

Page 1 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

Login

Summary of	Buderus Logatherm WLW-6,8,10 SP AR	Reg. No.	011-1W0539	
Certificate Holder	Certificate Holder			
Name	Bosch Thermotechnik GmbH (Buderus)			
Address	Sophienstraße 30-32	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	
СОР	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

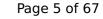




Pdh Tj = Tbiv	6.43 kW	7.28 kW
COP Tj = Tbiv	4.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.98 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.72	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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)	





	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
$COP Tj = +7^{\circ}C$	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





2.05	1.33
0.99	0.99
60 °C	60 °C
11 W	11 W
o w	0 W
11 W	11 W
o w	0 W
Electricity	Electricity
6 kW	6 kW
3800 kWh	5439 kWh
3.81	3.89
2.43	1.5
0.99	0.99
	0.99 60 °C 11 W 0 W 11 W 0 W Electricity 6 kW 3800 kWh 3.81 2.43

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)	





This information was gener	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
$COP Tj = -7^{\circ}C$	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
$COP Tj = +7^{\circ}C$	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
РТО	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 %	
СОР	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 %	
СОР	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	

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	

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
СОР	4.74	2.6

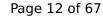
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

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 = $+7^{\circ}$ C	4.93 kW	4.92 kW
$COP Tj = +7^{\circ}C$	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

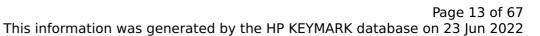




Pdh Tj = Tbiv 6.43 kW 7.28 kW COP Tj = Tbiv 4.15 2.55 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 5.98 kW 6.93 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 3.72 2.34 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 0.99 0.99 WTOL 60 °C 60 °C Poff 11 W 11 W PTO 0 W 0 W PSB 11 W 11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

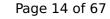
Colder Climate

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)





	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
$COPTj = +2^{\circ}C$	4.83	3.44
Cdh Tj = $+2$ °C	0.98	0.98
Pdh Tj = $+7$ °C	2.89 kW	2.6 kW
$COPTj = +7^{\circ}C$	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

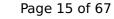




This information was gener	rated by the HP KEYMA	RK database on 23 Jun 2022
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	o w	o w
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy 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)





	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
$COP Tj = +7^{\circ}C$	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



Page 16 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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
СОР	4.74	2.6

EN 14511-4	
Shutting off the heat transfer medium flow	naccod
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 = $+7^{\circ}$ C	4.93 kW	4.92 kW
$COP Tj = +7^{\circ}C$	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

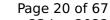




6.43 kW	7.28 kW
4.15	2.55
5.98 kW	6.93 kW
3.72	2.34
0.99	0.99
60 °C	60 °C
11 W	11 W
0 W	0 W
11 W	11 W
o w	0 W
n/a	n/a
2.02 kW	1.07 kW
1694 kWh	2563 kWh
	4.15 5.98 kW 3.72 0.99 60 °C 11 W 0 W 11 W 0 W 7/a 2.02 kW

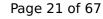
Colder Climate

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)





	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
$COP Tj = +7^{\circ}C$	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

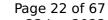




		,
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	o w	o w
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	6 kW	6 kW
Annual energy consumption 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)	





This information was gener	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
$COP Tj = -7^{\circ}C$	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
$COP Tj = +7^{\circ}C$	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



Page 23 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	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	
СОР	4.7	2.69	

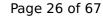
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

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 = $+7^{\circ}$ 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

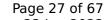




-	-
7.88 kW	7.65 kW
3.88	2.75
7.35 kW	6.93 kW
3.47	2.34
0.99	0.99
60 °C	60 °C
11 W	11 W
0 W	0 W
11 W	11 W
0 W	0 W
Electricity	Electricity
1.65 kW	2.07 kW
1883 kWh	2846 kWh
	3.88 7.35 kW 3.47 0.99 60 °C 11 W 0 W 11 W 0 W Electricity 1.65 kW

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)





This information was gener	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
$COP Tj = -7^{\circ}C$	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
$COPTj = +7^{\circ}C$	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

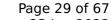




COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.84	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	o w	0 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7 kW	7 kW
Annual 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)





	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
$COPTj = +7^{\circ}C$	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 %
СОР	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 I



Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	105 %
СОР	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 I

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



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

COP

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.02 kW	6.78 kW	
El input 1.71 kW 2.52 kW		2.52 kW	
I	I .		

