

This information was generated by the HP KEYMARK database on 28 Sep 2022

[Login](#)

Summary of	VWL 85/7.2 AS 230V S3 / VWL 105/7.2 AS 230V S3	Reg. No.	011-1W0554
Certificate Holder			
Name	Vaillant Deutschland GmbH & Co KG		
Address	Berghauser Straße 40	Zip	42859
City	Remscheid	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	VWL 85/7.2 AS 230V S3 / VWL 105/7.2 AS 230V S3		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.6 kg		
Certification Date	26.09.2022		
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 10 (as of 2022-06)		

Model: VWL 105/7.2 AS 230V S3 + VWL 108/7.2 IS

Configure model	
Model name	VWL 105/7.2 AS 230V S3 + VWL 108/7.2 IS
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C and +18°C/+23°C

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.85 kW	7.40 kW
El input	2.11 kW	2.32 kW
COP	4.68	3.19

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

Cooling

This information was generated by the HP KEYMARK database on 28 Sep 2022

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.00 kW	1.90 kW
Cooling capacity	7.32	7.16
EER	2.44	3.76

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.69 kW	8.44 kW
SEER	3.97	5.94
P _{dc} T _j = 35°C	7.69 kW	8.44 kW
EER T _j = 35°C	2.39	3.61
C _{dc} T _j = 35 °C	1.000	1.000
P _{dc} T _j = 30°C	5.34 kW	5.98 kW
EER T _j = 30°C	3.43	5.01
C _{dc} T _j = 30 °C	1.000	1.000
P _{dc} T _j = 25°C	3.32 kW	4.48 kW
EER T _j = 25°C	4.44	6.84
C _{dc} T _j = 25 °C	0.975	0.972
P _{dc} T _j = 20°C	3.65 kW	4.82 kW
EER T _j = 20°C	5.50	8.57
C _{dc} T _j = 20 °C	0.972	0.967
P _{off}	15 W	15 W
P _{TO}	20 W	20 W
P _{SB}	15 W	15 W
P _{CK}	0 W	0 W
Annual energy consumption Q _{ce}	1161 kWh	853 kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	225 %	162 %
Prated	8.03 kW	7.39 kW
SCOP	5.71	4.12
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.03 kW	7.39 kW
COP Tj = +2°C	3.35	2.08
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	5.51 kW	5.16 kW
COP Tj = +7°C	5.21	3.50
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.41 kW	5.40 kW
COP Tj = 12°C	7.05	5.55
Cdh Tj = +12 °C	0.97	0.98

This information was generated by the HP KEYMARK database on 28 Sep 2022

Pdh Tj = Tbiv	8.03 kW	7.39 kW
COP Tj = Tbiv	3.35	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.03 kW	7.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 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	1878 kWh	2396 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	Low temperature	Medium temperature
η_s	144 %	106 %
Prated	6.86 kW	8.14 kW
SCOP	3.69	2.72
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.31 kW	4.73 kW
COP Tj = -7°C	3.00	2.20
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	3.62 kW	3.34 kW
COP Tj = +2°C	4.54	3.48
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	4.44 kW	4.42 kW
COP Tj = +7°C	6.02	5.02
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	5.08 kW	5.18 kW
COP Tj = 12°C	7.37	5.62
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.60 kW	6.64 kW
COP Tj = Tbiv	2.20	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.80 kW	6.64 kW

This information was generated by the HP KEYMARK database on 28 Sep 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.86 kW	8.14 kW
Annual energy consumption Qhe	4587 kWh	7362 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.60	6.64
COP Tj = -15°C (if TOL<-20°C)	2.20	1.72
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	Low temperature	Medium temperature
η_s	178 %	130 %
Prated	7.75 kW	8.35 kW
SCOP	4.51	3.34
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	7.38 kW
COP Tj = -7°C	2.80	2.24
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	4.10 kW	4.39 kW
COP Tj = +2°C	4.43	3.10
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.47 kW	4.45 kW
COP Tj = +7°C	6.09	4.51
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	5.12 kW	5.34 kW
COP Tj = 12°C	7.95	6.07
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.86 kW	7.38 kW
COP Tj = Tbiv	2.80	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.08 kW	7.07 kW

This information was generated by the HP KEYMARK database on 28 Sep 2022

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.40	1.98
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.67 kW	1.28 kW
Annual energy consumption Qhe	3548 kWh	5170 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	113.9 %
COP	2.72
Heating up time	00:51 h:min
Standby power input	34.9 W
Reference hot water temperature	51.68 °C
Mixed water at 40°C	236.73 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	83 %
COP	2.00
Heating up time	00:57 h:min
Standby power input	40.9 W
Reference hot water temperature	51.45 °C
Mixed water at 40°C	235.28 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	98.5 %
COP	2.36
Heating up time	00:54 h:min
Standby power input	39.0 W
Reference hot water temperature	51.53 °C
Mixed water at 40°C	236.2 l

