

Login

<u>Logiii</u>				
Summary of	VWL 37/5 230V / VWL 37/5 230V S2 / VWL 39/5 230V / VWL 39/5 230V S2 / VWL 57/5 230V, VWL 57/5 230V S2, VWL 59/5 230V / VWL 59/5 230V S2	Reg. No.	40048836	
Certificate H	older	<u> </u>		
Name	Vaillant Deutschland GmbH & Co KG			
Address	Berghauser Straße 40 Zip 42859			
City	Remscheid	Country	Germany	
Certification Body	VDE Prüf- und Zertifizierungsinstitut GmbH			
Subtype title	VWL 37/5 230V / VWL 37/5 230V S2 / VWL 39/5 230V / VWL 39/5 230V S2 / VWL 57/5 230V, VWL 57/5 230V S2, VWL 59/5 230V / VWL 59/5 230V S2			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	1.4 kg			
Certification Date	17.09.2018			
Testing basis	DIN EN 14825:2016-10; EN 14825:2016 DIN EN 16147:2017-08; EN 16147 EN 12102:2013-10; EN 12102:2013	:2017+A	C:2017 DIN	



Model: VWL 37/5 230V

Configure model		
Model name	VWL 37/5 230V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

	Low temperature	Medium temperature	
Heat output	4.92 kW	4.73 kW	
El input	1.15 kW	1.79 kW	
СОР	4.46	2.69	

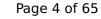
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	183 %	130 %
Prated	4.00 kW	3.60 kW
SCOP	4.64	3.31
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.60 kW	3.24 kW
COP Tj = -7°C	3.15	2.11
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2^{\circ}$ C	2.31 kW	2.04 kW
COP Tj = +2°C	4.53	3.21
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.27 kW	2.06 kW
COP Tj = +7°C	5.84	4.30
Cdh Tj = +7 °C	0.980	0.980





Pdh Tj = 12°C	2.75 kW	2.53 kW
COP Tj = 12°C	7.88	6.18
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.60 kW	3.24 kW
COP Tj = Tbiv	3.15	2.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.32 kW	2.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.68 kW	0.74 kW
Annual energy consumption Qhe	1781 kWh	2246 kWh
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Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	212 %	139 %
Prated	3.90 kW	3.80 kW
SCOP	5.38	3.56
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.93 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.51 kW	2.44 kW
COP Tj = +7°C	5.29	3.31
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.970	0.980





Pdh Tj = Tbiv	3.93 kW	3.80 kW
COP Tj = Tbiv	3.68	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.93 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	969 kWh	1428 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{S}	156 %	109 %
Prated	3.85 kW	3.01 kW
SCOP	3.96	2.79
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.43 kW	1.89 kW
COP Tj = -7°C	3.49	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	1.98 kW	1.75 kW
COP Tj = +2°C	4.79	3.46
Cdh Tj = $+2$ °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.31 kW	2.12 kW
$COP Tj = +7^{\circ}C$	6.16	4.69
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.57 kW
COP Tj = 12°C	7.83	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.49 kW
COP Tj = Tbiv	2.77	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.36 kW	2.49 kW



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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.85 kW	3.01 kW
Annual energy consumption Qhe	2394 kWh	2661 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		



Model: VWL 39/5 230V

Configure model		
Model name VWL 39/5 230V		
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

COP

4.46

LN 14311-2		
	Low temperature	Medium temperature
Heat output	4.92 kW	4.73 kW
El input	1.15 kW	1.79 kW

2.69

FN 14511-2

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	183 %	130 %
Prated	4.00 kW	3.60 kW
SCOP	4.64	3.31
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.60 kW	3.24 kW
COP Tj = -7°C	3.15	2.11
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2^{\circ}$ C	2.31 kW	2.04 kW
COP Tj = +2°C	4.53	3.21
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.27 kW	2.06 kW
COP Tj = +7°C	5.84	4.30
Cdh Tj = +7 °C	0.980	0.980



This information was general	· ,	
Pdh Tj = 12°C	2.75 kW	2.53 kW
COP Tj = 12°C	7.88	6.18
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.60 kW	3.24 kW
COP Tj = Tbiv	3.15	2.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.32 kW	2.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.68 kW	0.74 kW
Annual energy consumption Qhe	1781 kWh	2246 kWh

