DIN CERTCO
Gesellschaft für Konformitätsbewertung mbH

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-11 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.	011-1W0130
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.

DAkkS
Deutsche
Akkreditierungsstelle
D-ZE-11125-01-00

2021-05-17

S. Sch

Dipl.-Wi.-Ing. (FH) Sören Scholz
Head of Certification Body

GESELLSCHAFT FÜR KONFORMITÄTSBEWERTUNG MBH
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ANNEX

Certificate	011-1W0130 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-11 AR and IR	Reg. No.	011-1W0130
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-11 AR and IR		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	3.3 kg		
Certification Date	18.07.2017		
Testing basis	HP KEYMARK certification scheme rules rev. 8		

Model: Buderus Logatherm WLW196i-11 ARE

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	5.19 kW	4.62 kW
El input	1.04 kW	1.62 kW
COP	4.98	2.85

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

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	249 %	167 %
Prated	11.80 kW	11.43 kW
SCOP	6.30	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.62 kW	7.90 kW
COP Tj = +7°C	5.37	3.61
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2504 kWh	3603 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	152 %	114 %
Prated	9.49 kW	8.87 kW
SCOP	3.87	2.93

Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	7.25 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	5.48 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	6.14
Pdh Tj = Tbiv	8.25 kW	7.71 kW
COP Tj = Tbiv	2.36	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.48 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.49 kW	8.87 kW

Annual energy consumption Qhe	6039 kWh	7456 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.25	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

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	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.53 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.68 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4562 kWh	5389 kWh

Model: Buderus Logatherm WLW196i-11 ARB

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	5.19 kW	4.62 kW
El input	1.04 kW	1.62 kW
COP	4.98	2.85

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

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	249 %	167 %
Prated	11.80 kW	11.43 kW
SCOP	6.30	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.62 kW	7.90 kW
COP Tj = +7°C	5.37	3.61
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2504 kWh	3603 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	152 %	114 %
Prated	9.49 kW	8.87 kW
SCOP	3.87	2.93

Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Cdh Tj = -7 °C		
Pdh Tj = +2°C	7.25 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Cdh Tj = +2 °C		
Pdh Tj = +7°C	5.48 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	6.14
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	8.25 kW	7.71 kW
COP Tj = Tbiv	2.36	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.48 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	20 W	20 W

PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.49 kW	8.87 kW
Annual energy consumption Qhe	6039 kWh	7456 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.25	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92
Cdh Tj = -15 °C		

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	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.53 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58
Pdh Tj = +7°C	3.68 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4562 kWh	5389 kWh

Model: Buderus Logatherm WLW196i-11 ART190

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	5.19 kW	4.62 kW
El input	1.04 kW	1.62 kW
COP	4.98	2.85

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

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	249 %	167 %
Prated	11.80 kW	11.43 kW
SCOP	6.30	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.62 kW	7.90 kW
COP Tj = +7°C	5.37	3.61
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2504 kWh	3603 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	152 %	114 %
Prated	9.49 kW	8.87 kW
SCOP	3.87	2.93

Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	7.25 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	5.48 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	6.14
Pdh Tj = Tbiv	8.25 kW	7.71 kW
COP Tj = Tbiv	2.36	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.48 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.49 kW	8.87 kW

Annual energy consumption Qhe	6039 kWh	7456 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.25	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

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	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.53 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.68 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4562 kWh	5389 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	111 %
COP	2.55
Heating up time	01:48 h:min
Standby power input	66.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	266 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	76 %
COP	1.77
Heating up time	02:34 h:min
Standby power input	83.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	269 l

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	92 %
COP	2.15
Heating up time	02:12 h:min
Standby power input	68.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	265 l

Model: Buderus Logatherm WLW196i-11 ARTS185

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	5.19 kW	4.62 kW
El input	1.04 kW	1.62 kW
COP	4.98	2.85

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

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	249 %	167 %
Prated	11.80 kW	11.43 kW
SCOP	6.30	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.62 kW	7.90 kW
COP Tj = +7°C	5.37	3.61
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2504 kWh	3603 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	152 %	114 %
Prated	9.49 kW	8.87 kW
SCOP	3.87	2.93

Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	7.25 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	5.48 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	6.14
Pdh Tj = Tbiv	8.25 kW	7.71 kW
COP Tj = Tbiv	2.36	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.48 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.49 kW	8.87 kW

Annual energy consumption Qhe	6039 kWh	7456 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.25	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

