

Subtype HP_OWER 500RK/500RK A400

Certificate Holder	Unical AG S.p.A
Address	Via Padana Inferiore 52/C
ZIP	29012
City	Caorso (PC)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	HP_OWER 500RK/500RK A400
Registration number	ICIM-PDC-000286
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	8.5 kg
Certification Date	23.09.2024
Testing basis	Heat Pump KEYMARK V9

Model HP_OWER 500RK; HP_OWER 500RK A400

Model name	HP_OWER 500RK; HP_OWER 500RK A400
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	50.20 kW	48.30 kW
El input	12.20 kW	18.02 kW
COP	4.11	2.68

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	11.69 kW	
Cooling capacity	36.30	
EER	3.11	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	163 %	122 %
Prated	44.00 kW	44.00 kW
SCOP	4.16	3.11
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	39.30 kW	39.20 kW
COP Tj = -7°C	2.22	1.55
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	24.90 kW	23.80 kW
COP Tj = +2°C	4.25	3.06
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	24.70 kW	23.70 kW
COP Tj = +7°C	5.55	4.48
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	28.50 kW	27.70 kW
COP Tj = 12°C	7.22	7.10
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	39.30 kW	39.20 kW
COP Tj = Tbiv	2.22	1.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	34.00 kW	34.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.91	1.25
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	58 °C	58 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	76 W	76 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.00 kW	9.40 kW
Annual energy consumption Qhe	22063 kWh	29398 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	36.30 kW	
SEER	4.72	
Pdc Tj = 35°C	36.30 kW	
EER Tj = 35°C	3.11	
Cdc Tj = 35 °C	1.000	
Pdc Tj = 30°C	26.80 kW	
EER Tj = 30°C	3.93	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	21.65 kW	
EER Tj = 25°C	5.00	
Cdc Tj = 25 °C	0.990	
Pdc Tj = 20°C	23.94 kW	
EER Tj = 20°C	6.45	
Cdc Tj = 20 °C	0.990	
Poff	22 W	

PTO	0 W
PSB	28 W
PCK	0 W
Annual energy consumption Qce	4614 kWh