

Summary of	Buderus Logatherm WLW196i-6 AR and IR, Buderus Logatherm WLW196i.2-4 AR	Reg. No.	011- 1W0128
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		
Name of testing laboratory	RISE Research Institutes of Sweden AB		
Subtype title	Buderus Logatherm WLW196i-6 AR and IR, Buderus Logatherm W	LW196i.2	-4 AR
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	1.75 kg		
Certification Date	18.07.2017		



# Model: Buderus Logatherm WLW196i-6 ARE

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW



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COP Tj = Tbiv	2.65	1.91
Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	0.90	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh



## Model: Buderus Logatherm WLW196i-6 ARB

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW



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COP Tj = Tbiv	2.65	1.91
Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	0.90	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh



# Model: Buderus Logatherm WLW196i-6 ART

General Data	
Power supply 1x230V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW

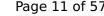


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#### This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = Tbiv	2.65	1.91
Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	0.90	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	97 %
СОР	2.40
Heating up time	02:44 h:min
Standby power input	58.7 W
Reference hot water temperature	55.6 °C
Mixed water at 40°C	284



## Model: Buderus Logatherm WLW196i-6 ARTS

General Data	
Power supply 1x230V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



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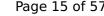
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW



COP Tj = Tbiv	2.65	1.91
Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	0.90	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh

Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	L	
Efficiency ηDHW	97 %	
СОР	2.40	
Heating up time	02:44 h:min	
Standby power input	58.7 W	
Reference hot water temperature	55.6 °C	
Mixed water at 40°C	284	



## Model: Buderus Logatherm WLW196i-6 IRE

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	2.96 kW	2.18 kW	
El input	0.61 kW	0.80 kW	
СОР	4.84	2.74	
Indoor water flow rate	0.65 m³/h	0.24 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

Low temperature  203 %  5.00 kW  5.15  -10 °C	Medium temperature  145 %  5.00 kW  3.70
5.00 kW 5.15	5.00 kW 3.70
5.15	3.70
-10 °C	
	-10 °C
-20 °C	-20 °C
4.80 kW	4.00 kW
3.00	2.22
2.90 kW	2.40 kW
4.89	3.42
1.90 kW	2.10 kW
6.64	4.90
1.30 kW	2.60 kW
8.93	7.53
5.40 kW	4.50 kW
2.65	1.91
	4.80 kW 3.00 2.90 kW 4.89 1.90 kW 6.64 1.30 kW 8.93 5.40 kW



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Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh



## Model: Buderus Logatherm WLW196i-6 IRB

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	2.96 kW	2.18 kW	
El input	0.61 kW	0.80 kW	
СОР	4.84	2.74	
Indoor water flow rate	0.65 m³/h	0.24 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW
COP Tj = Tbiv	2.65	1.91



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Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh

## Model: Buderus Logatherm WLW196i-6 IRT

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

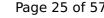
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW
COP Tj = Tbiv	2.65	1.91





Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	97 %
СОР	2.40
Heating up time	02:44 h:min
Standby power input	58.7 W
Reference hot water temperature	55.6 °C
Mixed water at 40°C	284

## Model: Buderus Logatherm WLW196i-6 IRTS

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.96 kW	2.18 kW
El input	0.61 kW	0.80 kW
СОР	4.84	2.74
Indoor water flow rate	0.65 m³/h	0.24 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	203 %	145 %
Prated	5.00 kW	5.00 kW
SCOP	5.15	3.70
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.80 kW	4.00 kW
COP Tj = -7°C	3.00	2.22
Pdh Tj = +2°C	2.90 kW	2.40 kW
COP Tj = +2°C	4.89	3.42
Pdh Tj = +7°C	1.90 kW	2.10 kW
COP Tj = +7°C	6.64	4.90
Pdh Tj = 12°C	1.30 kW	2.60 kW
COP Tj = 12°C	8.93	7.53
Pdh Tj = Tbiv	5.40 kW	4.50 kW
COP Tj = Tbiv	2.65	1.91

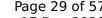


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#### This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	4.10 kW	4.30 kW
COP Tj = TOL	1.57	1.60
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2227 kWh	2740 kWh

Domestic Hot Water (DHW)





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EN 16147	
Declared load profile	L
Efficiency ηDHW	97 %
СОР	2.40
Heating up time	02:44 h:min
Standby power input	58.7 W
Reference hot water temperature	55.6 °C
Mixed water at 40°C	284



# Model: Buderus Logatherm WLW196i.2-4 ARB S+

General Data	
Power supply	3x400V 50Hz

#### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	2.14 kW	1.77 kW	
El input	0.43 kW	0.69 kW	
СОР	4.99	2.57	
Indoor water flow rate	0.37 m³/h	0.24 m³/h	