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	212 %	139 %
Prated	3.90 kW	3.80 kW
SCOP	5.38	3.56
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	3.93 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	2.51 kW	2.44 kW
$COPTj = +7^{\circ}C$	5.29	3.31
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.970	0.980



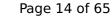


Pdh Tj = Tbiv	3.93 kW	3.80 kW
COP Tj = Tbiv	3.68	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.93 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	969 kWh	1428 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{S}	156 %	109 %
Prated	3.85 kW	3.01 kW
SCOP	3.96	2.79
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.43 kW	1.89 kW
COP Tj = -7°C	3.49	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	1.98 kW	1.75 kW
COP Tj = +2°C	4.79	3.46
Cdh Tj = $+2$ °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.31 kW	2.12 kW
$COP Tj = +7^{\circ}C$	6.16	4.69
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.57 kW
COP Tj = 12°C	7.83	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.49 kW
COP Tj = Tbiv	2.77	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.36 kW	2.49 kW



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.85 kW	3.01 kW
Annual energy consumption Qhe	2394 kWh	2661 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		

Domestic Hot Water (DHW)

Average Climate

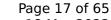


EN 16147		
Declared load profile	XL	
Efficiency ηDHW	102 %	
СОР	2.51	
Heating up time	03:49 h:min	
Standby power input	20.0 W	
Mixed water at 40°C	276	
Reference hot water temperature	55.0 °C	

Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	125 %	
СОР	3.06	
Heating up time	02:42 h:min	
Standby power input	19.0 W	
Mixed water at 40°C	275 I	
Reference hot water temperature	55.0 °C	

Colder Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	90 %	
СОР	2.22	
Heating up time	04:39 h:min	
Standby power input	21.0 W	
Mixed water at 40°C	265 I	
Reference hot water temperature	55.0 °C	



Model: VWL 37/5 230V S2

Configure model		
Model name	VWL 37/5 230V S2	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

	General Data	
Power supply	1x230V 50Hz	

EN 14511-2

Heating

Low temperature	Medium temperature
4.92 kW	4.73 kW

Heat output	4.92 kW	4.73 kW
El input	1.15 kW	1.79 kW
СОР	4.46	2.69

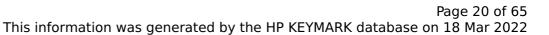
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	127 %
Prated	4.00 kW	3.60 kW
SCOP	4.54	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.60 kW	3.24 kW
COP Tj = -7°C	3.15	2.11
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.31 kW	2.04 kW
COP Tj = +2°C	4.53	3.21
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.27 kW	2.06 kW
COP Tj = +7°C	5.84	4.30
Cdh Tj = +7 °C	0.980	0.980





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2.75 kW	2.53 kW
7.88	6.18
0.970	0.980
3.60 kW	3.24 kW
3.15	2.11
3.32 kW	2.86 kW
2.86	1.82
0.990	0.990
55 °C	55 °C
11 W	11 W
11 W	11 W
11 W	11 W
0 W	0 W
Electricity	Electricity
0.68 kW	0.74 kW
1821 kWh	2286 kWh
	7.88 0.970 3.60 kW 3.15 3.32 kW 2.86 0.990 55 °C 11 W 11 W 11 W 0 W Electricity 0.68 kW

Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	202 %	135 %
Prated	3.90 kW	3.80 kW
SCOP	5.13	3.44
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.93 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.51 kW	2.44 kW
$COP Tj = +7^{\circ}C$	5.29	3.31
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.970	0.980



