

Subtype BES MONOBLOK 9KW

Certificate Holder	Fotowoltaika By Energy Solutions sp. z o. o.
Address	Rynek Glowny 28
ZIP	31-010
City	Krakow
Country	PL
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	BES MONOBLOK 9KW
Registration number	011-1W0868
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	14.08.2024
Testing basis	HP KEYMARK certification scheme rules V14

**Model BES MONOBLOK 9KW**

Model name	BES MONOBLOK 9KW
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	3x230V 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	10.40 kW	12.00 kW
El input	2.44 kW	4.10 kW
COP	4.27	2.92

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	67 dB(A)	67 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	177 %	134 %
Prated	10.08 kW	9.17 kW
SCOP	4.49	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.91 kW	8.11 kW
COP Tj = -7°C	3.23	2.49
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.53 kW	4.69 kW
COP Tj = +2°C	4.40	3.37
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.73 kW	4.15 kW

COP Tj = +7°C	5.77	4.14
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.99 kW	4.88 kW
COP Tj = 12°C	8.29	6.37
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.91 kW	8.11 kW
COP Tj = Tbiv	3.23	2.49
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.76 kW	7.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.02	2.25
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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.31 kW	1.38 kW
Annual energy consumption Qhe	4635 kWh	5549 kWh