

Page 1 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

#### **Login**

Summary of	Buderus Logatherm WLW196i-8 AR and IR, Buderus Logatherm WLW196i.2-6 AR	Reg. No.	011- 1W0129
Certificate Holde	er		
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-8 AR and IR, Buderus Logatherm WLW196i.2-6 AR		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.35 kg		
Certification Date	18.07.2017		
Testing basis	HP KEYMARK certification scheme rules rev. 8		

# Model: Buderus Logatherm WLW196i-8 ARE

Configure model		
Model name	Buderus Logatherm WLW196i-8 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	3.77 kW	2.41 kW	
El input	0.75 kW	0.91 kW	
СОР	5.02	2.66	

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	29 dB(A)	29 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	194 %	145 %
Prated	7.60 kW	6.50 kW
SCOP	4.93	3.70
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.75 kW	5.71 kW
COP Tj = -7°C	3.16	2.32
Pdh Tj = +2°C	4.09 kW	3.35 kW
COP Tj = +2°C	4.92	3.67
Pdh Tj = +7°C	2.51 kW	2.76 kW
COP Tj = +7°C	6.05	4.65
Pdh Tj = 12°C	1.66 kW	3.40 kW
COP Tj = 12°C	7.59	6.19
Pdh Tj = Tbiv	7.65 kW	6.50 kW



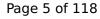


COP Tj = Tbiv	2.67	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.65 kW	6.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3188 kWh	3631 kWh

# Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	29 dB(A)	29 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature





177 % 6.10 kW	126 % 6.00 kW
6.10 kW	6.00 kW
4.49	3.22
-20 °C	-18 °C
-20 °C	-18 °C
3.44 kW	3.61 kW
3.87	2.77
2.27 kW	2.43 kW
5.43	3.89
1.59 kW	2.79 kW
5.75	4.70
1.69 kW	3.23 kW
7.40	5.84
5.84 kW	5.38 kW
2.36	1.87
5.84 kW	5.38 kW
2.36	1.87
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	-20 °C  -20 °C  3.44 kW  3.87  2.27 kW  5.43  1.59 kW  5.75  1.69 kW  7.40  5.84 kW  2.36  5.84 kW  2.36  60 °C  17 W  25 W



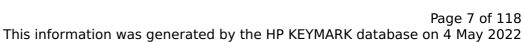


PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.10 kW	6.00 kW
Annual energy consumption Qhe	3346 kWh	4594 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.93	2.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.87	2.06

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	247 %	178 %
Prated	9.00 kW	7.90 kW
SCOP	6.25	4.53
ГЬіν	2 °C	2 °C
ГОЬ	2 °C	2 °C
Pdh Tj = +2°C	9.02 kW	7.93 kW





	, -	The database on 4 May 202.
COP Tj = +2°C	2.96	2.28
Pdh Tj = $+7^{\circ}$ C	6.08 kW	4.95 kW
$COP Tj = +7^{\circ}C$	5.37	3.95
Pdh Tj = 12°C	2.61 kW	3.33 kW
COP Tj = 12°C	8.27	5.89
Pdh Tj = Tbiv	9.02 kW	7.93 kW
COP Tj = Tbiv	2.96	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.02 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.96	2.28
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1924 kWh	2332 kWh



# Model: Buderus Logatherm WLW196i-8 ARB

Configure model		
Model name	Buderus Logatherm WLW196i-8 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

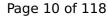
EN 14511-2			
Low temperature Medium temperature			
Heat output	3.77 kW	2.41 kW	
El input	0.75 kW	0.91 kW	
СОР	5.02	2.66	

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	29 dB(A)	29 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	194 %	145 %
Prated	7.60 kW	6.50 kW
SCOP	4.93	3.70
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.75 kW	5.71 kW
COP Tj = -7°C	3.16	2.32
Pdh Tj = +2°C	4.09 kW	3.35 kW
COP Tj = +2°C	4.92	3.67
Pdh Tj = +7°C	2.51 kW	2.76 kW
COP Tj = +7°C	6.05	4.65
Pdh Tj = 12°C	1.66 kW	3.40 kW
COP Tj = 12°C	7.59	6.19
Pdh Tj = Tbiv	7.65 kW	6.50 kW



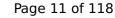


COP Tj = Tbiv	2.67	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.65 kW	6.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3188 kWh	3631 kWh

## Colder Climate

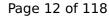
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was general	acea by the in Reinin	interduce of Thay 2022
$\eta_{s}$	177 %	126 %
Prated	6.10 kW	6.00 kW
SCOP	4.49	3.22
Tbiv	-20 °C	-18 °C
TOL	-20 °C	-18 °C
Pdh Tj = $-7$ °C	3.44 kW	3.61 kW
$COPTj = -7^{\circ}C$	3.87	2.77
Pdh Tj = $+2$ °C	2.27 kW	2.43 kW
COP Tj = +2°C	5.43	3.89
Pdh Tj = +7°C	1.59 kW	2.79 kW
COP Tj = +7°C	5.75	4.70
Pdh Tj = 12°C	1.69 kW	3.23 kW
COP Tj = 12°C	7.40	5.84
Pdh Tj = Tbiv	5.84 kW	5.38 kW
COP Tj = Tbiv	2.36	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.84 kW	5.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	1.87
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
1		





PCK	7 W	7 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	4594 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.93	2.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.87	2.06

#### Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	29 dB(A)	29 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	247 %	178 %
Prated	9.00 kW	7.90 kW
SCOP	6.25	4.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.02 kW	7.93 kW



#### Page 13 of 118

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g		
COP Tj = +2°C	2.96	2.28
Pdh Tj = $+7^{\circ}$ C	6.08 kW	4.95 kW
$COP Tj = +7^{\circ}C$	5.37	3.95
Pdh Tj = 12°C	2.61 kW	3.33 kW
COP Tj = 12°C	8.27	5.89
Pdh Tj = Tbiv	9.02 kW	7.93 kW
COP Tj = Tbiv	2.96	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.02 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.96	2.28
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1924 kWh	2332 kWh

# Model: Buderus Logatherm WLW196i-8 ART190

Configure model		
Model name	Buderus Logatherm WLW196i-8 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

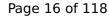
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	3.77 kW	2.41 kW	
El input	0.75 kW	0.91 kW	
СОР	5.02	2.66	