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	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.53 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.68 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4562 kWh	5389 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	102 %
COP	2.35
Heating up time	01:51 h:min
Standby power input	69.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	252 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	75 %
COP	1.73
Heating up time	02:37 h:min
Standby power input	94.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	257 l

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	91 %
COP	2.11
Heating up time	02:15 h:min
Standby power input	71.0 W
Reference hot water temperature	52.2 °C
Mixed water at 40°C	255 l

Model: Buderus Logatherm WLW196i-11 IRE

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	4.67 kW	4.39 kW
El input	0.93 kW	1.62 kW
COP	5.00	2.71

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

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	249 %	163 %
Prated	10.87 kW	11.43 kW
SCOP	6.29	4.15
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.87 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.30 kW	7.90 kW
COP Tj = +7°C	5.37	3.45
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	10.87 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.87 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2308 kWh	3681 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	148 %	113 %
Prated	9.05 kW	9.15 kW
SCOP	3.78	2.90

Tbiv	-17 °C	-16 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	5.40 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	2.77 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	5.90
Pdh Tj = Tbiv	7.39 kW	7.71 kW
COP Tj = Tbiv	2.11	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.18 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.05 kW	9.15 kW

Annual energy consumption Qhe	5895 kWh	7769 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.14 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.54 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4558 kWh	5389 kWh

Model: Buderus Logatherm WLW196i-11 IRB

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	4.67 kW	4.39 kW
El input	0.93 kW	1.62 kW
COP	5.00	2.71

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

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	249 %	163 %
Prated	10.87 kW	11.43 kW
SCOP	6.29	4.15
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.87 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.30 kW	7.90 kW
COP Tj = +7°C	5.37	3.45
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	10.87 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.87 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2308 kWh	3681 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	148 %	113 %
Prated	9.05 kW	9.15 kW
SCOP	3.78	2.90

Tbiv	-17 °C	-16 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Cdh Tj = -7 °C		
Pdh Tj = +2°C	5.40 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.77 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	5.90
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	7.39 kW	7.71 kW
COP Tj = Tbiv	2.11	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.18 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	20 W	20 W

PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.05 kW	9.15 kW
Annual energy consumption Qhe	5895 kWh	7769 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92
Cdh Tj = -15 °C		

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.14 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58
Pdh Tj = +7°C	3.54 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4558 kWh	5389 kWh

Model: Buderus Logatherm WLW196i-11 IRT190

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	4.67 kW	4.39 kW
El input	0.93 kW	1.62 kW
COP	5.00	2.71

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

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	249 %	163 %
Prated	10.87 kW	11.43 kW
SCOP	6.29	4.15
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.87 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.30 kW	7.90 kW
COP Tj = +7°C	5.37	3.45
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	10.87 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.87 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2308 kWh	3681 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	148 %	113 %
Prated	9.05 kW	9.15 kW
SCOP	3.78	2.90

Tbiv	-17 °C	-16 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	5.40 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	2.77 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	5.90
Pdh Tj = Tbiv	7.39 kW	7.71 kW
COP Tj = Tbiv	2.11	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.18 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.05 kW	9.15 kW

Annual energy consumption Qhe	5895 kWh	7769 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.14 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.54 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4558 kWh	5389 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	111 %
COP	2.55
Heating up time	01:49 h:min
Standby power input	66.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	266 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	76 %
COP	1.77
Heating up time	02:34 h:min
Standby power input	83.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	269 l

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	92 %
COP	2.15
Heating up time	02:12 h:min
Standby power input	68.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	265 l

Model: Buderus Logatherm WLW196i-11 IRTS185

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	4.67 kW	4.39 kW
El input	0.93 kW	1.62 kW
COP	5.00	2.71

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

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	249 %	163 %
Prated	10.87 kW	11.43 kW
SCOP	6.29	4.15
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.87 kW	11.43 kW
COP Tj = +2°C	3.04	2.17
Pdh Tj = +7°C	7.30 kW	7.90 kW
COP Tj = +7°C	5.37	3.45
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	8.25	5.56
Pdh Tj = Tbiv	10.87 kW	11.43 kW
COP Tj = Tbiv	3.04	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.87 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.17
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2308 kWh	3681 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	148 %	113 %
Prated	9.05 kW	9.15 kW
SCOP	3.78	2.90

