

Subtype BRÖTJE MONO AWHP 11

Certificate Holder	BDR THERMEA FR (BRÖTJE)
Address	57 rue de la Gare
ZIP	67580
City	Mertzwiller
Country	FR
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	BRÖTJE MONO AWHP 11
Registration number	037-0047-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	3.3 kg
Certification Date	02.06.2020
Testing basis	HP Keymark scheme rules rev. no. 7
Testing laboratory	SZU Brno, CZ

Model MONO AWHP 11 MR

Model name	MONO AWHP 11 MR
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.47 kW	4.15 kW
COP	4.54	2.70

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	174 %	135 %
Prated	10.00 kW	10.00 kW
SCOP	4.41	3.44
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.90 kW	9.00 kW
COP Tj = -7°C	3.17	1.99
Cdh Tj = -7 °C	0.995	0.997
Pdh Tj = +2°C	5.40 kW	5.70 kW
COP Tj = +2°C	4.23	3.30
Cdh Tj = +2 °C	0.988	0.991
Pdh Tj = +7°C	3.60 kW	4.70 kW
COP Tj = +7°C	5.33	4.86
Cdh Tj = +7 °C	0.978	0.984

Pdh Tj = 12°C	4.30 kW	4.10 kW
COP Tj = 12°C	7.66	6.35
Cdh Tj = +12 °C	0.973	0.977
Pdh Tj = Tbiv	8.90 kW	9.00 kW
COP Tj = Tbiv	3.17	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.35 kW	8.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.970	0.970
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	1.58 kW
Annual energy consumption Qhe	4681 kWh	5998 kWh

Model MONO AWHP 11 TR

Model name	MONO AWHP 11 TR
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	11.20 kW	11.20 kW
El input	2.47 kW	4.15 kW
COP	4.54	2.70

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	173 %	134 %
Prated	10.00 kW	10.00 kW
SCOP	4.40	3.44
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.90 kW	9.00 kW
COP Tj = -7°C	3.17	1.99
Cdh Tj = -7 °C	0.992	0.995
Pdh Tj = +2°C	5.40 kW	5.70 kW
COP Tj = +2°C	4.23	3.29
Cdh Tj = +2 °C	0.983	0.987
Pdh Tj = +7°C	3.60 kW	4.70 kW
COP Tj = +7°C	5.31	4.88
Cdh Tj = +7 °C	0.968	0.977

Pdh Tj = 12°C	4.30 kW	4.10 kW
COP Tj = 12°C	7.66	6.35
Cdh Tj = +12 °C	0.961	0.966
Pdh Tj = Tbiv	8.90 kW	9.00 kW
COP Tj = Tbiv	3.17	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.35 kW	8.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.87
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.950	0.960
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	1.58 kW
Annual energy consumption Qhe	4693 kWh	6012 kWh