

CERTIFICATE

| | |
|----------------------------|---|
| Certificate holder | Bosch Thermotechnik GmbH Sophienstr. 30-32 35576 Wetzlar GERMANY |
| Production facility | Aveiro, Tranas |
| Product | Air/Water Heat pumps |
| Type, Model | Buderus Logatherm WLW196i-14 AR and IR |
| Testing basis | DIN EN 14511-1; DIN EN 14511-2; DIN EN 14511-3; DIN EN 14511-4:2019-07 DIN EN 14825:2019-07 DIN EN 12102-1:2018-02 DIN EN 16147:2017-08 European KEYMARK Scheme for Heat Pumps Rev. 8 (2020-09) |

Mark of conformity**Registration No.** 011-1W0131**Valid until** 2027-07-31**Right of use** This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number.

See annex for further information.

S. Scholz

ANNEX

Page 1 of 1

| | |
|--|--|
| Certificate | 011-1W0131 dated 2021-05-17 |
| Technical Data | See Heat Pump KEYMARK database for detailed information |
| Testing laboratory/ Inspection body | RISE Research Institutes of Sweden AB PO Box 857 501 15 Boras SWEDEN |
| Test report(s) | 3P06665-02 dated 2014-06-30 |



This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | | |
|---------------------|---|----------|------------|
| | Buderus Logatherm WLW196i-14 AR and IR | Reg. No. | 011-1W0131 |
| Certificate Holder | | | |
| | Bosch Thermotechnik GmbH (Buderus) | | |
| | Sophienstraße 30-32 | | 35576 |
| | Wetzlar | | Germany |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH | | |
| Subtype title | Buderus Logatherm WLW196i-14 AR and IR | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R410A | | |
| Mass of Refrigerant | 4 kg | | |
| Certification Date | 18.07.2017 | | |
| Testing basis | HP KEYMARK certification scheme rules rev. 8 | | |

Model: Buderus Logatherm WLW196i-14 ARE

| Configure model | |
|-------------------------------------|----------------------------------|
| Model name | Buderus Logatherm WLW196i-14 ARE |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.63 kW | 4.48 kW |
| El input | 1.16 kW | 1.63 kW |
| COP | 4.87 | 2.75 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 170 % |
| Prated | 14.30 kW | 12.50 kW |
| SCOP | 6.13 | 4.34 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 14.59 kW | 12.49 kW |
| COP Tj = +2°C | 2.85 | 2.18 |
| Pdh Tj = +7°C | 8.92 kW | 8.08 kW |
| COP Tj = +7°C | 5.37 | 3.81 |
| Pdh Tj = 12°C | 4.16 kW | 5.99 kW |
| COP Tj = 12°C | 8.00 | 5.61 |
| Pdh Tj = Tbiv | 14.59 kW | 12.49 kW |
| COP Tj = Tbiv | 2.85 | 2.18 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 14.59 kW | 12.49 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.85 | 2.18 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3115 kWh | 3852 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 161 % | 123 % |
| Prated | 10.00 kW | 9.10 kW |
| SCOP | 4.11 | 3.15 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -19 °C | -17 °C |
| TOL | -20 °C | -18 °C |
| Pdh Tj = -7°C | 6.20 kW | 5.60 kW |
| COP Tj = -7°C | 3.71 | 2.68 |
| Pdh Tj = +2°C | 4.91 kW | 4.40 kW |
| COP Tj = +2°C | 4.64 | 3.86 |
| Pdh Tj = +7°C | 5.34 kW | 5.07 kW |
| COP Tj = +7°C | 6.14 | 4.76 |
| Pdh Tj = 12°C | 6.28 kW | 6.00 kW |
| COP Tj = 12°C | 7.41 | 6.23 |
| Pdh Tj = Tbiv | 9.25 kW | 7.90 kW |
| COP Tj = Tbiv | 2.21 | 1.75 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW | 7.47 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16 | 1.65 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.10 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 6000 kWh | 7117 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 7.92 | 1.96 |
| COP T _j = -15°C (if TOL < -20°C) | 2.66 | 1.96 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 191 % | 141 % |
| Prated | 12.00 kW | 10.00 kW |
| SCOP | 4.84 | 3.61 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.36 kW | 9.51 kW |
| COP T _j = -7°C | 2.87 | 2.25 |
| P _{dh} T _j = +2°C | 6.84 kW | 5.60 kW |
| COP T _j = +2°C | 4.84 | 3.64 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.21 kW | 5.07 kW |
| COP Tj = +7°C | 6.41 | 4.49 |
| Pdh Tj = 12°C | 3.03 kW | 6.01 kW |
| COP Tj = 12°C | 7.31 | 5.79 |
| Pdh Tj = Tbiv | 12.26 kW | 10.11 kW |
| COP Tj = Tbiv | 2.43 | 1.90 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.26 kW | 10.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.43 | 1.90 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5117 kWh | 5721 kWh |

