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Summary of	VWL 85/3 A 230V	Reg. No.	40045831
Certificate Holder			
Name	Vaillant Deutschland GmbH & Co KG		
Address	Berghauser Straße 40	Zip	42859
City	Remscheid	Country	Germany
Certification Body	VDE Testing and Certification Institute GmbH		
Name of testing laboratory	VDE Testing and Certification Institute GmbH		
Subtype title	VWL 85/3 A 230V		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	1.95 kg		

Model: VWL 85/3 A 230V 35 & 55

General Data	
Power supply	1x230V 50Hz

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.71 kW	6.52 kW
El input	1.67 kW	2.34 kW
COP	4.63	2.79
Indoor water flow rate	1.40 m³/h	0.78 m³/h

Average Climate

EN 14825

	Low temperature	**Medium temperature**
η_s	183 %	131 %
Prated	7.70 kW	6.50 kW
SCOP	4.66	3.29
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	6.63 kW	4.90 kW
COP Tj = -7°C	2.66	1.97
Pdh Tj = +2°C	4.31 kW	3.20 kW
COP Tj = +2°C	4.64	3.25
Pdh Tj = +7°C	3.23 kW	3.00 kW
COP Tj = +7°C	6.43	4.69
Pdh Tj = 12°C	3.69 kW	3.40 kW
COP Tj = 12°C	8.88	6.75
Pdh Tj = Tbiv	6.63 kW	4.90 kW
COP Tj = Tbiv	2.66	1.97
Pdh Tj = TOL	6.60 kW	4.10 kW
COP Tj = TOL	2.61	1.89
Cdh	0.99	0.99
WTOL	63 °C	63 °C
Poff	4 W	4 W

PTO	4 W	4 W
PSB	5 W	5 W
PCK	6 W	6 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10492 kWh	7818 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	60 dB(A)	60 dB(A)

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	244 %	185 %
Prated	8.00 kW	6.00 kW
SCOP	6.18	4.70
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	8.30 kW	5.70 kW
COP Tj = +2°C	3.00	2.10

Pdh Tj = +7°C	5.30 kW	3.70 kW
COP Tj = +7°C	4.80	3.70
Pdh Tj = 12°C	3.70 kW	3.40 kW
COP Tj = 12°C	8.90	6.80
Pdh Tj = Tbiv	8.30 kW	5.70 kW
COP Tj = Tbiv	3.00	2.10
Pdh Tj = TOL	8.30 kW	5.70 kW
COP Tj = TOL	3.00	2.10
Cdh	0.99	0.99
WTOL	60 °C	60 °C
Poff	4 W	4 W
PTO	4 W	4 W
PSB	5 W	5 W
PCK	6 W	6 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1789 kWh	1630 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	60 dB(A)	60 dB(A)

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	122 %	104 %
Prated	10.00 kW	6.00 kW
SCOP	3.13	2.68
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.00 kW	4.90 kW
COP Tj = -7°C	2.30	2.00
Pdh Tj = +2°C	3.50 kW	3.20 kW
COP Tj = +2°C	4.60	3.30
Pdh Tj = +7°C	3.20 kW	3.20 kW
COP Tj = +7°C	6.40	4.70
Pdh Tj = 12°C	3.70 kW	3.40 kW
COP Tj = 12°C	8.00	6.80
Pdh Tj = Tbiv	7.00 kW	4.50 kW
COP Tj = Tbiv	2.60	2.00
Pdh Tj = TOL	5.50 kW	4.10 kW
COP Tj = TOL	2.30	1.90
Cdh	0.99	0.99

WTOL	55 °C	55 °C
Poff	4 W	4 W
PTO	4 W	4 W
PSB	5 W	5 W
PCK	6 W	6 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7476 kWh	5619 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	60 dB(A)	60 dB(A)