

## Subtype VWF 197/4

Certificate Holder	Vaillant Deutschland GmbH & Co KG
Address	Berghauser Straße 40
ZIP	42859
City	Remscheid
Country	DE
Certification Body	VDE Testing and Certification Institute GmbH
Subtype title	VWF 197/4
Registration number	40046302
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	3.95 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 197/4

Model name	VWF 197/4
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 12102-1 | Average Climate

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

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	142 %
Prated	19.62 kW	19.94 kW
SCOP	4.88	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.61 kW	19.91 kW
COP Tj = -7°C	4.59	3.29
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	19.58 kW	19.79 kW
COP Tj = +2°C	4.83	3.70
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	19.54 kW	19.72 kW
COP Tj = +7°C	5.07	4.01
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	19.51 kW	19.65 kW
COP Tj = 12°C	5.33	4.39
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	19.62 kW	19.94 kW
COP Tj = Tbiv	4.54	3.18

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	19.62 kW	19.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.54	3.18
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	8308 kWh	10986 kWh

#### EN 12102-1 | Colder Climate

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

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	191 %	144 %
Prated	19.62 kW	19.94 kW
SCOP	4.98	3.81
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	19.57 kW	19.81 kW
COP Tj = -7°C	4.86	3.61
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	19.54 kW	19.73 kW
COP Tj = +2°C	5.08	3.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	19.52 kW	19.67 kW
COP Tj = +7°C	5.25	4.27
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	19.51 kW	19.62 kW
COP Tj = 12°C	5.30	4.54
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	19.62 kW	19.94 kW
COP Tj = Tbiv	4.54	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	19.62 kW	19.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.54	3.18

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	9713 kWh	12894 kWh
Cdh Tj = -15 °C	1.00	1.00

#### EN 12102-1 | Warmer Climate

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

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	143 %
Prated	19.62 kW	19.94 kW
SCOP	4.93	3.78
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	19.62 kW	19.94 kW
COP Tj = +2°C	4.54	3.18
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	19.58 kW	19.84 kW
COP Tj = +7°C	4.77	3.50
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	19.53 kW	19.69 kW
COP Tj = 12°C	5.16	4.13
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	19.62 kW	19.94 kW
COP Tj = Tbiv	4.54	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	19.62 kW	19.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.54	3.18
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 Q <sub>he</sub>	5314 kWh	7057 kWh