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Summary of	Buderus Logatherm WLW196i-4 AR	Reg. No.	011-1W0127
Certificate Holder			
Name	Bosch Thermotechnik GmbH (Buderus)		
Address	Sophienstraße 30-32	Zip	35576
City	Wetzlar	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	Buderus Logatherm WLW196i-4 AR		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	1.7 kg		
Certification Date	18.07.2017		
Testing basis	HP KEYMARK certification scheme rules rev. 8		

Model: Buderus Logatherm WLW196i-4 ARE

Configure model	
Model name	Buderus Logatherm WLW196i-4 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	2.14 kW	1.88 kW
El input	0.46 kW	0.72 kW
COP	4.68	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

Average Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	4.40 kW	4.10 kW
SCOP	4.65	3.34
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.88 kW	3.57 kW
COP Tj = -7°C	3.07	2.16
Pdh Tj = +2°C	2.51 kW	2.34 kW
COP Tj = +2°C	4.69	3.29
Pdh Tj = +7°C	1.50 kW	2.13 kW
COP Tj = +7°C	5.78	4.29
Pdh Tj = 12°C	1.23 kW	2.52 kW
COP Tj = 12°C	6.13	5.53
Pdh Tj = Tbiv	4.37 kW	4.05 kW

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COP $T_j = T_{biv}$	2.76	1.85
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.37 kW	4.05 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.85
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
P _{off}	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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}	1955 kWh	2533 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature

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η_s	159 %	117 %
Prated	3.90 kW	4.00 kW
SCOP	4.04	3.00
Tbiv	-17 °C	-16 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.46 kW	2.32 kW
COP Tj = -7°C	3.56	2.57
Pdh Tj = +2°C	1.48 kW	1.79 kW
COP Tj = +2°C	4.86	3.66
Pdh Tj = +7°C	1.13 kW	2.13 kW
COP Tj = +7°C	5.53	4.54
Pdh Tj = 12°C	1.21 kW	2.55 kW
COP Tj = 12°C	5.75	5.82
Pdh Tj = Tbiv	3.43 kW	3.37 kW
COP Tj = Tbiv	2.36	1.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.08 kW	3.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.61
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 W

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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.90 kW	4.00 kW
Annual energy consumption Q _{he}	2378 kWh	3287 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	3.27	1.88
COP T _j = -15°C (if TOL<-20°C)	2.55	1.88

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	5.30 kW	5.60 kW
SCOP	5.69	4.10
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	5.28 kW	5.65 kW

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COP Tj = +2°C	3.08	2.22
Pdh Tj = +7°C	3.22 kW	3.92 kW
COP Tj = +7°C	5.31	3.54
Pdh Tj = 12°C	1.50 kW	2.49 kW
COP Tj = 12°C	6.79	5.35
Pdh Tj = Tbiv	5.28 kW	5.65 kW
COP Tj = Tbiv	3.08	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.28 kW	5.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.08	2.22
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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	1245 kWh	1823 kWh

Model: Buderus Logatherm WLW196i-4 ARB

Configure model	
Model name	Buderus Logatherm WLW196i-4 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	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.14 kW	1.88 kW
El input	0.46 kW	0.72 kW
COP	4.68	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

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	4.40 kW	4.10 kW
SCOP	4.65	3.34
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.88 kW	3.57 kW
COP Tj = -7°C	3.07	2.16
Pdh Tj = +2°C	2.51 kW	2.34 kW
COP Tj = +2°C	4.69	3.29
Pdh Tj = +7°C	1.50 kW	2.13 kW
COP Tj = +7°C	5.78	4.29
Pdh Tj = 12°C	1.23 kW	2.52 kW
COP Tj = 12°C	6.13	5.53
Pdh Tj = Tbiv	4.37 kW	4.05 kW

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COP $T_j = T_{biv}$	2.76	1.85
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.37 kW	4.05 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.85
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
P _{off}	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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}	1955 kWh	2533 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 18 Mar 2022

η_s	159 %	117 %
Prated	3.90 kW	4.00 kW
SCOP	4.04	3.00
Tbiv	-17 °C	-16 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.46 kW	2.32 kW
COP Tj = -7°C	3.56	2.57
Pdh Tj = +2°C	1.48 kW	1.79 kW
COP Tj = +2°C	4.86	3.66
Pdh Tj = +7°C	1.13 kW	2.13 kW
COP Tj = +7°C	5.53	4.54
Pdh Tj = 12°C	1.21 kW	2.55 kW
COP Tj = 12°C	5.75	5.82
Pdh Tj = Tbiv	3.43 kW	3.37 kW
COP Tj = Tbiv	2.36	1.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.08 kW	3.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.61
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

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}	2378 kWh	3287 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	3.27	1.88
COP T _j = -15°C (if TOL<-20°C)	2.55	1.88