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	25 dB(A)	25 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	194 %	145 %
Prated	7.60 kW	6.50 kW
SCOP	4.93	3.70
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.75 kW	5.71 kW
COP Tj = -7°C	3.16	2.32
Pdh Tj = +2°C	4.09 kW	3.35 kW
COP Tj = +2°C	4.92	3.67
Pdh Tj = +7°C	2.51 kW	2.76 kW
COP Tj = +7°C	6.05	4.65
Pdh Tj = 12°C	1.66 kW	3.40 kW
COP Tj = 12°C	7.59	6.19
Pdh Tj = Tbiv	7.65 kW	6.50 kW



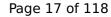


COP Tj = Tbiv	2.67	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.65 kW	6.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3188 kWh	3631 kWh

# Colder Climate

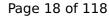
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature





177 % 6.10 kW	126 % 6.00 kW
6.10 kW	6.00 kW
4.49	3.22
-20 °C	-18 °C
-20 °C	-18 °C
3.44 kW	3.61 kW
3.87	2.77
2.27 kW	2.43 kW
5.43	3.89
1.59 kW	2.79 kW
5.75	4.70
1.69 kW	3.23 kW
7.40	5.84
5.84 kW	5.38 kW
2.36	1.87
5.84 kW	5.38 kW
2.36	1.87
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	-20 °C  -20 °C  3.44 kW  3.87  2.27 kW  5.43  1.59 kW  5.75  1.69 kW  7.40  5.84 kW  2.36  5.84 kW  2.36  60 °C  17 W  25 W



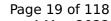


PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.10 kW	6.00 kW
Annual energy consumption Qhe	3346 kWh	4594 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.93	2.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.87	2.06

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	247 %	178 %
Prated	9.00 kW	7.90 kW
SCOP	6.25	4.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.02 kW	7.93 kW





COP Tj = +2°C	2.96	2.28
Pdh Tj = $+7^{\circ}$ C	6.08 kW	4.95 kW
$COP Tj = +7^{\circ}C$	5.37	3.95
Pdh Tj = 12°C	2.61 kW	3.33 kW
COP Tj = 12°C	8.27	5.89
Pdh Tj = Tbiv	9.02 kW	7.93 kW
COP Tj = Tbiv	2.96	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.02 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.96	2.28
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1924 kWh	2332 kWh

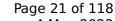
# Domestic Hot Water (DHW)

EN 16147	
Declared load profile	L
Efficiency ηDHW	98 %
СОР	2.31
Heating up time	02:37 h:min
Standby power input	52.5 W
Reference hot water temperature	52.6 °C
Mixed water at 40°C	268 I

#### Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	77 %	
СОР	1.82	
Heating up time	03:08 h:min	
Standby power input	69.0 W	
Reference hot water temperature	54.7 °C	
Mixed water at 40°C	285 I	

## Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	118 %	
СОР	2.77	
Heating up time	02:01 h:min	
Standby power input	47.2 W	
Reference hot water temperature	53.3 °C	
Mixed water at 40°C	270	

# Model: Buderus Logatherm WLW196i-8 ARTS185

Configure model		
Model name	Buderus Logatherm WLW196i-8 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	3.77 kW	2.41 kW		
El input	0.75 kW	0.91 kW		
СОР	5.02	2.66		

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	25 dB(A)	25 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	194 %	145 %	
Prated	7.60 kW	6.50 kW	
SCOP	4.93	3.70	
Tbiv	-10 °C	-10 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	6.75 kW	5.71 kW	
COP Tj = -7°C	3.16	2.32	
Pdh Tj = +2°C	4.09 kW	3.35 kW	
COP Tj = +2°C	4.92	3.67	
Pdh Tj = +7°C	2.51 kW	2.76 kW	
COP Tj = +7°C	6.05	4.65	
Pdh Tj = 12°C	1.66 kW	3.40 kW	
COP Tj = 12°C	7.59	6.19	
Pdh Tj = Tbiv	7.65 kW	6.50 kW	
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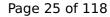


COP Tj = Tbiv	2.67	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.65 kW	6.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3188 kWh	3631 kWh

## Colder Climate

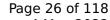
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	25 dB(A)	25 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature





177 % 6.10 kW	126 % 6.00 kW
6.10 kW	6.00 kW
4.49	3.22
-20 °C	-18 °C
-20 °C	-18 °C
3.44 kW	3.61 kW
3.87	2.77
2.27 kW	2.43 kW
5.43	3.89
1.59 kW	2.79 kW
5.75	4.70
1.69 kW	3.23 kW
7.40	5.84
5.84 kW	5.38 kW
2.36	1.87
5.84 kW	5.38 kW
2.36	1.87
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	-20 °C  -20 °C  3.44 kW  3.87  2.27 kW  5.43  1.59 kW  5.75  1.69 kW  7.40  5.84 kW  2.36  5.84 kW  2.36  60 °C  17 W  25 W





PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.10 kW	6.00 kW
Annual energy consumption Qhe	3346 kWh	4594 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.93	2.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.87	2.06

#### Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	25 dB(A)	25 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	247 %	178 %
Prated	9.00 kW	7.90 kW
SCOP	6.25	4.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.02 kW	7.93 kW





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COP Tj = +2°C	2.96	2.28
Pdh Tj = +7°C	6.08 kW	4.95 kW
$COPTj = +7^{\circ}C$	5.37	3.95
Pdh Tj = 12°C	2.61 kW	3.33 kW
COP Tj = 12°C	8.27	5.89
Pdh Tj = Tbiv	9.02 kW	7.93 kW
COP Tj = Tbiv	2.96	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.02 kW	7.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.96	2.28
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1924 kWh	2332 kWh

# Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	101 %	
СОР	2.37	
Heating up time	02:24 h:min	
Standby power input	53.7 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	263 I	

#### Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	87 %	
СОР	2.01	
Heating up time	02:56 h:min	
Standby power input	77.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	279	

## Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	111 %	
СОР	2.61	
Heating up time	02:00 h:min	
Standby power input	48.3 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	261 l	

# Model: Buderus Logatherm WLW196i-8 IRE

Configure model		
Model name Buderus Logatherm WLW196i-8 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		

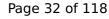
# Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	2.85 kW	2.34 kW	
El input	0.62 kW	0.91 kW	
СОР	4.63	2.58	

