



Carno Premium HCS-PN-LS Split Air to water heat pump 4.7 – 12.4 kW with refrigerant R407c

Compact air-water heat pump with defrosting device using external air as a heat source. In comparison to most of air-water heat pumps, the actual heating equipment is fitted inside, so there is no external heat loss, and the weather doesn't have any effect on the equipment. In combination with the external air-brine heat exchanger, the heat energy is provided all the year round. The Carno brine-water heat pump and the air-brine heat exchanger are connected by brine liquid. The distance between heat pump and the external air-brine heat exchanger may be some metres. With the automatically adjustable ventilator, the equipment operates quietly all year round. The heat pump defrosts automatically when necessary.

The HAUTEC HCS-PN-LS is also suitable for higher capacity demand. Several air-brine heat exchangers may be connected together to the heat pump. Better efficiency may be achieved by increasing the underground collector area. The easy to install heat pump has built-in brine and heating kit, high efficiency suction gas cooled compressor, 2 stainless steel plate heat exchangers, one for the heating circuit and one for the source circuit is built on a proven Hautech chassis in a sound insulated housing. The heat pump is controlled with weather compensation and is supplied with a separate remote control. HCS-PN-LS-set composed of: Carno - S Premium absorber-brine-water-heat pump with controller, heating kit, brine kit, electric heating element, defrosting device and air-brine heat exchanger and an automatically adjustable ventilator.

Configuration:

- **built-in heat pump controller with plain text display**
- **mixing circuit control (temperature sensor must be ordered separately)**
- **high efficiency**
- **quiet**
- **easy assembling and easy operation**
- **built-in electric heating element**
- **built-in circulating pump for heat circuit**
- **built-in circulating pump for brine circuit**
- **built-in pressure transmitter (depending on the version)**
- **flow temperature: R407c max 65°C**
- **built-in cooling operation**

Optional:

- **built-in hot water priority switch**
- **built-in heat meter**
- **electronic circulating pumps**

SPLIT Air-brine



HAUTEC comfort heat pump controller HSC6001WPC, microprocessor controlled with weather compensation. It can control up to 2 heat generators for heating and domestic hot water and optional cooling, including 1 mixing circuit.

Conditions:

Output related switch of heat generator 1 (compressor), which can be operated in two power levels and additional heat generator 2 (e.g. electric heating element).

Digital clock with perpetual calendar, clock change summer/winter time, several adjustable clocktimer programs, separate counting of operation hours and number of starts for every heat generator, plain text display. Showing the flow and return temperature of the heating system and source entrance and exit temperatures, outside and inside temperatures. Easy handling with two buttons and error diagnostics.

With the master remote control it is possible to display up to 14 temperature values. Depending on the system configuration 4 - 8 of these will be free for use.

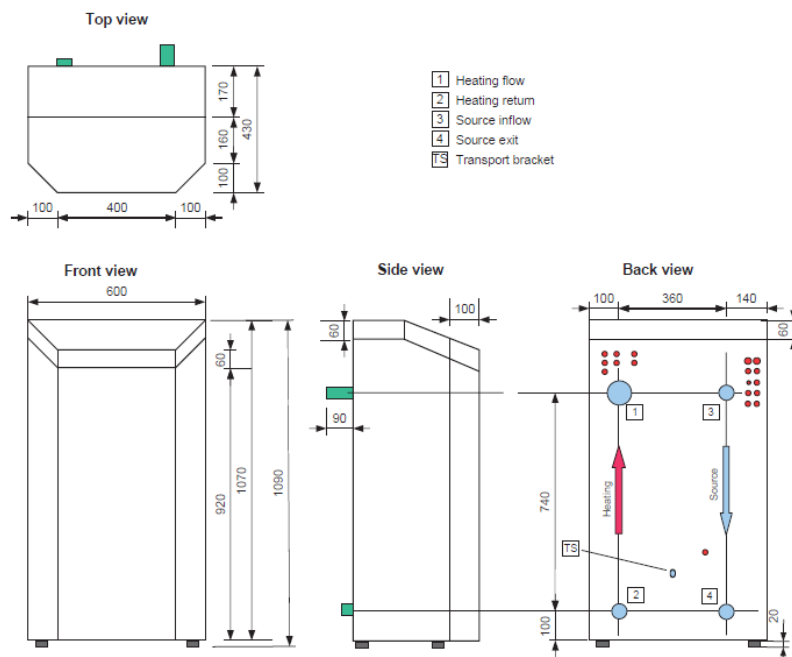
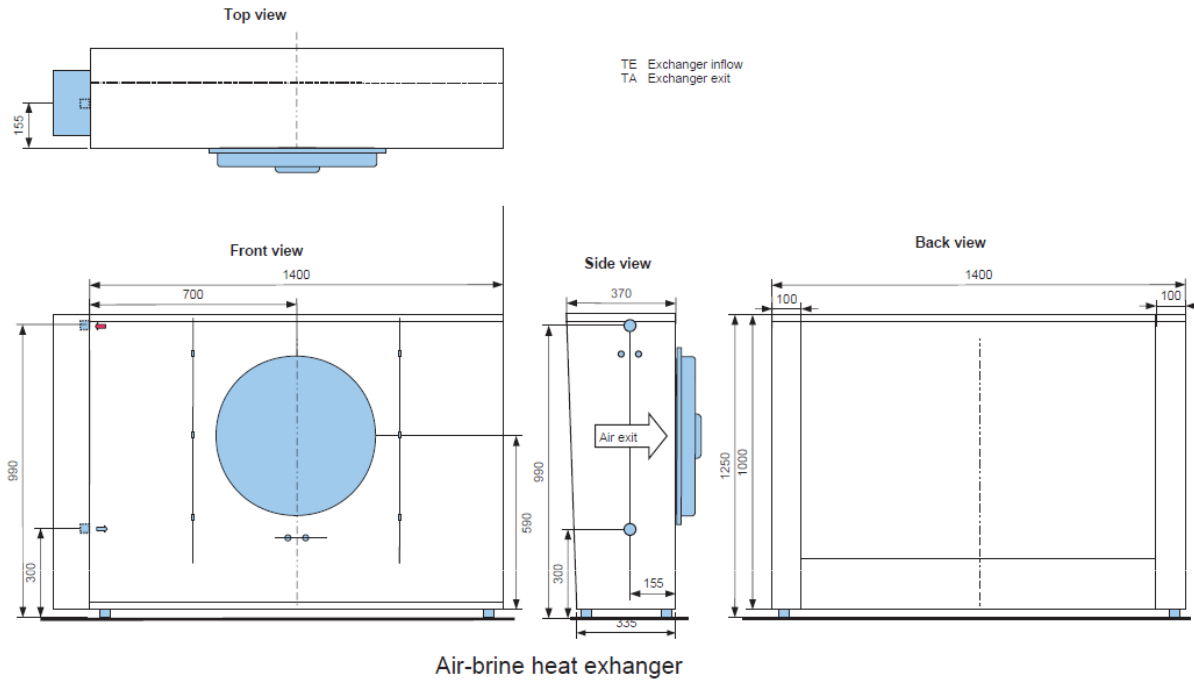
Optional:

