

## Subtype BRÖTJE MONO AWHP 6-8

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 6-8
Registration number	037-0046-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.4 kg
Certification Date	02.06.2020
Testing basis	HP Keymark scheme rules rev. no. 7

## Model MONO AWHP 6 MR

Model name	MONO AWHP 6 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	58 dB(A)	58 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	132 %
Prated	6.00 kW	6.00 kW
SCOP	4.77	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.30 kW	5.30 kW
COP Tj = -7°C	3.18	2.09
Cdh Tj = -7 °C	0.991	0.994
Pdh Tj = +2°C	3.20 kW	3.20 kW
COP Tj = +2°C	4.52	3.22
Cdh Tj = +2 °C	0.979	0.985
Pdh Tj = +7°C	3.20 kW	2.90 kW
COP Tj = +7°C	6.55	4.62
Cdh Tj = +7 °C	0.969	0.976
Pdh Tj = 12°C	2.90 kW	2.70 kW
COP Tj = 12°C	8.16	6.09
Cdh Tj = +12 °C	0.958	0.966
Pdh Tj = Tbiv	5.30 kW	5.30 kW
COP Tj = Tbiv	3.18	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.88 kW	4.88 kW

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.74	1.90
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	0.950	0.960
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	1.12 kW	1.12 kW
Annual energy consumption $Q_{he}$	2598 kWh	3674 kWh

## Model MONO AWHP 8 MR

Model name	MONO AWHP 8 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	58 dB(A)	58 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	175 %	139 %
Prated	8.50 kW	8.50 kW
SCOP	4.44	3.56
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.50 kW	7.50 kW
COP Tj = -7°C	2.21	1.96
Cdh Tj = -7 °C	0.996	0.996
Pdh Tj = +2°C	4.60 kW	4.60 kW
COP Tj = +2°C	4.53	3.50
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	3.40 kW	2.90 kW
COP Tj = +7°C	6.28	4.90
Cdh Tj = +7 °C	0.972	0.975
Pdh Tj = 12°C	3.20 kW	2.90 kW
COP Tj = 12°C	8.48	6.80
Cdh Tj = +12 °C	0.960	0.965
Pdh Tj = Tbiv	7.50 kW	7.50 kW
COP Tj = Tbiv	2.21	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.65 kW

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.00	1.82
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.950	0.960
WTOL	60 °C	60 °C
P <sub>off</sub>	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	1.85 kW	1.85 kW
Annual energy consumption Q <sub>he</sub>	3952 kWh	4933 kWh

## Model MONO AWHP 8 TR

Model name	MONO AWHP 8 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	58 dB(A)	58 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	174 %	139 %
Prated	8.50 kW	8.50 kW
SCOP	4.43	3.55
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.50 kW	7.50 kW
COP Tj = -7°C	2.21	1.96
Cdh Tj = -7 °C	0.994	0.994
Pdh Tj = +2°C	4.60 kW	4.60 kW
COP Tj = +2°C	4.53	3.50
Cdh Tj = +2 °C	0.978	0.983
Pdh Tj = +7°C	3.40 kW	2.90 kW
COP Tj = +7°C	6.28	4.90
Cdh Tj = +7 °C	0.959	0.963
Pdh Tj = 12°C	3.20 kW	2.90 kW
COP Tj = 12°C	8.48	6.80
Cdh Tj = +12 °C	0.942	0.948
Pdh Tj = Tbiv	7.50 kW	7.50 kW
COP Tj = Tbiv	2.21	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.65 kW	6.65 kW

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	1.99	1.81
$Cd_h T_j = TOL$ or $Pd_h T_j = T_{designh}$ if $TOL < T_{designh}$	0.930	0.940
WTOL	60 °C	60 °C
P <sub>off</sub>	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	1.85 kW	1.85 kW
Annual energy consumption Q <sub>he</sub>	3962 kWh	4941 kWh