

European Heat Pump KEYMARK Scheme Test report

Product	Heat Pumps
Product Type	Outdoor Air to Water Heat Pump
Sub-type and Models	EcoSilent R8
Refrigerant	R290
Mass of refrigerant	0.95 kg
Testing basis	EN 14511:2018 EN 14825:2018 EN 12102:2017 KEYMARK Certification Scheme for Heat Pumps (2023)

Model EcoSilent R8

Model name	EcoSilent R8
Application	Heating (medium temp)
Units	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 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	57 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	137 %
Prated	7.89 kW	8.70 kW
SCOP	4.60	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.98 kW	7.70 kW
COP Tj = -7°C	3.14	2.38
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.26 kW	4.70 kW
COP Tj = +2°C	4.53	3.38
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.52 kW	4.41 kW
COP Tj = +7°C	6.05	4.70
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.25 kW	5.08 kW
COP Tj = 12°C	8.44	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.98 kW	7.70 kW
COP Tj = Tbiv	3.14	2.38
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.89 kW	7.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	59 °C	59 °C
Poff	5 W	5 W
PTO	23 W	23 W
PSB	5 W	5 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.23 kW
Annual energy consumption Qhe	3546 kWh	5139 kWh