Model: Buderus Logatherm WLW196i-14 ARB

| Configure model | |
|-------------------------------------|----------------------------------|
| Model name | Buderus Logatherm WLW196i-14 ARB |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.63 kW | 4.48 kW |
| El input | 1.16 kW | 1.63 kW |
| COP | 4.87 | 2.75 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 170 % |
| Prated | 14.30 kW | 12.50 kW |
| SCOP | 6.13 | 4.34 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 14.59 kW | 12.49 kW |
| COP Tj = +2°C | 2.85 | 2.18 |
| Pdh Tj = +7°C | 8.92 kW | 8.08 kW |
| COP Tj = +7°C | 5.37 | 3.81 |
| Pdh Tj = 12°C | 4.16 kW | 5.99 kW |
| COP Tj = 12°C | 8.00 | 5.61 |
| Pdh Tj = Tbiv | 14.59 kW | 12.49 kW |
| COP Tj = Tbiv | 2.85 | 2.18 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 14.59 kW | 12.49 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.85 | 2.18 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3115 kWh | 3852 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 161 % | 123 % |
| Prated | 10.00 kW | 9.10 kW |
| SCOP | 4.11 | 3.15 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|---------|---------|
| Tbiv | -19 °C | -17 °C |
| TOL | -20 °C | -18 °C |
| Pdh Tj = -7°C | 6.20 kW | 5.60 kW |
| COP Tj = -7°C | 3.71 | 2.68 |
| Pdh Tj = +2°C | 4.91 kW | 4.40 kW |
| COP Tj = +2°C | 4.64 | 3.86 |
| Pdh Tj = +7°C | 5.34 kW | 5.07 kW |
| COP Tj = +7°C | 6.14 | 4.76 |
| Pdh Tj = 12°C | 6.28 kW | 6.00 kW |
| COP Tj = 12°C | 7.41 | 6.23 |
| Pdh Tj = Tbiv | 9.25 kW | 7.90 kW |
| COP Tj = Tbiv | 2.21 | 1.75 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW | 7.47 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16 | 1.65 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|--|----------|----------|
| Annual energy consumption Q_{he} | 6000 kWh | 7117 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 7.92 | 1.96 |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 2.66 | 1.96 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 191 % | 141 % |
| Prated | 12.00 kW | 10.00 kW |
| SCOP | 4.84 | 3.61 |
| T_{biv} | -10°C | -10°C |
| TOL | -10°C | -10°C |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 11.36 kW | 9.51 kW |
| $COP T_j = -7^{\circ}\text{C}$ | 2.87 | 2.25 |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 6.84 kW | 5.60 kW |
| $COP T_j = +2^{\circ}\text{C}$ | 4.84 | 3.64 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Pdh Tj = +7°C | 4.21 kW | 5.07 kW |
| COP Tj = +7°C | 6.41 | 4.49 |
| Pdh Tj = 12°C | 3.03 kW | 6.01 kW |
| COP Tj = 12°C | 7.31 | 5.79 |
| Pdh Tj = Tbiv | 12.26 kW | 10.11 kW |
| COP Tj = Tbiv | 2.43 | 1.90 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.26 kW | 10.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.43 | 1.90 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5117 kWh | 5721 kWh |

