

Subtype Buderus Logatherm WLW196i-14 AR and IR

Certificate Holder	Bosch Thermotechnik GmbH (Buderus)
Address	Sophienstraße 30-32
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City	Wetzlar
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Buderus Logatherm WLW196i-14 AR and IR
Registration number	011-1W0131
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

Model name	Buderus Logatherm WLW196i-14 ARE
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	141 %
Prated	12.00 kW	10.00 kW
SCOP	4.84	3.61
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.36 kW	9.51 kW
COP Tj = -7°C	2.87	2.25
Pdh Tj = +2°C	6.84 kW	5.60 kW
COP Tj = +2°C	4.84	3.64
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	161 %	123 %
Prated	10.00 kW	9.10 kW
SCOP	4.11	3.15
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
Annual energy consumption Qhe	6000 kWh	7117 kWh
Pdh Tj = -15°C (if TOL	7.92	1.96
COP Tj = -15°C (if TOL	2.66	1.96

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 ARB

Model name	Buderus Logatherm WLW196i-14 ARB
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	141 %
Prated	12.00 kW	10.00 kW
SCOP	4.84	3.61
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.36 kW	9.51 kW
COP Tj = -7°C	2.87	2.25
Pdh Tj = +2°C	6.84 kW	5.60 kW
COP Tj = +2°C	4.84	3.64
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	161 %	123 %
Prated	10.00 kW	9.10 kW
SCOP	4.11	3.15
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
Annual energy consumption Qhe	6000 kWh	7117 kWh
Pdh Tj = -15°C (if TOL	7.92	1.96
COP Tj = -15°C (if TOL	2.66	1.96

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 ART190

Model name	Buderus Logatherm WLW196i-14 ART190
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

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

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	141 %
Prated	12.00 kW	10.00 kW
SCOP	4.84	3.61
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.36 kW	9.51 kW
COP Tj = -7°C	2.87	2.25
Pdh Tj = +2°C	6.84 kW	5.60 kW
COP Tj = +2°C	4.84	3.64
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 Q _{he}	5117 kWh	5721 kWh
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EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η_s	161 %	123 %
Prated	10.00 kW	9.10 kW
SCOP	4.11	3.15
T _{biv}	-19 °C	-17 °C
TOL	-20 °C	-18 °C
P _{dh} T _j = -7°C	6.20 kW	5.60 kW
COP T _j = -7°C	3.71	2.68
P _{dh} T _j = +2°C	4.91 kW	4.40 kW
COP T _j = +2°C	4.64	3.86
P _{dh} T _j = +7°C	5.34 kW	5.07 kW
COP T _j = +7°C	6.14	4.76
P _{dh} T _j = 12°C	6.28 kW	6.00 kW
COP T _j = 12°C	7.41	6.23
P _{dh} T _j = T _{biv}	9.25 kW	7.90 kW
COP T _j = T _{biv}	2.21	1.75
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	9.00 kW	7.47 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.16	1.65
WTOL	60 °C	60 °C
P _{off}	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
Annual energy consumption Q _{he}	6000 kWh	7117 kWh
P _{dh} T _j = -15°C (if TOL	7.92	1.96
COP T _j = -15°C (if TOL	2.66	1.96

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 ARTS185

Model name	Buderus Logatherm WLW196i-14 ARTS185
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

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

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	141 %
Prated	12.00 kW	10.00 kW
SCOP	4.84	3.61
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.36 kW	9.51 kW
COP Tj = -7°C	2.87	2.25
Pdh Tj = +2°C	6.84 kW	5.60 kW
COP Tj = +2°C	4.84	3.64
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 Q _{he}	5117 kWh	5721 kWh
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EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η_s	161 %	123 %
Prated	10.00 kW	9.10 kW
SCOP	4.11	3.15
T _{biv}	-19 °C	-17 °C
TOL	-20 °C	-18 °C
P _{dh} T _j = -7°C	6.20 kW	5.60 kW
COP T _j = -7°C	3.71	2.68
P _{dh} T _j = +2°C	4.91 kW	4.40 kW
COP T _j = +2°C	4.64	3.86
P _{dh} T _j = +7°C	5.34 kW	5.07 kW
COP T _j = +7°C	6.14	4.76
P _{dh} T _j = 12°C	6.28 kW	6.00 kW
COP T _j = 12°C	7.41	6.23
P _{dh} T _j = T _{biv}	9.25 kW	7.90 kW
COP T _j = T _{biv}	2.21	1.75
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	9.00 kW	7.47 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.16	1.65
WTOL	60 °C	60 °C
P _{off}	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
Annual energy consumption Q _{he}	6000 kWh	7117 kWh
P _{dh} T _j = -15°C (if TOL	7.92	1.96
COP T _j = -15°C (if TOL	2.66	1.96