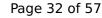
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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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
$\eta_{s}$	196 %	133 %
Prated	4.76 kW	4.49 kW
SCOP	4.99	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.27 kW	3.93 kW
COP Tj = -7°C	3.11	2.11
Pdh Tj = +2°C	2.51 kW	2.41 kW
COP Tj = +2°C	4.96	3.36
Pdh Tj = +7°C	1.51 kW	2.06 kW
COP Tj = +7°C	6.40	4.41
Pdh Tj = 12°C	1.27 kW	2.45 kW
COP Tj = 12°C	7.53	5.76
Pdh Tj = Tbiv	4.76 kW	4.49 kW





COP Tj = Tbiv	2.68	1.82
Pdh Tj = TOL	4.76 kW	4.49 kW
COP Tj = TOL	2.68	1.82
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1971 kWh	2721 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)

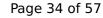
EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	168 %	118 %



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#### This information was generated by the HP KEYMARK database on 17 Dec 2020

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Prated	4.30 kW	4.00 kW	
SCOP	4.27	3.03	
Tbiv	-17 °C	-17 °C	
TOL	-20 °C	-18 °C	
Pdh Tj = -7°C	2.50 kW	2.29 kW	
COP Tj = $-7^{\circ}$ C	3.64	2.52	
Cdh			
Pdh Tj = $+2$ °C	1.49 kW	1.80 kW	
COP Tj = +2°C	5.22	3.82	
Cdh			
Pdh Tj = $+7^{\circ}$ C	1.14 kW	2.08 kW	
COP Tj = +7°C	6.44	4.68	
Cdh			
Pdh Tj = 12°C	1.24 kW	2.48 kW	
COP Tj = 12°C	7.03	6.02	
Cdh			
Pdh Tj = Tbiv	3.75 kW	3.53 kW	
COP Tj = Tbiv	2.29	1.64	
Pdh Tj = TOL	3.44 kW	3.39 kW	
COP Tj = TOL	2.11	1.56	
WTOL	60 °C	60 °C	





Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.64 kW	0.00 kW
Annual energy consumption Qhe	2480 kWh	3250 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh		

#### 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
$\eta_{s}$	242 %	165 %
Prated	5.50 kW	5.40 kW



This information was generated by the HP KEYMARK database on 17 Dec 2020			
SCOP	6.13	4.19	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	5.48 kW	5.40 kW	
COP Tj = +2°C	3.03	2.10	
Pdh Tj = +7°C	3.81 kW	3.56 kW	
$COP Tj = +7^{\circ}C$	5.16	3.57	
Pdh Tj = 12°C	1.71 kW	2.44 kW	
COP Tj = 12°C	8.06	5.53	
Pdh Tj = Tbiv	5.48 kW	5.40 kW	
COP Tj = Tbiv	3.03	2.10	
Pdh Tj = TOL	5.48 kW	5.40 kW	
COP Tj = TOL	3.03	2.10	
WTOL	60 °C	60 °C	
Poff	17 W	17 W	
РТО	5 W	5 W	
PSB	17 W	17 W	
PCK	0 W	o w	
Supplementary Heater: Type of energy input	Electric	Electric	
Supplementary Heater: PSUP	0 kW	0 kW	
Annual energy consumption Qhe	1199 kWh	1723 kWh	



# Model: Buderus Logatherm WLW196i.2-4 ARE S+

General Data	
Power supply	3x400V 50Hz

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.14 kW	1.77 kW
El input	0.43 kW	0.69 kW
СОР	4.99	2.57
Indoor water flow rate	0.37 m³/h	0.24 m³/h

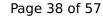
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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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
$\eta_{s}$	196 %	133 %
Prated	4.76 kW	4.49 kW
SCOP	4.99	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.27 kW	3.93 kW
COP Tj = -7°C	3.11	2.11
Pdh Tj = +2°C	2.51 kW	2.41 kW
COP Tj = +2°C	4.96	3.36
Pdh Tj = +7°C	1.51 kW	2.06 kW
COP Tj = +7°C	6.40	4.41
Pdh Tj = 12°C	1.27 kW	2.45 kW
COP Tj = 12°C	7.53	5.76
Pdh Tj = Tbiv	4.76 kW	4.49 kW

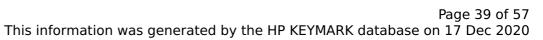




COP Tj = Tbiv	2.68	1.82
Pdh Tj = TOL	4.76 kW	4.49 kW
COP Tj = TOL	2.68	1.82
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1971 kWh	2721 kWh