Model: Buderus Logatherm WLW196i-14 ART190

| Configure model | |
|-------------------------------------|-------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 ART190 |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|---------------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.63 kW | 4.48 kW |
| El input | 1.16 kW | 1.63 kW |
| COP | 4.87 | 2.75 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 170 % |
| Prated | 14.30 kW | 12.50 kW |
| SCOP | 6.13 | 4.34 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 14.59 kW | 12.49 kW |
| COP Tj = +2°C | 2.85 | 2.18 |
| Pdh Tj = +7°C | 8.92 kW | 8.08 kW |
| COP Tj = +7°C | 5.37 | 3.81 |
| Pdh Tj = 12°C | 4.16 kW | 5.99 kW |
| COP Tj = 12°C | 8.00 | 5.61 |
| Pdh Tj = Tbiv | 14.59 kW | 12.49 kW |
| COP Tj = Tbiv | 2.85 | 2.18 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 14.59 kW | 12.49 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.85 | 2.18 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3115 kWh | 3852 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 161 % | 123 % |
| Prated | 10.00 kW | 9.10 kW |
| SCOP | 4.11 | 3.15 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -19 °C | -17 °C |
| TOL | -20 °C | -18 °C |
| Pdh Tj = -7°C | 6.20 kW | 5.60 kW |
| COP Tj = -7°C | 3.71 | 2.68 |
| Pdh Tj = +2°C | 4.91 kW | 4.40 kW |
| COP Tj = +2°C | 4.64 | 3.86 |
| Pdh Tj = +7°C | 5.34 kW | 5.07 kW |
| COP Tj = +7°C | 6.14 | 4.76 |
| Pdh Tj = 12°C | 6.28 kW | 6.00 kW |
| COP Tj = 12°C | 7.41 | 6.23 |
| Pdh Tj = Tbiv | 9.25 kW | 7.90 kW |
| COP Tj = Tbiv | 2.21 | 1.75 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW | 7.47 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16 | 1.65 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.10 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 6000 kWh | 7117 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 7.92 | 1.96 |
| COP T _j = -15°C (if TOL < -20°C) | 2.66 | 1.96 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 191 % | 141 % |
| Prated | 12.00 kW | 10.00 kW |
| SCOP | 4.84 | 3.61 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.36 kW | 9.51 kW |
| COP T _j = -7°C | 2.87 | 2.25 |
| P _{dh} T _j = +2°C | 6.84 kW | 5.60 kW |
| COP T _j = +2°C | 4.84 | 3.64 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.21 kW | 5.07 kW |
| COP Tj = +7°C | 6.41 | 4.49 |
| Pdh Tj = 12°C | 3.03 kW | 6.01 kW |
| COP Tj = 12°C | 7.31 | 5.79 |
| Pdh Tj = Tbiv | 12.26 kW | 10.11 kW |
| COP Tj = Tbiv | 2.43 | 1.90 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.26 kW | 10.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.43 | 1.90 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5117 kWh | 5721 kWh |

Domestic Hot Water (DHW)

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 107 % |
| COP | 2.49 |
| Heating up time | 01:57 h:min |
| Standby power input | 58.5 W |
| Reference hot water temperature | 52.8 °C |
| Mixed water at 40°C | 266 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 78 % |
| COP | 1.82 |
| Heating up time | 02:48 h:min |
| Standby power input | 80.7 W |
| Reference hot water temperature | 53.5 °C |
| Mixed water at 40°C | 272 l |

Average Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 91 % |
| COP | 2.12 |
| Heating up time | 02:24 h:min |
| Standby power input | 64.3 W |
| Reference hot water temperature | 52.9 °C |
| Mixed water at 40°C | 269 l |

Model: Buderus Logatherm WLW196i-14 ARTS185

| Configure model | |
|-------------------------------------|--------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 ARTS185 |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.63 kW | 4.48 kW |
| El input | 1.16 kW | 1.63 kW |
| COP | 4.87 | 2.75 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 170 % |
| Prated | 14.30 kW | 12.50 kW |
| SCOP | 6.13 | 4.34 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 14.59 kW | 12.49 kW |
| COP Tj = +2°C | 2.85 | 2.18 |
| Pdh Tj = +7°C | 8.92 kW | 8.08 kW |
| COP Tj = +7°C | 5.37 | 3.81 |
| Pdh Tj = 12°C | 4.16 kW | 5.99 kW |
| COP Tj = 12°C | 8.00 | 5.61 |
| Pdh Tj = Tbiv | 14.59 kW | 12.49 kW |
| COP Tj = Tbiv | 2.85 | 2.18 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 14.59 kW | 12.49 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.85 | 2.18 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3115 kWh | 3852 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 161 % | 123 % |
| Prated | 10.00 kW | 9.10 kW |
| SCOP | 4.11 | 3.15 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -19 °C | -17 °C |
| TOL | -20 °C | -18 °C |
| Pdh Tj = -7°C | 6.20 kW | 5.60 kW |
| COP Tj = -7°C | 3.71 | 2.68 |
| Pdh Tj = +2°C | 4.91 kW | 4.40 kW |
| COP Tj = +2°C | 4.64 | 3.86 |
| Pdh Tj = +7°C | 5.34 kW | 5.07 kW |
| COP Tj = +7°C | 6.14 | 4.76 |
| Pdh Tj = 12°C | 6.28 kW | 6.00 kW |
| COP Tj = 12°C | 7.41 | 6.23 |
| Pdh Tj = Tbiv | 9.25 kW | 7.90 kW |
| COP Tj = Tbiv | 2.21 | 1.75 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW | 7.47 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16 | 1.65 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.10 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|--|----------|----------|
| Annual energy consumption Q_{he} | 6000 kWh | 7117 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 7.92 | 1.96 |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 2.66 | 1.96 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 26 dB(A) | 26 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 191 % | 141 % |
| Prated | 12.00 kW | 10.00 kW |
| SCOP | 4.84 | 3.61 |
| T_{biv} | -10°C | -10°C |
| TOL | -10°C | -10°C |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 11.36 kW | 9.51 kW |
| $COP T_j = -7^{\circ}\text{C}$ | 2.87 | 2.25 |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 6.84 kW | 5.60 kW |
| $COP T_j = +2^{\circ}\text{C}$ | 4.84 | 3.64 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.21 kW | 5.07 kW |
| COP Tj = +7°C | 6.41 | 4.49 |
| Pdh Tj = 12°C | 3.03 kW | 6.01 kW |
| COP Tj = 12°C | 7.31 | 5.79 |
| Pdh Tj = Tbiv | 12.26 kW | 10.11 kW |
| COP Tj = Tbiv | 2.43 | 1.90 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.26 kW | 10.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.43 | 1.90 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5117 kWh | 5721 kWh |

