



HEAT PUMP FOR AIR CONDITIONING , HEATING, AND HOT WATER SUPPLY

Efficient inverter HP class A fully compliant to EU directive ErP. HP controls working frequency depending on real workload for precise temperature control.

Inverter ventilator can accurately regulate airflow for efficient and stable operation.

Plate heat exchanger Alpha Laval and 2-stage compressor improve performance of HP.

Can be used with various types of heating devices: radiators, warm floors, fancoils, solar collectors, etc.

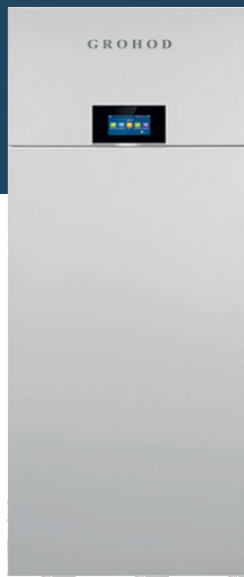
Wired controller with 5" LCD touch screen display. Built-in WiFi for remote management. Modbus interface for remote monitoring and integration with BMS system.

Intelligent management. Various modes of operation: weather-dependent mode, sleep mode, on-off timer, etc. Multilevel protection.

New intelligent defrosting algorithm:

- Defrosting on demand;
- Defrosting when necessary;
- Prolong defrosting when outdoor is heavily frost;
- Short defrosting.

GROHOD



UNITHERM 3 ALL-IN-ONE



INVERTER

R32

- 30°C...+48°C
- Energy Efficiency
- Self-diagnostics
- Auto-protection
- Anticorrosive cover
- TwoStage Compressor
- Timer
- Wired Controller
- BMS System Connection
- Intelligent Defrosting
- Intelligent Control
- Wifi

Model			GH-HPWTS4E	GH-HPWTS6E	GH-HPWTS8E	GH-HPWTS10E	GH-HPWTS12E
Capacity* (Floor cooling/heating)	Cooling	kW	3,80	5,80	7,00	8,50	11,00
	Heating	kW	4,00	6,00	8,00	9,50	12,00
Power input* (Floor cooling/heating)	Cooling	kW	0,80	1,32	1,75	2,24	2,50
	Heating	kW	0,78	1,20	1,70	2,07	2,40
EER (Floor cooling)*			4,75	4,40	4,00	3,80	4,40
COP (Floor heating)*			5,10	5,00	4,70	4,60	5,00
Capacity** (Floor cooling/heating)	Cooling	kW	3,15	4,09	5,30	6,50	10,59
	Heating	kW	4,00	5,90	8,00	9,50	12,40
Power input** (Floor cooling/heating)	Cooling	kW	0,92	1,28	1,73	2,27	3,79
	Heating	kW	1,02	1,51	2,14	2,64	3,29
EER (Floor cooling)**			3,40	3,20	3,00	2,90	2,79
COP (Floor heating)**			3,90	3,90	3,70	3,60	3,77
Refrigerant charge volume		kg	1,00	1,00	1,60	1,60	1,84
Power supply			~220-240V/50Hz/1Ph				
Sound Pressure Level	Cooling	db(A)	52	52	55	55	68
	Heating	db(A)	52	52	55	55	68
Dimensions (WxDxH)	Outline	mm	600×600×1756	600×600×1756	600×600×1756	600×600×1756	600×600×1756
	Packaged	mm	975×396×702	975×396×702	982×427×787	982×427×787	940×460×820
Weight	Net	kg	210	210	210	210	210
	Gross	kg	55	55	58	58	58
Operation range	Cooling	°C	+10...+48				
	Heating	°C	-25...+35				
	Water heating	°C	40-60*3				
Water circulating pipe inlet/outlet			1" Male BSP				

Model			GH-HPWTS14E	GH-HPWTS16E	GH-HPWTS12M	GH-HPWTS14M	GH-HPWTS16M
Capacity (Floor cooling/heating)	Cooling	kW	12,60	13,00	11,00	12,60	13,00
	Heating	kW	14,00	15,50	12,00	14,00	15,50
Power input (Floor cooling/heating)	Cooling	kW	3,41	3,60	2,50	3,41	3,60
	Heating	kW	2,98	3,44	2,40	2,98	3,44
EER (Floor cooling)*			3,70	3,60	4,40	3,70	3,60
COP (Floor heating)*			4,70	4,50	5,00	4,70	4,51
Capacity** (Floor cooling/heating)	Cooling	kW	11,07	11,51	10,65	11,24	11,52
	Heating	kW	14,48	16,09	12,29	14,44	16,13
Power input** (Floor cooling/heating)	Cooling	kW	4,18	4,49	3,74	4,13	4,38
	Heating	kW	3,93	4,44	3,09	3,63	4,16
EER (Floor cooling)**			2,65	2,57	2,85	2,72	2,63
COP (Floor heating)**			3,68	3,62	3,98	3,98	3,88
Refrigerant charge volume		kg	1,84	1,84	1,84	1,84	1,84
Power supply			~220-240V/50Hz/1Ph		~380-415V/50Hz/3Ph		
Sound Pressure Level	Cooling	db(A)	62	62	62	62	62
	Heating	db(A)	58	58	58	58	58
Dimensions (WxDxH)	Outline	mm	600×600×1756	600×600×1756	600×600×1756	600×600×1756	600×600×1756
	Packaged	mm	940×460×820	940×460×820	940×460×820	940×460×820	940×460×820
Weight	Net	kg	210	210	210	210	210
	Gross	kg	58	58	58	58	58
Operation range	Cooling	°C	+10...+48				
	Heating	°C	-25...+35				
	Water heating	°C	40-60*3				
Water circulating pipe inlet/outlet			1" Male BSP				

*Efficiency and performance measured under conditions: cooling - inlet/outlet water 23°C/18°C, outdoor temperature 23°C DB/24°C WB heating - inlet/outlet water 30°C/35°C, outdoor temperature 7°C DB/6°C WB

**Efficiency and performance measured under conditions: cooling - inlet/outlet water 12°C/7°C, outdoor temperature 35°C DB/24°C WB heating - inlet/outlet water 40°C/45°C, outdoor temperature 7°C DB/6°C WB