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
$\eta_{S}$	168 %	118 %





Prated	4.30 kW	4.00 kW
SCOP	4.27	3.03
Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.50 kW	2.29 kW
COP Tj = -7°C	3.64	2.52
Cdh		
Pdh Tj = +2°C	1.49 kW	1.80 kW
$COP Tj = +2^{\circ}C$	5.22	3.82
Cdh		
Pdh Tj = $+7^{\circ}$ C	1.14 kW	2.08 kW
$COP Tj = +7^{\circ}C$	6.44	4.68
Cdh		
Pdh Tj = 12°C	1.24 kW	2.48 kW
COP Tj = 12°C	7.03	6.02
Cdh		
Pdh Tj = Tbiv	3.75 kW	3.53 kW
COP Tj = Tbiv	2.29	1.64
Pdh Tj = TOL	3.44 kW	3.39 kW
COP Tj = TOL	2.11	1.56
WTOL	60 °C	60 °C





Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.64 kW	0.00 kW
Annual energy consumption Qhe	2480 kWh	3250 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh		

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
$\eta_{s}$	242 %	165 %
Prated	5.50 kW	5.40 kW





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SCOP	6.13	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	5.40 kW
COP Tj = +2°C	3.03	2.10
Pdh Tj = +7°C	3.81 kW	3.56 kW
$COP Tj = +7^{\circ}C$	5.16	3.57
Pdh Tj = 12°C	1.71 kW	2.44 kW
COP Tj = 12°C	8.06	5.53
Pdh Tj = Tbiv	5.48 kW	5.40 kW
COP Tj = Tbiv	3.03	2.10
Pdh Tj = TOL	5.48 kW	5.40 kW
COP Tj = TOL	3.03	2.10
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1199 kWh	1723 kWh

# Model: Buderus Logatherm WLW196i.2-4 ART

	General Data	
Power supply	3x400V 50Hz	

# Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.14 kW	1.77 kW
El input	0.43 kW	0.69 kW
СОР	4.99	2.57
Indoor water flow rate	0.37 m³/h	0.24 m³/h

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

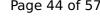
### **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	196 %	133 %
Prated	4.76 kW	4.49 kW
SCOP	4.99	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.27 kW	3.93 kW
COP Tj = -7°C	3.11	2.11
Pdh Tj = +2°C	2.51 kW	2.41 kW
COP Tj = +2°C	4.96	3.36
Pdh Tj = +7°C	1.51 kW	2.06 kW
COP Tj = +7°C	6.40	4.41
Pdh Tj = 12°C	1.27 kW	2.45 kW
COP Tj = 12°C	7.53	5.76
Pdh Tj = Tbiv	4.76 kW	4.49 kW





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COP Tj = Tbiv	2.68	1.82
Pdh Tj = TOL	4.76 kW	4.49 kW
COP Tj = TOL	2.68	1.82
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1971 kWh	2721 kWh

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
$\eta_{S}$	168 %	118 %





Prated	4.30 kW	4.00 kW
SCOP	4.27	3.03
Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = -7°C	2.50 kW	2.29 kW
COP Tj = -7°C	3.64	2.52
Cdh		
Pdh Tj = +2°C	1.49 kW	1.80 kW
$COP Tj = +2^{\circ}C$	5.22	3.82
Cdh		
Pdh Tj = +7°C	1.14 kW	2.08 kW
COP Tj = +7°C	6.44	4.68
Cdh		
Pdh Tj = 12°C	1.24 kW	2.48 kW
COP Tj = 12°C	7.03	6.02
Cdh		
Pdh Tj = Tbiv	3.75 kW	3.53 kW
COP Tj = Tbiv	2.29	1.64
Pdh Tj = TOL	3.44 kW	3.39 kW
COP Tj = TOL	2.11	1.56
WTOL	60 °C	60 °C

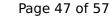




Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.64 kW	0.00 kW
Annual energy consumption Qhe	2480 kWh	3250 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh		

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	
242 %	165 %	
5.50 kW	5.40 kW	
	Low temperature 242 %	





		A 10
SCOP	6.13	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	5.40 kW
$COP Tj = +2^{\circ}C$	3.03	2.10
Pdh Tj = +7°C	3.81 kW	3.56 kW
$COP Tj = +7^{\circ}C$	5.16	3.57
Pdh Tj = 12°C	1.71 kW	2.44 kW
COP Tj = 12°C	8.06	5.53
Pdh Tj = Tbiv	5.48 kW	5.40 kW
COP Tj = Tbiv	3.03	2.10
Pdh Tj = TOL	5.48 kW	5.40 kW
COP Tj = TOL	3.03	2.10
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1199 kWh	1723 kWh



