

Subtype Air to Water Heat Pump- R290- 12kW-C-250L

Certificate Holder	Aira Group AB
Address	Norra Stationsgatan 93C
ZIP	11364
City	Stockholm
Country	SE
Certification Body	BRE Global Limited
Subtype title	Air to Water Heat Pump- R290- 12kW-C-250L
Registration number	041-K087-05
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.5 kg
Certification Date	11.03.2024
Testing basis	Heat Pump Keymark Scheme Rules Rev 13

Model Indoor unit: HPI-AO-250-1.0, Outdoor unit: HPO-AW-12-400V-1.0

Model name	Indoor unit: HPI-AO-250-1.0, Outdoor unit: HPO-AW-12-400V-1.0
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	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	107 %
COP	2.54
Heating up time	1:25:18 h:min
Standby power input	73.0 W
Reference hot water temperature	45.0 °C
Mixed water at 40°C	163 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	9.97 kW	12.80 kW
El input	2.23 kW	4.42 kW
COP	4.48	2.90

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	45 dB(A)
Sound power level outdoor	57 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	136 %

Prated	12.61 kW	11.68 kW
SCOP	4.70	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.16 kW	10.33 kW
COP Tj = -7°C	2.96	2.23
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.32 kW	6.29 kW
COP Tj = +2°C	4.58	3.36
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.88 kW	5.52 kW
COP Tj = +7°C	6.66	4.94
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.84 kW	6.61 kW
COP Tj = 12°C	8.56	6.38
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.16 kW	10.33 kW
COP Tj = Tbiv	2.96	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.38 kW	9.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	22 W	22 W
PTO	56 W	56 W
PSB	22 W	22 W
PCK	60 W	60 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.23 kW	2.26 kW
Annual energy consumption Qhe	5543 kWh	6923 kWh