

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

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 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 $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.87
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.970	0.970
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	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 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 $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.87
$Cd_h T_j = TOL$ or $Pd_h T_j = T_{designh}$ if $TOL < T_{designh}$	0.950	0.960
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	4693 kWh	6012 kWh