Domestic Hot Water (DHW)

Warmer Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 99 % |
| COP | 2.30 |
| Heating up time | 01:59 h:min |
| Standby power input | 61.0 W |
| Reference hot water temperature | 51.4 °C |
| Mixed water at 40°C | 252 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 77 % |
| COP | 1.78 |
| Heating up time | 02:51 h:min |
| Standby power input | 92.0 W |
| Reference hot water temperature | 52.3 °C |
| Mixed water at 40°C | 260 l |

Average Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 89 % |
| COP | 2.08 |
| Heating up time | 02:27 h:min |
| Standby power input | 67.0 W |
| Reference hot water temperature | 51.8 °C |
| Mixed water at 40°C | 259 l |

Model: Buderus Logatherm WLW196i-14 IRE

| Configure model | |
|-------------------------------------|----------------------------------|
| Model name | Buderus Logatherm WLW196i-14 IRE |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.08 kW | 4.10 kW |
| El input | 1.04 kW | 1.63 kW |
| COP | 4.90 | 2.51 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 166 % |
| Prated | 13.44 kW | 12.41 kW |
| SCOP | 6.12 | 4.23 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 13.44 kW | 12.41 kW |
| COP Tj = +2°C | 2.86 | 2.21 |
| Pdh Tj = +7°C | 8.54 kW | 8.58 kW |
| COP Tj = +7°C | 5.31 | 3.64 |
| Pdh Tj = 12°C | 4.07 kW | 5.86 kW |
| COP Tj = 12°C | 7.94 | 5.48 |
| Pdh Tj = Tbiv | 13.44 kW | 12.41 kW |
| COP Tj = Tbiv | 2.86 | 2.21 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 13.44 kW | 12.41 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86 | 2.21 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2931 kWh | 3916 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 170 % | 123 % |
| Prated | 10.00 kW | 9.40 kW |
| SCOP | 4.33 | 3.16 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -17 °C | -17 °C |
| TOL | -18 °C | -17 °C |
| Pdh Tj = -7°C | 6.09 kW | 5.63 kW |
| COP Tj = -7°C | 3.68 | 2.71 |
| Pdh Tj = +2°C | 3.66 kW | 4.40 kW |
| COP Tj = +2°C | 5.48 | 3.89 |
| Pdh Tj = +7°C | 2.70 kW | 5.06 kW |
| COP Tj = +7°C | 6.48 | 4.75 |
| Pdh Tj = 12°C | 6.23 kW | 5.98 kW |
| COP Tj = 12°C | 7.42 | 5.99 |
| Pdh Tj = Tbiv | 8.29 kW | 8.23 kW |
| COP Tj = Tbiv | 2.52 | 1.80 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.64 kW | 8.23 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.41 | 1.80 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.40 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 5697 kWh | 7343 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 8.01 | 2.01 |
| COP T _j = -15°C (if TOL < -20°C) | 2.72 | 2.01 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 194 % | 140 % |
| Prated | 12.13 kW | 10.00 kW |
| SCOP | 4.92 | 3.56 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 10.89 kW | 8.44 kW |
| COP T _j = -7°C | 2.98 | 2.25 |
| P _{dh} T _j = +2°C | 6.78 kW | 5.45 kW |
| COP T _j = +2°C | 4.91 | 3.56 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.05 kW | 4.98 kW |
| COP Tj = +7°C | 6.33 | 4.44 |
| Pdh Tj = 12°C | 3.00 kW | 5.93 kW |
| COP Tj = 12°C | 7.60 | 5.76 |
| Pdh Tj = Tbiv | 12.13 kW | 10.00 kW |
| COP Tj = Tbiv | 2.56 | 1.88 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.13 kW | 10.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5090 kWh | 5794 kWh |

