

## Subtype Buderus Logatherm WLW196i-8 AR and IR, Buderus Logatherm WLW196i.2-6 AR

Certificate Holder	Bosch Thermotechnik GmbH (Buderus)
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City	Wetzlar
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Buderus Logatherm WLW196i-8 AR and IR, Buderus Logatherm WLW196i.2-6 AR
Registration number	011-1W0129
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

Model name	Buderus Logatherm WLW196i-8 ARE
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.77 kW	2.41 kW
El input	0.75 kW	0.91 kW
COP	5.02	2.66

### EN 12102-1 | Average Climate

	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 | Average Climate

	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

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = -7°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
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	6.10 kW	6.00 kW
Annual energy consumption Qhe	3346 kWh	4594 kWh
Pdh Tj = -15°C (if TOL	4.93	2.06
COP Tj = -15°C (if TOL	2.87	2.06

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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°C	6.08 kW	4.95 kW
COP Tj = +7°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
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	1924 kWh	2332 kWh

## Model Buderus Logatherm WLW196i-8 ARB

Model name	Buderus Logatherm WLW196i-8 ARB
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.77 kW	2.41 kW
El input	0.75 kW	0.91 kW
COP	5.02	2.66

### EN 12102-1 | Average Climate

	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 | Average Climate

	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	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3188 kWh	3631 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = -7°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
PTO	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 Q <sub>he</sub>	3346 kWh	4594 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.93	2.06
COP T <sub>j</sub> = -15°C (if TOL	2.87	2.06

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	247 %	178 %
Prated	9.00 kW	7.90 kW
SCOP	6.25	4.53
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	9.02 kW	7.93 kW
COP T <sub>j</sub> = +2°C	2.96	2.28
P <sub>dh</sub> T <sub>j</sub> = +7°C	6.08 kW	4.95 kW
COP T <sub>j</sub> = +7°C	5.37	3.95
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.61 kW	3.33 kW
COP T <sub>j</sub> = 12°C	8.27	5.89
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.02 kW	7.93 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.96	2.28
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.02 kW	7.93 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.96	2.28
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	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1924 kWh	2332 kWh

## Model Buderus Logatherm WLW196i-8 ART190

Model name	Buderus Logatherm WLW196i-8 ART190
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	98 %
COP	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 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	77 %
COP	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 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	118 %
COP	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 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed



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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.77 kW	2.41 kW
El input	0.75 kW	0.91 kW
COP	5.02	2.66

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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 Q <sub>he</sub>	3188 kWh	3631 kWh
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#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	177 %	126 %
Prated	6.10 kW	6.00 kW
SCOP	4.49	3.22
T <sub>biv</sub>	-20 °C	-18 °C
TOL	-20 °C	-18 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.44 kW	3.61 kW
COP T <sub>j</sub> = -7°C	3.87	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.27 kW	2.43 kW
COP T <sub>j</sub> = +2°C	5.43	3.89
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.59 kW	2.79 kW
COP T <sub>j</sub> = +7°C	5.75	4.70
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.69 kW	3.23 kW
COP T <sub>j</sub> = 12°C	7.40	5.84
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.84 kW	5.38 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.36	1.87
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.84 kW	5.38 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.36	1.87
WTOL	60 °C	60 °C
P <sub>off</sub>	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	6.10 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	3346 kWh	4594 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.93	2.06
COP T <sub>j</sub> = -15°C (if TOL	2.87	2.06

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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°C	6.08 kW	4.95 kW
COP Tj = +7°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
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	1924 kWh	2332 kWh

## Model Buderus Logatherm WLW196i-8 ARTS185

Model name	Buderus Logatherm WLW196i-8 ARTS185
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	101 %
COP	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 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	87 %
COP	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 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	111 %
COP	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

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.77 kW	2.41 kW
El input	0.75 kW	0.91 kW
COP	5.02	2.66

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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 Q <sub>he</sub>	3188 kWh	3631 kWh
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#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	177 %	126 %
Prated	6.10 kW	6.00 kW
SCOP	4.49	3.22
T <sub>biv</sub>	-20 °C	-18 °C
TOL	-20 °C	-18 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.44 kW	3.61 kW
COP T <sub>j</sub> = -7°C	3.87	2.77
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.27 kW	2.43 kW
COP T <sub>j</sub> = +2°C	5.43	3.89
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.59 kW	2.79 kW
COP T <sub>j</sub> = +7°C	5.75	4.70
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.69 kW	3.23 kW
COP T <sub>j</sub> = 12°C	7.40	5.84
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.84 kW	5.38 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.36	1.87
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.84 kW	5.38 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.36	1.87
WTOL	60 °C	60 °C
P <sub>off</sub>	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	6.10 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	3346 kWh	4594 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.93	2.06
COP T <sub>j</sub> = -15°C (if TOL	2.87	2.06