Model: VWL 105/7.2 AS 230V S3 + VWL 108/7.2 IS C2

Configure model

Model name	VWL 105/7.2 AS 230V S3 + VWL 108/7.2 IS C2
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C and +18°C/+23°C

General Data

Power supply	1x230V 50Hz
--------------	-------------

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	9.85 kW	7.40 kW
El input	2.16 kW	2.37 kW
COP	4.57	3.12

EN 14511-4

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

Cooling

This information was generated by the HP KEYMARK database on 28 Sep 2022

EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	3.05 kW	1.95 kW
Cooling capacity	7.32	7.16
EER	2.40	3.67

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	+7°C/+12°C	+18°C/+23°C
P _{designc}	7.69 kW	8.44 kW
SEER	3.78	5.60
P _{dc} T _j = 35°C	7.69 kW	8.44 kW
EER T _j = 35°C	2.35	3.54
C _{dc} T _j = 35 °C	1.000	1.000
P _{dc} T _j = 30°C	5.34 kW	5.98 kW
EER T _j = 30°C	3.33	4.81
C _{dc} T _j = 30 °C	1.000	1.000
P _{dc} T _j = 25°C	3.32 kW	4.48 kW
EER T _j = 25°C	4.16	6.35
C _{dc} T _j = 25 °C	1.000	0.974
P _{dc} T _j = 20°C	3.65 kW	4.82 kW
EER T _j = 20°C	5.11	7.87
C _{dc} T _j = 20 °C	0.974	0.970
P _{off}	15 W	15 W
P _{TO}	20 W	20 W
P _{SB}	15 W	15 W
P _{CK}	0 W	0 W
Annual energy consumption Q _{ce}	1220 kWh	904 kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	156 %
Prated	8.03 kW	7.39 kW
SCOP	5.43	3.97
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.03 kW	7.39 kW
COP Tj = +2°C	3.28	2.05
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	5.51 kW	5.16 kW
COP Tj = +7°C	4.97	3.39
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	5.41 kW	5.40 kW
COP Tj = 12°C	6.62	5.28
Cdh Tj = +12 °C	0.98	0.98

This information was generated by the HP KEYMARK database on 28 Sep 2022

Pdh Tj = Tbiv	8.03 kW	7.39 kW
COP Tj = Tbiv	3.28	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.03 kW	7.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.28	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 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	1976 kWh	2490 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	Low temperature	Medium temperature
η_s	138 %	102 %
Prated	6.86 kW	8.14 kW
SCOP	3.52	2.64
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.31 kW	4.73 kW
COP Tj = -7°C	2.90	2.15
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	3.62 kW	3.34 kW
COP Tj = +2°C	4.27	3.31
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	4.44 kW	4.42 kW
COP Tj = +7°C	5.64	4.75
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	5.08 kW	5.18 kW
COP Tj = 12°C	6.87	5.33
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	5.60 kW	6.64 kW
COP Tj = Tbiv	2.16	1.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.80 kW	6.64 kW

This information was generated by the HP KEYMARK database on 28 Sep 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.05	1.70
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.86 kW	8.14 kW
Annual energy consumption Qhe	4798 kWh	7612 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.60	6.64
COP Tj = -15°C (if TOL<-20°C)	2.16	1.70
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 28 Sep 2022

	Low temperature	Medium temperature
η_s	169 %	126 %
Prated	7.75 kW	8.35 kW
SCOP	4.30	3.22
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	7.38 kW
COP Tj = -7°C	2.74	2.21
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	4.10 kW	4.39 kW
COP Tj = +2°C	4.20	3.00
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.47 kW	4.45 kW
COP Tj = +7°C	5.70	4.29
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	5.12 kW	5.34 kW
COP Tj = 12°C	7.37	5.74
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	6.86 kW	7.38 kW
COP Tj = Tbiv	2.74	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.08 kW	7.07 kW

This information was generated by the HP KEYMARK database on 28 Sep 2022

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.35	1.96
Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	20 W	20 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.67 kW	1.28 kW
Annual energy consumption Qhe	3729 kWh	5354 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	113.9 %
COP	2.72
Heating up time	00:51 h:min
Standby power input	34.9 W
Reference hot water temperature	51.68 °C
Mixed water at 40°C	236.73 l

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	83 %
COP	2.00
Heating up time	00:57 h:min
Standby power input	40.9 W
Reference hot water temperature	51.45 °C
Mixed water at 40°C	235.28 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	98.5 %
COP	2.36
Heating up time	00:54 h:min
Standby power input	39.0 W
Reference hot water temperature	51.53 °C
Mixed water at 40°C	236.2 l