

Subtype Vitocal 2xx-S R32 08/10kW

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 2xx-S R32 08/10kW
Registration number	011-1W0589
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.5 kg
Certification Date	30.03.2023
Testing basis	HP KEYMARK certification scheme rules rev. 11

Model Vitocal 200-S AWB-M-E-AC 201.E08

Model name	Vitocal 200-S AWB-M-E-AC 201.E08
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E08

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E08
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E10

Model name	Vitocal 200-S AWB-M-E-AC 201.E10
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E10

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E10
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E08 NEV

Model name	Vitocal 200-S AWB-M-E-AC 201.E08 NEV
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E08 NEV

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E08 NEV
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E10 NEV

Model name	Vitocal 200-S AWB-M-E-AC 201.E10 NEV
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E10 NEV

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E10 NEV
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E08 SP

Model name	Vitocal 200-S AWB-M-E-AC 201.E08 SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E08 SP

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E08 SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E10 SP

Model name	Vitocal 200-S AWB-M-E-AC 201.E10 SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E10 SP

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E10 SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E08 2C

Model name	Vitocal 200-S AWB-M-E-AC 201.E08 2C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E08 2C

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E08 2C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E10 2C

Model name	Vitocal 200-S AWB-M-E-AC 201.E10 2C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E10 2C

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E10 2C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E08 2C SP

Model name	Vitocal 200-S AWB-M-E-AC 201.E08 2C SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E08 2CSP

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E08 2CSP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 200-S AWB-M-E-AC 201.E10 2C SP

Model name	Vitocal 200-S AWB-M-E-AC 201.E10 2C SP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 200-S AWB-M-E-AC-AF 201.E10 2CSP

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E10 2CSP
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E08

Model name	Vitocal 222-S AWBT-M-E-AC 221.E08
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E08

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E08
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E10

Model name	Vitocal 222-S AWBT-M-E-AC 221.E10
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature

ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E10

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E10
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E08 SP

Model name	Vitocal 222-S AWBT-M-E-AC 221.E08 SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E08 SP

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E08 SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E10 SP

Model name	Vitocal 222-S AWBT-M-E-AC 221.E10 SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E10 SP

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E10 SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E08 2C

Model name	Vitocal 222-S AWBT-M-E-AC 221.E08 2C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E08 2C

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E08 2C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature

ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E10 2C

Model name	Vitocal 222-S AWBT-M-E-AC 221.E10 2C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E10 2C

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E10 2C
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E08 2C SP

Model name	Vitocal 222-S AWBT-M-E-AC 221.E08 2C SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E08 2C SP

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E08 2C SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh

Model Vitocal 222-S AWBT-M-E-AC 221.E10 2C SP

Model name	Vitocal 222-S AWBT-M-E-AC 221.E10 2C SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 222-S AWBT-M-E-AC-AF 221.E10 2C SP

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E10 2C SP
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	117 %
COP	2.78
Heating up time	02:11 h:min
Standby power input	60 W
Reference hot water temperature	55.8 °C
Mixed water at 40°C	282 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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW
COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14

Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 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	939 kWh	1418 kWh

Model Vitocal 250-SH HAWB-M-AC 252.B08

Model name	Vitocal 250-SH HAWB-M-AC 252.B08
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	814 kWh	1150 kWh

Model Vitocal 250-SH HAWB-M-AC-AF 252.B08

Model name	Vitocal 250-SH HAWB-M-AC-AF 252.B08
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	130.2 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20

Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW

COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10
Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	814 kWh	1150 kWh

Model Vitocal 250-SH HAWB-M-AC 252.B10

Model name	Vitocal 250-SH HAWB-M-AC 252.B10
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	939 kWh	1418 kWh

Model Vitocal 250-SH HAWB-M-AC-AF 252.B10

Model name	Vitocal 250-SH HAWB-M-AC-AF 252.B10
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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	8.24 kW	7.57 kW
El input	1.70 kW	2.50 kW
COP	4.81	3.01

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195.6 %	128.3 %
Prated	8.50 kW	7.50 kW
SCOP	4.96	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.30 kW	6.60 kW
COP Tj = -7°C	2.92	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.50 kW	3.90 kW
COP Tj = +2°C	4.65	3.14

Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	3.60 kW	3.90 kW
COP Tj = +7°C	6.71	4.39
Cdh Tj = +7 °C	0.980	0.970
Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.67	6.48
Cdh Tj = +12 °C	0.980	0.960
Pdh Tj = Tbiv	7.30 kW	6.60 kW
COP Tj = Tbiv	2.92	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.00 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.67	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.50 kW	1.70 kW
Annual energy consumption Qhe	3606 kWh	4720 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154.5 %	110.0 %
Prated	9.30 kW	7.90 kW
SCOP	3.94	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	5.80 kW	5.80 kW
COP Tj = -7°C	3.40	2.44
Cdh Tj = -7 °C	1.000	0.990
Pdh Tj = +2°C	3.70 kW	6.40 kW
COP Tj = +2°C	5.06	3.43
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.50 kW	7.30 kW
COP Tj = +7°C	6.91	4.91
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.40 kW	8.30 kW

COP Tj = 12°C	9.40	5.86
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	7.00 kW	6.84 kW
COP Tj = Tbiv	2.84	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	9.30 kW	8.40 kW
Annual energy consumption Qhe	6136 kWh	8433 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	257.6 %	150 %
Prated	4.60 kW	4.10 kW
SCOP	6.52	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.29 kW	3.90 kW
COP Tj = +2°C	3.94	2.21
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.50 kW
COP Tj = +7°C	5.53	3.14
Cdh Tj = +7 °C	0.990	0.980
Pdh Tj = 12°C	4.44 kW	4.00 kW
COP Tj = 12°C	8.76	5.58
Cdh Tj = +12 °C	0.980	0.970
Pdh Tj = Tbiv	4.29 kW	3.90 kW
COP Tj = Tbiv	3.94	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	3.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.21

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	14 W	14 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	939 kWh	1418 kWh

Model Vitocal 222 SI AWBS-M-E-AC 221.E08 I

Model name	Vitocal 222 SI AWBS-M-E-AC 221.E08 I
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	XL
Efficiency η_{DHW}	115 %
COP	2.7
Heating up time	01:51 h:min
Standby power input	66 W
Reference hot water temperature	52 °C
Mixed water at 40°C	250 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	6.83 kW	5.70 kW
El input	1.36 kW	2.05 kW
COP	4.99	2.78

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
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ηs	193 %	130 %
Prated	7.80 kW	7.00 kW
SCOP	4.90	3.33
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.86 kW	6.17 kW
COP Tj = -7°C	3.05	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.19 kW	3.80 kW
COP Tj = +2°C	4.79	3.20
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	4.30 kW	3.90 kW
COP Tj = +7°C	6.50	4.40
Cdh Tj = +7 °C	0.968	0.976
Pdh Tj = 12°C	4.30 kW	4.03 kW
COP Tj = 12°C	9.35	6.34
Cdh Tj = +12 °C	0.954	0.967
Pdh Tj = Tbiv	6.86 kW	6.17 kW
COP Tj = Tbiv	3.05	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.17 kW	5.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21.8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	1.70 kW
Annual energy consumption Qhe	3273 kWh	4330 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	155.8 %	112.6 %
Prated	9.20 kW	8.40 kW
SCOP	3.97	2.89
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	5.76 kW	5.37 kW
COP Tj = -7°C	3.40	2.45
Cdh Tj = -7 °C	0.998	0.990
Pdh Tj = +2°C	3.47 kW	3.95 kW
COP Tj = +2°C	5.20	3.58
Cdh Tj = +2 °C	0.968	0.981
Pdh Tj = +7°C	4.40 kW	4.01 kW
COP Tj = +7°C	6.80	4.94
Cdh Tj = +7 °C	0.967	0.974
Pdh Tj = 12°C	4.32 kW	4.07 kW
COP Tj = 12°C	9.26	6.81
Cdh Tj = +12 °C	0.955	0.965
Pdh Tj = Tbiv	6.28 kW	5.75 kW
COP Tj = Tbiv	2.96	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.10	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	9.20 kW	8.40 kW
Annual energy consumption Qhe	5696 kWh	7175 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	241 %	143 %
Prated	3.70 kW	3.10 kW
SCOP	6.10	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.70 kW	3.14 kW
COP Tj = +2°C	3.99	2.09
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.15 kW	3.80 kW
COP Tj = +7°C	5.50	3.10

Cdh Tj = +7 °C	0.972	0.973
Pdh Tj = 12°C	4.28 kW	3.80 kW
COP Tj = 12°C	8.49	5.35
Cdh Tj = +12 °C	0.958	0.970
Pdh Tj = Tbiv	3.72 kW	3.14 kW
COP Tj = Tbiv	3.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.72 kW	3.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.99	2.09
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	21.2 W	21.2 W
PTO	16.6 W	16.6 W
PSB	21 W	21 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	814 kWh	1150 kWh