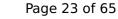


Pdh Tj = Tbiv 3.93 kW 3.80 kW COP Tj = Tbiv 3.68 2.46 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 3.93 kW 3.80 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 3.68 2.46 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 0.990 0.990 WTOL 55 °C 55 °C Poff 11 W 11 W PTO 11 W 11 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 1015 kWh 1477 kWh			
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = Tbiv	3.93 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	3.68	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.93 kW	3.80 kW
WTOL 55 °C 55 °C Poff 11 W 11 W PTO 11 W 11 W PSB 11 W 11 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.46
Poff 11 W 11 W PTO 11 W 11 W PSB 11 W 11 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
PTO 11 W 11 W PSB 11 W 0 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	55 °C	55 °C
PSB 11 W 11 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	11 W	11 W
PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	11 W	11 W
Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	11 W	11 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	o w	o w
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 1015 kWh 1477 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	1015 kWh	1477 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	154 %	108 %
Prated	3.85 kW	3.01 kW
SCOP	3.92	2.76
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7 °C	2.43 kW	1.89 kW
COP Tj = -7°C	3.49	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	1.98 kW	1.75 kW
$COP Tj = +2^{\circ}C$	4.79	3.46
Cdh Tj = $+2$ °C	0.980	0.980
Pdh Tj = $+7$ °C	2.31 kW	2.12 kW
$COP Tj = +7^{\circ}C$	6.16	4.69
Cdh Tj = $+7$ °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.57 kW
COP Tj = 12°C	7.83	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.49 kW
COP Tj = Tbiv	2.77	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.36 kW	2.49 kW



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This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.85 kW	3.01 kW
Annual energy consumption Qhe	2419 kWh	2686 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		



Model: VWL 39/5 230V S2

Configure model		
Model name	VWL 39/5 230V S2	
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

COP

4.46

	Low temperature	Medium temperature	
Heat output	4.92 kW	4.73 kW	
El input	1.15 kW	1.79 kW	

2.69

EN 14511-2

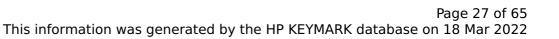
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	127 %
Prated	4.00 kW	3.60 kW
SCOP	4.54	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.60 kW	3.24 kW
COP Tj = -7°C	3.15	2.11
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.31 kW	2.04 kW
COP Tj = +2°C	4.53	3.21
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.27 kW	2.06 kW
COP Tj = +7°C	5.84	4.30
Cdh Tj = +7 °C	0.980	0.980





Pdh Tj = 12°C	2.75 kW	2.53 kW
COP Tj = 12°C	7.88	6.18
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.60 kW	3.24 kW
COP Tj = Tbiv	3.15	2.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.32 kW	2.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.68 kW	0.74 kW
Annual energy consumption Qhe	1821 kWh	2286 kWh

Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	202 %	135 %
Prated	3.90 kW	3.80 kW
SCOP	5.13	3.44
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.93 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.51 kW	2.44 kW
$COP Tj = +7^{\circ}C$	5.29	3.31
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.970	0.980



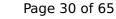


Pdh Tj = Tbiv	3.93 kW	3.80 kW
COP Tj = Tbiv	3.68	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.93 kW	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	1015 kWh	1477 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	154 %	108 %
Prated	3.85 kW	3.01 kW
SCOP	3.92	2.76
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7 °C	2.43 kW	1.89 kW
COP Tj = -7°C	3.49	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	1.98 kW	1.75 kW
$COP Tj = +2^{\circ}C$	4.79	3.46
Cdh Tj = $+2$ °C	0.980	0.980
Pdh Tj = $+7$ °C	2.31 kW	2.12 kW
$COP Tj = +7^{\circ}C$	6.16	4.69
Cdh Tj = $+7$ °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.57 kW
COP Tj = 12°C	7.83	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.49 kW
COP Tj = Tbiv	2.77	1.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.36 kW	2.49 kW

Inis information was genera	ated by the HP KEYMAI	RK database on 18 Mar 2022
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.85 kW	3.01 kW
Annual energy consumption Qhe	2419 kWh	2686 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL<-20°C)		
Cdh Tj = -15 °C		

Domestic Hot Water (DHW)

Average Climate

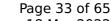


EN 16147		
Declared load profile	XL	
Efficiency ηDHW	102 %	
СОР	2.51	
Heating up time	03:49 h:min	
Standby power input	20.0 W	
Reference hot water temperature	55.0 °C	
Mixed water at 40°C	276	

Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	125 %	
СОР	3.06	
Heating up time	02:42 h:min	
Standby power input	19.0 W	
Reference hot water temperature	55.0 °C	
Mixed water at 40°C	275 I	