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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°C	6.08 kW	4.95 kW
COP Tj = +7°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
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	1924 kWh	2332 kWh

## Model Buderus Logatherm WLW196i-8 IRE

Model name	Buderus Logatherm WLW196i-8 IRE
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	2.85 kW	2.34 kW
El input	0.62 kW	0.91 kW
COP	4.63	2.58

### EN 12102-1 | Average Climate

	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 | Average Climate

	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
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
PTO	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

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	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°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
PTO	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	6.20 kW	6.00 kW
Annual energy consumption Qhe	3555 kWh	4677 kWh
Pdh Tj = -15°C (if TOL	5.49	2.07
COP Tj = -15°C (if TOL	2.61	2.07

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
COP Tj = +2°C	2.82	2.18
Pdh Tj = +7°C	5.04 kW	4.66 kW
COP Tj = +7°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
PTO	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

Model name	Buderus Logatherm WLW196i-8 IRB
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	2.85 kW	2.34 kW
El input	0.62 kW	0.91 kW
COP	4.63	2.58

### EN 12102-1 | Average Climate

	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 | Average Climate

	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
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
PTO	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

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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°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
PTO	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 Q <sub>he</sub>	3555 kWh	4677 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.49	2.07
COP T <sub>j</sub> = -15°C (if TOL	2.61	2.07

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	239 %	167 %
Prated	8.30 kW	7.20 kW
SCOP	6.04	4.24
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.31 kW	7.19 kW
COP T <sub>j</sub> = +2°C	2.82	2.18
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.04 kW	4.66 kW
COP T <sub>j</sub> = +7°C	5.23	3.70
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.57 kW	3.17 kW
COP T <sub>j</sub> = 12°C	7.97	5.51
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	8.31 kW	7.19 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.82	2.18
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.31 kW	7.19 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.82	2.18
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	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 Q <sub>he</sub>	1837 kWh	2270 kWh

## Model Buderus Logatherm WLW196i-8 IRT190

Model name	Buderus Logatherm WLW196i-8 IRT190
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	98 %
COP	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 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	77 %
COP	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 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	118 %
COP	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 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	2.85 kW	2.34 kW
El input	0.62 kW	0.91 kW
COP	4.63	2.58

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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
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
PTO	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 Q <sub>he</sub>	3365 kWh	3483 kWh
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#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	169 %	123 %
Prated	6.20 kW	6.00 kW
SCOP	4.30	3.16
T <sub>biv</sub>	-19 °C	-16 °C
TOL	-20 °C	-17 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	3.49 kW
COP T <sub>j</sub> = -7°C	3.40	2.71
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.28 kW	2.39 kW
COP T <sub>j</sub> = +2°C	5.42	3.89
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.52 kW	2.77 kW
COP T <sub>j</sub> = +7°C	6.63	4.62
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.67 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.23	5.74
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.68 kW	5.04 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.30	1.97
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.02 kW	4.91 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.17	1.92
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	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	6.20 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	3555 kWh	4677 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.49	2.07
COP T <sub>j</sub> = -15°C (if TOL	2.61	2.07

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate



	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
COP Tj = +2°C	2.82	2.18
Pdh Tj = +7°C	5.04 kW	4.66 kW
COP Tj = +7°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
PTO	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 IRTS185

Model name	Buderus Logatherm WLW196i-8 IRTS185
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	101 %
COP	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 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	87 %
COP	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 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	111 %
COP	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 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	2.85 kW	2.34 kW
El input	0.62 kW	0.91 kW
COP	4.63	2.58

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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
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
PTO	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 Q <sub>he</sub>	3365 kWh	3483 kWh
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#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	169 %	123 %
Prated	6.20 kW	6.00 kW
SCOP	4.30	3.16
T <sub>biv</sub>	-19 °C	-16 °C
TOL	-20 °C	-17 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.50 kW	3.49 kW
COP T <sub>j</sub> = -7°C	3.40	2.71
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.28 kW	2.39 kW
COP T <sub>j</sub> = +2°C	5.42	3.89
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.52 kW	2.77 kW
COP T <sub>j</sub> = +7°C	6.63	4.62
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.67 kW	3.25 kW
COP T <sub>j</sub> = 12°C	7.23	5.74
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.68 kW	5.04 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.30	1.97
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.02 kW	4.91 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.17	1.92
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	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	6.20 kW	6.00 kW
Annual energy consumption Q <sub>he</sub>	3555 kWh	4677 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.49	2.07
COP T <sub>j</sub> = -15°C (if TOL	2.61	2.07

