

Subtype DC Inverter Air to Water Heat Pump Unit- R32-12AIO

Certificate Holder	DUKO Energie s.r.o.
Address	Šafaříkova 1737
ZIP	53901
City	Hlinsko
Country	CZ
Certification Body	BRE Global Limited
Subtype title	DC Inverter Air to Water Heat Pump Unit- R32-12AIO
Registration number	041-K115-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	27.08.2025
Testing basis	HP KEYMARK certification scheme rules rev. no.15
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model Indoor unit: M12kWR32AIO; Outdoor unit: M12kWR32AIO

Model name	Indoor unit: M12kWR32AIO; Outdoor unit: M12kWR32AIO
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Operating test

Temperature operating range	2
Safety devices checking test	2
Condensate draining	2

EN 12102-2 | Average Climate

Sound power level indoor	46 dB(A)
Sound power level outdoor	54 dB(A)

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	121 %
COP	2.87
Heating up time	22:44:31 h:min
Standby power input	39.0 W
Reference hot water temperature	45.3 °C
Mixed water at 40°C	223 l

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	6.67 kW	10.51 kW
El input	1.35 kW	3.83 kW
COP	4.93	2.75

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	46 dB(A)
Sound power level outdoor	52 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	132 %
Prated	8.79 kW	7.07 kW
SCOP	4.60	3.36
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.78 kW	6.26 kW
COP Tj = -7°C	3.25	1.79
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.91 kW	3.84 kW
COP Tj = +2°C	4.46	3.46
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.06 kW
COP Tj = +7°C	6.16	4.84
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.02 kW	4.87 kW
COP Tj = 12°C	8.24	6.74
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.78 kW	6.26 kW
COP Tj = Tbiv	3.25	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.36 kW	5.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	1.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	56 °C	56 °C
Poff	17 W	9 W
PTO	25 W	25 W
PSB	17 W	9 W
PCK	33 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.43 kW	1.21 kW
Annual energy consumption Qhe	3944 kWh	4345 kWh