

Subtype VWL 35/5 AS 230V / VWL 55/5 AS 230V

Certificate Holder	Vaillant GmbH
Address	Berghauser Str. 40
ZIP	42859
City	Remscheid
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	VWL 35/5 AS 230V / VWL 55/5 AS 230V
Registration number	011-1W0756
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	1.5 kg
Certification Date	10.03.2021
Testing basis	DIN EN 14511-1:2019-07; EN 14511-1:2018 ; DIN EN 14511-2:2019-07; EN 14511-2:2018; DIN EN 14511-3:2019-07; EN 14511-3:2018; DIN EN 14511-4:2019-07; EN 14511-4:2018; DIN EN 14825:2019-07; EN 14825:2018; DIN EN 12102-1:2018-02; EN 12102-1:2017

Model VWL 35/5 AS 230V + VWL 57/5 IS

Model name	VWL 35/5 AS 230V + VWL 57/5 IS
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.13 kW	2.73 kW
El input	0.64 kW	1.05 kW
COP	4.89	2.62

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	130 %
P _{rated}	4.00 kW	3.51 kW
SCOP	4.70	3.33
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7 °C	3.54 kW	3.10 kW
COP T _j = -7 °C	3.19	2.08
C _{dh T_j} = -7 °C	0.990	0.990
P _{dh T_j} = +2 °C	2.18 kW	2.04 kW
COP T _j = +2 °C	4.50	3.26
C _{dh T_j} = +2 °C	0.980	0.980

Pdh Tj = +7°C	2.32 kW	2.02 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.44 kW
COP Tj = 12°C	8.42	5.86
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.54 kW	3.10 kW
COP Tj = Tbiv	3.19	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.24 kW	2.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	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
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	0.76 kW	0.76 kW
Annual energy consumption Qhe	1758 kWh	2177 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155 %	107 %
Prated	3.91 kW	2.82 kW
SCOP	3.96	2.76
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.36 kW	1.78 kW
COP Tj = -7°C	3.44	2.32
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.96 kW	1.70 kW
COP Tj = +2°C	4.80	3.54
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.34 kW	2.09 kW
COP Tj = +7°C	6.54	4.79
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.43 kW
COP Tj = 12°C	8.00	6.07

Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.30 kW
COP Tj = Tbiv	2.80	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.22 kW	2.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.72
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	3.91 kW	2.82 kW
Annual energy consumption Qhe	2439 kWh	2517 kWh
Pdh Tj = -15°C (if TOL	2.22	2.30
COP Tj = -15°C (if TOL	2.17	1.72
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	253 %	156 %
Prated	3.76 kW	3.31 kW
SCOP	6.41	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.31 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.31 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.31 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	783 kWh	1111 kWh

Model VWL 35/5 AS 230V + VWL 58/5 IS

Model name	VWL 35/5 AS 230V + VWL 58/5 IS
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	02:32 h:min
Standby power input	80.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	246 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	84 %
COP	2.55
Heating up time	03:00 h:min
Standby power input	80.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	246 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	115 %
COP	2.88
Heating up time	02:06 h:min
Standby power input	80.0 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	242 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.13 kW	2.73 kW
El input	0.64 kW	1.05 kW
COP	4.89	2.62

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	130 %
Prated	4.00 kW	3.51 kW
SCOP	4.70	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.54 kW	3.10 kW
COP Tj = -7°C	3.19	2.08
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.18 kW	2.04 kW
COP Tj = +2°C	4.50	3.26
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.32 kW	2.02 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.44 kW
COP Tj = 12°C	8.42	5.86
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.54 kW	3.10 kW
COP Tj = Tbiv	3.19	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.24 kW	2.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	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
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	0.76 kW	0.76 kW
Annual energy consumption Qhe	1758 kWh	2177 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	155 %	107 %
Prated	3.91 kW	2.82 kW
SCOP	3.96	2.76
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.36 kW	1.78 kW
COP Tj = -7°C	3.44	2.32
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.96 kW	1.70 kW
COP Tj = +2°C	4.80	3.54
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.34 kW	2.09 kW
COP Tj = +7°C	6.54	4.79
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.43 kW
COP Tj = 12°C	8.00	6.07
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.30 kW
COP Tj = Tbiv	2.80	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.22 kW	2.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.72
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	3.91 kW	2.82 kW
Annual energy consumption Qhe	2439 kWh	2517 kWh
Pdh Tj = -15°C (if TOL)	2.22	2.30

COP Tj = -15°C (if TOL	2.17	1.72
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	253 %	156 %
Prated	3.76 kW	3.31 kW
SCOP	6.41	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.31 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.31 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	783 kWh	1111 kWh

