Subtype Vitocal 250-A PRO	
Certificate Holder	Viessmann Climate Solutions GmbH & Co. KG
Address	Viessmannstr. 1
ZIP	35107
City	Allendorf/Eder
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Vitocal 250-A PRO
Registration number	011-1W0833
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	3.3 kg
Certification Date	16.07.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model Vitocal 250-A PRO AWO-AC-AF251.A40	
Model name	Vitocal 250-A PRO AWO-AC-AF251.A40
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

General data	
Power supply	3x400V 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	21.50 kW	20.20 kW
El input	4.04 kW	5.63 kW
COP	5.32	3.59

EN 14511-2 | Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	24.10 kW	22.90 kW
Cooling capacity	8.45	4.68
EER	2.85	4.89

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	191 %	151 %
Prated	24.80 kW	25.60 kW
SCOP	4.85	3.85
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	22.64 kW	23.23 kW
COP Tj = -7°C	3.03	2.35
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	13.79 kW	14.11 kW
COP Tj = +2°C	4.47	3.61
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.73 kW	8.45 kW
COP Tj = +7°C	6.88	5.30
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	10.11 kW	9.82 kW
COP Tj = 12°C	8.72	7.07
Cdh Tj = +12 °C	0.993	0.985
Pdh Tj = Tbiv	24.77 kW	25.70 kW
COP Tj = Tbiv	2.82	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.77 kW	25.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	41 W	41 W
PTO	40 W	40 W
PSB	41 W	41 W
PCK	33 W	33 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	kW	kW
Annual energy consumption Qhe	10554 kWh	13745 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	161 %	132 %
Prated	26.80 kW	27.40 kW
SCOP	4.10	3.37
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	16.82 kW	17.27 kW
COP Tj = -7°C	3.49	2.82
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	9.51 kW	10.53 kW
COP Tj = +2°C	4.62	3.86
Cdh Tj = +2 °C	1.000	1.000

Pdh Tj = +7°C	8.74 kW	8.54 kW
COP Tj = +7°C	7.18	5.86
Cdh Tj = +7 °C	0.993	0.985
Pdh Tj = 12°C	10.11 kW	9.87 kW
COP Tj = 12°C	8.64	7.45
Cdh Tj = +12 °C	0.993	0.985
Pdh Tj = Tbiv	21.86 kW	22.35 kW
COP Tj = Tbiv	2.64	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.35 kW	17.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.29	1.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	41 W	41 W
PTO	40 W	40 W
PSB	41 W	41 W
PCK	33 W	33 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.45 kW	10.20 kW
Annual energy consumption Qhe	16130 kWh	20063 kWh
Pdh Tj = -15°C (if TOL	21.86	22.35
COP Tj = -15°C (if TOL	2.64	2.09
Cdh Tj = -15 °C	1.000	1.000

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	267 %	197 %
Prated	27.40 kW	28.10 kW
SCOP	6.74	5.01
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	27.20 kW	28.60 kW
COP Tj = +2°C	3.36	2.57
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	16.93 kW	18.34 kW
COP Tj = +7°C	6.07	4.26
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	10.07 kW	9.75 kW
COP Tj = 12°C	8.42	6.55
Cdh Tj = +12 °C	0.993	0.985

Pdh Tj = Tbiv	27.20 kW	28.60 kW
COP Tj = Tbiv	3.36	2.57
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	27.20 kW	28.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.36	2.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	41 W	41 W
PTO	40 W	40 W
PSB	41 W	41 W
PCK	33 W	33 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	kW	kW
Annual energy consumption Qhe	5427 kWh	7497 kWh

EN 14825 | Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	24.10 kW	29.60 kW
SEER	5.08	6.91
Pdc Tj = 35°C	24.00 kW	29.55 kW
EER Tj = 35°C	2.84	4.08
Cdc Tj = 35 °C	1.000	1.000
Pdc Tj = 30°C	17.76 kW	21.76 kW
EER Tj = 30°C	4.38	6.12
Cdc Tj = 30 °C	1.000	1.000
Pdc Tj = 25°C	11.33 kW	14.29 kW
EER Tj = 25°C	6.09	8.33
Cdc Tj = 25 °C	1.000	1.000
Pdc Tj = 20°C	9.17 kW	11.05 kW
EER Tj = 20°C	7.05	9.15
Cdc Tj = 20 °C	0.995	0.994
Poff	41 W	41 W
PTO	40 W	40 W
PSB	41 W	41 W
PCK	33 W	33 W
Annual energy consumption Qce	2846 kWh	2570 kWh