Radio clock module, remote control with room temperature sensor, diagnostic module for data transmission on a PC.



HAUTEC digital remote control with plain text display and room temperature sensor to adjust the time, heating mode, automatic programs, holiday program or party mode. With the remote control the main values can be read out. A button for showing error messages, operation hours and number of starts for every heat generator, flow and return temperature of the heating system, source entrance and exit temperatures, outside and inside temperatures. The technician can use it as a master remote control to get other important informations such as temperature and low and high pressure of the refrigerant circuit.

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Type		HCS PN 19 LS-E	HCS PN 25 LS-E	HCS PN 32 LS-E	HCS PN 35 LS-E	HCS PN 42 LS-E	HCS PN 48 LS-E
Refrigerant		R407c	R407c	R407c	R407c	R407c	R407c
Refrigerant filling weight	kg	1,05	1,15	1,25	1,40	1,50	1,55
Heating capacity A7/W35	kW	4,7	6,4	8,1	9,1	11,1	11,9
Power consumption A7/W35	kW	1,04	1,36	1,70	2,00	2,37	2,46
Coefficient of performance A7/W35 (EN 255)		4,5	4,7	4,8	4,6	4,7	4,8
Coefficient of performance A7/W35 (EN 14511)		4,3	4,5	4,6	4,4	4,5	4,6
Heating capacity A7/W50	kW	3,6	5,0	6,6	7,4	9,3	10,0
Coefficient of performance A7/W50 (EN 255)		3,4	3,5	3,7	3,5	3,6	3,6
Coefficient of performance A7/W50 (EN 14511)		3,2	3,3	3,5	3,3	3,4	3,4
Source nominal air volume flow	m ³ /h	2800	3000	3800	4000	4300	3000 / 6000
Source min. volume flow (at 5K)	m ³ /h	0,73	1,01	1,30	1,44	1,75	1,90
Source nominal volume flow (at 3K)	m ³ /h	1,21	1,69	2,17	2,41	2,92	3,17
Source internal pressure drop (at 3K)	hPa	105	189	136	165	156	158
Source connection dimensions	Inch	1	1	1	1	1	1
Source entrance heat flow <40°C min.	°C	-15	-15	-15	-15	-15	-15
Source entrance heat flow <55°C min.	°C	-10	-10	-10	-10	-10	-10
Source entrance max.	°C	35	35	35	35	35	35
Source frost resistance	°C	-25	-25	-25	-25	-25	-25
Source entrance brine min.	°C	-18	-18	-18	-18	-18	-18
Heating min. volume flow (at 10K)	m ³ /h	0,40	0,55	0,70	0,79	0,95	1,02
Heating nominal volume flow (at 5K)	m ³ /h	0,80	1,10	1,40	1,57	1,90	2,04
Heating internal pressure drop (at 5K)	hPa	40	52	51	52	59	72
Heating connection dimensions	Inch	1	1	1	1	1	1
Heating flow temperature temporary max.	°C	65	65	65	65	65	65
Nominal voltage	V	230	400	400	400	400	400
Starting current	A	<30	<30	<30	<30	<30	30
Starting current (limited)	A						
Fuse (delay)	A	20	3x16	3x16	3x16	3x20	3x20
Measurement height	mm	1080	1080	1080	1080	1080	1080
Measurement width	mm	600	600	600	600	600	600
Measurement depth	mm	430	430	430	430	430	430
Weight	kg	118	118	141	141	143	150