Tbiv	-17 °C	-16 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.61	2.70
Pdh Tj = +2°C	5.40 kW	6.86 kW
COP Tj = +2°C	4.12	3.23
Pdh Tj = +7°C	2.77 kW	5.19 kW
COP Tj = +7°C	6.35	4.86
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.59	5.90
Pdh Tj = Tbiv	7.39 kW	7.71 kW
COP Tj = Tbiv	2.11	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.18 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.69
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.05 kW	9.15 kW

Annual energy consumption Qhe	5895 kWh	7769 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	1.92
COP Tj = -15°C (if TOL<-20°C)	2.61	1.92

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	178 %	140 %
Prated	9.97 kW	9.33 kW
SCOP	4.52	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.14 kW	8.41 kW
COP Tj = -7°C	2.95	2.21
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	4.04	3.58

Pdh Tj = +7°C	3.54 kW	5.12 kW
COP Tj = +7°C	6.71	4.54
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.94	5.66
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4558 kWh	5389 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	102 %
COP	2.35
Heating up time	01:51 h:min
Standby power input	69.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	252 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	75 %
COP	1.73
Heating up time	02:37 h:min
Standby power input	94.0 W
Reference hot water temperature	51.3 °C
Mixed water at 40°C	257 l

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	91 %
COP	2.11
Heating up time	02:15 h:min
Standby power input	71.0 W
Reference hot water temperature	52.2 °C
Mixed water at 40°C	255 l

Model: Buderus Logatherm WLW196i-11 ARTP120

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	5.19 kW	4.62 kW
El input	1.09 kW	1.65 kW
COP	4.76	2.80

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

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	233 %	161 %
Prated	11.80 kW	11.43 kW
SCOP	5.90	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	2.98	2.14
Pdh Tj = +7°C	7.62 kW	7.90 kW
COP Tj = +7°C	5.11	3.54
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	7.61	5.38
Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	2.98	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.14
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	2673 kWh	3720 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	145 %	112 %
Prated	9.49 kW	8.88 kW
SCOP	3.71	2.87

Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.49	2.65
Pdh Tj = +2°C	7.25 kW	6.86 kW
COP Tj = +2°C	3.95	3.16
Pdh Tj = +7°C	5.48 kW	5.19 kW
COP Tj = +7°C	6.00	4.71
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.04	5.92
Pdh Tj = Tbiv	8.25 kW	7.71 kW
COP Tj = Tbiv	2.30	1.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.48 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.11	1.67
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.49 kW	8.88 kW

Annual energy consumption Qhe	6307 kWh	7636 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	7.29
COP Tj = -15°C (if TOL<-20°C)	2.54	1.90

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	170 %	137 %
Prated	9.97 kW	9.26 kW
SCOP	4.31	3.49
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.53 kW	8.41 kW
COP Tj = -7°C	2.89	2.18
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	3.88	3.50

Pdh Tj = +7°C	3.68 kW	5.12 kW
COP Tj = +7°C	6.30	4.42
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.35	5.51
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.54	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.54	1.82
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	4776 kWh	5484 kWh

Model: Buderus Logatherm WLW196i-11 IRTP120

Configure model	
Model name	Buderus Logatherm WLW196i-11 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	4.67 kW	4.39 kW
El input	0.98 kW	1.66 kW
COP	4.77	2.64

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

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	233 %	158 %
Prated	10.87 kW	11.43 kW
SCOP	5.89	4.02
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.87 kW	11.43 kW
COP Tj = +2°C	2.98	2.14
Pdh Tj = +7°C	7.30 kW	7.90 kW
COP Tj = +7°C	5.10	3.38
Pdh Tj = 12°C	3.13 kW	6.01 kW
COP Tj = 12°C	7.61	5.38
Pdh Tj = Tbiv	10.87 kW	11.43 kW
COP Tj = Tbiv	2.98	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.87 kW	11.43 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.14
WTOL	60 °C	60 °C
Poff	23 W	23 W
PTO	23 W	23 W
PSB	23 W	23 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2466 kWh	3799 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	143 %	111 %
Prated	9.05 kW	9.15 kW
SCOP	3.64	2.84