Colder Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	90 %	
СОР	2.22	
Heating up time	04:39 h:min	
Standby power input	21.0 W	
Reference hot water temperature	55.0 °C	
Mixed water at 40°C	265 I	

Model: VWL 57/5 230V

Configure model		
Model name	VWL 57/5 230V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

EN 14511-2

Heating

Low temperature	Medium temperature	
4.92 kW	4.73 kW	

EN 14511-4		
СОР	4.46	2.69
COD	4.46	2.60
El input	1.15 kW	1.79 kW
Heat output	4.92 kW	4.73 kW

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	185 %	135 %
Prated	6.40 kW	4.90 kW
SCOP	4.71	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.73 kW	4.38 kW
COP Tj = -7°C	2.93	2.12
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.55 kW	2.74 kW
COP Tj = +2°C	4.64	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.08 kW
COP Tj = +7°C	6.10	4.40
Cdh Tj = +7 °C	0.970	0.980



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This information was generated by the HP KEYMARK database on 18 Mar 2022

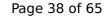
Pdh Tj = 12°C	2.77 kW	2.54 kW
COP Tj = 12°C	8.17	6.23
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	5.73 kW	4.38 kW
COP Tj = Tbiv	2.93	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.99 kW	3.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	0.99 kW
Annual energy consumption Qhe	2807 kWh	2941 kWh

Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	235 %	161 %
Prated	3.90 kW	3.90 kW
SCOP	5.94	4.09
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.97 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.48 kW	2.33 kW
COP Tj = +7°C	5.32	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.97	0.98





3	3.83 kW 2.44
7 kW	
	3.83 kW
3	2.44
9	0.99
°C	55 °C
N	11 W
N	11 W
N	11 W
	0 W
tricity	Electricity
) kW	0.00 kW
kWh	1274 kWh
	ricity

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	149 %	113 %
Prated	5.56 kW	4.69 kW
SCOP	3.79	2.90
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7° C	3.25 kW	2.73 kW
COP Tj = -7° C	3.51	2.55
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	2.00 kW	1.77 kW
$COP Tj = +2^{\circ}C$	4.93	3.57
Cdh Tj = $+2$ °C	0.980	0.980
Pdh Tj = $+7$ °C	2.35 kW	2.13 kW
$COP Tj = +7^{\circ}C$	6.34	4.76
Cdh Tj = $+7$ °C	0.970	0.980
Pdh Tj = 12°C	2.75 kW	2.57 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.58 kW	3.85 kW
COP Tj = Tbiv	2.56	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.58 kW	3.85 kW



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This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.60 kW	4.69 kW
Annual energy consumption Qhe	3612 kWh	3989 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		

Model: VWL 59/5 230V

Configure model		
Model name	VWL 59/5 230V	
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

COP

4.46

EN 14511-2		
Low temperature Medium temperature		
Heat output	4.92 kW	4.73 kW
El input	1.15 kW	1.79 kW

2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	185 %	135 %
Prated	6.40 kW	4.90 kW
SCOP	4.71	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.73 kW	4.38 kW
COP Tj = -7°C	2.93	2.12
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.55 kW	2.74 kW
COP Tj = +2°C	4.64	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.08 kW
COP Tj = +7°C	6.10	4.40
Cdh Tj = +7 °C	0.970	0.980





Pdh Tj = 12° C 2.77 kW 2.54 kW 6.23 $COP Tj = 12^{\circ}C$ 8.17 Cdh Tj = +12 °C 0.970 0.980 Pdh Tj = Tbiv5.73 kW 4.38 kW COP Tj = Tbiv 2.93 2.12 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 4.99 kW 3.91 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 1.85 2.62 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 0.990 1.000 WTOL 55 °C 55 °C Poff 11 W 11 W PTO 11 W 11 W **PSB** 11 W 11 W **PCK** 0 W 0 W

Electricity

1.40 kW

2807 kWh

Electricity

0.99 kW

2941 kWh

Warmer Climate

Supplementary Heater: PSUP

Annual energy consumption Qhe

Supplementary Heater: Type of energy input



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	235 %	161 %
Prated	3.90 kW	3.90 kW
SCOP	5.94	4.09
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.97 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.48 kW	2.33 kW
COP Tj = +7°C	5.32	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.97	0.98