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 IRE

Model name	Buderus Logatherm WLW196i-14 IRE
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	140 %
Prated	12.13 kW	10.00 kW
SCOP	4.92	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.89 kW	8.44 kW
COP Tj = -7°C	2.98	2.25
Pdh Tj = +2°C	6.78 kW	5.45 kW
COP Tj = +2°C	4.91	3.56
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η_s	170 %	123 %
Prated	10.00 kW	9.40 kW
SCOP	4.33	3.16
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
Annual energy consumption Qhe	5697 kWh	7343 kWh
Pdh Tj = -15°C (if TOL	8.01	2.01
COP Tj = -15°C (if TOL	2.72	2.01

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 IRB

Model name	Buderus Logatherm WLW196i-14 IRB
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	140 %
Prated	12.13 kW	10.00 kW
SCOP	4.92	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.89 kW	8.44 kW
COP Tj = -7°C	2.98	2.25
Pdh Tj = +2°C	6.78 kW	5.45 kW
COP Tj = +2°C	4.91	3.56
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	123 %
Prated	10.00 kW	9.40 kW
SCOP	4.33	3.16
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
Annual energy consumption Q _{he}	5697 kWh	7343 kWh
P _{dh} T _j = -15°C (if TOL	8.01	2.01
COP T _j = -15°C (if TOL	2.72	2.01

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η _s	242 %	166 %
Prated	13.44 kW	12.41 kW
SCOP	6.12	4.23
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	13.44 kW	12.41 kW
COP T _j = +2°C	2.86	2.21
P _{dh} T _j = +7°C	8.54 kW	8.58 kW
COP T _j = +7°C	5.31	3.64
P _{dh} T _j = 12°C	4.07 kW	5.86 kW
COP T _j = 12°C	7.94	5.48
P _{dh} T _j = T _{biv}	13.44 kW	12.41 kW
COP T _j = T _{biv}	2.86	2.21
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.44 kW	12.41 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	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 Q _{he}	2931 kWh	3916 kWh

Model Buderus Logatherm WLW196i-14 IRT190

Model name	Buderus Logatherm WLW196i-14 IRT190
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

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

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	140 %
Prated	12.13 kW	10.00 kW
SCOP	4.92	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.89 kW	8.44 kW
COP Tj = -7°C	2.98	2.25
Pdh Tj = +2°C	6.78 kW	5.45 kW
COP Tj = +2°C	4.91	3.56
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 Q _{he}	5090 kWh	5794 kWh
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EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η _s	170 %	123 %
Prated	10.00 kW	9.40 kW
SCOP	4.33	3.16
T _{biv}	-17 °C	-17 °C
TOL	-18 °C	-17 °C
P _{dh} T _j = -7°C	6.09 kW	5.63 kW
COP T _j = -7°C	3.68	2.71
P _{dh} T _j = +2°C	3.66 kW	4.40 kW
COP T _j = +2°C	5.48	3.89
P _{dh} T _j = +7°C	2.70 kW	5.06 kW
COP T _j = +7°C	6.48	4.75
P _{dh} T _j = 12°C	6.23 kW	5.98 kW
COP T _j = 12°C	7.42	5.99
P _{dh} T _j = T _{biv}	8.29 kW	8.23 kW
COP T _j = T _{biv}	2.52	1.80
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.64 kW	8.23 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.41	1.80
WTOL	60 °C	60 °C
P _{off}	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
Annual energy consumption Q _{he}	5697 kWh	7343 kWh
P _{dh} T _j = -15°C (if TOL	8.01	2.01
COP T _j = -15°C (if TOL	2.72	2.01

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 IRTS185

Model name	Buderus Logatherm WLW196i-14 IRTS185
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