Model: Buderus Logatherm WLW196i-14 IRB

| Configure model | |
|-------------------------------------|----------------------------------|
| Model name | Buderus Logatherm WLW196i-14 IRB |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.08 kW | 4.10 kW |
| El input | 1.04 kW | 1.63 kW |
| COP | 4.90 | 2.51 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 166 % |
| Prated | 13.44 kW | 12.41 kW |
| SCOP | 6.12 | 4.23 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 13.44 kW | 12.41 kW |
| COP Tj = +2°C | 2.86 | 2.21 |
| Pdh Tj = +7°C | 8.54 kW | 8.58 kW |
| COP Tj = +7°C | 5.31 | 3.64 |
| Pdh Tj = 12°C | 4.07 kW | 5.86 kW |
| COP Tj = 12°C | 7.94 | 5.48 |
| Pdh Tj = Tbiv | 13.44 kW | 12.41 kW |
| COP Tj = Tbiv | 2.86 | 2.21 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 13.44 kW | 12.41 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86 | 2.21 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2931 kWh | 3916 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 170 % | 123 % |
| Prated | 10.00 kW | 9.40 kW |
| SCOP | 4.33 | 3.16 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|---------|---------|
| Tbiv | -17 °C | -17 °C |
| TOL | -18 °C | -17 °C |
| Pdh Tj = -7°C | 6.09 kW | 5.63 kW |
| COP Tj = -7°C | 3.68 | 2.71 |
| Pdh Tj = +2°C | 3.66 kW | 4.40 kW |
| COP Tj = +2°C | 5.48 | 3.89 |
| Pdh Tj = +7°C | 2.70 kW | 5.06 kW |
| COP Tj = +7°C | 6.48 | 4.75 |
| Pdh Tj = 12°C | 6.23 kW | 5.98 kW |
| COP Tj = 12°C | 7.42 | 5.99 |
| Pdh Tj = Tbiv | 8.29 kW | 8.23 kW |
| COP Tj = Tbiv | 2.52 | 1.80 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.64 kW | 8.23 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.41 | 1.80 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 5697 kWh | 7343 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 8.01 | 2.01 |
| COP T _j = -15°C (if TOL < -20°C) | 2.72 | 2.01 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 194 % | 140 % |
| Prated | 12.13 kW | 10.00 kW |
| SCOP | 4.92 | 3.56 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 10.89 kW | 8.44 kW |
| COP T _j = -7°C | 2.98 | 2.25 |
| P _{dh} T _j = +2°C | 6.78 kW | 5.45 kW |
| COP T _j = +2°C | 4.91 | 3.56 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Pdh Tj = +7°C | 4.05 kW | 4.98 kW |
| COP Tj = +7°C | 6.33 | 4.44 |
| Pdh Tj = 12°C | 3.00 kW | 5.93 kW |
| COP Tj = 12°C | 7.60 | 5.76 |
| Pdh Tj = Tbiv | 12.13 kW | 10.00 kW |
| COP Tj = Tbiv | 2.56 | 1.88 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.13 kW | 10.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | n/a | n/a |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5090 kWh | 5794 kWh |

