

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 |
| Testing laboratory | SZU Brno, CZ |

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 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 6.00 kW | 6.00 kW |
| El input | 1.24 kW | 2.09 kW |
| COP | 4.83 | 2.87 |

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 |
|----------------|-----------------|--------------------|
| η_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 Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.74 | 1.90 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 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 Qhe | 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 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.00 kW | 9.00 kW |
| El input | 2.00 kW | 3.24 kW |
| COP | 4.51 | 2.78 |

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 |
|----------------|-----------------|--------------------|
| η_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 Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.00 | 1.82 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 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 | 1.85 kW | 1.85 kW |
| Annual energy consumption Qhe | 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 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.00 kW | 9.00 kW |
| El input | 2.00 kW | 3.24 kW |
| COP | 4.51 | 2.78 |

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 |
|----------------|-----------------|--------------------|
| η_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 Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.99 | 1.81 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.930 | 0.940 |
| 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 | 1.85 kW | 1.85 kW |
| Annual energy consumption Qhe | 3962 kWh | 4941 kWh |