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

EN 16147 | Colder Climate

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

EN 16147 | Warmer Climate

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

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	140 %
Prated	12.13 kW	10.00 kW
SCOP	4.92	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.89 kW	8.44 kW
COP Tj = -7°C	2.98	2.25
Pdh Tj = +2°C	6.78 kW	5.45 kW
COP Tj = +2°C	4.91	3.56
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 Q _{he}	5090 kWh	5794 kWh
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EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η_s	170 %	123 %
Prated	10.00 kW	9.40 kW
SCOP	4.33	3.16
T _{biv}	-17 °C	-17 °C
TOL	-18 °C	-17 °C
P _{dh} T _j = -7°C	6.09 kW	5.63 kW
COP T _j = -7°C	3.68	2.71
P _{dh} T _j = +2°C	3.66 kW	4.40 kW
COP T _j = +2°C	5.48	3.89
P _{dh} T _j = +7°C	2.70 kW	5.06 kW
COP T _j = +7°C	6.48	4.75
P _{dh} T _j = 12°C	6.23 kW	5.98 kW
COP T _j = 12°C	7.42	5.99
P _{dh} T _j = T _{biv}	8.29 kW	8.23 kW
COP T _j = T _{biv}	2.52	1.80
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.64 kW	8.23 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.41	1.80
WTOL	60 °C	60 °C
P _{off}	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
Annual energy consumption Q _{he}	5697 kWh	7343 kWh
P _{dh} T _j = -15°C (if TOL	8.01	2.01
COP T _j = -15°C (if TOL	2.72	2.01

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
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

Model Buderus Logatherm WLW196i-14 IRTP120

Model name	Buderus Logatherm WLW196i-14 IRTP120
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	136 %
Prated	12.13 kW	10.00 kW
SCOP	4.70	3.48
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.89 kW	8.44 kW
COP Tj = -7°C	2.92	2.22
Pdh Tj = +2°C	6.78 kW	5.45 kW
COP Tj = +2°C	4.69	3.48
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	163 %	120 %
Prated	10.00 kW	9.40 kW
SCOP	4.15	3.09
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
Annual energy consumption Q _{he}	5947 kWh	7507 kWh
P _{dh} T _j = -15°C (if TOL	8.01	7.48
COP T _j = -15°C (if TOL	2.65	1.99

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η _s	228 %	162 %
Prated	13.44 kW	12.41 kW
SCOP	5.78	4.12
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	13.44 kW	12.41 kW
COP T _j = +2°C	2.82	2.17
P _{dh} T _j = +7°C	8.54 kW	8.58 kW
COP T _j = +7°C	5.05	3.56
P _{dh} T _j = 12°C	4.07 kW	5.86 kW
COP T _j = 12°C	7.38	5.30
P _{dh} T _j = T _{biv}	13.44 kW	12.41 kW
COP T _j = T _{biv}	2.82	2.17
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	13.44 kW	12.41 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.82	2.17
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	3105 kWh	4025 kWh

Model Buderus Logatherm WLW196i-14 ARTP120

Model name	Buderus Logatherm WLW196i-14 ARTP120
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	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 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
η_s	183 %	138 %
Prated	12.00 kW	10.00 kW
SCOP	4.64	3.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.36 kW	9.51 kW
COP Tj = -7°C	2.82	2.22
Pdh Tj = +2°C	6.84 kW	5.60 kW
COP Tj = +2°C	4.64	3.56
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	155 %	120 %
Prated	10.00 kW	9.10 kW
SCOP	3.94	3.08
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
Annual energy consumption Q _{he}	6251 kWh	7274 kWh
P _{dh} T _j = -15°C (if TOL	7.92	7.13
COP T _j = -15°C (if TOL	2.59	1.94

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η _s	229 %	166 %
Prated	14.30 kW	12.50 kW
SCOP	5.79	4.22
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	14.59 kW	12.49 kW
COP T _j = +2°C	2.81	2.15
P _{dh} T _j = +7°C	8.92 kW	8.08 kW
COP T _j = +7°C	5.10	3.73
P _{dh} T _j = 12°C	4.16 kW	5.99 kW
COP T _j = 12°C	7.44	5.42
P _{dh} T _j = T _{biv}	14.59 kW	12.49 kW
COP T _j = T _{biv}	2.81	2.15
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	14.59 kW	12.49 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.81	2.15
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	3299 kWh	3959 kWh