Login

Summary of	Buderus Logatherm WLW-6,8,10 SP AR	Reg. No.	011-1W0539
Certificate Holder			
Name	Bosch Thermotechnik GmbH (Buderus)		
Address	Sophienstraße 30-32	Zip	35576
City	Wetzlar	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	Buderus Logatherm WLW-6,8,10 SP AR		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.3 kg		
Certification Date	10.06.2022		
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 9 (as of 2021-03)		

Model: WLW166i-6 SP AR T190

Configure model	
Model name	WLW166i-6 SP AR T190
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	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

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

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW
COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.81	3.89
COP Tj = -15°C (if TOL<-20°C)	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	182 %	122 %
Prated	6 kW	6 kW
SCOP	4.63	3.11
Tbiv	-6 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	3.16 kW	3.10 kW
COP Tj = +2°C	4.69	3.12
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.51 kW
COP Tj = +7°C	6.04	4.00
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.46 kW	3.22 kW
COP Tj = 12°C	8.16	5.83
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.69 kW	5.10 kW
COP Tj = Tbiv	2.94	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.54 kW	3.35 kW
Annual energy consumption Qhe	2678 kWh	3981 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l

Model: WLW166i-6 SP AR E

Configure model	
Model name	WLW166i-6 SP AR E
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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW
COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.81	3.89
COP Tj = -15°C (if TOL<-20°C)	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	182 %	122 %
Prated	6 kW	6 kW
SCOP	4.63	3.11
Tbiv	-6 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	3.16 kW	3.10 kW
COP Tj = +2°C	4.69	3.12
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.51 kW
COP Tj = +7°C	6.04	4.00
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.46 kW	3.22 kW
COP Tj = 12°C	8.16	5.83
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.69 kW	5.10 kW
COP Tj = Tbiv	2.94	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.54 kW	3.35 kW
Annual energy consumption Qhe	2678 kWh	3981 kWh

Model: WLW166i-6 SP AR B

Configure model	
Model name	WLW166i-6 SP AR B
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	6.16 kW	5 kW
El input	1.3 kW	1.92 kW
COP	4.74	2.6

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	249 %	164 %
Prated	8 kW	8 kW
SCOP	6.31	4.17
Tbiv	4 °C	3 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.98 kW	6.93 kW
COP Tj = +2°C	3.72	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.93 kW	4.92 kW
COP Tj = +7°C	5.45	3.37
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.44 kW	3.15 kW
COP Tj = 12°C	8.29	5.59
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.02 kW	1.07 kW
Annual energy consumption Qhe	1694 kWh	2563 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	106 %
Prated	6 kW	6 kW
SCOP	3.89	2.72
Tbiv	-12 °C	-13 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	3.72 kW	3.57 kW
COP Tj = -7°C	3.43	2.28
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.31 kW	2.06 kW
COP Tj = +2°C	4.83	3.44
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.89 kW	2.6 kW
COP Tj = +7°C	6.27	4.47
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.43 kW	3.22 kW
COP Tj = 12°C	8.11	6.04
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.34 kW	4.36 kW
COP Tj = Tbiv	2.74	1.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.11 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption Qhe	3800 kWh	5439 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.81	3.89
COP Tj = -15°C (if TOL<-20°C)	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	182 %	122 %
Prated	6 kW	6 kW
SCOP	4.63	3.11
Tbiv	-6 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.76 kW	5.10 kW
COP Tj = -7°C	2.88	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	3.16 kW	3.10 kW
COP Tj = +2°C	4.69	3.12
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.51 kW
COP Tj = +7°C	6.04	4.00
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.46 kW	3.22 kW
COP Tj = 12°C	8.16	5.83
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	4.69 kW	5.10 kW
COP Tj = Tbiv	2.94	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.46 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.54 kW	3.35 kW
Annual energy consumption Qhe	2678 kWh	3981 kWh

Model: WLW166i-8 SP AR T190

Configure model	
Model name	WLW166i-8 SP AR T190
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	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.23	3.89
COP Tj = -15°C (if TOL<-20°C)	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l

Model: WLW166i-8 SP AR E

Configure model	
Model name	WLW166i-8 SP AR E
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	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

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

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.23	3.89
COP Tj = -15°C (if TOL<-20°C)	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

Model: WLW166i-8 SP AR B

Configure model	
Model name	WLW166i-8 SP AR B
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	8.02 kW	6.78 kW
El input	1.71 kW	2.52 kW
COP	4.7	2.69

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

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	252 %	166 %
Prated	9 kW	9 kW
SCOP	6.39	4.23
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.35 kW	6.93 kW
COP Tj = +2°C	3.47	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.63 kW	5.98 kW
COP Tj = +7°C	5.43	3.4
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.46 kW	3.17 kW
COP Tj = 12°C	8.46	5.77
Cdh Tj = +12 °C	0.97	0.98

Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.65 kW	2.07 kW
Annual energy consumption Qhe	1883 kWh	2846 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	107 %
Prated	7 kW	7 kW
SCOP	3.9	2.75
Tbiv	-14 °C	-11 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.42 kW	4.29 kW
COP Tj = -7°C	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.58 kW	2.71 kW
COP Tj = +2°C	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.86 kW	2.63 kW
COP Tj = +7°C	6.31	4.58
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.2	6.1
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.4 kW	4.84 kW
COP Tj = Tbiv	2.4	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.89 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	7 kW	7 kW
Annual energy consumption Qhe	4422 kWh	6273 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.23	3.89
COP Tj = -15°C (if TOL<-20°C)	2.34	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	185 %	126 %
Prated	8 kW	7 kW
SCOP	4.71	3.22
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.08 kW	5.10 kW
COP Tj = -7°C	2.82	1.86
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.39 kW	3.87 kW
COP Tj = +2°C	4.82	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.85 kW	2.60 kW
COP Tj = +7°C	6.33	4.41
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.46 kW	3.18 kW
COP Tj = 12°C	8.51	5.82
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.54 kW	5.78 kW
COP Tj = Tbiv	3.05	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.55 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.45 kW	4.40 kW
Annual energy consumption Qhe	3512 kWh	4489 kWh

Model: WLW166i-10 SP AR T190

Configure model	
Model name	WLW166i-10 SP AR T190
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	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98

Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	154 %	107 %
Prated	8 kW	7.8 kW
SCOP	3.93	2.74
Tbiv	-14 °C	-10 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.74 kW	4.82 kW
COP Tj = -7°C	3.2	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.98 kW	2.84 kW
COP Tj = +2°C	5.01	3.64
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.71 kW	2.65 kW
COP Tj = +7°C	6.11	4.7
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.24	6.15
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.15 kW	5.08 kW
COP Tj = Tbiv	2.49	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.4 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption Qhe	5012 kWh	7014 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.95	3.89
COP Tj = -15°C (if TOL<-20°C)	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	178 %	125 %
Prated	9 kW	8 kW
SCOP	4.53	3.21
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.79 kW	5.10 kW
COP Tj = -7°C	2.81	1.86
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	4.78 kW	4.58 kW
COP Tj = +2°C	4.35	3.35
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.89 kW	2.57 kW
COP Tj = +7°C	6.47	4.29
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.53 kW	3.20 kW
COP Tj = 12°C	8.72	5.96
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.03 kW	6.10 kW
COP Tj = Tbiv	2.91	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	150 %
COP	3.62
Heating up time	02:53 h:min
Standby power input	35.1 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	275 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	105 %
COP	2.54
Heating up time	02:47 h:min
Standby power input	43.6 W
Reference hot water temperature	53.6 °C
Mixed water at 40°C	273 l

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	2.99
Heating up time	02:33 h:min
Standby power input	41.5 W
Reference hot water temperature	53.8 °C
Mixed water at 40°C	274 l

Model: WLW166i-10 SP AR E

Configure model	
Model name	WLW166i-10 SP AR E
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	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98

Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	154 %	107 %
Prated	8 kW	7.8 kW
SCOP	3.93	2.74
Tbiv	-14 °C	-10 °C
TOL	-20 °C	-17 °C
Pdh Tj = -7°C	4.74 kW	4.82 kW
COP Tj = -7°C	3.2	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.98 kW	2.84 kW
COP Tj = +2°C	5.01	3.64
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.71 kW	2.65 kW
COP Tj = +7°C	6.11	4.7
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.44 kW	3.23 kW
COP Tj = 12°C	8.24	6.15
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.15 kW	5.08 kW
COP Tj = Tbiv	2.49	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.4 kW	3.46 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption Qhe	5012 kWh	7014 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.95	3.89
COP Tj = -15°C (if TOL<-20°C)	2.43	1.5
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	178 %	125 %
Prated	9 kW	8 kW
SCOP	4.53	3.21
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.79 kW	5.10 kW
COP Tj = -7°C	2.81	1.86
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	4.78 kW	4.58 kW
COP Tj = +2°C	4.35	3.35
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.89 kW	2.57 kW
COP Tj = +7°C	6.47	4.29
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.53 kW	3.20 kW
COP Tj = 12°C	8.72	5.96
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.03 kW	6.10 kW
COP Tj = Tbiv	2.91	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	2.65 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh

Model: WLW166i-10 SP AR B

Configure model	
Model name	WLW166i-10 SP AR B
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	8.92 kW	7.87 kW
El input	1.91 kW	2.89 kW
COP	4.68	2.72

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

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	255 %	169 %
Prated	10 kW	9.6 kW
SCOP	6.46	4.3
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.85 kW	6.93 kW
COP Tj = +2°C	3.38	2.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.92 kW	6.31 kW
COP Tj = +7°C	5.57	3.51
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.19 kW
COP Tj = 12°C	8.72	5.87
Cdh Tj = +12 °C	0.98	0.98

Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.15 kW	2.67 kW
Annual energy consumption Qhe	2069 kWh	2980 kWh

Colder Climate

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