

Subtype Vitocal 2xx-S R32 06kW

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 06kW
Registration number	011-1W0588
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.E06**

Model name	Vitocal 200-S AWB-M-E-AC 201.E06
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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC-AF 201.E06**

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E06
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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC 201.E06 NEV**

Model name	Vitocal 200-S AWB-M-E-AC 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC-AF 201.E06 NEV**

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC 201.E06 SP**

Model name	Vitocal 200-S AWB-M-E-AC 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC-AF 201.E06 SP**

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC 201.E06 2C**

Model name	Vitocal 200-S AWB-M-E-AC 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC-AF 201.E06 2C**

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC 201.E06 2C SP**

Model name	Vitocal 200-S AWB-M-E-AC 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 200-S AWB-M-E-AC-AF 201.E06 2CSP**

Model name	Vitocal 200-S AWB-M-E-AC-AF 201.E06 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC 221.E06**

Model name	Vitocal 222-S AWBT-M-E-AC 221.E06
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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC-AF 221.E06**

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E06
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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC 221.E06 SP**

Model name	Vitocal 222-S AWBT-M-E-AC 221.E06 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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC-AF 221.E06 SP**

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E06 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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC 221.E06 2C**

Model name	Vitocal 222-S AWBT-M-E-AC 221.E06 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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature

ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC-AF 221.E06 2C**

Model name	Vitocal 222-S AWBT-M-E-AC-AF 221.E06 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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 222-S AWBT-M-E-AC 221.E06 2C SP**

Model name	Vitocal 222-S AWBT-M-E-AC 221.E06 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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal222-S AWBT-M-E-AC-AF 221.E06 2CSP**

Model name	Vitocal222-S AWBT-M-E-AC-AF 221.E06 2CSP
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 $\eta_{DHW}$	113 %
COP	2.71
Heating up time	03:10 h:min
Standby power input	55 W
Reference hot water temperature	56.2 °C
Mixed water at 40°C	283 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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
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ηs	184.6 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07
Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	153.8 %	108.2 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C

Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW
COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	233.8 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07

Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 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	707 kWh	1271 kWh

**Model Vitocal 250-SH HAWB-M-AC 252.B06**

Model name	Vitocal 250-SH HAWB-M-AC 252.B06
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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	154 %	108 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	234 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	707 kWh	1271 kWh

**Model Vitocal 250-SH HAWB-M-AC-AF 252.B06**

Model name	Vitocal 250-SH HAWB-M-AC-AF 252.B06
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	5.30 kW	4.46 kW
El input	1.10 kW	1.65 kW
COP	4.84	2.70

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	185 %	125 %
Prated	6.20 kW	6.00 kW
SCOP	4.69	3.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.49 kW	5.35 kW
COP Tj = -7°C	3.06	2.09
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.44 kW	4.01 kW
COP Tj = +2°C	4.53	3.07

Cdh Tj = +2 °C	0.984	0.991
Pdh Tj = +7°C	6.00 kW	3.80 kW
COP Tj = +7°C	6.07	4.19
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	4.28 kW	3.85 kW
COP Tj = 12°C	8.85	5.82
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.50 kW	5.35 kW
COP Tj = Tbiv	3.06	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.01 kW	4.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.79	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	1.20 kW	1.30 kW
Annual energy consumption Qhe	2738 kWh	3904 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	154 %	108 %
Prated	7.50 kW	7.30 kW
SCOP	3.92	2.78
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.68 kW	4.56 kW
COP Tj = -7°C	3.43	2.43
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.85 kW	2.75 kW
COP Tj = +2°C	5.10	3.34
Cdh Tj = +2 °C	0.978	0.985
Pdh Tj = +7°C	4.24 kW	3.76 kW
COP Tj = +7°C	6.43	4.50
Cdh Tj = +7 °C	0.982	0.985
Pdh Tj = 12°C	4.27 kW	3.92 kW

COP Tj = 12°C	8.85	6.17
Cdh Tj = +12 °C	0.975	0.981
Pdh Tj = Tbiv	5.15 kW	4.99 kW
COP Tj = Tbiv	3.05	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.45 kW	4.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	7.50 kW	7.30 kW
Annual energy consumption Qhe	4740 kWh	6460 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	49 dB(A)	49 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	234 %	143 %
Prated	3.10 kW	3.50 kW
SCOP	5.92	3.65
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.13 kW	3.47 kW
COP Tj = +2°C	3.70	2.13
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.03 kW	3.70 kW
COP Tj = +7°C	5.26	3.07
Cdh Tj = +7 °C	0.984	0.990
Pdh Tj = 12°C	4.12 kW	3.65 kW
COP Tj = 12°C	7.91	4.95
Cdh Tj = +12 °C	0.977	0.983
Pdh Tj = Tbiv	3.13 kW	3.47 kW
COP Tj = Tbiv	3.77	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.13 kW	3.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.13

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	12 W	12 W
PTO	7 W	7 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Gas	Gas
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	707 kWh	1271 kWh