### Domestic Hot Water (DHW)

# Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	2.36	
Heating up time	03:33 h:min	
Standby power input	52.0 W	
Reference hot water temperature	53.5 °C	
Mixed water at 40°C	271	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	84 %	
СОР	1.96	
Heating up time	04:10 h:min	
Standby power input	66.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	279	



EN 16147		
Declared load profile	L	
Efficiency ηDHW	119 %	
СОР	2.80	
Heating up time	02:49 h:min	
Standby power input	47.0 W	
Reference hot water temperature	53.1 °C	
Mixed water at 40°C	261 I	



# Model: Buderus Logatherm WLW196i.2-4 ARTS S+

General Data		
Power supply	3x400V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	2.14 kW	1.77 kW	
El input	0.43 kW	0.69 kW	
СОР	4.99	2.57	
Indoor water flow rate	0.37 m³/h	0.24 m³/h	

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

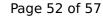
### **Average Climate**



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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	196 %	133 %
Prated	4.76 kW	4.49 kW
SCOP	4.99	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.27 kW	3.93 kW
COP Tj = -7°C	3.11	2.11
Pdh Tj = +2°C	2.51 kW	2.41 kW
COP Tj = +2°C	4.96	3.36
Pdh Tj = +7°C	1.51 kW	2.06 kW
COP Tj = +7°C	6.40	4.41
Pdh Tj = 12°C	1.27 kW	2.45 kW
COP Tj = 12°C	7.53	5.76
Pdh Tj = Tbiv	4.76 kW	4.49 kW

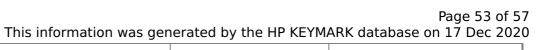




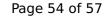
	-	
COP Tj = Tbiv	2.68	1.82
Pdh Tj = TOL	4.76 kW	4.49 kW
COP Tj = TOL	2.68	1.82
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1971 kWh	2721 kWh

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
$\eta_{s}$	168 %	118 %



		The database off 17 Dec 2020
Prated	4.30 kW	4.00 kW
SCOP	4.27	3.03
Tbiv	-17 °C	-17 °C
TOL	-20 °C	-18 °C
Pdh Tj = $-7^{\circ}$ C	2.50 kW	2.29 kW
$COPTj = -7^{\circ}C$	3.64	2.52
Cdh		
Pdh Tj = $+2$ °C	1.49 kW	1.80 kW
COP Tj = +2°C	5.22	3.82
Cdh		
Pdh Tj = $+7^{\circ}$ C	1.14 kW	2.08 kW
COP Tj = +7°C	6.44	4.68
Cdh		
Pdh Tj = 12°C	1.24 kW	2.48 kW
COP Tj = 12°C	7.03	6.02
Cdh		
Pdh Tj = Tbiv	3.75 kW	3.53 kW
COP Tj = Tbiv	2.29	1.64
Pdh Tj = TOL	3.44 kW	3.39 kW
COP Tj = TOL	2.11	1.56
WTOL	60 °C	60 °C





Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0.64 kW	0.00 kW
Annual energy consumption Qhe	2480 kWh	3250 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh		

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
$\eta_{s}$	242 %	165 %
Prated	5.50 kW	5.40 kW



# $$\operatorname{\textit{Page}}\xspace$ 55 of 57 This information was generated by the HP KEYMARK database on 17 Dec 2020

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SCOP	6.13	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.48 kW	5.40 kW
COP Tj = +2°C	3.03	2.10
Pdh Tj = +7°C	3.81 kW	3.56 kW
$COP Tj = +7^{\circ}C$	5.16	3.57
Pdh Tj = 12°C	1.71 kW	2.44 kW
COP Tj = 12°C	8.06	5.53
Pdh Tj = Tbiv	5.48 kW	5.40 kW
COP Tj = Tbiv	3.03	2.10
Pdh Tj = TOL	5.48 kW	5.40 kW
COP Tj = TOL	3.03	2.10
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	1199 kWh	1723 kWh



### Domestic Hot Water (DHW)

# Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	98 %
СОР	2.31
Heating up time	03:11 h:min
Standby power input	54.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	261

EN 16147		
Declared load profile	L	
Efficiency ηDHW	80 %	
СОР	1.88	
Heating up time	04:05 h:min	
Standby power input	67.0 W	
Reference hot water temperature	51.7 °C	
Mixed water at 40°C	259 I	



### Warmer Climate

### This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 16147	
Declared load profile	L
Efficiency ηDHW	110 %
СОР	2.58
Heating up time	02:44 h:min
Standby power input	49.0 W
Reference hot water temperature	51.7 °C
Mixed water at 40°C	247