

## Subtype VWF 157/4

Certificate Holder	Vaillant GmbH
Address	Berghauser Str. 40
ZIP	42859
City	Remscheid
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	VWF 157/4
Registration number	011-1W0752
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	3.05 kg
Certification Date	28.04.2021
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 EN 12102-1:2018-02; EN 12102-1:2017

## Model VWF 157/4

Model name	VWF 157/4
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	n/a

## Brine/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	14.39 kW	14.65 kW
El input	3.07 kW	4.67 kW
COP	4.69	3.14

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	48 dB(A)
Sound power level outdoor	- dB(A)	- dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	196 %	143 %
Prated	14.39 kW	14.65 kW
SCOP	5.09	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.39 kW	14.62 kW
COP Tj = -7°C	4.74	3.25
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	14.36 kW	14.53 kW
COP Tj = +2°C	5.03	3.71
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.33 kW	14.47 kW

COP Tj = +7°C	5.32	4.07
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.30 kW	14.41 kW
COP Tj = 12°C	5.66	4.50
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.39 kW	14.65 kW
COP Tj = Tbiv	4.69	3.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.39 kW	14.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.69	3.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	5843 kWh	8039 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	48 dB(A)
Sound power level outdoor	- dB(A)	- dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	200 %	145 %
Prated	14.39 kW	14.65 kW
SCOP	5.21	3.84
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	14.35 kW	14.55 kW
COP Tj = -7°C	5.08	3.60
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	14.33 kW	14.48 kW
COP Tj = +2°C	5.34	3.99
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.31 kW	14.43 kW
COP Tj = +7°C	5.56	4.36
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.31 kW	14.39 kW
COP Tj = 12°C	5.62	4.69
Cdh Tj = +12 °C	1.00	1.00

Pdh Tj = Tbiv	14.39 kW	14.65 kW
COP Tj = Tbiv	4.69	3.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.39 kW	14.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.69	3.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	6807 kWh	9416 kWh
Cdh Tj = -15 °C	1.00	1.00

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	48 dB(A)
Sound power level outdoor	- dB(A)	- dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	198 %	144 %
Prated	14.39 kW	14.65 kW
SCOP	5.15	3.79
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.39 kW	14.65 kW
COP Tj = +2°C	4.69	3.14
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.36 kW	14.57 kW
COP Tj = +7°C	4.96	3.49
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.32 kW	14.45 kW
COP Tj = 12°C	5.43	4.20
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.39 kW	14.65 kW
COP Tj = Tbiv	4.69	3.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.39 kW	14.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.69	3.14

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	3731 kWh	5160 kWh