Pdh Tj = Tbiv	3.97 kW	3.83 kW
COP Tj = Tbiv	3.68	2.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.97 kW	3.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.44
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	877 kWh	1274 kWh

Colder Climate

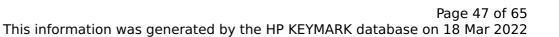
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	49 dB(A)	49 dB(A)
Sound power level outdoor	- dB(A)	- dB(A)

EN 14825





This information was general	Low temperature	Medium temperature
ης	149 %	113 %
Prated	5.56 kW	4.69 kW
SCOP	3.79	2.90
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	3.25 kW	2.73 kW
COP Tj = -7° C	3.51	2.55
Cdh Tj = -7 $^{\circ}$ C	0.990	0.990
Pdh $Tj = +2$ °C	2.00 kW	1.77 kW
COP Tj = +2°C	4.93	3.57
Cdh Tj = $+2$ °C	0.980	0.980
Pdh $Tj = +7$ °C	2.35 kW	2.13 kW
$COP Tj = +7^{\circ}C$	6.34	4.76
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.75 kW	2.57 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.58 kW	3.85 kW
COP Tj = Tbiv	2.56	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.58 kW	3.85 kW





COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.60 kW	4.69 kW
Annual energy consumption Qhe	3612 kWh	3989 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		

Domestic Hot Water (DHW)

Average Climate

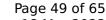


EN 16147	
Declared load profile	XL
Efficiency ηDHW	102 %
СОР	2.51
Heating up time	03:49 h:min
Standby power input	20.0 W
Reference hot water temperature	55.0 °C
Mixed water at 40°C	276

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	125 %
СОР	3.06
Heating up time	02:42 h:min
Standby power input	19.0 W
Reference hot water temperature	55.0 °C
Mixed water at 40°C	275 I

Colder Climate





EN 16147	
Declared load profile	XL
Efficiency ηDHW	90 %
СОР	2.22
Heating up time	04:39 h:min
Standby power input	21.0 W
Reference hot water temperature	55.0 °C
Mixed water at 40°C	265 I



Model: VWL 57/5 230V S2

Configure model	
Model name	VWL 57/5 230V S2
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply 1x230V 50Hz		

EN 14511-2

Heating

temperature	Medium temperature
κW	4.73 kW

	Low temperature	Medium temperature
Heat output	4.92 kW	4.73 kW
El input	1.15 kW	1.79 kW
СОР	4.46	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	183 %	133 %
Prated	6.40 kW	4.90 kW
SCOP	4.64	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.73 kW	4.38 kW
COP Tj = -7°C	2.93	2.12
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.55 kW	2.74 kW
COP Tj = +2°C	4.64	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.08 kW
COP Tj = +7°C	6.10	4.40
Cdh Tj = +7 °C	0.970	0.980



This information was genera	ated by the HP KEYMAI	Page 52 of 65 RK database on 18 Mar 2022
Pdh Tj = 12°C	2.77 kW	2.54 kW
COP Tj = 12°C	8.17	6.23
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	5.73 kW	4.38 kW
COP Tj = Tbiv	2.93	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.99 kW	3.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
	1	

11 W

0 W

Electricity

1.40 kW

2847 kWh

11 W

0 W

Electricity

0.99 kW

2982 kWh

Warmer Climate

Supplementary Heater: PSUP

Annual energy consumption Qhe

Supplementary Heater: Type of energy input

PSB

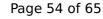
PCK

CEN heat pump KEYMARK



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	222 %	155 %
Prated	3.90 kW	3.90 kW
SCOP	5.63	3.96
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.97 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.48 kW	2.33 kW
COP Tj = +7°C	5.32	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.97	0.98



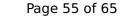


3.97 kW	3.83 kW
3.68	2.44
3.97 kW	3.83 kW
3.68	2.44
0.99	0.99
55 °C	55 °C
11 W	11 W
11 W	11 W
11 W	11 W
o w	0 W
Electricity	Electricity
0.00 kW	0.00 kW
925 kWh	1317 kWh
	3.68 3.97 kW 3.68 0.99 55 °C 11 W 11 W 11 W 0 W Electricity 0.00 kW