Model: Buderus Logatherm WLW196i-14 IRT190

| Configure model | |
|-------------------------------------|-------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 IRT190 |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|---------------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.08 kW | 4.10 kW |
| El input | 1.04 kW | 1.63 kW |
| COP | 4.90 | 2.51 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 166 % |
| Prated | 13.44 kW | 12.41 kW |
| SCOP | 6.12 | 4.23 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 13.44 kW | 12.41 kW |
| COP Tj = +2°C | 2.86 | 2.21 |
| Pdh Tj = +7°C | 8.54 kW | 8.58 kW |
| COP Tj = +7°C | 5.31 | 3.64 |
| Pdh Tj = 12°C | 4.07 kW | 5.86 kW |
| COP Tj = 12°C | 7.94 | 5.48 |
| Pdh Tj = Tbiv | 13.44 kW | 12.41 kW |
| COP Tj = Tbiv | 2.86 | 2.21 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 13.44 kW | 12.41 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86 | 2.21 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2931 kWh | 3916 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 170 % | 123 % |
| Prated | 10.00 kW | 9.40 kW |
| SCOP | 4.33 | 3.16 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -17 °C | -17 °C |
| TOL | -18 °C | -17 °C |
| Pdh Tj = -7°C | 6.09 kW | 5.63 kW |
| COP Tj = -7°C | 3.68 | 2.71 |
| Pdh Tj = +2°C | 3.66 kW | 4.40 kW |
| COP Tj = +2°C | 5.48 | 3.89 |
| Pdh Tj = +7°C | 2.70 kW | 5.06 kW |
| COP Tj = +7°C | 6.48 | 4.75 |
| Pdh Tj = 12°C | 6.23 kW | 5.98 kW |
| COP Tj = 12°C | 7.42 | 5.99 |
| Pdh Tj = Tbiv | 8.29 kW | 8.23 kW |
| COP Tj = Tbiv | 2.52 | 1.80 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.64 kW | 8.23 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.41 | 1.80 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.40 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 5697 kWh | 7343 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 8.01 | 2.01 |
| COP T _j = -15°C (if TOL < -20°C) | 2.72 | 2.01 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 194 % | 140 % |
| Prated | 12.13 kW | 10.00 kW |
| SCOP | 4.92 | 3.56 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 10.89 kW | 8.44 kW |
| COP T _j = -7°C | 2.98 | 2.25 |
| P _{dh} T _j = +2°C | 6.78 kW | 5.45 kW |
| COP T _j = +2°C | 4.91 | 3.56 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.05 kW | 4.98 kW |
| COP Tj = +7°C | 6.33 | 4.44 |
| Pdh Tj = 12°C | 3.00 kW | 5.93 kW |
| COP Tj = 12°C | 7.60 | 5.76 |
| Pdh Tj = Tbiv | 12.13 kW | 10.00 kW |
| COP Tj = Tbiv | 2.56 | 1.88 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.13 kW | 10.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5090 kWh | 5794 kWh |

Domestic Hot Water (DHW)

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 107 % |
| COP | 2.49 |
| Heating up time | 01:57 h:min |
| Standby power input | 59.0 W |
| Reference hot water temperature | 52.8 °C |
| Mixed water at 40°C | 266 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 78 % |
| COP | 1.82 |
| Heating up time | 02:48 h:min |
| Standby power input | 81.0 W |
| Reference hot water temperature | 53.5 °C |
| Mixed water at 40°C | 272 l |

Average Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 91 % |
| COP | 2.12 |
| Heating up time | 02:24 h:min |
| Standby power input | 54.0 W |
| Reference hot water temperature | 52.9 °C |
| Mixed water at 40°C | 269 l |

Model: Buderus Logatherm WLW196i-14 IRTS185

| Configure model | |
|-------------------------------------|--------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 IRTS185 |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|---------------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.08 kW | 4.10 kW |
| El input | 1.04 kW | 1.63 kW |
| COP | 4.90 | 2.51 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 242 % | 166 % |
| Prated | 13.44 kW | 12.41 kW |
| SCOP | 6.12 | 4.23 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 13.44 kW | 12.41 kW |
| COP Tj = +2°C | 2.86 | 2.21 |
| Pdh Tj = +7°C | 8.54 kW | 8.58 kW |
| COP Tj = +7°C | 5.31 | 3.64 |
| Pdh Tj = 12°C | 4.07 kW | 5.86 kW |
| COP Tj = 12°C | 7.94 | 5.48 |
| Pdh Tj = Tbiv | 13.44 kW | 12.41 kW |
| COP Tj = Tbiv | 2.86 | 2.21 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 13.44 kW | 12.41 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86 | 2.21 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2931 kWh | 3916 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 170 % | 123 % |
| Prated | 10.00 kW | 9.40 kW |
| SCOP | 4.33 | 3.16 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -17 °C | -17 °C |
| TOL | -18 °C | -17 °C |
| Pdh Tj = -7°C | 6.09 kW | 5.63 kW |
| COP Tj = -7°C | 3.68 | 2.71 |
| Pdh Tj = +2°C | 3.66 kW | 4.40 kW |
| COP Tj = +2°C | 5.48 | 3.89 |
| Pdh Tj = +7°C | 2.70 kW | 5.06 kW |
| COP Tj = +7°C | 6.48 | 4.75 |
| Pdh Tj = 12°C | 6.23 kW | 5.98 kW |
| COP Tj = 12°C | 7.42 | 5.99 |
| Pdh Tj = Tbiv | 8.29 kW | 8.23 kW |
| COP Tj = Tbiv | 2.52 | 1.80 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.64 kW | 8.23 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.41 | 1.80 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.40 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 5697 kWh | 7343 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 8.01 | 2.01 |
| COP T _j = -15°C (if TOL < -20°C) | 2.72 | 2.01 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 194 % | 140 % |
| Prated | 12.13 kW | 10.00 kW |
| SCOP | 4.92 | 3.56 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 10.89 kW | 8.44 kW |
| COP T _j = -7°C | 2.98 | 2.25 |
| P _{dh} T _j = +2°C | 6.78 kW | 5.45 kW |
| COP T _j = +2°C | 4.91 | 3.56 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.05 kW | 4.98 kW |
| COP Tj = +7°C | 6.33 | 4.44 |
| Pdh Tj = 12°C | 3.00 kW | 5.93 kW |
| COP Tj = 12°C | 7.60 | 5.76 |
| Pdh Tj = Tbiv | 12.13 kW | 10.00 kW |
| COP Tj = Tbiv | 2.56 | 1.88 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.13 kW | 10.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5090 kWh | 5794 kWh |