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)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	139 %
Prated	7.30 kW	6.00 kW
SCOP	4.48	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.43 kW	5.18 kW
COP Tj = -7°C	3.03	2.29
Pdh Tj = +2°C	3.93 kW	3.10 kW
COP Tj = +2°C	4.19	3.56
Pdh Tj = $+7^{\circ}$ C	2.54 kW	2.77 kW
COP Tj = +7°C	5.98	4.40
Pdh Tj = 12°C	1.68 kW	3.30 kW
COP Tj = 12°C	7.30	5.61
Pdh Tj = Tbiv	7.29 kW	5.99 kW





COP Tj = Tbiv	2.59	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3365 kWh	3483 kWh

## Colder Climate

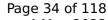
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825			
Low temperature Medium temperature			





	NK database on 4 May 2022
169 %	123 %
6.20 kW	6.00 kW
4.30	3.16
-19 °C	-16 °C
-20 °C	-17 °C
3.50 kW	3.49 kW
3.40	2.71
2.28 kW	2.39 kW
5.42	3.89
1.52 kW	2.77 kW
6.63	4.62
1.67 kW	3.25 kW
7.23	5.74
5.68 kW	5.04 kW
2.30	1.97
5.02 kW	4.91 kW
2.17	1.92
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	169 % 6.20 kW 4.30 -19 °C -20 °C 3.50 kW 3.40 2.28 kW 5.42 1.52 kW 6.63 1.67 kW 7.23 5.68 kW 2.30 5.02 kW 2.17 60 °C 17 W 25 W





PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.20 kW	6.00 kW
Annual energy consumption Qhe	3555 kWh	4677 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.49	2.07
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	2.07

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	239 %	167 %
Prated	8.30 kW	7.20 kW
SCOP	6.04	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.31 kW	7.19 kW



#### Page 35 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

COP Tj = +2°C	2.82	2.18
Pdh Tj = +7°C	5.04 kW	4.66 kW
$COP Tj = +7^{\circ}C$	5.23	3.70
Pdh Tj = 12°C	2.57 kW	3.17 kW
COP Tj = 12°C	7.97	5.51
Pdh Tj = Tbiv	8.31 kW	7.19 kW
COP Tj = Tbiv	2.82	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.31 kW	7.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	2.18
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1837 kWh	2270 kWh

# Model: Buderus Logatherm WLW196i-8 IRB

Configure model		
Model name	Buderus Logatherm WLW196i-8 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	1x230V 50Hz	

# Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.85 kW	2.34 kW
El input	0.62 kW	0.91 kW
СОР	4.63	2.58

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)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	139 %
Prated	7.30 kW	6.00 kW
SCOP	4.48	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.43 kW	5.18 kW
COP Tj = -7°C	3.03	2.29
Pdh Tj = +2°C	3.93 kW	3.10 kW
COP Tj = +2°C	4.19	3.56
Pdh Tj = +7°C	2.54 kW	2.77 kW
COP Tj = +7°C	5.98	4.40
Pdh Tj = 12°C	1.68 kW	3.30 kW
COP Tj = 12°C	7.30	5.61
Pdh Tj = Tbiv	7.29 kW	5.99 kW
	,	1



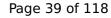


COP Tj = Tbiv	2.59	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3365 kWh	3483 kWh

# Colder Climate

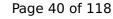
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	36 dB(A)	36 dB(A)	

EN 14825		
	Low temperature	Medium temperature





ring information was genera		The database of 4 May 2022
$\eta_s$	169 %	123 %
Prated	6.20 kW	6.00 kW
SCOP	4.30	3.16
Tbiv	-19 °C	-16 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.50 kW	3.49 kW
COP Tj = -7°C	3.40	2.71
Pdh Tj = +2°C	2.28 kW	2.39 kW
COP Tj = +2°C	5.42	3.89
Pdh Tj = +7°C	1.52 kW	2.77 kW
$COP Tj = +7^{\circ}C$	6.63	4.62
Pdh Tj = 12°C	1.67 kW	3.25 kW
COP Tj = 12°C	7.23	5.74
Pdh Tj = Tbiv	5.68 kW	5.04 kW
COP Tj = Tbiv	2.30	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.02 kW	4.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.92
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W





PCK	8 W	8 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3555 kWh	4677 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.49	2.07
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	2.07

## Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	239 %	167 %
Prated	8.30 kW	7.20 kW
SCOP	6.04	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.31 kW	7.19 kW



#### Page 41 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

COP Tj = +2°C	2.82	2.18
Pdh Tj = +7°C	5.04 kW	4.66 kW
$COP Tj = +7^{\circ}C$	5.23	3.70
Pdh Tj = 12°C	2.57 kW	3.17 kW
COP Tj = 12°C	7.97	5.51
Pdh Tj = Tbiv	8.31 kW	7.19 kW
COP Tj = Tbiv	2.82	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.31 kW	7.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	2.18
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1837 kWh	2270 kWh

# Model: Buderus Logatherm WLW196i-8 IRT190

Configure model		
Model name	Buderus Logatherm WLW196i-8 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	2.85 kW	2.34 kW	
El input	0.62 kW	0.91 kW	
СОР	4.63	2.58	

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	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	176 %	139 %
Prated	7.30 kW	6.00 kW
SCOP	4.48	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.43 kW	5.18 kW
$COPTj = -7^{\circ}C$	3.03	2.29
Pdh Tj = $+2$ °C	3.93 kW	3.10 kW
$COPTj = +2^{\circ}C$	4.19	3.56
Pdh Tj = $+7^{\circ}$ C	2.54 kW	2.77 kW
$COP Tj = +7^{\circ}C$	5.98	4.40
Pdh Tj = 12°C	1.68 kW	3.30 kW
COP Tj = 12°C	7.30	5.61
Pdh Tj = Tbiv	7.29 kW	5.99 kW



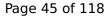


COP Tj = Tbiv	2.59	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3365 kWh	3483 kWh

## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature





	NK database on 4 May 2022
169 %	123 %
6.20 kW	6.00 kW
4.30	3.16
-19 °C	-16 °C
-20 °C	-17 °C
3.50 kW	3.49 kW
3.40	2.71
2.28 kW	2.39 kW
5.42	3.89
1.52 kW	2.77 kW
6.63	4.62
1.67 kW	3.25 kW
7.23	5.74
5.68 kW	5.04 kW
2.30	1.97
5.02 kW	4.91 kW
2.17	1.92
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	169 % 6.20 kW 4.30 -19 °C -20 °C 3.50 kW 3.40 2.28 kW 5.42 1.52 kW 6.63 1.67 kW 7.23 5.68 kW 2.30 5.02 kW 2.17 60 °C 17 W 25 W



