

Subtype DC Inverter Type Air to Water Unit- R410A- 90kW

Certificate Holder	ES Heat Pumps AB
Address	Metallgatan 2
ZIP	441 32
City	Alingsås
Country	SE
Certification Body	BRE Global Limited
Subtype title	DC Inverter Type Air to Water Unit- R410A- 90kW
Registration number	041-K057-08
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	16 kg
Certification Date	06.11.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model Indoor unit: AWC30/90-EVI-M, Outdoor unit: AW90-EVI-M

Model name	Indoor unit: AWC30/90-EVI-M, Outdoor unit: AW90-EVI-M
Application	Heating (medium 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 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	71.00 kW	66.88 kW
El input	18.00 kW	23.98 kW
COP	3.95	2.79

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	77 dB(A)	77 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	154 %	134 %
Prated	64.85 kW	74.24 kW
SCOP	3.94	3.41
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	57.36 kW	65.67 kW
COP Tj = -7°C	2.82	1.99
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	37.25 kW	40.02 kW
COP Tj = +2°C	3.97	3.50
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	31.58 kW	32.47 kW
COP Tj = +7°C	4.99	4.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	34.78 kW	37.91 kW
COP Tj = 12°C	5.61	5.91
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	57.36 kW	65.67 kW
COP Tj = Tbiv	2.82	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	52.30 kW	62.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	32 W	32 W
PTO	32 W	32 W
PSB	32 W	32 W
PCK	70 W	70 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.55 kW	11.62 kW
Annual energy consumption Qhe	34037 kWh	44922 kWh