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	

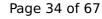
Warmer Climate

4.7



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 = $+7^{\circ}$ C	5.63 kW	5.98 kW
$COP Tj = +7^{\circ}C$	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
РТО	o w	0 W
PSB	11 W	11 W
PCK	o 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)





	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
$COP Tj = +7^{\circ}C$	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

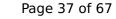




1.84	1.33
0.99	0.99
60 °C	60 °C
11 W	11 W
o w	0 W
11 W	11 W
o w	0 W
Electricity	Electricity
7 kW	7 kW
4422 kWh	6273 kWh
5.23	3.89
2.34	1.5
0.99	0.99
	0.99 60 °C 11 W 0 W 11 W 0 W Electricity 7 kW 4422 kWh 5.23 2.34

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)	





	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
$COPTj = +7^{\circ}C$	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



Page 38 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	o w	0 W
PSB	11 W	11 W
PCK	o 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
СОР	4.7	2.69

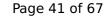
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

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 = $+7^{\circ}$ 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

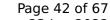




Pdh Tj = Tbiv	7.88 kW	7.65 kW
COP Tj = Tbiv	3.88	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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)





	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
$COP Tj = -7^{\circ}C$	3.24	2.27
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	2.58 kW	2.71 kW
$COP Tj = +2^{\circ}C$	4.92	3.62
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	2.86 kW	2.63 kW
$COP Tj = +7^{\circ}C$	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





1.84	1.33
0.99	0.99
60 °C	60 °C
11 W	11 W
o w	o w
11 W	11 W
o w	o w
n/a	n/a
7 kW	7 kW
4422 kWh	6273 kWh
5.23	3.89
2.34	1.5
0.99	0.99
	0.99 60 °C 11 W 0 W 11 W 0 W n/a 7 kW 4422 kWh 5.23 2.34

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)	





	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
$COP Tj = +2^{\circ}C$	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



Page 45 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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	
СОР	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 = $+7^{\circ}$ C	5.92 kW	6.31 kW
$COP Tj = +7^{\circ}C$	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

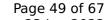




Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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)	





	Low temperature	Medium temperature
ης	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
$COP Tj = +7^{\circ}C$	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

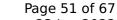




	, -	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 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

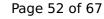
Average Climate

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)	





Prated 9	178 % 9 kW 4.53 -6 °C	125 % 8 kW 3.21 -4 °C
SCOP	4.53 -6 °C	3.21
	-6 °C	
Tbiv -		-4 °C
		l .
TOL -	-10 °C	-10 °C
Pdh Tj = -7 °C	6.79 kW	5.10 kW
$COP Tj = -7^{\circ}C$	2.81	1.86
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	4.78 kW	4.58 kW
$COP Tj = +2^{\circ}C$	4.35	3.35
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.89 kW	2.57 kW
$COP Tj = +7^{\circ}C$	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	o 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 %	
СОР	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 %	
СОР	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	

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	

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

COP

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

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

4.68



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 = $+7^{\circ}$ C	5.92 kW	6.31 kW
$COP Tj = +7^{\circ}C$	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

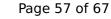




Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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)	





	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
$COP Tj = +7^{\circ}C$	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

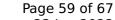




COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
РТО	o w	0 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual 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)	





Prated 9	178 % 9 kW 4.53 -6 °C	125 % 8 kW 3.21 -4 °C
SCOP	4.53 -6 °C	3.21
	-6 °C	
Tbiv -		-4 °C
		l .
TOL -	-10 °C	-10 °C
Pdh Tj = -7 °C	6.79 kW	5.10 kW
$COP Tj = -7^{\circ}C$	2.81	1.86
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	4.78 kW	4.58 kW
$COP Tj = +2^{\circ}C$	4.35	3.35
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.89 kW	2.57 kW
$COP Tj = +7^{\circ}C$	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



Page 60 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	o w	o w
PSB	11 W	11 W
PCK	o w	o 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

COP

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

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

4.68



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

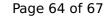




Pdh Tj = Tbiv	8.41 kW	7.65 kW
COP Tj = Tbiv	3.77	2.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.85 kW	6.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.38	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	0 W	0 W
PSB	11 W	11 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

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)	





	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
$COP Tj = -7^{\circ}C$	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
$COP Tj = +7^{\circ}C$	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

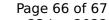




COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.33
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	o w	o w
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	8 kW	7.8 kW
Annual energy consumption 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)	





Prated 9	178 % 9 kW 4.53	125 % 8 kW 3.21
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
$COP Tj = -7^{\circ}C$	2.81	1.86
Cdh Tj = -7 °C	1	1
Pdh Tj = $+2$ °C	4.78 kW	4.58 kW
$COP Tj = +2^{\circ}C$	4.35	3.35
Cdh Tj = +2 °C	0.99	0.99
$Pdh Tj = +7^{\circ}C$	2.89 kW	2.57 kW
$COP Tj = +7^{\circ}C$	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



Page 67 of 67

This information was generated by the HP KEYMARK database on 23 Jun 2022

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
РТО	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	2.80 kW	5.40 kW
Annual energy consumption Qhe	4103 kWh	5147 kWh