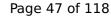


PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.20 kW	6.00 kW
Annual energy consumption Qhe	3555 kWh	4677 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.49	2.07
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	2.07

## Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	36 dB(A)	36 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	239 %	167 %
Prated	8.30 kW	7.20 kW
SCOP	6.04	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.31 kW	7.19 kW





1	
2.82	2.18
5.04 kW	4.66 kW
5.23	3.70
2.57 kW	3.17 kW
7.97	5.51
8.31 kW	7.19 kW
2.82	2.18
8.31 kW	7.19 kW
2.82	2.18
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
8 W	8 W
Electricity	Electricity
0.00 kW	0.00 kW
1837 kWh	2270 kWh
	5.04 kW 5.23 2.57 kW 7.97 8.31 kW 2.82 8.31 kW 2.82 60 °C 17 W 25 W 17 W 8 W Electricity 0.00 kW

# Domestic Hot Water (DHW)

# Average Climate

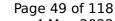


EN 16147		
Declared load profile	L	
Efficiency ηDHW	98 %	
СОР	2.31	
Heating up time	02:37 h:min	
Standby power input	53.0 W	
Reference hot water temperature	52.6 °C	
Mixed water at 40°C	268 I	

## Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	77 %	
СОР	1.82	
Heating up time	03:08 h:min	
Standby power input	69.0 W	
Reference hot water temperature	54.7 °C	
Mixed water at 40°C	285 I	

## Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	118 %	
СОР	2.77	
Heating up time	02:01 h:min	
Standby power input	47.0 W	
Reference hot water temperature	54.7 °C	
Mixed water at 40°C	270	

# Model: Buderus Logatherm WLW196i-8 IRTS185

Configure model		
Model name Buderus Logatherm WLW196i-8 IRTS185		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	te 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	2.85 kW	2.34 kW	
El input	0.62 kW	0.91 kW	
СОР	4.63	2.58	

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	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	176 %	139 %
Prated	7.30 kW	6.00 kW
SCOP	4.48	3.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.43 kW	5.18 kW
COP Tj = -7°C	3.03	2.29
Pdh Tj = +2°C	3.93 kW	3.10 kW
COP Tj = +2°C	4.19	3.56
Pdh Tj = $+7^{\circ}$ C	2.54 kW	2.77 kW
COP Tj = +7°C	5.98	4.40
Pdh Tj = 12°C	1.68 kW	3.30 kW
COP Tj = 12°C	7.30	5.61
Pdh Tj = Tbiv	7.29 kW	5.99 kW



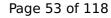


COP Tj = Tbiv	2.59	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3365 kWh	3483 kWh

# Colder Climate

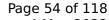
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825			
Low temperature Medium temperature			





	NK database on 4 May 2022
169 %	123 %
6.20 kW	6.00 kW
4.30	3.16
-19 °C	-16 °C
-20 °C	-17 °C
3.50 kW	3.49 kW
3.40	2.71
2.28 kW	2.39 kW
5.42	3.89
1.52 kW	2.77 kW
6.63	4.62
1.67 kW	3.25 kW
7.23	5.74
5.68 kW	5.04 kW
2.30	1.97
5.02 kW	4.91 kW
2.17	1.92
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
	169 % 6.20 kW 4.30 -19 °C -20 °C 3.50 kW 3.40 2.28 kW 5.42 1.52 kW 6.63 1.67 kW 7.23 5.68 kW 2.30 5.02 kW 2.17 60 °C 17 W 25 W



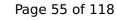


PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.20 kW	6.00 kW
Annual energy consumption Qhe	3555 kWh	4677 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.49	2.07
COP Tj = -15°C (if TOL $<$ -20°C)	2.61	2.07

## Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	239 %	167 %
Prated	8.30 kW	7.20 kW
SCOP	6.04	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.31 kW	7.19 kW





1	
2.82	2.18
5.04 kW	4.66 kW
5.23	3.70
2.57 kW	3.17 kW
7.97	5.51
8.31 kW	7.19 kW
2.82	2.18
8.31 kW	7.19 kW
2.82	2.18
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
8 W	8 W
Electricity	Electricity
0.00 kW	0.00 kW
1837 kWh	2270 kWh
	5.04 kW 5.23 2.57 kW 7.97 8.31 kW 2.82 8.31 kW 2.82 60 °C 17 W 25 W 17 W 8 W Electricity 0.00 kW

# Domestic Hot Water (DHW)

# Average Climate

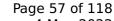


EN 16147		
Declared load profile	L	
Efficiency ηDHW	101 %	
СОР	2.37	
Heating up time	02:24 h:min	
Standby power input	54.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	263 I	

## Colder Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	87 %	
СОР	2.01	
Heating up time	02:56 h:min	
Standby power input	77.0 W	
Reference hot water temperature	54.5 °C	
Mixed water at 40°C	279	

## Warmer Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	111 %	
СОР	2.61	
Heating up time	02:00 h:min	
Standby power input	48.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	261	

# Model: Buderus Logatherm WLW196i.2-6 ARB S+

Configure model		
Model name	Buderus Logatherm WLW196i.2-6 ARB S+	
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	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
СОР	5.01	2.84

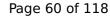
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	198 %	140 %
Prated	6.20 kW	5.91 kW
SCOP	5.02	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.54 kW	5.21 kW
COP Tj = -7°C	3.16	2.27
Cdh Tj = -7 °C		
Pdh Tj = +2°C	3.31 kW	3.27 kW
COP Tj = +2°C	4.86	3.56
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.04 kW	2.84 kW
COP Tj = +7°C	6.72	4.49
Cdh Tj = +7 °C		

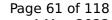




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Pdh Tj = 12°C	1.72 kW	3.34 kW
COP Tj = 12°C	7.96	5.98
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	6.20 kW	5.91 kW
COP Tj = Tbiv	2.72	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	5.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.93
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

## Colder Climate

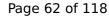
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
Tbiv	-17 °C	-17 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.26 kW	3.47 kW
COP Tj = -7°C	3.63	2.66
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.28 kW	2.42 kW
COP Tj = +2°C	5.41	3.86
Cdh Tj = +2 °C		
Pdh Tj = +7°C	1.53 kW	2.83 kW
COP Tj = +7°C	6.76	4.70
Cdh Tj = +7 °C		
Pdh Tj = 12°C	1.68 kW	3.31 kW
COP Tj = 12°C	7.17	6.19
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.96 kW	4.76 kW
COP Tj = Tbiv	2.44	1.82





