

Subtype HP_OWER ONE 70RD1/90RD1

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 ONE 70RD1/90RD1
Registration number	ICIM-PDC-000280
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	0.97 kg
Certification Date	23.09.2024

Model HP_OWER ONE 70RD1

Model name	HP_OWER ONE 70RD1
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	1x230V 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	6.13 kW	5.95 kW
El input	1.25 kW	2.04 kW
COP	4.90	2.92

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.64 kW	
Cooling capacity	5.19	
EER	3.16	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	126 %
Prated	7.00 kW	7.00 kW
SCOP	4.46	3.22
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	6.10 kW	6.00 kW
COP Tj = -7°C	2.96	2.17
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.80 kW	3.60 kW
COP Tj = +2°C	4.49	3.22
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.20 kW	3.00 kW
COP Tj = +7°C	5.37	3.82
Cdh Tj = +7 °C	0.963	0.972
Pdh Tj = 12°C	3.50 kW	3.30 kW
COP Tj = 12°C	7.29	5.05
Cdh Tj = +12 °C	0.954	0.966
Pdh Tj = Tbiv	6.10 kW	6.00 kW
COP Tj = Tbiv	2.96	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	6.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.90 kW	1.00 kW
Annual energy consumption Qhe	3211 kWh	4321 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	5.19 kW	
SEER	4.42	
Pdc Tj = 35°C	5.19 kW	
EER Tj = 35°C	3.16	
Pdc Tj = 30°C	3.80 kW	
EER Tj = 30°C	4.04	
Cdc Tj = 30 °C	0.977	
Pdc Tj = 25°C	2.45 kW	
EER Tj = 25°C	4.80	
Cdc Tj = 25 °C	0.957	
Pdc Tj = 20°C	2.86 kW	
EER Tj = 20°C	6.51	
Cdc Tj = 20 °C	0.950	
Poff	22 W	
PTO	0 W	

PSB	28 W
PCK	0 W
Annual energy consumption Qce	705 kWh

Model HP_OWER ONE 90RD1

Model name	HP_OWER ONE 90RD1
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	1x230V 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	7.81 kW	7.63 kW
El input	1.71 kW	2.62 kW
COP	4.57	2.91

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.97 kW	
Cooling capacity	6.14	
EER	3.12	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	128 %
Prated	8.00 kW	7.00 kW
SCOP	4.46	3.27
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	6.80 kW	6.60 kW
COP Tj = -7°C	2.98	2.21
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.20 kW	3.90 kW
COP Tj = +2°C	4.58	3.26
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.20 kW	3.00 kW
COP Tj = +7°C	5.16	3.90
Cdh Tj = +7 °C	0.965	0.972
Pdh Tj = 12°C	3.60 kW	3.40 kW
COP Tj = 12°C	6.85	5.23
Cdh Tj = +12 °C	0.958	0.966
Pdh Tj = Tbiv	6.80 kW	6.60 kW
COP Tj = Tbiv	2.98	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.71	2.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.20 kW	0.60 kW
Annual energy consumption Qhe	3560 kWh	4721 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	6.14 kW	
SEER	4.51	
Pdc Tj = 35°C	6.14 kW	
EER Tj = 35°C	3.12	
Pdc Tj = 30°C	4.51 kW	
EER Tj = 30°C	4.08	
Cdc Tj = 30 °C	0.980	
Pdc Tj = 25°C	2.90 kW	
EER Tj = 25°C	4.85	
Cdc Tj = 25 °C	0.963	
Pdc Tj = 20°C	2.90 kW	
EER Tj = 20°C	6.27	
Cdc Tj = 20 °C	0.952	
Poff	22 W	
PTO	0 W	

PSB	28 W
PCK	0 W
Annual energy consumption Qce	825 kWh