

Thermodynamic Solar system Heating at High Temperature

GTC HT PLUS

The **GTC HT PLUS** is an innovative heating system of high energy efficiency based on the heat pump system with solar gain which uses a thermodynamic panel as evaporator able to collect solar and environmental energy achieving an increase the overall system performance. This is a compact system that includes **buffer tank** and backup system for increased power when demand is required.

UP TO 65°C



Characteristics	Units	GTC04	GTC06	GTC08	GTC12
Nominal heating power *	kW	6.52	8.05	9.36	10.85
Absorbed intensity	A	9.09	11.83	12.21	12.59
Nominal electric power compressor	kW	2.19	2.91	3.04	3.18
Electric Power source (2 Units)	kW	4.8			
Absorbed Pump power	kW	0.132			
Maximum power consumed	kW	7.12	7.84	8.0	8.11
Power supply	V/ph/Hz	230 / 1 / 50			
Volume of buffer tank	L	100		150	
Number of panels	Ud.	4	6	8	12
Water connection (inlet/outlet)	Pulg.	1			
Minimal water flow in the condenser	l/s	0,31	0,38	0,45	0,52
Unit dimension (height / width / depth)	mm	1540/ 595/ 595		1830/ 595/ 595	
Collection surface	m ²	10,9	16,3	21,8	32,6

From the GTC16, the thermodynamic unit and buffer tank are supplied in separate blocks for reasons of weight and handling:

Characteristics	Units	GTC16	GTC24	GTC32
Nominal heating power *	kW	22.9	28.9	35.1
Absorbed intensity	A	13.99	16.01	20.08
Nominal electric power compressor	kW	7.16	8.95	10.8
Electric Power source (2 Units)	kW	10.8		
Absorbed Pump power	kW	0.4		
Maximum power consumed	kW	18.36	20.15	22
Power supply	V/ph/Hz	380 / 3 / 50		
Volume of buffer tank	L	250		
Number of panels	Ud.	16	24	32
Water connection (inlet/outlet)	Pulg.	1		
Minimal water flow in the condenser	l/s	1,1	1,38	1,68
Unit dimension (height / width / depth)	mm	840x708x630		
Buffer tank dimensions(alt/ long/ prof)	mm	840x708x630		
Collection surface	m ²	43,5	65,3	87

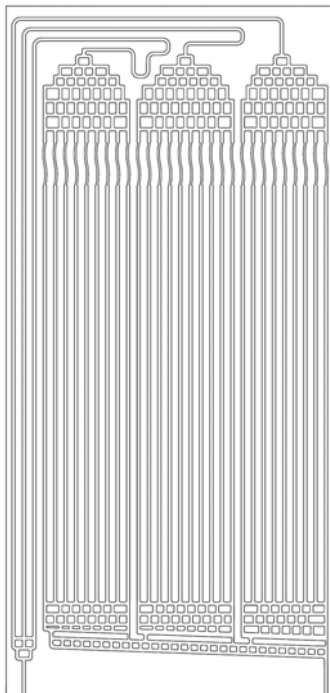
*Heating: Condensation T =65°C; Ambient T = 15 °C.



TECHNICAL SPECIFICATIONS

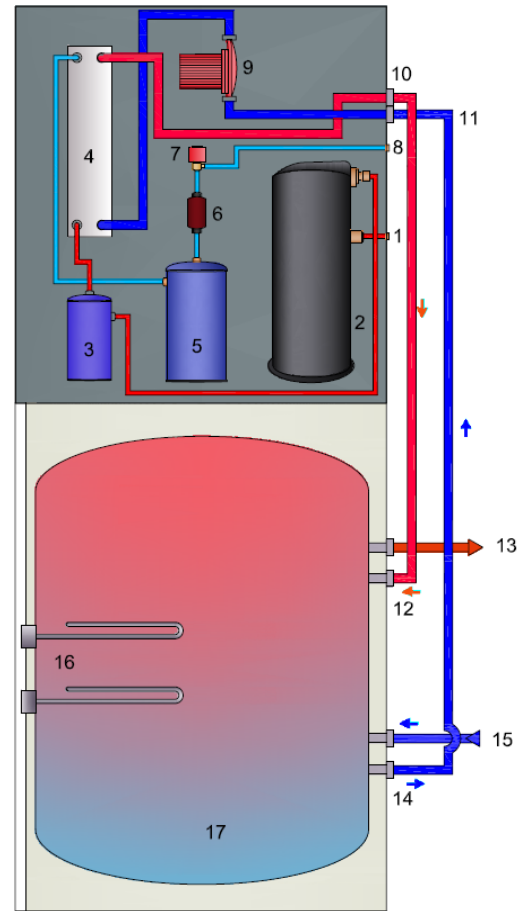
- Thermodynamic panels of 3.6 m² surface collection
- Compact unit in steel lacquered casing
- High efficient compressor
- Refrigerant gas R134a
- Plate heat exchanger made in steel AISI316
- Electronic expansion valve
- Units tested
- High-performance system
- Solar and environmental energy collection
- Outlet water temperatura up to 65°C
- Buffer tank 150L in stainless steel
- Heating backup with independent control

THERMODYNAMIC PANEL DIMENSION



1700 x 800 x 25 (mm)

COMPONENTS



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| 1. Gas inlet (from the panels) | 11. Cold water inlet from the buffer tank |
| 2. Compressor Scroll | 12. Water inlet to the tank |
| 3. Oil separator | 13. Hot water outlet to the installation |
| 4. Plate heat exchanger | 14. Cold water outlet to the unit |
| 5. Liquid receiver | 15. Cold water inlet from the installation |
| 6. Filter-drier | 16. Auxiliary electrical system |
| 7. Electronic expansion valve | 17. Buffer tank |
| 8. Liquid outlet (to the panels) | |
| 9. Water pump | |
| 10. Heat water outlet to the buffer tank | |

