

Summary of	Buderus Logatherm WSW196i.2/186 -12	Reg. No.	011-1W0435
Certificate Holder			
Name	Bosch Thermotechnik GmbH (Buderus)	Bosch Thermotechnik GmbH (Buderus)	
Address	Sophienstraße 30-32	Zip	35576
City	Wetzlar	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	RISE Research Institutes of Sweden AB		
Subtype title	Buderus Logatherm WSW196i.2/186 -12		
Heat Pump Type	Brine/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2 kg		
Certification Date	08.12.2020		
Testing basis	HP KEYMARK certification scheme rules rev. 7		

## Model: WSW196i.2-12 T180 (+W) / 186-12 T180

General Data		
Power supply	3x400V 50Hz	
Off-peak product	No	

#### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.53 kW	11.31 kW
El input	3.11 kW	4.30 kW
СОР	4.02	2.63
Indoor water flow rate	2.11 m³/h	1.22 m³/h

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

### **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	214 %	159 %
Prated	12.53 kW	11.31 kW
SCOP	5.55	4.17
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.14 kW
COP Tj = -7°C	4.36	2.91
Pdh Tj = +2°C	7.10 kW	6.21 kW
COP Tj = +2°C	5.67	4.28
Pdh Tj = +7°C	4.60 kW	3.71 kW
COP Tj = +7°C	6.35	4.97
Pdh Tj = 12°C	3.92 kW	3.72 kW
COP Tj = 12°C	6.37	5.20
Pdh Tj = Tbiv	12.53 kW	11.31 kW
COP Tj = Tbiv	4.02	2.63





Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	4660 kWh	5606 kWh

#### Colder Climate

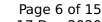
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	226 %	168 %
Prated	12.53 kW	11.31 kW
SCOP	5.85	4.39





This information was	generated by the HP Ki	EYMARK database on 17 Dec 2020
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.98 kW	7.02 kW
COP Tj = -7°C	5.50	3.98
Pdh Tj = +2°C	4.53 kW	4.30 kW
COP Tj = +2°C	6.46	4.95
Pdh Tj = +7°C	3.89 kW	3.72 kW
$COPTj = +7^{\circ}C$	6.56	5.28
Pdh Tj = 12°C	3.87 kW	3.73 kW
COP Tj = 12°C	6.17	5.40
Pdh Tj = Tbiv	12.53 kW	11.31 kW
COP Tj = Tbiv	4.02	2.63
Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
	1	





Annual energy consumption Qhe	5276 kWh	6350 kWh

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	214 %	159 %
Prated	12.53 kW	11.31 kW
SCOP	5.55	4.18
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.53 kW	11.31 kW
COP Tj = +2°C	4.02	2.63
Pdh Tj = +7°C	7.88 kW	7.26 kW
COP Tj = +7°C	5.27	3.73
Pdh Tj = 12°C	3.86 kW	3.71 kW
COP Tj = 12°C	6.38	5.17
Pdh Tj = Tbiv	12.53 kW	11.31 kW





COP Tj = Tbiv	4.02	2.63
Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3016 kWh	3618 kWh

Domestic Hot Water (DHW)

**Average Climate** 



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	129 %	
СОР	3.11	
Heating up time	01:28 h:min	
Standby power input	41.2 W	
Reference hot water temperature	47.3 °C	
Mixed water at 40°C	208	

#### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	129 %	
СОР	3.11	
Heating up time	01:28 h:min	
Standby power input	41.2 W	
Reference hot water temperature	47.3 °C	
Mixed water at 40°C	208	

#### Warmer Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	129 %	
СОР	3.11	
Heating up time	01:28 h:min	
Standby power input	41.2 W	
Reference hot water temperature	47.3 °C	
Mixed water at 40°C	208	



## Model: WSW196i.2-12 (+W) / 186-12

General Data	
Power supply	3x400V 50Hz

## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	12.53 kW	11.31 kW	
El input	3.11 kW	4.30 kW	
СОР	4.02	2.63	
Indoor water flow rate	2.11 m³/h	1.22 m³/h	

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

### Average Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	41 dB(A)	41 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	214 %	159 %
Prated	12.53 kW	11.31 kW
SCOP	5.55	4.17
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.11 kW	10.14 kW
COP Tj = -7°C	4.36	2.91
Pdh Tj = +2°C	7.10 kW	6.21 kW
COP Tj = +2°C	5.67	4.28
Pdh Tj = +7°C	4.60 kW	3.71 kW
COP Tj = +7°C	6.35	4.97
Pdh Tj = 12°C	3.92 kW	3.72 kW
COP Tj = 12°C	6.37	5.20
Pdh Tj = Tbiv	12.53 kW	11.31 kW
COP Tj = Tbiv	4.02	2.63





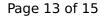
# $$\operatorname{Page}\ 12$$ of 15 This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	4660 kWh	5606 kWh

#### Colder Climate

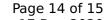
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	226 %	168 %
Prated	12.53 kW	11.31 kW
SCOP	5.85	4.39
	'	





The internation was	generated by the in Rein	milit database on 17 Dec 2021
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.98 kW	7.02 kW
COP Tj = -7°C	5.50	3.98
Pdh Tj = +2°C	4.53 kW	4.30 kW
COP Tj = +2°C	6.46	4.95
Pdh Tj = +7°C	3.89 kW	3.72 kW
$COPTj = +7^{\circ}C$	6.56	5.28
Pdh Tj = 12°C	3.87 kW	3.73 kW
COP Tj = 12°C	6.17	5.40
Pdh Tj = Tbiv	12.53 kW	11.31 kW
COP Tj = Tbiv	4.02	2.63
Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW





Annual energy consumption Qhe	5276 kWh	6350 kWh	

#### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

	EN 14825	
	Low temperature	Medium temperature
$\eta_{s}$	214 %	159 %
Prated	12.53 kW	11.31 kW
SCOP	5.55	4.18
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.53 kW	11.31 kW
COP Tj = +2°C	4.02	2.63
Pdh Tj = +7°C	7.88 kW	7.26 kW
COP Tj = +7°C	5.27	3.73
Pdh Tj = 12°C	3.86 kW	3.71 kW
COP Tj = 12°C	6.38	5.17
Pdh Tj = Tbiv	12.53 kW	11.31 kW



# $$\operatorname{Page}\ 15$$ of 15 This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = Tbiv	4.02	2.63
Pdh Tj = TOL	12.53 kW	11.31 kW
COP Tj = TOL	4.02	2.63
WTOL	71 °C	71 °C
Poff	14 W	14 W
РТО	14 W	14 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electric	Electric
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3016 kWh	3618 kWh