



Carno Tandem HCW-PN Water to Water heat pump 33,7 – 81,7 kW with R407c refrigerant

The HAUTEC Carno series may be used in conjunction with underground water as heat source. The HAUTEC Carno models are for room heating and hot-water generating in residential and commercial buildings. The HAUTEC Carno heat pumps are constructed to run especially quietly. All models may be delivered for cooling in summer as option. With two compressors in a refrigeration circle the tact rate is reduced by the two-stage achievement regulation, above all in the warmer seasons and raise thus the annual work figures. Besides optimum economic efficiency, a maximum in residential comfort, the heat pump incorporates the new HAUTEC heat pump controller especially developed for heat pump applications. The operator has full control of all functions of his heating system. The build in ready for use HAUTEC source and heating kits and electric heating element reduce the on site assembly costs.

The Tandem heat pump has two high efficiency compressors, suction gas cooled with 2 stainless steel plate heat exchangers, one for the heating circuit and one for the source circuit. It is built in a sound insulated housing. Two compressors serve for the achievement adaptation with integrated phase sequence supervision. Up to 8 heat generators can be switched in cascade for major power demand. The brine- and heating circulating pumps, the hot water priority switch and the electric heating element are built-in, ready for operation. The pre-wired heat pump is controlled with weather compensation and is supplied with a separate remote control.

Configuration:

- **built-in heat pump controller with plain text display**
- **mixing circuit control (temperature sensor must be ordered separately)**
- **high efficiency**
- **even quieter operating by new construction method**
- **easy assembling and easy operation**
- **built-in soft starter**
- **phase sequence supervision**
- **built-in pressure transmitter (depending on the version)**
- **flow temperature: R407c up to max 60°C**
- **Up to 8 heat generators in cascade**

Optional:

- **cooling operation**
- **built-in electric heating element**
- **built-in circulating pump for heat circuit**
- **built-in well pump wiring**
- **built-in hot water priority switch**
- **built-in heat meter**
- **electronic circulating pumps**

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.

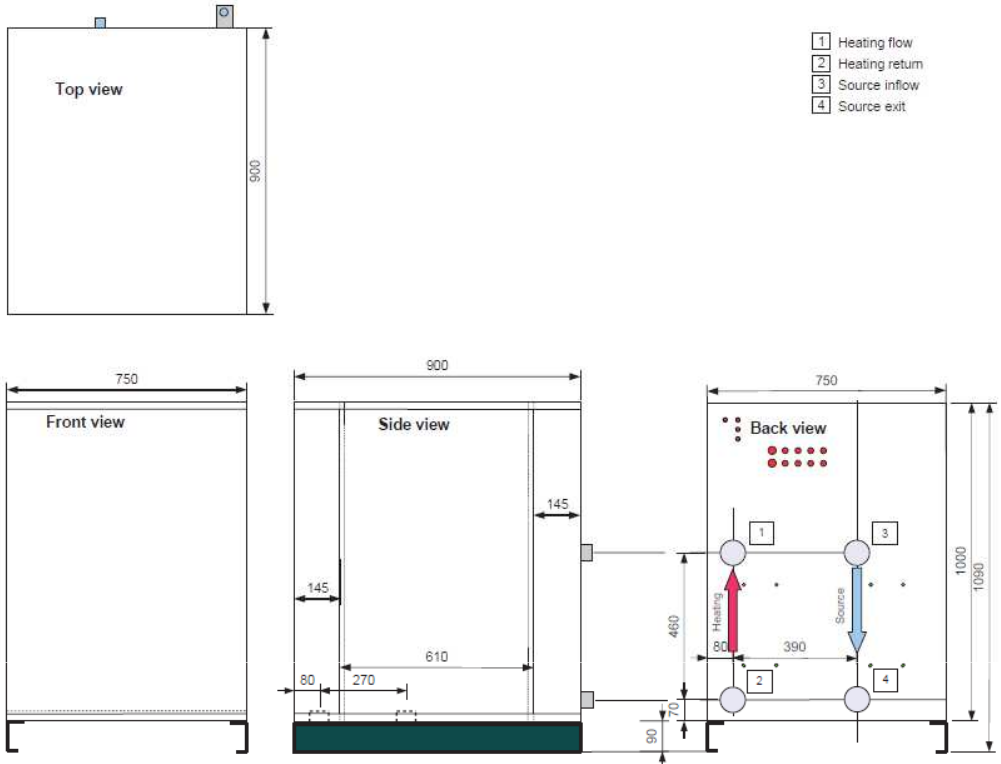
Optional:

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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HCW-PN-.../T2

Premium

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Type		HCW-PN 60/2T	HCW-PN 75/2T	HCW-PN 94/2T	HCW-PN 124/2T	HCW-PN 144/2T
Refrigerant		R407c	R407c	R407c	R407c	R407c
Refrigerant filling weight	kg	3,1	3,5	4,4	5,7	5,9
Heating capacity W10/W35	kW	16,9 / 33,7	20,5 / 41,0	28,3 / 56,5	34,4 / 68,8	40,9 / 81,7
Power consumption W10/W35 (EN 255)	kW	3,30 / 6,59	3,82 / 7,64	5,31 / 10,61	6,47 / 12,94	7,61 / 15,22
Coefficient of performance W10/W35 (EN 255)		5,1	5,4	5,3	5,3	5,4
Coefficient of performance W10/W35 (EN 14511)		4,9	5,2	5,1	5,1	5,2
Heating capacity W10/W50	kW	15,6 / 31,2	18,8 / 37,6	25,8 / 51,7	31,5 / 63,0	37,1 / 74,2
Coefficient of performance W10/W50 (EN 255)		3,5	3,6	3,7	3,8	3,7
Coefficient of performance W10/W50 (EN 14511)		3,3	3,4	3,5	3,6	3,5
Heating capacity W10/W65	kW					
Coefficient of performance W10/W65 (EN 255)						
Coefficient of performance W10/W65 (EN 14511)						
Source min. volume flow (at 5K)	m ³ /h	2,33 / 4,67	2,86 / 5,73	3,95 / 7,90	4,81 / 9,61	5,72 / 11,44
Source nominal volume flow (at 3K)	m ³ /h	3,89 / 7,78	4,77 / 9,55	6,58 / 13,16	8,01 / 16,02	9,53 / 19,06
Source internal pressure drop (at 3K)	hPa	222	334	322	450	458
Source connection dimensions	Inch	1 ¼	1 ¼	2	2	2
Source entrance min.	°C	7	7	7	7	7
Source entrance max.	°C	18	18	18	18	18
Heating min. volume flow (at 10K)	m ³ /h	1,45 / 2,90	1,76 / 3,52	2,43 / 4,86	2,96 / 5,92	3,51 / 7,03
Heating nominal volume flow (at 5K)	m ³ /h	2,90 / 5,83	3,52 / 7,08	4,86 / 9,78	5,92 / 11,90	7,03 / 14,14
Heating internal pressure drop (at 5K)	hPa	120	129	121	136	156
Heating connection dimensions	Inch	1 ¼	1 ¼	2	2	2
Heating flow temperature temporary max.	°C	60	60	60	60	60
Nominal voltage	V	400	400	400	400	400
Starting current	A	38	56	70	86	86
Starting current (limited)	A	19	29	40	42	48
Fuse (delay)	A	3x25	3x25	3x35	3x50	3x50
Measurement height	mm	1000	1000	1000	1000	1000
Measurement width	mm	750	750	750	750	750
Measurement depth	mm	900	900	900	900	900
Weight	kg	250	277	290	312	340