

Subtype HP_OWER ONE 160RT/180R

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 160RT/180R
Registration number	ICIM-PDC-000283
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	4 kg
Certification Date	23.09.2024
Testing basis	HP KEYMARK certification scheme rules rev. no. 7

Model HP_OWER ONE 180R

Model name	HP_OWER ONE 180R
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	17.90 kW	17.25 kW
El input	4.07 kW	5.99 kW
COP	4.40	2.88

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.88 kW	
Cooling capacity	15.04	
EER	3.08	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	175 %	131 %
Prated	15.00 kW	14.00 kW
SCOP	4.46	3.36
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	12.80 kW	12.50 kW
COP Tj = -7°C	2.83	2.03
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.80 kW	7.60 kW
COP Tj = +2°C	4.34	3.34
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	5.80 kW	5.70 kW
COP Tj = +7°C	5.67	4.14
Cdh Tj = +7 °C	0.981	0.990
Pdh Tj = 12°C	6.70 kW	6.60 kW
COP Tj = 12°C	7.94	6.15
Cdh Tj = +12 °C	0.977	0.980
Pdh Tj = Tbiv	12.80 kW	12.50 kW
COP Tj = Tbiv	2.83	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.80 kW	12.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.93
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	2.20 kW	1.40 kW
Annual energy consumption Qhe	6720 kWh	8659 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	15.04 kW	
SEER	5.05	
Pdc Tj = 35°C	15.04 kW	
EER Tj = 35°C	3.08	
Pdc Tj = 30°C	10.96 kW	
EER Tj = 30°C	4.38	
Cdc Tj = 30 °C	1.000	
Pdc Tj = 25°C	7.06 kW	
EER Tj = 25°C	5.52	
Cdc Tj = 25 °C	0.985	
Pdc Tj = 20°C	5.54 kW	
EER Tj = 20°C	6.80	
Cdc Tj = 20 °C	0.977	
Poff	22 W	
PTO	0 W	

PSB	28 W
PCK	0 W
Annual energy consumption Qce	1788 kWh

Model HP_OWER ONE 160RT

Model name	HP_OWER ONE 160RT
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	16.30 kW	15.63 kW
El input	3.49 kW	5.18 kW
COP	4.67	3.02

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.38 kW	
Cooling capacity	13.80	
EER	3.15	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	dB(A)	dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	177 %	126 %
Prated	14.00 kW	13.00 kW
SCOP	4.49	3.22
Tbiv	-7 °C	-7 °C

TOL	-20 °C	-15 °C
Pdh Tj = -7°C	12.00 kW	11.50 kW
COP Tj = -7°C	2.88	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	7.30 kW	6.90 kW
COP Tj = +2°C	4.33	3.06
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	5.70 kW	5.50 kW
COP Tj = +7°C	5.83	4.11
Cdh Tj = +7 °C	0.981	0.986
Pdh Tj = 12°C	6.70 kW	6.60 kW
COP Tj = 12°C	8.12	6.30
Cdh Tj = +12 °C	0.977	0.982
Pdh Tj = Tbiv	12.00 kW	11.50 kW
COP Tj = Tbiv	2.88	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.70 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.94
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	2.30 kW	1.50 kW
Annual energy consumption Qhe	6209 kWh	8357 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	13.80 kW	
SEER	4.80	
Pdc Tj = 35°C	13.80 kW	
EER Tj = 35°C	3.15	
Pdc Tj = 30°C	10.17 kW	
EER Tj = 30°C	4.36	
Cdc Tj = 30 °C	1.0	
Pdc Tj = 25°C	6.47 kW	
EER Tj = 25°C	5.30	
Cdc Tj = 25 °C	1.0	
Pdc Tj = 20°C	5.53 kW	
EER Tj = 20°C	6.67	
Cdc Tj = 20 °C	1.0	
Poff	19 W	

PTO	0 W
PSB	19 W
PCK	30 W
Annual energy consumption Qce	1726 kWh