

Subtype DC Inverter Type Air to Water Unit- R410A- 45kW

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- 45kW
Registration number	041-K057-07
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	8 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: AW45-EVI-M

Model name	Indoor unit: AWC30/90-EVI-M, Outdoor unit: AW45-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	35.36 kW	33.33 kW
El input	8.74 kW	11.83 kW
COP	4.04	2.82

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)
Sound power level outdoor	71 dB(A)	72 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	156 %	134 %
Prated	32.41 kW	37.01 kW
SCOP	3.98	3.44
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	28.67 kW	32.74 kW
COP Tj = -7°C	2.82	2.04
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	18.20 kW	19.98 kW
COP Tj = +2°C	4.04	3.50
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	15.76 kW	16.23 kW
COP Tj = +7°C	5.01	4.51
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	17.48 kW	18.95 kW
COP Tj = 12°C	5.69	5.93
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	28.67 kW	32.74 kW
COP Tj = Tbiv	2.82	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	26.09 kW	31.31 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	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	36 W	36 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.32 kW	5.71 kW
Annual energy consumption Qhe	16825 kWh	22261 kWh