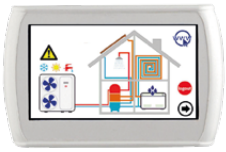
Unical

HP_OWER TWO

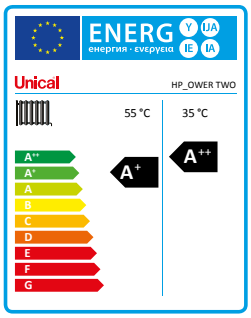
SPLIT SYSTEM, FULL INVERTER HEAT PUMPS

- Air-water, full inverter, **high efficiency** heat pump available in 2 models
- **Efficiency Class A++**
  C.O.P. up to 4.37 - E.E.R. up to 4.49
- Low absorption and noisiness, twin rotary, **DC Inverter compressor**
- **DC INVERTER BRUSHLESS fan motors**
- **Flow temperatures** up to 58°C
- Operation **up to -20°C**
- **Air-gas heat exchanger** made of copper pipes with aluminum fins and anti-mould treatment
- **Wall-mounted HYDRONIC KIT**
  composed of: safety valve 3 bar, air vent, INVERTER type circulator, circulation flow switch, expansion vessel 8 litres, filter
- **Water-gas plate heat exchanger** in stainless steel, patented, high efficiency, for R410A
- **D.H.W. production** through a dedicated storage tank
- **Refrigerant R410A**
- **Integrated digital regulator**
- **Remote touch screen control** (optional)
- **Management of integration source** through integral climatic controller
- **Standard supplied thermo-regulation** with control of modulating flow temperature
- Management with **external control 0-10 V** (optional)
- Management with external ON/OFF chrono-thermostat (optional)
- **Automatic management** of the integrative **electric resistance** for D.H.W. tank.
- **Automatic defrosting**
- **Compressor casing-preheating** for low temperatures
- **Auto-restart**
- **Self-diagnosis**



REMOTE CONTROL TOUCH SCREEN (optional)

CHRONOTHERMOSTAT KTsmart (optional)



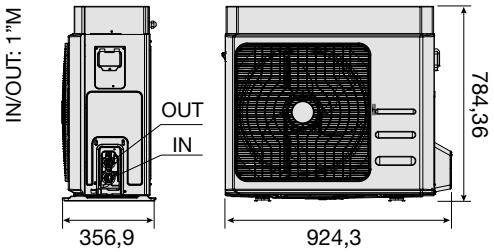
ErP

Unical

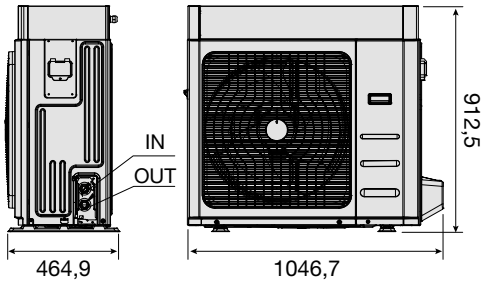
Dimensions and technical data

read more

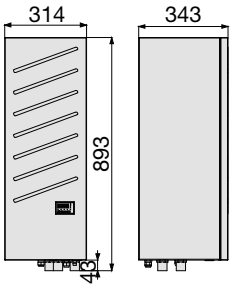
HP_OWER TWO 90 (external unit)



HP_OWER TWO 120 (external unit)



HYDRONIC KIT (internal unit)



HP_OWER TWO			90	120
Season EFFICIENCY CLASS in heating mode (T_{out} = 35/55°C)			A++ / A+	A++ / A+
Cooling	Cooling capacity (1) min.-nom.-max.	kW	4.65 - 8.52 - 9.12(*)	5.40 - 11.90 - 13.10(*)
	Power input (1)	kW	2.18(1) / 2.11(2)	2.65(1) / 2.74(2)
	E.E.R. (1)	W/W	3.91	4.49
	Cooling capacity (2) min.-nom.-max.	kW	2.95 - 6.12 - 6.73(*)	3.27 - 8.49 - 9.60(*)
	E.E.R. (2) / S.E.E.R. (5)	W/W	2.90 / 3.61	3.10 / 4.73
Heating	Heating capacity (3) min.-nom.-max.	kW	3.56 - 8.09 - 8.90(*)	4.69 - 12.10 - 12.70(*)
	Power input	kW	1.85(3) / 2.40(4)	2.89(3) / 3.32(4)
	C.O.P.	W/W	4,37(3) / 3,33(4)	4,19(3) / 3,41(4)
	Heating capacity (4) min.-nom.-max.	kW	2.88 - 8.00 - 8.80(*)	3.90 - 11.30 - 12.10(*)
	S.C.O.P. (6)	W/W	3.91	4.31
Electric data	Power supply		230V/1/50Hz	230V/1/50Hz
	Maximum power input	kW	4.7	6.0
	Maximum current input	A	20.4	26.1
Refrigerant piping	Liquid - gas side connections	inch SAE	3/8" - 5/8"	3/8" - 5/8"
	Max refrigerant pipe length	m	30	30
	Max length with standard refrigerant	m	7	7
	Additional refrigerant R410A quantity (10)	g/m	20	20
	Max level difference (9)	m	15 / 20	15 / 20
Hydraulic circuit	Water flow rate (3)	m^3/h	1.39	2.08
	Available head pressure (3)	kPa	55.5	35.7
	Minimum volume of water (7)	l	31	46
Noise level	Sound power U.I. / U.E. (8)	db(A)	32 / 62.5	38 / 63.5
Weight	Operating weight U.I. / U.E.	kg	36 / 62	36 / 83.5

(*) Hz max function enablement.
Prestazioni riferite alle seguenti condizioni:
(1) Cooling: Outdoor air temperature 35°C; inlet/outlet temperature 23/18°C.
(2) Cooling: Outdoor air temperature 35°C; inlet/outlet temperature 12/7°C.
(3) Heating: Outdoor air temperature 7°C DB 6°C WB; inlet/outlet temperature 30/35°C.
(4) Heating: Outdoor air temperature 7°C DB 6°C WB.; inlet/outlet temperature 40/45°C.
(5) Cooling: water temperature inlet/outlet 7/12°C.
(6) Heating normal climatic condition: Tbiv=-7°C; eater temperature inlet/outlet 30/35°C.
(7) Calculated for a decrease of the plant water temperature with 10°C and including defrosting cycle maintained for 6 minutes.
(8) Sound power level: Heating mode condition (3) measured value made according to UNI EN ISO 9614-2, as required for Eurovent certification.
(9) Data for: indoor unit is up and outdoor unit is down / indoor unit is down and outdoor unit is up (in this case a siphon must be created each 3m of the piping length).
(10) Additional refrigerant for pipe dimensions coherent with the intended connections.

N.B. The performance data are indicative and could be subject to change. In addition, the performances declared in apex (1), (2), (3) and (4) refer to the instantaneous power according to EN 14511. The declared data stated in the apex (6) is determined according to the UNI EN 14825.

Ed. n° 1 - 07/2020 code 00338241

Unical AG S.p.A. 46033 castel d'ario - mantova - italy - tel. +39 0376 57001 - fax +39 0376 660556 - export@unical-ag.com - www.unical.eu