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.84 kW	4.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.39	1.76
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3291 kWh	4288 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.96	4.76
COP Tj = -15°C (if TOL $<$ -20°C)	2.44	1.82
Cdh Tj = -15 °C		

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

#### EN 14825



Page 63 of 118

This information was generated by the HP KEYMARK database on 4 May 2022

	Low temperature	Medium temperature
$\eta_{s}$	242 %	164 %
Prated	7.29 kW	7.25 kW
SCOP	6.12	4.17
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.29 kW	7.25 kW
COP Tj = +2°C	3.06	2.19
Pdh Tj = +7°C	4.69 kW	4.78 kW
$COP Tj = +7^{\circ}C$	5.56	3.76
Pdh Tj = 12°C	3.64 kW	3.26 kW
COP Tj = 12°C	8.01	5.28
Pdh Tj = Tbiv	7.29 kW	7.25 kW
COP Tj = Tbiv	3.06	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	7.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.19
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w



#### Page 64 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

# Model: Buderus Logatherm WLW196i.2-6 ARE S+

Configure model		
Model name	Buderus Logatherm WLW196i.2-6 ARE S+	
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	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
СОР	5.01	2.84

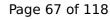
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	198 %	140 %
Prated	6.20 kW	5.91 kW
SCOP	5.02	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.54 kW	5.21 kW
COP Tj = -7°C	3.16	2.27
Cdh Tj = -7 °C		
Pdh Tj = +2°C	3.31 kW	3.27 kW
COP Tj = +2°C	4.86	3.56
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.04 kW	2.84 kW
COP Tj = +7°C	6.72	4.49
Cdh Tj = +7 °C		

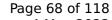




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Pdh Tj = 12°C	1.72 kW	3.34 kW
COP Tj = 12°C	7.96	5.98
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	6.20 kW	5.91 kW
COP Tj = Tbiv	2.72	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	5.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.93
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
Tbiv	-17 °C	-17 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.26 kW	3.47 kW
COP Tj = -7°C	3.63	2.66
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.28 kW	2.42 kW
COP Tj = +2°C	5.41	3.86
Cdh Tj = +2 °C		
Pdh Tj = +7°C	1.53 kW	2.83 kW
COP Tj = +7°C	6.76	4.70
Cdh Tj = +7 °C		
Pdh Tj = 12°C	1.68 kW	3.31 kW
COP Tj = 12°C	7.17	6.19
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.96 kW	4.76 kW
COP Tj = Tbiv	2.44	1.82





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.84 kW	4.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.39	1.76
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.72 kW	5.48 kW
Annual energy consumption Qhe	3291 kWh	4288 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.96	4.76
COP Tj = -15°C (if TOL $<$ -20°C)	2.44	1.82
Cdh Tj = -15 °C		

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	29 dB(A)	29 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

#### EN 14825





	Low temperature	Medium temperature
η <sub>s</sub>	242 %	164 %
Prated	7.29 kW	7.25 kW
SCOP	6.12	4.17
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.29 kW	7.25 kW
COP Tj = +2°C	3.06	2.19
Pdh Tj = +7°C	4.69 kW	4.78 kW
$COP Tj = +7^{\circ}C$	5.56	3.76
Pdh Tj = 12°C	3.64 kW	3.26 kW
COP Tj = 12°C	8.01	5.28
Pdh Tj = Tbiv	7.29 kW	7.25 kW
COP Tj = Tbiv	3.06	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	7.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.19
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w



#### Page 71 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

# Model: Buderus Logatherm WLW196i.2-6 ART190 S+

Configure model		
Model name	Buderus Logatherm WLW196i.2-6 ART190 S+	
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	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
СОР	5.01	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	

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	198 %	140 %
Prated	6.20 kW	5.91 kW
SCOP	5.02	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.54 kW	5.21 kW
COP Tj = -7°C	3.16	2.27
Cdh Tj = -7 °C		
Pdh Tj = +2°C	3.31 kW	3.27 kW
COP Tj = +2°C	4.86	3.56
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.04 kW	2.84 kW
COP Tj = +7°C	6.72	4.49
Cdh Tj = +7 °C		

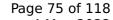




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Pdh Tj = 12°C	1.72 kW	3.34 kW
COP Tj = 12°C	7.96	5.98
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	6.20 kW	5.91 kW
COP Tj = Tbiv	2.72	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	5.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.93
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

# Colder Climate

# EN 12102-1 Low temperature Medium temperature Sound power level indoor 25 dB(A) 25 dB(A) Sound power level outdoor 50 dB(A) 50 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
Tbiv	-17 °C	-17 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.26 kW	3.47 kW
COP Tj = -7°C	3.63	2.66
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.28 kW	2.42 kW
COP Tj = +2°C	5.41	3.86
Cdh Tj = +2 °C		
Pdh Tj = +7°C	1.53 kW	2.83 kW
COP Tj = +7°C	6.76	4.70
Cdh Tj = +7 °C		
Pdh Tj = 12°C	1.68 kW	3.31 kW
COP Tj = 12°C	7.17	6.19
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.96 kW	4.76 kW
COP Tj = Tbiv	2.44	1.82



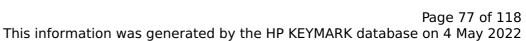


4.84 kW	4.62 kW
2.39	1.76
60 °C	60 °C
17 W	17 W
50 W	50 W
17 W	17 W
o w	0 W
Electricity	Electricity
5.72 kW	5.48 kW
3291 kWh	4288 kWh
4.96	1.82
2.44	1.82
	2.39 60 °C 17 W 50 W 17 W 0 W Electricity 5.72 kW 3291 kWh 4.96

#### Warmer Climate

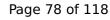
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

#### EN 14825



	Low temperature	Medium temperature
η <sub>s</sub>	242 %	164 %
Prated	7.29 kW	7.25 kW
SCOP	6.12	4.17
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.29 kW	7.25 kW
COP Tj = +2°C	3.06	2.19
Pdh Tj = +7°C	4.69 kW	4.78 kW
$COP Tj = +7^{\circ}C$	5.56	3.76
Pdh Tj = 12°C	3.64 kW	3.26 kW
COP Tj = 12°C	8.01	5.28
Pdh Tj = Tbiv	7.29 kW	7.25 kW
COP Tj = Tbiv	3.06	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	7.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.19
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	50 W	50 W
PSB	17 W	17 W
PCK	o w	0 W