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	148 %	112 %
Prated	5.56 kW	4.69 kW
SCOP	3.77	2.88
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7° C	3.25 kW	2.73 kW
$COP Tj = -7^{\circ}C$	3.51	2.55
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2^{\circ}$ C	2.00 kW	1.77 kW
$COPTj = +2^{\circ}C$	4.93	3.57
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.35 kW	2.13 kW
$COPTj = +7^{\circ}C$	6.34	4.76
Cdh Tj = $+7$ °C	0.970	0.980
Pdh Tj = 12°C	2.75 kW	2.57 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.58 kW	3.85 kW
COP Tj = Tbiv	2.56	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	4.58 kW	3.85 kW



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This information was generated by the HP KEYMARK database on 18 Mar 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.60 kW	4.69 kW
Annual energy consumption Qhe	3636 kWh	4013 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		



Model: VWL 59/5 230V S2

Configure model		
Model name	VWL 59/5 230V S2	
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data	
Power supply 1x230V 50Hz	

Heating

COP

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	4.92 kW	4.73 kW	
El input	1.15 kW	1.79 kW	

2.69

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate

4.46



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	183 %	133 %
Prated	6.40 kW	4.90 kW
SCOP	4.64	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.73 kW	4.38 kW
COP Tj = -7°C	2.93	2.12
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.55 kW	2.74 kW
COP Tj = +2°C	4.64	3.39
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.08 kW
COP Tj = +7°C	6.10	4.40
Cdh Tj = +7 °C	0.970	0.980



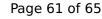
Pdh Tj = 12°C	2.77 kW	2.54 kW
COP Tj = 12°C	8.17	6.23
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	5.73 kW	4.38 kW
COP Tj = Tbiv	2.93	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.99 kW	3.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	0.99 kW
Annual energy consumption Qhe	2847 kWh	2982 kWh

Warmer Climate



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	222 %	155 %
Prated	3.90 kW	3.90 kW
SCOP	5.63	3.96
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.97 kW	3.83 kW
COP Tj = +2°C	3.68	2.44
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.48 kW	2.33 kW
$COP Tj = +7^{\circ}C$	5.32	3.38
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	2.70 kW	2.46 kW
COP Tj = 12°C	7.43	5.48
Cdh Tj = +12 °C	0.97	0.98



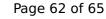


Pdh Tj = Tbiv	3.97 kW	3.83 kW
COP Tj = Tbiv	3.68	2.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.97 kW	3.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.44
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	925 kWh	1317 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	148 %	112 %
Prated	5.56 kW	4.69 kW
SCOP	3.77	2.88
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7° C	3.25 kW	2.73 kW
$COP Tj = -7^{\circ}C$	3.51	2.55
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2^{\circ}$ C	2.00 kW	1.77 kW
$COPTj = +2^{\circ}C$	4.93	3.57
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = $+7^{\circ}$ C	2.35 kW	2.13 kW
$COPTj = +7^{\circ}C$	6.34	4.76
Cdh Tj = $+7$ °C	0.970	0.980
Pdh Tj = 12°C	2.75 kW	2.57 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.58 kW	3.85 kW
COP Tj = Tbiv	2.56	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	4.58 kW	3.85 kW



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	11 W	11 W
РТО	11 W	11 W
PSB	11 W	11 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.60 kW	4.69 kW
Annual energy consumption Qhe	3636 kWh	4013 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		

Domestic Hot Water (DHW)

Average Climate

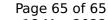


EN 16147	
Declared load profile	XL
Efficiency ηDHW	102 %
СОР	2.51
Heating up time	03:49 h:min
Standby power input	20.0 W
Reference hot water temperature	55.0 °C
Mixed water at 40°C	276

Warmer Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	125 %	
СОР	3.06	
Heating up time	02:42 h:min	
Standby power input	19.0 W	
Reference hot water temperature	55.0 °C	
Mixed water at 40°C	275 I	

Colder Climate





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	90 %	
СОР	2.22	
Heating up time	04:39 h:min	
Standby power input	21.0 W	
Reference hot water temperature	55.0 °C	
Mixed water at 40°C	265 I	