Model VWL 35/5 AS 230V S2 + VWL 57/5 IS

Model name	VWL 35/5 AS 230V S2 + VWL 57/5 IS
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.13 kW	2.73 kW
EI input	0.64 kW	1.05 kW
COP	4.89	2.62

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	128 %
Prated	4.00 kW	3.51 kW
SCOP	4.60	3.27
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.54 kW	3.10 kW
COP Tj = -7°C	3.19	2.08
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.18 kW	2.04 kW
COP Tj = +2°C	4.50	3.26
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.32 kW	2.02 kW

COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.44 kW
COP Tj = 12°C	8.42	5.86
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.54 kW	3.10 kW
COP Tj = Tbiv	3.19	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.24 kW	2.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	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
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	0.76 kW	0.76 kW
Annual energy consumption Qhe	1798 kWh	2217 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154 %	106 %
Prated	3.91 kW	2.82 kW
SCOP	3.92	2.73
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.36 kW	1.78 kW
COP Tj = -7°C	3.44	2.32
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.96 kW	1.70 kW
COP Tj = +2°C	4.80	3.54
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.34 kW	2.09 kW
COP Tj = +7°C	6.54	4.79
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.43 kW
COP Tj = 12°C	8.00	6.07
Cdh Tj = +12 °C	0.970	0.970

Pdh Tj = Tbiv	2.99 kW	2.30 kW
COP Tj = Tbiv	2.80	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.22 kW	2.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.72
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	3.91 kW	2.82 kW
Annual energy consumption Qhe	2463 kWh	2541 kWh
Pdh Tj = -15°C (if TOL)	2.22	2.30
COP Tj = -15°C (if TOL)	2.17	1.72
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	238 %	150 %
Prated	3.76 kW	3.31 kW
SCOP	6.04	3.81
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.31 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.31 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.31 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	831 kWh	1159 kWh

Model VWL 35/5 AS 230V S2 + VWL 58/5 IS

Model name	VWL 35/5 AS 230V S2 + VWL 58/5 IS
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	02:32 h:min
Standby power input	80.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	246 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	84 %
COP	2.55
Heating up time	03:00 h:min
Standby power input	80.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	246 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	115 %
COP	2.88
Heating up time	02:06 h:min
Standby power input	80.0 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	242 l

EN 14511-4 | Heating

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

Starting and operating test passed

	Low temperature	Medium temperature
Heat output	3.13 kW	2.73 kW
El input	0.64 kW	1.05 kW
COP	4.89	2.62
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
η_s	181 %	128 %
Prated	4.00 kW	3.51 kW
SCOP	4.60	3.27
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.54 kW	3.10 kW
COP Tj = -7°C	3.19	2.08
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.18 kW	2.04 kW
COP Tj = +2°C	4.50	3.26
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.32 kW	2.02 kW
COP Tj = +7°C	6.15	4.36
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.74 kW	2.44 kW
COP Tj = 12°C	8.42	5.86
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	3.54 kW	3.10 kW
COP Tj = Tbiv	3.19	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.24 kW	2.75 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	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
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	0.76 kW	0.76 kW
Annual energy consumption Qhe	1798 kWh	2217 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
η_s	154 %	106 %
Prated	3.91 kW	2.82 kW
SCOP	3.92	2.73
Tbiv	-13 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.36 kW	1.78 kW
COP Tj = -7°C	3.44	2.32
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.96 kW	1.70 kW
COP Tj = +2°C	4.80	3.54
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.34 kW	2.09 kW
COP Tj = +7°C	6.54	4.79
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.43 kW
COP Tj = 12°C	8.00	6.07
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	2.99 kW	2.30 kW
COP Tj = Tbiv	2.80	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.22 kW	2.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	1.72
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	3.91 kW	2.82 kW
Annual energy consumption Qhe	2463 kWh	2541 kWh
Pdh Tj = -15°C (if TOL)	2.22	2.30

COP Tj = -15°C (if TOL	2.17	1.72
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	51 dB(A)	53 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	238 %	150 %
Prated	3.76 kW	3.31 kW
SCOP	6.04	3.81
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.31 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.31 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	831 kWh	1159 kWh