CEN heat pump KEYMARK





Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

# Domestic Hot Water (DHW)

# Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	103 %
СОР	2.42
Heating up time	02:26 h:min
Standby power input	49.0 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	269

# Colder Climate



EN 16147	
Declared load profile	L
Efficiency ηDHW	88 %
СОР	2.08
Heating up time	02:51 h:min
Standby power input	57.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	272 I

# Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	122 %
СОР	2.86
Heating up time	01:55 h:min
Standby power input	45.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	268 I

# Model: Buderus Logatherm WLW196i.2-6 ARTS185 S+

Configure model	
Model name Buderus Logatherm WLW196i.2-6 ARTS185 S+	
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	4.01 kW	2.60 kW	
El input	0.80 kW	0.91 kW	
СОР	5.01	2.84	

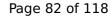
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	25 dB(A)	25 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	198 %	140 %
Prated	6.20 kW	5.91 kW
SCOP	5.02	3.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.54 kW	5.21 kW
COP Tj = -7°C	3.16	2.27
Cdh Tj = -7 °C		
Pdh Tj = +2°C	3.31 kW	3.27 kW
COP Tj = +2°C	4.86	3.56
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.04 kW	2.84 kW
COP Tj = +7°C	6.72	4.49
Cdh Tj = +7 °C		

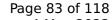




	<u> </u>	
Pdh Tj = 12°C	1.72 kW	3.34 kW
COP Tj = 12°C	7.96	5.98
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	6.20 kW	5.91 kW
COP Tj = Tbiv	2.72	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	5.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.93
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

# Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	25 dB(A)	25 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
Tbiv	-17 °C	-17 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.26 kW	3.47 kW
COP Tj = -7°C	3.63	2.66
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.28 kW	2.42 kW
COP Tj = +2°C	5.41	3.86
Cdh Tj = +2 °C		
Pdh Tj = +7°C	1.53 kW	2.83 kW
$COP Tj = +7^{\circ}C$	6.76	4.70
Cdh Tj = +7 °C		
Pdh Tj = 12°C	1.68 kW	3.31 kW
COP Tj = 12°C	7.17	6.19
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.96 kW	4.76 kW
COP Tj = Tbiv	2.44	1.82





4.84 kW	4.62 kW
2.39	1.76
60 °C	60 °C
17 W	17 W
50 W	50 W
17 W	17 W
o w	0 W
Electricity	Electricity
5.72 kW	5.48 kW
3291 kWh	4288 kWh
4.96	1.82
2.44	1.82
	2.39 60 °C 17 W 50 W 17 W 0 W Electricity 5.72 kW 3291 kWh 4.96

#### Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	25 dB(A)	25 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	

#### EN 14825



Page 85 of 118

This information was generated by the HP KEYMARK database on 4 May 2022

	Low temperature	Medium temperature
$\eta_{s}$	242 %	164 %
Prated	7.29 kW	7.25 kW
SCOP	6.12	4.17
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.29 kW	7.25 kW
COP Tj = +2°C	3.06	2.19
Pdh Tj = $+7^{\circ}$ C	4.69 kW	4.78 kW
$COP Tj = +7^{\circ}C$	5.56	3.76
Pdh Tj = 12°C	3.64 kW	3.26 kW
COP Tj = 12°C	8.01	5.28
Pdh Tj = Tbiv	7.29 kW	7.25 kW
COP Tj = Tbiv	3.06	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	7.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.19
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	o w





Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

# Domestic Hot Water (DHW)

# Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	101 %	
СОР	2.37	
Heating up time	02:11 h:min	
Standby power input	51.0 W	
Reference hot water temperature	52.0 °C	
Mixed water at 40°C	259 I	

# Colder Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	84 %	
СОР	2.00	
Heating up time	02:48 h:min	
Standby power input	58.0 W	
Reference hot water temperature	51.8 °C	
Mixed water at 40°C	252 I	

#### Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	112 %	
СОР	2.64	
Heating up time	01:52 h:min	
Standby power input	47.0 W	
Reference hot water temperature	51.6 °C	
Mixed water at 40°C	254 I	

# Model: Buderus Hybrid-Set WLW196i-8 A H

Configure model		
Model name Buderus Hybrid-Set WLW196i-8 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	1x230V 50Hz	

# Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	3.65 kW	2.85 kW
El input	0.76 kW	1.16 kW
СОР	4.81	2.46

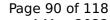
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	172 %	132 %
Prated	7.60 kW	6.50 kW
SCOP	4.38	3.39
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.44 kW	5.79 kW
COP Tj = -7°C	3.02	2.17
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.77 kW	3.43 kW
COP Tj = +2°C	4.06	3.29
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	2.46 kW	2.62 kW
COP Tj = +7°C	5.99	4.47
Cdh Tj = +7 °C	1.000	0.960

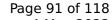




Pdh Tj = 12°C	1.97 kW	3.23 kW
COP Tj = 12°C	7.26	5.80
Cdh Tj = +12 °C	0.920	0.960
Pdh Tj = Tbiv	7.25 kW	5.79 kW
COP Tj = Tbiv	2.56	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.25 kW	2.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.68
WTOL	62 °C	62 °C
Poff	7 W	7 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	4.24 kW
Annual energy consumption Qhe	3587 kWh	3966 kWh

# Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	162 %	117 %
Prated	6.10 kW	6.00 kW
SCOP	4.12	3.00
Tbiv	-17 °C	-15 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.52 kW	3.70 kW
COP Tj = -7°C	3.19	2.55
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	2.26 kW	2.17 kW
COP Tj = +2°C	5.00	3.33
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	1.44 kW	2.63 kW
COP Tj = +7°C	6.25	4.65
Cdh Tj = +7 °C	1.000	0.960
Pdh Tj = 12°C	1.97 kW	3.24 kW
COP Tj = 12°C	7.00	5.96
Cdh Tj = +12 °C	0.920	0.960
Pdh Tj = Tbiv	5.30 kW	5.02 kW
COP Tj = Tbiv	2.74	1.85



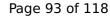


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.46 kW	2.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	2.01
WTOL	62 °C	62 °C
Poff	7 W	7 W
РТО	5 W	5 W
PSB	17 W	17 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.64 kW	3.38 kW
Annual energy consumption Qhe	3653 kWh	4923 kWh