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	5.30 kW	5.60 kW
SCOP	5.69	4.10
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	5.28 kW	5.65 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = +2°C	3.08	2.22
Pdh Tj = +7°C	3.22 kW	3.92 kW
COP Tj = +7°C	5.31	3.54
Pdh Tj = 12°C	1.50 kW	2.49 kW
COP Tj = 12°C	6.79	5.35
Pdh Tj = Tbiv	5.28 kW	5.65 kW
COP Tj = Tbiv	3.08	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.28 kW	5.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.08	2.22
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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	1245 kWh	1823 kWh

Model: Buderus Logatherm WLW196i-4 ARTS185

Configure model	
Model name	Buderus Logatherm WLW196i-4 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	2.14 kW	1.88 kW
El input	0.46 kW	0.72 kW
COP	4.68	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

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	4.40 kW	4.10 kW
SCOP	4.65	3.34
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.88 kW	3.57 kW
COP Tj = -7°C	3.07	2.16
Pdh Tj = +2°C	2.51 kW	2.34 kW
COP Tj = +2°C	4.69	3.29
Pdh Tj = +7°C	1.50 kW	2.13 kW
COP Tj = +7°C	5.78	4.29
Pdh Tj = 12°C	1.23 kW	2.52 kW
COP Tj = 12°C	6.13	5.53
Pdh Tj = Tbiv	4.37 kW	4.05 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP $T_j = T_{biv}$	2.76	1.85
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.37 kW	4.05 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.85
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
P _{off}	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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}	1955 kWh	2533 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 18 Mar 2022

η_s	159 %	117 %
Prated	3.90 kW	4.00 kW
SCOP	4.04	3.00
Tbiv	-17 °C	-16 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.46 kW	2.32 kW
COP Tj = -7°C	3.56	2.57
Pdh Tj = +2°C	1.48 kW	1.79 kW
COP Tj = +2°C	4.86	3.66
Pdh Tj = +7°C	1.13 kW	2.13 kW
COP Tj = +7°C	5.53	4.54
Pdh Tj = 12°C	1.21 kW	2.55 kW
COP Tj = 12°C	5.75	5.82
Pdh Tj = Tbiv	3.43 kW	3.37 kW
COP Tj = Tbiv	2.36	1.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.08 kW	3.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.61
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.90 kW	4.00 kW
Annual energy consumption Q _{he}	2378 kWh	3287 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	3.27	1.88
COP T _j = -15°C (if TOL<-20°C)	2.55	1.88

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	5.30 kW	5.60 kW
SCOP	5.69	4.10
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	5.28 kW	5.65 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = +2°C	3.08	2.22
Pdh Tj = +7°C	3.22 kW	3.92 kW
COP Tj = +7°C	5.31	3.54
Pdh Tj = 12°C	1.50 kW	2.49 kW
COP Tj = 12°C	6.79	5.35
Pdh Tj = Tbiv	5.28 kW	5.65 kW
COP Tj = Tbiv	3.08	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.28 kW	5.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.08	2.22
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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	1245 kWh	1823 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	96 %
COP	2.25
Heating up time	03:30 h:min
Standby power input	55.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	272 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	81 %
COP	1.90
Heating up time	04:18 h:min
Standby power input	65.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	275 l

Warmer Climate

This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	119 %
COP	2.80
Heating up time	03:00 h:min
Standby power input	47.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	272 l

Model: Buderus Logatherm WLW196i-4 ART190

Configure model	
Model name	Buderus Logatherm WLW196i-4 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	2.14 kW	1.88 kW
El input	0.46 kW	0.72 kW
COP	4.68	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

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	4.40 kW	4.10 kW
SCOP	4.65	3.34
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.88 kW	3.57 kW
COP Tj = -7°C	3.07	2.16
Pdh Tj = +2°C	2.51 kW	2.34 kW
COP Tj = +2°C	4.69	3.29
Pdh Tj = +7°C	1.50 kW	2.13 kW
COP Tj = +7°C	5.78	4.29
Pdh Tj = 12°C	1.23 kW	2.52 kW
COP Tj = 12°C	6.13	5.53
Pdh Tj = Tbiv	4.37 kW	4.05 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP $T_j = T_{biv}$	2.76	1.85
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.37 kW	4.05 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.76	1.85
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
P _{off}	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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}	1955 kWh	2533 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature

