Unical

NEW

HP_OWER 500-700RK

HIGH POWER HEAT PUMP

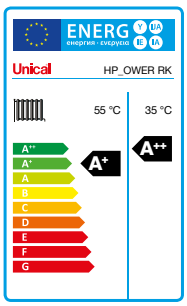
High efficiency **"Full inverter"** heat pumps, R32 refrigerant, designed for heating, cooling and DHW preparation. Outdoor installation.

- **Power range: 50 kW-70 kW**
- **Energy class A ++**
  C.O.P. up to 4.11
  E.E.R. up to 4.25
- Modularity up to **490 kW** (possibility of cascading **up to 7 machines**)
- **Low absorption DC SCROLL INVERTER compressors,** with limited noise emissions and continuous progressive modulation.
- **EC (Electronic Commutation) BRUSHLESS INVERTER fan motor** with air flow modulation for maximum efficiency
- Patented asymmetrical stainless-steel **water-gas exchanger,** for R32 refrigerant
- **Air-gas heat exchanger** made of copper pipes with aluminum fins for a greater exchange surface
- **Refrigerant R32**
- **Integrated digital regulator** for monitoring, control, setting of heat pump parameters and complete system configuration
- **Preparation management** of DHW storage tank (such as Enerboil) or combined storage tank of Technical Water with DHW production (such as Multipower)
- **INVERTER circulator, integrated as standard**
- **Standard supplied antifreeze kit** for protection of the plate exchanger (through heating cables) and inverter circulator
- **Weatherproof box** with removable panels for maximum accessibility to the refrigeration and hydraulic circuits
- **Silenced version "SLN" with "Super Low Noise" Kit,** consisting of a fan diffuser to facilitate the expulsion of air with consequent reduction of the fan speed, and a thermoacoustic coat of the compressor to reduce noise emissions and heat losses

- Management options:
  - via ModBUS protocol
  - with 0-10 Volt external control unit
  - ON / OFF chronothermostat
- **Autorestart and Self-diagnosis**
- **Colour Touch screen Remote control (optional),** for system configuration and module cascade management.

ErP

AMI
ABSOLUTELY MADE IN ITALY



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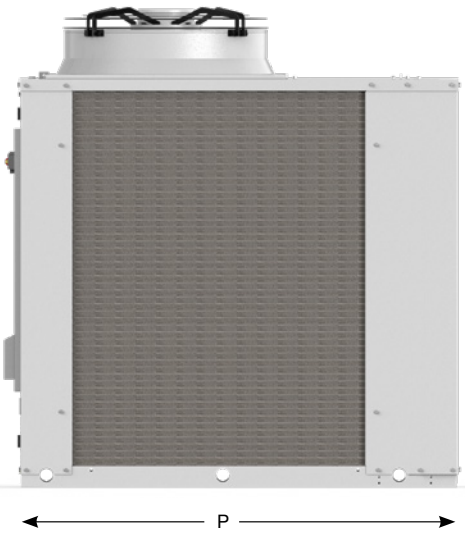
front view

side view



Accessories (optional)

REMOTE CONTROL
TOUCH SCREEN N

CHRONOTERMOSTAT
KTsmart

Technical data

HP_OWER			500RK	700RK
Season EFFICIENCY CLASS in heating mode (T_{out} = 35/55°C)			A++ / A+	A++ / A+
Cooling	Cooling capacity (1) min-nom-max	kW	31.20 - 55.30 - 62.30*	38.50 - 66.00 - 73.80*
	Input power (1)	kW	13.00	16.60
	E.E.R. (1)	W/W	4.25	3.98
	Cooling capacity (2) min-nom-max	kW	20.10 - 36.30 - 41.20*	27.10 - 53.20 - 58.20*
	Input power (2)	kW	11.70	17.70
	E.E.R. (2) / S.E.E.R. (5)	W/W	3.10 / 4.72	3.01 / 4.85
Heating	Heating capacity (3) min-nom-max	kW	24.10 - 50.20 - 56.30*	32.90 - 66.80 - 74.60*
	Input power (3)	kW	12.20	16.30
	C.O.P. (3)	W/W	4.11	4.10
	Heating capacity (4) min-nom-max	kW	22.80 - 49.70 - 55.90*	32.10 - 66.60 - 75.50*
	Input power (4)	kW	15.40	20.40
	C.O.P. (4) / S.C.O.P. (6)	W/W	3.23 / 4.16	3.26 / 3.94
Electric data	Power supply	V/Ph/Hz	400/3/50	400/3/50
	Maximum input power	kW	34	43
Hydraulic circuit	Water flow rate (2)	l/s	1.74	2.55
	Available head pressure (2) / (4)	kPa	138 / 109	151 / 122
	Minimum volume of water (8)	l	239	322
Noise level	Sound power L_w (9) / SLN version (9)	dB(A)	83 / 81	84 / 82
	Sound press. level at a dist. of 1m (10) / SLN version (10)	dB(A)	65.40 / 63.30	66.40 / 64.30
	Sound press. level at a dist. of 10m (10) / SLN version (10)	dB(A)	51.20 / 49.20	52.20 / 50.20
Dimensions and weight	Dimensions (L x H x D)	mm	1110 x 1920 x 1850	1110 x 1920 x 1850
	Dimensions SLN vers. (L x H x D)	mm	1110 x 1980 x 1850	1110 x 1980 x 1850
	Shipping weight / Operating weight	kg	535 / 540	595 / 600
R32 Refrigerant quantity		kg	9,5	12
External working temperature range		°C	-19 / +46	-19 / +46

Performance referring to the following conditions:

(1) Cooling: outdoor air temperature 35°C; in/out water temperature 23/18 °C
(2) Cooling: outdoor air temperature 35°C; in/out water temperature 12/ 7°C.
(3) Heating: outdoor air temperature 7°C DB 6°C WB; in/out water temp 30/35°C.
(4) Heating: outdoor air temperature 7°C DB 6°C WB; in/out water temp 40/45°C.
(5) Cooling: in/out water temperature 7/12°C.
(6) Heating: average climatic conditions; T_{biv}=-7°C; in/out water temp 30/35°C.
(7) Indicative data subject to variation. For the correct data, always refer to the technical label on the unit.
(8) The volume indicated refers to the total needed; the designer must satisfy it by considering the quantity already present inside the unit, according to the hydronic kit chosen (please check this value in the data sheet).
(9) Sound power level: full load unit in heating mode according to EU Regulation 813/2013 for medium and low temperature applications. Value determined on the basis of measurements carried out in accordance with EN 12102-1: 2017, used in conjunction with UNI EN ISO 9614-2 which describes the test with the Intensimetric method. The tolerance on the value of the total sound power level is 2 dB (A).
(10) Sound pressure level: value calculated from the sound power level using ISO 3744:2010, considering the units in the open field
(*) activating the "maximum Hz" function

Performance data declared in points (1), (2), (3) and (4) is intended to refer to instantaneous power according to UNI EN 14511. The value declared in point (5) and (6) is determined according to UNI EN 14825.

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