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
Low temperature	Medium temperature	
238 %	157 %	
9.00 kW	7.90 kW	
	Low temperature 238 %	





		A CO
SCOP	6.03	4.00
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.10 kW	7.44 kW
$COP Tj = +2^{\circ}C$	3.71	1.98
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	5.90 kW	4.88 kW
$COP Tj = +7^{\circ}C$	5.43	3.25
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	2.69 kW	3.22 kW
COP Tj = 12°C	7.35	5.66
Cdh Tj = +12 °C	1.000	0.960
Pdh Tj = Tbiv	8.10 kW	7.44 kW
COP Tj = Tbiv	3.71	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.10 kW	7.44 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.71	1.98
WTOL	62 °C	62 °C
Poff	7 W	7 W
РТО	5 W	5 W
PSB	17 W	17 W
РСК	o w	o w
	-	•



#### Page 94 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1995 kWh	2640 kWh

# Model: Buderus Hybrid-Set WLW196i-6 A H S+

Configure model		
Model name Buderus Hybrid-Set WLW196i-6 A H S+		
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 1x230V 50Hz	

# Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	3.47 kW	2.89 kW
El input	0.73 kW	1.14 kW
СОР	4.76	2.53

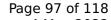
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	182 %	129 %
Prated	6.20 kW	5.90 kW
SCOP	4.61	3.30
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.46 kW	5.07 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.29 kW	2.95 kW
COP Tj = +2°C	4.60	3.26
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	2.01 kW	2.55 kW
COP Tj = +7°C	6.01	4.24
Cdh Tj = +7 °C	1.000	0.970

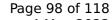




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Pdh Tj = 12°C	1.55 kW	3.06 kW
COP Tj = 12°C	6.99	5.54
Cdh Tj = +12 °C	0.910	0.960
Pdh Tj = Tbiv	5.76 kW	5.07 kW
COP Tj = Tbiv	2.57	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.76 kW	5.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.84
WTOL	62 °C	62 °C
Poff	7 W	7 W
РТО	4 W	4 W
PSB	17 W	17 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2778 kWh	3694 kWh

# Colder Climate

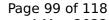
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	160 %	115 %
Prated	5.70 kW	5.50 kW
SCOP	4.06	2.94
Tbiv	-17 °C	-15 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.64 kW	3.29 kW
COP Tj = -7°C	3.19	2.23
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	2.11 kW	2.24 kW
COP Tj = +2°C	4.91	3.47
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	1.35 kW	2.71 kW
$COP Tj = +7^{\circ}C$	5.91	4.60
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	2.02 kW	3.32 kW
COP Tj = 12°C	6.74	5.73
Cdh Tj = +12 °C	1.000	0.970
Pdh Tj = Tbiv	4.95 kW	4.68 kW
COP Tj = Tbiv	2.80	2.10





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.59 kW	2.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	2.30
WTOL	62 °C	62 °C
Poff	7 W	7 W
PTO	4 W	4 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.16 kW	2.82 kW
Annual energy consumption Qhe	3461 kWh	4613 kWh

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	24 dB(A)	24 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	225 %	156 %
Prated	7.30 kW	7.20 kW





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SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.57 kW	7.31 kW
COP Tj = +2°C	3.57	2.15
Pdh Tj = $+7^{\circ}$ C	4.67 kW	5.00 kW
$COPTj = +7^{\circ}C$	5.14	3.31
Pdh Tj = 12°C	2.03 kW	3.29 kW
COP Tj = 12°C	6.97	5.44
Pdh Tj = Tbiv	6.57 kW	7.31 kW
COP Tj = Tbiv	3.57	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.57 kW	7.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.57	2.15
WTOL	62 °C	62 °C
Poff	7 W	7 W
РТО	4 W	4 W
PSB	17 W	17 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1710 kWh	2423 kWh

# Model: Buderus Logatherm WLW196i-8 ARTP120

Configure model		
Model name Buderus Logatherm WLW196i-8 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	3.78 kW	2.41 kW
El input	0.79 kW	0.93 kW
СОР	4.78	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	49 dB(A)	49 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	181 %	133 %
Prated	7.60 kW	6.34 kW
SCOP	4.61	3.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.58 kW	5.69 kW
COP Tj = -7°C	3.05	2.19
Pdh Tj = +2°C	4.09 kW	3.29 kW
COP Tj = +2°C	4.64	3.40
Pdh Tj = +7°C	2.60 kW	2.78 kW
COP Tj = +7°C	5.67	4.32
Pdh Tj = 12°C	1.69 kW	3.32 kW
COP Tj = 12°C	6.36	5.55
Pdh Tj = Tbiv	7.55 kW	6.34 kW



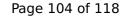


COP Tj = Tbiv	2.60	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.55 kW	6.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	1.87
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	25 W	25 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3406 kWh	3842 kWh

# Colder Climate

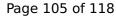
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	157 %	118 %





6.50 kW 4.00 -17 °C -17 °C	6.80 kW  3.02 -17 °C
-17 °C	-17 °C
-17 °C	
	-17 °C
2 02 1 14	
3.83 kW	4.47 kW
3.56	2.63
2.36 kW	2.49 kW
5.16	3.72
1.61 kW	2.85 kW
5.93	4.64
1.69 kW	3.36 kW
6.17	5.85
5.64 kW	5.82 kW
2.29	1.72
5.64 kW	5.82 kW
2.29	1.72
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
7 W	7 W
	2.36 kW 5.16 1.61 kW 5.93 1.69 kW 6.17 5.64 kW 2.29 5.64 kW 2.29 60 °C 17 W 25 W 17 W





Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.50 kW	6.80 kW
Annual energy consumption Qhe	4001 kWh	5544 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.44	5.14
COP Tj = -15°C (if TOL $<$ -20°C)	2.43	1.80

# Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	235 %	166 %
Prated	9.00 kW	7.90 kW
SCOP	5.94	4.24
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.10 kW	7.44 kW
COP Tj = +2°C	2.99	2.23