Domestic Hot Water (DHW)

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 99 % |
| COP | 2.30 |
| Heating up time | 01:59 h:min |
| Standby power input | 61.0 W |
| Reference hot water temperature | 51.4 °C |
| Mixed water at 40°C | 252 l |

Colder Climate

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 77 % |
| COP | 1.78 |
| Heating up time | 02:51 h:min |
| Standby power input | 92.0 W |
| Reference hot water temperature | 52.3 °C |
| Mixed water at 40°C | 260 l |

Average Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 89 % |
| COP | 2.08 |
| Heating up time | 02:27 h:min |
| Standby power input | 67.0 W |
| Reference hot water temperature | 51.8 °C |
| Mixed water at 40°C | 259 l |

Model: Buderus Logatherm WLW196i-14 IRTP120

| Configure model | |
|-------------------------------------|--------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 IRTP120 |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.08 kW | 4.10 kW |
| El input | 1.09 kW | 1.68 kW |
| COP | 4.68 | 2.45 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 228 % | 162 % |
| Prated | 13.44 kW | 12.41 kW |
| SCOP | 5.78 | 4.12 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 13.44 kW | 12.41 kW |
| COP Tj = +2°C | 2.82 | 2.17 |
| Pdh Tj = +7°C | 8.54 kW | 8.58 kW |
| COP Tj = +7°C | 5.05 | 3.56 |
| Pdh Tj = 12°C | 4.07 kW | 5.86 kW |
| COP Tj = 12°C | 7.38 | 5.30 |
| Pdh Tj = Tbiv | 13.44 kW | 12.41 kW |
| COP Tj = Tbiv | 2.82 | 2.17 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 13.44 kW | 12.41 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.82 | 2.17 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3105 kWh | 4025 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 163 % | 120 % |
| Prated | 10.00 kW | 9.40 kW |
| SCOP | 4.15 | 3.09 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -17 °C | -17 °C |
| TOL | -18 °C | -17 °C |
| Pdh Tj = -7°C | 6.09 kW | 5.63 kW |
| COP Tj = -7°C | 3.56 | 2.66 |
| Pdh Tj = +2°C | 3.66 kW | 4.40 kW |
| COP Tj = +2°C | 5.20 | 3.79 |
| Pdh Tj = +7°C | 2.70 kW | 5.06 kW |
| COP Tj = +7°C | 6.06 | 4.61 |
| Pdh Tj = 12°C | 6.23 kW | 5.98 kW |
| COP Tj = 12°C | 6.94 | 5.78 |
| Pdh Tj = Tbiv | 8.29 kW | 8.23 kW |
| COP Tj = Tbiv | 2.46 | 1.78 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.64 kW | 8.23 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.35 | 1.78 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.40 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|--|----------|----------|
| Annual energy consumption Q_{he} | 5947 kWh | 7507 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 8.01 | 7.48 |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$) | 2.65 | 1.99 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 51 dB(A) | 51 dB(A) |
| Sound power level outdoor | 37 dB(A) | 37 dB(A) |