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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
COP Tj = +2°C	2.82	2.18
Pdh Tj = +7°C	5.04 kW	4.66 kW
COP Tj = +7°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
PTO	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.2-6 ARB S+

Model name	Buderus Logatherm WLW196i.2-6 ARB S+
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
COP	5.01	2.84

### EN 12102-1 | Average Climate

	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 | Average Climate

	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		
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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3291 kWh	4288 kWh
Pdh Tj = -15°C (if TOL	4.96	4.76
COP Tj = -15°C (if TOL	2.44	1.82
Cdh Tj = -15 °C		

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
ηs	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°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	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1591 kWh	2325 kWh

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

Model name	Buderus Logatherm WLW196i.2-6 ARE S+
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
COP	5.01	2.84

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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		
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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2553 kWh	3413 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 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	4.96	4.76
COP Tj = -15°C (if TOL	2.44	1.82
Cdh Tj = -15 °C		

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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°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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1591 kWh	2325 kWh

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

Model name	Buderus Logatherm WLW196i.2-6 ART190 S+
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	103 %
COP	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 l

#### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	88 %
COP	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 l

#### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	122 %
COP	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 l

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
COP	5.01	2.84

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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		
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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2553 kWh	3413 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
η <sub>s</sub>	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
T <sub>biv</sub>	-17 °C	-17 °C
TOL	-18 °C	-18 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.26 kW	3.47 kW
COP T <sub>j</sub> = -7°C	3.63	2.66
C <sub>dh</sub> T <sub>j</sub> = -7 °C		
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.28 kW	2.42 kW
COP T <sub>j</sub> = +2°C	5.41	3.86
C <sub>dh</sub> T <sub>j</sub> = +2 °C		
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.53 kW	2.83 kW
COP T <sub>j</sub> = +7°C	6.76	4.70
C <sub>dh</sub> T <sub>j</sub> = +7 °C		
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.68 kW	3.31 kW
COP T <sub>j</sub> = 12°C	7.17	6.19
C <sub>dh</sub> T <sub>j</sub> = +12 °C		
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.96 kW	4.76 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.44	1.82
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.84 kW	4.62 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.39	1.76
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.72 kW	5.48 kW
Annual energy consumption Q <sub>he</sub>	3291 kWh	4288 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.96	1.82
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.82
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 12102-1 | Warmer Climate



	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 | Warmer Climate

	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°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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

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

Model name	Buderus Logatherm WLW196i.2-6 ARTS185 S+
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	101 %
COP	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 l

#### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	84 %
COP	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 l

#### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	112 %
COP	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 l

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.01 kW	2.60 kW
El input	0.80 kW	0.91 kW
COP	5.01	2.84

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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		
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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2553 kWh	3413 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	168 %	123 %
Prated	5.72 kW	5.48 kW
SCOP	4.28	3.15
T <sub>biv</sub>	-17 °C	-17 °C
TOL	-18 °C	-18 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	3.26 kW	3.47 kW
COP T <sub>j</sub> = -7°C	3.63	2.66
C <sub>dh</sub> T <sub>j</sub> = -7 °C		
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.28 kW	2.42 kW
COP T <sub>j</sub> = +2°C	5.41	3.86
C <sub>dh</sub> T <sub>j</sub> = +2 °C		
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.53 kW	2.83 kW
COP T <sub>j</sub> = +7°C	6.76	4.70
C <sub>dh</sub> T <sub>j</sub> = +7 °C		
P <sub>dh</sub> T <sub>j</sub> = 12°C	1.68 kW	3.31 kW
COP T <sub>j</sub> = 12°C	7.17	6.19
C <sub>dh</sub> T <sub>j</sub> = +12 °C		
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	4.96 kW	4.76 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.44	1.82
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.84 kW	4.62 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.39	1.76
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.72 kW	5.48 kW
Annual energy consumption Q <sub>he</sub>	3291 kWh	4288 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.96	1.82
COP T <sub>j</sub> = -15°C (if TOL	2.44	1.82
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	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°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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1591 kWh	2325 kWh

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

Model name	Buderus Hybrid-Set WLW196i-8 A H
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.65 kW	2.85 kW
El input	0.76 kW	1.16 kW
COP	4.81	2.46

### EN 12102-1 | Average Climate

	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 | Average Climate

	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
PTO	5 W	5 W
PSB	17 W	17 W
PCK	0 W	0 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

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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
PTO	5 W	5 W
PSB	17 W	17 W
PCK	0 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

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	238 %	157 %
Prated	9.00 kW	7.90 kW
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°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°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
PTO	5 W	5 W
PSB	17 W	17 W



PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1995 kWh	2640 kWh

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

Model name	Buderus Hybrid-Set WLW196i-6 A H S+
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	1x230V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.47 kW	2.89 kW
El input	0.73 kW	1.14 kW
COP	4.76	2.53