Model VWL 55/5 AS 230V + VWL 58/5 IS

Model name	VWL 55/5 AS 230V + VWL 58/5 IS
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	02:32 h:min
Standby power input	80.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	246 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	84 %
COP	2.55
Heating up time	03:00 h:min
Standby power input	80.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	246 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	115 %
COP	2.88
Heating up time	02:06 h:min
Standby power input	80.0 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	242 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.42 kW	3.69 kW
El input	0.95 kW	1.38 kW
COP	4.68	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	135 %
Prated	5.22 kW	5.24 kW
SCOP	4.44	3.46
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.83 kW	4.33 kW
COP Tj = -7°C	2.71	2.00
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	2.67 kW	2.57 kW
COP Tj = +2°C	4.26	3.36
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.30 kW	2.09 kW
COP Tj = +7°C	6.06	4.67
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.71 kW	2.52 kW
COP Tj = 12°C	8.39	6.41
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.61 kW	4.63 kW
COP Tj = Tbiv	2.64	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.81
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	0.32 kW	1.54 kW
Annual energy consumption Qhe	2427 kWh	3129 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	158 %	110 %
Prated	5.19 kW	4.00 kW
SCOP	4.02	2.83
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.96 kW	2.44 kW
COP Tj = -7°C	3.41	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.97 kW	1.72 kW
COP Tj = +2°C	4.87	3.56
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.36 kW	2.11 kW
COP Tj = +7°C	6.57	4.89
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.52 kW
COP Tj = 12°C	8.00	6.71
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.24 kW	3.26 kW
COP Tj = Tbiv	2.42	1.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.11	1.68
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	5.19 kW	4.00 kW
Annual energy consumption Qhe	3182 kWh	3485 kWh
Pdh Tj = -15°C (if TOL)	3.30	3.26

COP Tj = -15°C (if TOL	2.11	1.68
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	253 %	156 %
Prated	3.76 kW	3.30 kW
SCOP	6.41	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.30 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.30 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	783 kWh	1108 kWh

Model VWL 55/5 AS 230V + VWL 57/5 IS

Model name	VWL 55/5 AS 230V + VWL 57/5 IS
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.42 kW	3.69 kW
El input	0.95 kW	1.38 kW
COP	4.68	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	175 %	135 %
Prated	5.22 kW	5.24 kW
SCOP	4.44	3.46
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.83 kW	4.33 kW
COP Tj = -7°C	2.71	2.00
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	2.67 kW	2.57 kW
COP Tj = +2°C	4.26	3.36
Cdh Tj = +2 °C	0.980	0.990

Pdh Tj = +7°C	2.30 kW	2.09 kW
COP Tj = +7°C	6.06	4.67
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.71 kW	2.52 kW
COP Tj = 12°C	8.39	6.41
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.61 kW	4.63 kW
COP Tj = Tbiv	2.64	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.81
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	0.32 kW	1.54 kW
Annual energy consumption Qhe	2427 kWh	3129 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	158 %	110 %
Prated	5.19 kW	4.00 kW
SCOP	4.02	2.83
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.96 kW	2.44 kW
COP Tj = -7°C	3.41	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.97 kW	1.72 kW
COP Tj = +2°C	4.87	3.56
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.36 kW	2.11 kW
COP Tj = +7°C	6.57	4.89
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.52 kW
COP Tj = 12°C	8.00	6.71

Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.24 kW	3.26 kW
COP Tj = Tbiv	2.42	1.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.11	1.68
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	5.19 kW	4.00 kW
Annual energy consumption Qhe	3182 kWh	3485 kWh
Pdh Tj = -15°C (if TOL	3.30	3.26
COP Tj = -15°C (if TOL	2.11	1.68
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	253 %	156 %
Prated	3.76 kW	3.30 kW
SCOP	6.41	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.76 kW	3.30 kW
COP Tj = +2°C	3.69	2.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.25 kW	2.06 kW
COP Tj = +7°C	5.81	3.36
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.70 kW	2.41 kW
COP Tj = 12°C	8.08	5.31
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	3.76 kW	3.30 kW
COP Tj = Tbiv	3.69	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.76 kW	3.30 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.69	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	783 kWh	1108 kWh

Model VWL 55/5 AS 230V S2 + VWL 58/5 IS

Model name	VWL 55/5 AS 230V S2 + VWL 58/5 IS
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	02:32 h:min
Standby power input	80.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	246 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	84 %
COP	2.55
Heating up time	03:00 h:min
Standby power input	80.0 W
Reference hot water temperature	46.9 °C
Mixed water at 40°C	246 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	115 %
COP	2.88
Heating up time	02:06 h:min
Standby power input	80.0 W
Reference hot water temperature	50.5 °C
Mixed water at 40°C	242 l