| EN 14825 | | |
|-----------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 185 % | 136 % |
| Prated | 12.13 kW | 10.00 kW |
| SCOP | 4.70 | 3.48 |
| T_{biv} | -10°C | -10°C |
| TOL | -10°C | -10°C |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 10.89 kW | 8.44 kW |
| $COP T_j = -7^{\circ}\text{C}$ | 2.92 | 2.22 |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 6.78 kW | 5.45 kW |
| $COP T_j = +2^{\circ}\text{C}$ | 4.69 | 3.48 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.05 kW | 4.98 kW |
| COP Tj = +7°C | 5.96 | 4.32 |
| Pdh Tj = 12°C | 3.00 kW | 5.93 kW |
| COP Tj = 12°C | 7.04 | 5.57 |
| Pdh Tj = Tbiv | 12.13 kW | 10.00 kW |
| COP Tj = Tbiv | 2.52 | 1.86 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.13 kW | 10.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.52 | 1.86 |
| WTOL | 60 °C | 60 °C |
| Poff | 22 W | 22 W |
| PTO | 23 W | 23 W |
| PSB | 22 W | 22 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5335 kWh | 5935 kWh |

Model: Buderus Logatherm WLW196i-14 ARTP120

| Configure model | |
|-------------------------------------|--------------------------------------|
| Model name | Buderus Logatherm WLW196i-14 ARTP120 |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 5.63 kW | 4.32 kW |
| El input | 1.21 kW | 1.66 kW |
| COP | 4.66 | 2.60 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 25 Feb 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 49 dB(A) | 49 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 229 % | 166 % |
| Prated | 14.30 kW | 12.50 kW |
| SCOP | 5.79 | 4.22 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 14.59 kW | 12.49 kW |
| COP Tj = +2°C | 2.81 | 2.15 |
| Pdh Tj = +7°C | 8.92 kW | 8.08 kW |
| COP Tj = +7°C | 5.10 | 3.73 |
| Pdh Tj = 12°C | 4.16 kW | 5.99 kW |
| COP Tj = 12°C | 7.44 | 5.42 |
| Pdh Tj = Tbiv | 14.59 kW | 12.49 kW |
| COP Tj = Tbiv | 2.81 | 2.15 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 14.59 kW | 12.49 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.81 | 2.15 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 3299 kWh | 3959 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 49 dB(A) | 49 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 155 % | 120 % |
| Prated | 10.00 kW | 9.10 kW |
| SCOP | 3.94 | 3.08 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Tbiv | -19 °C | -17 °C |
| TOL | -20 °C | -18 °C |
| Pdh Tj = -7°C | 6.20 kW | 5.60 kW |
| COP Tj = -7°C | 3.59 | 2.64 |
| Pdh Tj = +2°C | 4.91 kW | 4.40 kW |
| COP Tj = +2°C | 4.43 | 3.76 |
| Pdh Tj = +7°C | 5.34 kW | 5.07 kW |
| COP Tj = +7°C | 5.81 | 4.60 |
| Pdh Tj = 12°C | 6.28 kW | 6.00 kW |
| COP Tj = 12°C | 6.92 | 6.03 |
| Pdh Tj = Tbiv | 9.25 kW | 7.90 kW |
| COP Tj = Tbiv | 2.17 | 1.73 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW | 7.47 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.12 | 1.63 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 10.00 kW | 9.10 kW |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|----------|----------|
| Annual energy consumption Q _{he} | 6251 kWh | 7274 kWh |
| P _{dh} T _j = -15°C (if TOL < -20°C) | 7.92 | 7.13 |
| COP T _j = -15°C (if TOL < -20°C) | 2.59 | 1.94 |

Average Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 49 dB(A) | 49 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 183 % | 138 % |
| Prated | 12.00 kW | 10.00 kW |
| SCOP | 4.64 | 3.52 |
| T _{biv} | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| P _{dh} T _j = -7°C | 11.36 kW | 9.51 kW |
| COP T _j = -7°C | 2.82 | 2.22 |
| P _{dh} T _j = +2°C | 6.84 kW | 5.60 kW |
| COP T _j = +2°C | 4.64 | 3.56 |

This information was generated by the HP KEYMARK database on 25 Feb 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 4.21 kW | 5.07 kW |
| COP Tj = +7°C | 6.02 | 4.36 |
| Pdh Tj = 12°C | 3.03 kW | 6.01 kW |
| COP Tj = 12°C | 6.87 | 5.58 |
| Pdh Tj = Tbiv | 12.26 kW | 10.11 kW |
| COP Tj = Tbiv | 2.40 | 1.88 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.26 kW | 10.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.40 | 1.88 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| PTO | 41 W | 41 W |
| PSB | 24 W | 24 W |
| PCK | 11 W | 11 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 5346 kWh | 5861 kWh |