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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
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
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	0.00 kW	0.00 kW
Annual energy consumption Qhe	2778 kWh	3694 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	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°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

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	225 %	156 %
Prated	7.30 kW	7.20 kW
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°C	4.67 kW	5.00 kW
COP Tj = +7°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
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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1710 kWh	2423 kWh

## Model Buderus Logatherm WLW196i-8 ARTP120

Model name	Buderus Logatherm WLW196i-8 ARTP120
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.78 kW	2.41 kW
El input	0.79 kW	0.93 kW
COP	4.78	2.60

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

#### EN 14825 | Average Climate

	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
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	3406 kWh	3842 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	157 %	118 %
Prated	6.50 kW	6.80 kW
SCOP	4.00	3.02
Tbiv	-17 °C	-17 °C
TOL	-17 °C	-17 °C
Pdh Tj = -7°C	3.83 kW	4.47 kW
COP Tj = -7°C	3.56	2.63
Pdh Tj = +2°C	2.36 kW	2.49 kW
COP Tj = +2°C	5.16	3.72
Pdh Tj = +7°C	1.61 kW	2.85 kW
COP Tj = +7°C	5.93	4.64
Pdh Tj = 12°C	1.69 kW	3.36 kW
COP Tj = 12°C	6.17	5.85
Pdh Tj = Tbiv	5.64 kW	5.82 kW
COP Tj = Tbiv	2.29	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.64 kW	5.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.29	1.72
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	6.50 kW	6.80 kW
Annual energy consumption Q <sub>he</sub>	4001 kWh	5544 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.44	5.14
COP T <sub>j</sub> = -15°C (if TOL	2.43	1.80

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	235 %	166 %
Prated	9.00 kW	7.90 kW
SCOP	5.94	4.24
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	9.10 kW	7.44 kW
COP T <sub>j</sub> = +2°C	2.99	2.23
P <sub>dh</sub> T <sub>j</sub> = +7°C	6.17 kW	4.92 kW
COP T <sub>j</sub> = +7°C	5.36	3.74
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.67 kW	3.31 kW
COP T <sub>j</sub> = 12°C	7.40	5.47
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.10 kW	7.44 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.99	2.23
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	9.10 kW	7.44 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.99	2.23
WTOL	60 °C	60 °C
P <sub>off</sub>	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 Q <sub>he</sub>	2023 kWh	2491 kWh



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

Model name	Buderus Logatherm WLW196i.2-6 ARTP120 S+
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.01 kW	2.60 kW
El input	0.84 kW	0.94 kW
COP	4.78	2.77

#### EN 12102-1 | Average Climate

	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 | Average Climate

	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
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2707 kWh	3535 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	119 %
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°C	1.53 kW	2.83 kW
COP Tj = +7°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

PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.72 kW	5.48 kW
Annual energy consumption Q <sub>he</sub>	3463 kWh	4440 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.96	4.76
COP T <sub>j</sub> = -15°C (if TOL	2.39	1.80

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	226 %	158 %
Prated	7.29 kW	7.25 kW
SCOP	5.72	4.02
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.29 kW	7.25 kW
COP T <sub>j</sub> = +2°C	2.95	2.16
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.69 kW	4.78 kW
COP T <sub>j</sub> = +7°C	5.31	3.67
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.64 kW	3.26 kW
COP T <sub>j</sub> = 12°C	7.44	5.10
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.29 kW	7.25 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.95	2.16
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.29 kW	7.25 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.95	2.16
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	50 W	50 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1703 kWh	2407 kWh

## Model Buderus Logatherm WLW196i-8 IRTP120

Model name	Buderus Logatherm WLW196i-8 IRTP120
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	2.85 kW	2.41 kW
El input	0.65 kW	0.93 kW
COP	4.41	2.58

### EN 12102-1 | Average Climate

	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 | Average Climate

	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
PTO	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

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	120 %
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°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

PTO	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 Q <sub>he</sub>	3744 kWh	4819 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.49	4.72
COP T <sub>j</sub> = -15°C (if TOL	2.55	2.04

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	226 %	160 %
Prated	8.30 kW	7.20 kW
SCOP	5.73	4.08
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.31 kW	7.19 kW
COP T <sub>j</sub> = +2°C	2.75	2.15
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.04 kW	4.66 kW
COP T <sub>j</sub> = +7°C	5.00	3.61
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.57 kW	3.17 kW
COP T <sub>j</sub> = 12°C	7.39	5.24
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	8.31 kW	7.19 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.75	2.15
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.31 kW	7.19 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.75	2.15
WTOL	60 °C	60 °C
P <sub>off</sub>	17 W	17 W
PTO	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 Q <sub>he</sub>	1937 kWh	2360 kWh