This information was generated by the HP KEYMARK database on 18 Mar 2022

η_s	159 %	117 %
Prated	3.90 kW	4.00 kW
SCOP	4.04	3.00
Tbiv	-17 °C	-16 °C
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Pdh Tj = -7°C	2.46 kW	2.32 kW
COP Tj = -7°C	3.56	2.57
Pdh Tj = +2°C	1.48 kW	1.79 kW
COP Tj = +2°C	4.86	3.66
Pdh Tj = +7°C	1.13 kW	2.13 kW
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Pdh Tj = 12°C	1.21 kW	2.55 kW
COP Tj = 12°C	5.75	5.82
Pdh Tj = Tbiv	3.43 kW	3.37 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.08 kW	3.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.61
WTOL	60 °C	60 °C
Poff	17 W	17 W
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This information was generated by the HP KEYMARK database on 18 Mar 2022

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.90 kW	4.00 kW
Annual energy consumption Q _{he}	2378 kWh	3287 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	3.27	1.88
COP T _j = -15°C (if TOL<-20°C)	2.55	1.88

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	5.30 kW	5.60 kW
SCOP	5.69	4.10
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	5.28 kW	5.65 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = +2°C	3.08	2.22
Pdh Tj = +7°C	3.22 kW	3.92 kW
COP Tj = +7°C	5.31	3.54
Pdh Tj = 12°C	1.50 kW	2.49 kW
COP Tj = 12°C	6.79	5.35
Pdh Tj = Tbiv	5.28 kW	5.65 kW
COP Tj = Tbiv	3.08	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.28 kW	5.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.08	2.22
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	22 W	22 W
PSB	17 W	17 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	1245 kWh	1823 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	96 %
COP	2.25
Heating up time	03:30 h:min
Standby power input	55.0 W
Reference hot water temperature	52.1 °C
Mixed water at 40°C	272 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	81 %
COP	1.90
Heating up time	04:18 h:min
Standby power input	65.0 W
Reference hot water temperature	52.4 °C
Mixed water at 40°C	275 l

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	119 %
COP	2.80
Heating up time	03:00 h:min
Standby power input	47.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	272 l

Model: Buderus Logatherm WLW196i-4 ARTP120

Configure model	
Model name	Buderus Logatherm WLW196i-4 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	2.14 kW	1.88 kW
El input	0.48 kW	0.75 kW
COP	4.44	2.52

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

Average Climate

This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	172 %	125 %
Prated	4.40 kW	4.10 kW
SCOP	4.39	3.20
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.88 kW	3.57 kW
COP Tj = -7°C	2.99	2.13
Pdh Tj = +2°C	2.51 kW	2.34 kW
COP Tj = +2°C	4.50	3.20
Pdh Tj = +7°C	1.50 kW	2.13 kW
COP Tj = +7°C	5.32	4.08
Pdh Tj = 12°C	1.23 kW	2.52 kW
COP Tj = 12°C	5.57	5.22
Pdh Tj = Tbiv	4.37 kW	4.05 kW

This information was generated by the HP KEYMARK database on 18 Mar 2022

COP $T_j = T_{biv}$	2.70	1.83
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.37 kW	4.05 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.70	1.83
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	4 W	4 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q_{he}	2072 kWh	2647 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	150 %	112 %

This information was generated by the HP KEYMARK database on 18 Mar 2022

Prated	3.90 kW	4.00 kW
SCOP	3.83	2.87
Tbiv	-17 °C	-16 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.46 kW	2.32 kW
COP Tj = -7°C	3.43	2.52
Pdh Tj = +2°C	1.48 kW	1.79 kW
COP Tj = +2°C	4.59	3.51
Pdh Tj = +7°C	1.13 kW	2.13 kW
COP Tj = +7°C	5.13	4.33
Pdh Tj = 12°C	1.21 kW	2.55 kW
COP Tj = 12°C	5.24	5.51
Pdh Tj = Tbiv	3.43 kW	3.37 kW
COP Tj = Tbiv	2.31	1.76
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.08 kW	3.11 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.12	1.59
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	4 W	4 W

This information was generated by the HP KEYMARK database on 18 Mar 2022

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.90 kW	4.00 kW
Annual energy consumption Q _{he}	2511 kWh	3430 kWh
P _{dh} T _j = -15°C (if TOL < -20°C)	3.27	3.29
COP T _j = -15°C (if TOL < -20°C)	2.49	1.85

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	208 %	153 %
Prated	5.30 kW	5.60 kW
SCOP	5.28	3.90
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	5.28 kW	5.65 kW
COP T _j = +2°C	2.98	2.19

This information was generated by the HP KEYMARK database on 18 Mar 2022

Pdh Tj = +7°C	3.22 kW	3.92 kW
COP Tj = +7°C	5.01	3.45
Pdh Tj = 12°C	1.50 kW	2.49 kW
COP Tj = 12°C	6.19	5.05
Pdh Tj = Tbiv	5.28 kW	5.65 kW
COP Tj = Tbiv	2.98	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.28 kW	5.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.19
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	4 W	4 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1341 kWh	1918 kWh