Tbiv	-17 °C	-16 °C
TOL	-18 °C	-17 °C
Pdh Tj = -7°C	5.98 kW	5.62 kW
COP Tj = -7°C	3.49	2.66
Pdh Tj = +2°C	5.40 kW	6.86 kW
COP Tj = +2°C	3.97	3.17
Pdh Tj = +7°C	2.77 kW	5.19 kW
COP Tj = +7°C	5.95	4.72
Pdh Tj = 12°C	3.07 kW	6.14 kW
COP Tj = 12°C	7.04	5.70
Pdh Tj = Tbiv	7.39 kW	7.71 kW
COP Tj = Tbiv	2.07	1.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.18 kW	6.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.12	1.67
WTOL	60 °C	60 °C
Poff	23 W	23 W
PTO	23 W	23 W
PSB	23 W	23 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.05 kW	9.15 kW

Annual energy consumption Qhe	6132 kWh	7938 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.80	7.29
COP Tj = -15°C (if TOL<-20°C)	2.54	1.90

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	37 dB(A)	37 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	170 %	136 %
Prated	9.97 kW	9.33 kW
SCOP	4.32	3.48
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.14 kW	8.41 kW
COP Tj = -7°C	2.88	2.18
Pdh Tj = +2°C	5.48 kW	4.74 kW
COP Tj = +2°C	3.89	3.50

Pdh Tj = +7°C	3.54 kW	5.12 kW
COP Tj = +7°C	6.30	4.41
Pdh Tj = 12°C	3.11 kW	6.10 kW
COP Tj = 12°C	7.35	5.47
Pdh Tj = Tbiv	9.97 kW	9.33 kW
COP Tj = Tbiv	2.54	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.97 kW	9.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.54	1.82
WTOL	60 °C	60 °C
Poff	23 W	23 W
PTO	23 W	23 W
PSB	23 W	23 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4766 kWh	5534 kWh

Model: Buderus Hybrid-Set WLW196i-11 A H

Configure model	
Model name	Buderus Hybrid-Set WLW196i-11 A H
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	5.18 kW	7.41 kW
El input	1.06 kW	2.61 kW
COP	4.89	2.84

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

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	237 %	161 %
Prated	11.80 kW	11.40 kW
SCOP	6.00	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.80 kW	11.43 kW
COP Tj = +2°C	2.97	2.08
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	7.71 kW	7.96 kW
COP Tj = +7°C	5.04	3.53
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	3.21 kW	5.96 kW
COP Tj = 12°C	8.31	5.57
Cdh Tj = +12 °C	1.000	0.970

Pdh Tj = Tbiv	11.80 kW	11.43 kW
COP Tj = Tbiv	2.97	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	11.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.97	2.08
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	27 W	27 W
PSB	26 W	26 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	2628 kWh	3705 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	168 %	119 %
Prated	9.50 kW	8.90 kW
SCOP	4.16	3.05
Tbiv	-17 °C	-12 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	5.79 kW	5.78 kW
COP Tj = -7°C	3.72	2.68
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.50 kW	3.83 kW
COP Tj = +2°C	4.89	3.28
Cdh Tj = +2 °C	1.000	0.980
Pdh Tj = +7°C	2.77 kW	5.23 kW
COP Tj = +7°C	7.49	4.71
Cdh Tj = +7 °C	0.930	0.980
Pdh Tj = 12°C	3.20 kW	6.11 kW
COP Tj = 12°C	8.18	6.04
Cdh Tj = +12 °C	0.930	0.970
Pdh Tj = Tbiv	8.55 kW	6.42 kW
COP Tj = Tbiv	2.25	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.86 kW	5.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.86

WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	27 W	27 W
PSB	26 W	26 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	9.50 kW	8.90 kW
Annual energy consumption Qhe	5487 kWh	7194 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.31	
COP Tj = -15°C (if TOL<-20°C)	2.46	

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	194 %	136 %
Prated	10.00 kW	9.30 kW

SCOP	4.92	3.47
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.31 kW	8.39 kW
COP Tj = -7°C	3.00	2.15
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.17 kW	4.65 kW
COP Tj = +2°C	4.88	3.48
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.70 kW	5.06 kW
COP Tj = +7°C	6.56	4.46
Cdh Tj = +7 °C	1.000	0.980
Pdh Tj = 12°C	3.22 kW	6.05 kW
COP Tj = 12°C	8.28	5.81
Cdh Tj = +12 °C	0.930	0.970
Pdh Tj = Tbiv	10.23 kW	8.39 kW
COP Tj = Tbiv	2.60	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.23 kW	6.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.89
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C

Poff	11 W	11 W
PTO	27 W	27 W
PSB	26 W	26 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	Gas
Supplementary Heater: PSUP	0.00 kW	2.97 kW
Annual energy consumption Qhe	4198 kWh	5535 kWh