#### Page 106 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

6.17 kW	4.92 kW
5.36	3.74
2.67 kW	3.31 kW
7.40	5.47
9.10 kW	7.44 kW
2.99	2.23
9.10 kW	7.44 kW
2.99	2.23
60 °C	60 °C
17 W	17 W
25 W	25 W
17 W	17 W
7 W	7 W
Electricity	Electricity
0.00 kW	0.00 kW
2023 kWh	2491 kWh
	5.36  2.67 kW  7.40  9.10 kW  2.99  9.10 kW  2.99  60 °C  17 W  25 W  17 W  7 W  Electricity  0.00 kW



# Model: Buderus Logatherm WLW196i.2-6 ARTP120 S+

Configure model		
Model name	Buderus Logatherm WLW196i.2-6 ARTP120 S+	
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	4.01 kW	2.60 kW
El input	0.84 kW	0.94 kW
СОР	4.78	2.77

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	49 dB(A)	49 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	186 %	135 %
Prated	6.20 kW	5.91 kW
SCOP	4.73	3.45
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.54 kW	5.21 kW
COP Tj = -7°C	3.07	2.24
Pdh Tj = +2°C	3.31 kW	3.27 kW
COP Tj = +2°C	4.64	3.47
Pdh Tj = +7°C	2.05 kW	2.84 kW
COP Tj = +7°C	6.21	4.33
Pdh Tj = 12°C	1.72 kW	3.34 kW
COP Tj = 12°C	7.18	5.72
Pdh Tj = Tbiv	6.20 kW	5.91 kW



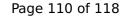


COP Tj = Tbiv	2.65	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	5.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.91
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2707 kWh	3535 kWh

# Colder Climate

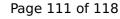
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	49 dB(A)	49 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	160 %	119 %





This information was gener	died by the Hr KLIMA	TRK database on 4 May 2022
Prated	5.72 kW	5.48 kW
SCOP	4.07	3.04
Tbiv	-17 °C	-17 °C
TOL	-18 °C	-18 °C
Pdh Tj = -7°C	3.26 kW	3.47 kW
COP Tj = -7°C	3.52	2.61
Pdh Tj = +2°C	2.28 kW	2.42 kW
COP Tj = +2°C	5.09	3.73
Pdh Tj = $+7^{\circ}$ C	1.53 kW	2.83 kW
$COP Tj = +7^{\circ}C$	6.15	4.52
Pdh Tj = 12°C	1.68 kW	3.31 kW
COP Tj = 12°C	6.53	5.91
Pdh Tj = Tbiv	4.96 kW	4.76 kW
COP Tj = Tbiv	2.39	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.84 kW	4.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.33	1.74
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
РСК	o w	o w
	+	





Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.72 kW	5.48 kW
Annual energy consumption Qhe	3463 kWh	4440 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.96	4.76
COP Tj = -15°C (if TOL $<$ -20°C)	2.39	1.80

# Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	49 dB(A)	49 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	

EN 14825		
	Low temperature	e Medium temperature
$\eta_{s}$	226 %	158 %
Prated	7.29 kW	7.25 kW
SCOP	5.72	4.02
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.29 kW	7.25 kW
COP Tj = +2°C	2.95	2.16



#### Page 112 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

Pdh Tj = $+7^{\circ}$ C	4.69 kW	4.78 kW
$COP Tj = +7^{\circ}C$	5.31	3.67
Pdh Tj = 12°C	3.64 kW	3.26 kW
COP Tj = 12°C	7.44	5.10
Pdh Tj = Tbiv	7.29 kW	7.25 kW
COP Tj = Tbiv	2.95	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	7.25 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.95	2.16
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	50 W	50 W
PSB	17 W	17 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1703 kWh	2407 kWh



# Model: Buderus Logatherm WLW196i-8 IRTP120

Configure model		
Model name	Buderus Logatherm WLW196i-8 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	2.85 kW	2.41 kW		
El input	0.65 kW	0.93 kW		
СОР	4.41	2.58		

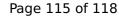
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

# Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	168 %	135 %
Prated	7.30 kW	6.00 kW
SCOP	4.27	3.44
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.43 kW	5.18 kW
COP Tj = -7°C	2.95	2.26
Pdh Tj = $+2$ °C	3.93 kW	3.10 kW
COP Tj = +2°C	5.10	3.47
Pdh Tj = +7°C	2.54 kW	2.77 kW
COP Tj = +7°C	5.67	4.24
Pdh Tj = 12°C	1.68 kW	3.30 kW
COP Tj = 12°C	6.63	5.37
Pdh Tj = Tbiv	7.29 kW	5.99 kW



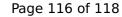


COP Tj = Tbiv	2.53	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.29 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.53	1.96
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3534 kWh	3602 kWh

# Colder Climate

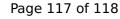
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	36 dB(A)	36 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	160 %	120 %





This information was genera	TEG by the HI KETMA	The database on 4 May 2022
Prated	6.20 kW	6.00 kW
SCOP	4.08	3.07
Tbiv	-19 °C	-16 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.50 kW	3.49 kW
COP Tj = -7°C	3.29	2.65
Pdh Tj = +2°C	2.28 kW	2.39 kW
COP Tj = +2°C	5.10	3.78
Pdh Tj = $+7$ °C	1.52 kW	2.77 kW
$COP Tj = +7^{\circ}C$	6.02	4.44
Pdh Tj = 12°C	1.67 kW	3.25 kW
COP Tj = 12°C	6.59	5.46
Pdh Tj = Tbiv	5.68 kW	5.04 kW
COP Tj = Tbiv	2.25	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.02 kW	4.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.12	1.89
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
PCK	7 W	7 W





Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.20 kW	6.00 kW
Annual energy consumption Qhe	3744 kWh	4819 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.49	4.72
COP Tj = -15°C (if TOL $<$ -20°C)	2.55	2.04

#### Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	36 dB(A)	36 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	226 %	160 %	
Prated	8.30 kW	7.20 kW	
SCOP	5.73	4.08	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	8.31 kW	7.19 kW	
COP Tj = +2°C	2.75	2.15	



#### Page 118 of 118

#### This information was generated by the HP KEYMARK database on 4 May 2022

Pdh Tj = +7°C	5.04 kW	4.66 kW
$COP Tj = +7^{\circ}C$	5.00	3.61
Pdh Tj = 12°C	2.57 kW	3.17 kW
COP Tj = 12°C	7.39	5.24
Pdh Tj = Tbiv	8.31 kW	7.19 kW
COP Tj = Tbiv	2.75	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.31 kW	7.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	2.15
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	17 W	17 W
PSB	17 W	17 W
РСК	7 W	7 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1937 kWh	2360 kWh