EN 14511-4 | Heating

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

Starting and operating test	passed	
EN 14511-2 Heating		
Heat output	Low temperature 4.42 kW	Medium temperature 3.69 kW
El input	0.95 kW	1.38 kW
COP	4.68	2.67
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature 43 dB(A)	Medium temperature 43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)
EN 14825 Average Climate		
ηs	Low temperature 172 %	Medium temperature 134 %
Prated	5.22 kW	5.24 kW
SCOP	4.37	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.83 kW	4.33 kW
COP Tj = -7°C	2.71	2.00
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	2.67 kW	2.57 kW
COP Tj = +2°C	4.26	3.36
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.30 kW	2.09 kW
COP Tj = +7°C	6.06	4.67
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.71 kW	2.52 kW
COP Tj = 12°C	8.39	6.41
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.61 kW	4.63 kW
COP Tj = Tbiv	2.64	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.81
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	0.32 kW	1.54 kW
Annual energy consumption Qhe	2467 kWh	3169 kWh
EN 12102-1 Colder Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	157 %	109 %
Prated	5.19 kW	4.00 kW
SCOP	3.99	2.81
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.96 kW	2.44 kW
COP Tj = -7°C	3.41	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.97 kW	1.72 kW
COP Tj = +2°C	4.87	3.56
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.36 kW	2.11 kW
COP Tj = +7°C	6.57	4.89
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.52 kW
COP Tj = 12°C	8.00	6.71
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.24 kW	3.26 kW
COP Tj = Tbiv	2.42	1.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.11	1.68
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	5.19 kW	4.00 kW
Annual energy consumption Qhe	3206 kWh	3509 kWh
Pdh Tj = -15°C (if TOL)	3.30	3.26

COP Tj = -15°C (if TOL	2.11	1.68
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 Warmer Climate		
	Low temperature	Medium temperature
ηs	150 %	238 %
Prated	3.30 kW	3.76 kW
SCOP	3.81	6.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.30 kW	3.76 kW
COP Tj = +2°C	2.24	3.69
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.06 kW	2.25 kW
COP Tj = +7°C	3.36	5.81
Cdh Tj = +7 °C	0.98	0.97
Pdh Tj = 12°C	2.41 kW	2.70 kW
COP Tj = 12°C	5.31	8.08
Cdh Tj = +12 °C	0.98	0.97
Pdh Tj = Tbiv	3.30 kW	3.76 kW
COP Tj = Tbiv	2.24	3.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.76 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.24	3.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	1156 kWh	831 kWh

Model VWL 55/5 AS 230V S2 + VWL 57/5 IS

Model name	VWL 55/5 AS 230V S2 + VWL 57/5 IS
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.42 kW	3.69 kW
EI input	0.95 kW	1.38 kW
COP	4.68	2.67

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	172 %	134 %
P _{rated}	5.22 kW	5.24 kW
SCOP	4.37	3.41
T _{biv}	-7 °C	-7 °C
T _{OL}	-10 °C	-10 °C
P _{dh T_j} = -7°C	4.83 kW	4.33 kW
COP T _j = -7°C	2.71	2.00
C _{dh T_j} = -7 °C	0.990	1.000
P _{dh T_j} = +2°C	2.67 kW	2.57 kW
COP T _j = +2°C	4.26	3.36
C _{dh T_j} = +2 °C	0.980	0.990
P _{dh T_j} = +7°C	2.30 kW	2.09 kW

COP Tj = +7°C	6.06	4.67
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.71 kW	2.52 kW
COP Tj = 12°C	8.39	6.41
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	4.61 kW	4.63 kW
COP Tj = Tbiv	2.64	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.81
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	0.32 kW	1.54 kW
Annual energy consumption Qhe	2467 kWh	3169 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	157 %	109 %
Prated	5.19 kW	4.00 kW
SCOP	3.99	2.81
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	2.96 kW	2.44 kW
COP Tj = -7°C	3.41	2.42
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	1.97 kW	1.72 kW
COP Tj = +2°C	4.87	3.56
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.36 kW	2.11 kW
COP Tj = +7°C	6.57	4.89
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	2.68 kW	2.52 kW
COP Tj = 12°C	8.00	6.71
Cdh Tj = +12 °C	0.970	0.970

Pdh Tj = Tbiv	4.24 kW	3.26 kW
COP Tj = Tbiv	2.42	1.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.26 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.11	1.68
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	5.19 kW	4.00 kW
Annual energy consumption Qhe	3206 kWh	3509 kWh
Pdh Tj = -15°C (if TOL)	3.30	3.26
COP Tj = -15°C (if TOL)	2.11	1.68
Cdh Tj = -15 °C	0.990	0.990

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	54 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	150 %	238 %
Prated	3.30 kW	3.76 kW
SCOP	3.81	6.04
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.30 kW	3.76 kW
COP Tj = +2°C	2.24	3.69
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.06 kW	2.25 kW
COP Tj = +7°C	3.36	5.81
Cdh Tj = +7 °C	0.98	0.97
Pdh Tj = 12°C	2.41 kW	2.70 kW
COP Tj = 12°C	5.31	8.08
Cdh Tj = +12 °C	0.98	0.97
Pdh Tj = Tbiv	3.30 kW	3.76 kW
COP Tj = Tbiv	2.24	3.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.30 kW	3.76 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.24	3.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
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	1156 kWh	831 kWh