2
COP (3)	W/W	4,05	4,06	4,05	4,06	4,06	4,05
Thermal power (4)	kW	69,0	74,6	85,9	102,7	108,3	119,6
Power consumption (4)	kW	21,6	23,3	26,8	32,1	33,8	37,4
COP (4)	W/W	3,20					3,20
SCOP (5)	W/W	3,79	3,98	3,77	3,78	3,96	3,78
Efficienza energetica		A++					
SCOP (6)	W/W	2,35	2,57	2,32	2,36	2,51	2,36
Energy efficiency		A	A+	A	A	A+	A
Type of compressor		2 DC Inverter + 2 On Off			2 DC Inverter + 4 On Off		
Fans (2)	n°x kW	2x1,4	2x1,6	2x1,8	2x1,8	2x2,8	2x3
Air flow	m^3/h	10,5	11,0	12,5	12,5	14,5	15,0
Supply		400V/3+N/50Hz					
Sound pressure (7)	dB(A)	75,0		76,5		77,0	
Sound power	dB(A)	73,6		75,0		76,5	
External temperature	°C	-15 / +46					
Pump power	W	1,10				1,21	
Water flow	l/s	3,18	3,58	4,01	4,65	5,04	5,46
Useful prevalence	kPa	83	79	76	74	82	77
Hydraulic connections		2” 1/2 F					
Min. Water volume	l	200			260		
Weight in operation	Kg	790	794	814	856	945	951
Gross weight	Kg	815	819	830	872	962	968

Preliminary data
(1) Chilled water from 23 to 18 °C, outdoor air temperature 35 °C.
(2) Chilled water from 12 to 7 °C, outdoor air temperature 35 °C
(3) Heated water from 30 to 35 °C, outdoor air temperature 7 ° C b.d. / 6 °C b.h.
(4) Heated water from 40 to 45 °C, outdoor air temperature 7 ° C b.d. / 6 °C b.h.
(5) Heating: average climate conditions; Tbiv = -7 °C; temp.water ent./iss. 30/35 °C
(6) Heating: average climate conditions; Tbiv = -7 °C; temp.water ent./iss. 50/55 °C
(7) Sound power (heating mode); A2B Accorroni determines the value based on measurements taken in accordance with the UNI EN ISO 9614-2 standard.