Summary of	Vitocal 100-S/111-S | 4-6kW 230V	Reg. No.	011-1W0401
Certificate Holder			
Name	Viessmann Wärmepumpen GmbH		
Address	Viessmannstr. 1	Zip	35107
City	Allendorf/Eder	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Heat Pump Test Center WPZ		
Subtype title	Vitocal 100-S/111-S | 4-6kW 230V		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass Of Refrigerant	0.95 kg		
Certification Date	02.11.2020		
Testing basis	HP KEYMARK certification scheme rules rev. 7		

Model: Vitocal 100-S AWB-M 101.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Model: Vitocal 100-S AWB-M-E 101.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Model: Vitocal 100-S AWB-M-E-AC 101.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Model: Vitocal 100-S AWB-M-E-AC 101.B04 F

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Model: Vitocal 111-S AWBT-M-AC 111.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E 111.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E-AC 111.B04

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.2 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 100-S AWB-M 101.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825			
		Low temperature	**Medium temperature**
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Model: Vitocal 100-S AWB-M-E 101.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Model: Vitocal 100-S AWB-M-E-AC 101.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825			
		Low temperature	**Medium temperature**
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Model: Vitocal 100-S AWB-M-E-AC 101.B06 F

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825			
		Low temperature	**Medium temperature**
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Model: Vitocal 111-S AWBT-M-AC 111.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E 111.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825			
		Low temperature	**Medium temperature**
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E-AC 111.B06

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E-AC 111.B06 F

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	6.02 kW	4.36 kW
El input	1.23 kW	1.80 kW
COP	4.90	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	125 %	
Prated	5.10 kW	4.10 kW	
SCOP	4.45	3.20	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.53 kW	3.31 kW	
COP Tj = -7°C	2.85	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	3.04 kW	2.65 kW	
COP Tj = +2°C	4.30	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.11 kW	2.74 kW	
COP Tj = +7°C	5.93	4.76	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.40	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	4.53 kW	3.59 kW
COP Tj = Tbiv	2.85	1.89
Pdh Tj = TOL	4.08 kW	2.86 kW
COP Tj = TOL	2.59	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.04 kW	1.20 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	10549 kWh	8383 kWh

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	225 %	156 %
Prated	5.70 kW	4.10 kW
SCOP	5.70	3.97
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	5.01 kW	4.08 kW
COP Tj = +2°C	4.30	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.28 kW	2.95 kW
COP Tj = +7°C	4.86	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.31 kW
COP Tj = 12°C	7.69	5.59
Cdh	0.99	0.99

Pdh Tj = Tbiv	5.01 kW	4.08 kW
COP Tj = Tbiv	2.97	1.98
Pdh Tj = TOL	5.01 kW	4.08 kW
COP Tj = TOL	2.97	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6687 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	90 %
Prated	4.80 kW	3.30 kW
SCOP	3.46	2.32
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	3.10 kW	2.10 kW
COP Tj = -7°C	2.89	1.81
Cdh	0.99	0.99
Pdh Tj = +2°C	2.40 kW	2.09 kW
COP Tj = +2°C	4.40	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.43 kW	3.34 kW
COP Tj = 12°C	8.00	6.85
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.90 kW	2.67 kW
COP Tj = Tbiv	2.11	1.51
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.78 kW	3.27 kW
Annual energy consumption Qhe	11493 kWh	7870 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate

Model: Vitocal 111-S AWBT-M-E-AC 111.B04 F

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.08 kW	4.36 kW
El input	0.80 kW	1.80 kW
COP	5.10	2.42
Indoor water flow rate	0.70 m³/h	0.70 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	3.70 kW		
η_s	175 %	126 %	
Prated	4.00 kW	3.70 kW	
SCOP	4.45	3.22	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	3.51 kW	3.31 kW	
COP Tj = -7°C	2.84	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	2.45 kW	2.65 kW	
COP Tj = +2°C	2.84	3.18	
Cdh	0.99	0.99	
Pdh Tj = +7°C	3.14 kW	2.74 kW	
COP Tj = +7°C	5.97	4.36	

Cdh	0.99	0.99
Pdh Tj = 12°C	3.60 kW	3.27 kW
COP Tj = 12°C	8.78	6.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.51 kW	3.31 kW
COP Tj = Tbiv	2.84	1.89
Pdh Tj = TOL	3.83 kW	2.86 kW
COP Tj = TOL	2.56	1.49
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.14 kW	0.88 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	8202 kWh	7700 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	150 %
Prated	4.90 kW	4.10 kW
SCOP	5.01	3.83
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.94 kW	4.08 kW
COP Tj = +2°C	3.04	1.98
Cdh	0.99	0.99
Pdh Tj = +7°C	3.07 kW	2.95 kW
COP Tj = +7°C	5.03	3.25
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.31 kW
COP Tj = 12°C	5.89	5.18
Cdh	0.99	0.99

Pdh Tj = Tbiv	4.94 kW	4.08 kW
COP Tj = Tbiv	3.04	1.98
Pdh Tj = TOL	4.94 kW	4.08 kW
COP Tj = TOL	3.04	1.98
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6552 kWh	5450 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	135 %	86 %
Prated	4.40 kW	2.80 kW
SCOP	3.46	2.22
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	2.76 kW	1.85 kW
COP Tj = -7°C	2.91	1.72
Cdh	0.99	0.99
Pdh Tj = +2°C	2.23 kW	2.09 kW
COP Tj = +2°C	4.44	2.72
Cdh	0.99	0.99
Pdh Tj = +7°C	3.14 kW	2.88 kW
COP Tj = +7°C	6.20	4.76
Cdh	0.99	0.99
Pdh Tj = 12°C	3.53 kW	3.27 kW
COP Tj = 12°C	5.46	5.35
Cdh	0.99	0.99
Pdh Tj = Tbiv	3.62 kW	2.30 kW
COP Tj = Tbiv	1.65	1.28
Pdh Tj = TOL	3.30 kW	1.06 kW

COP Tj = TOL	1.21	0.32
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	4.43 kW	2.82 kW
Annual energy consumption Qhe	10662 kWh	6791 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	133 %
COP	3.32
Heating up time	2:15 h:min
Standby power input	25.0 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	296.1 l

Warmer Climate

Colder Climate