Summary of	Vitocal 2xx-S ODU4	Reg. No.	011-1W0202
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	Universität Stuttgart Institut für GebäudeEnergetik		
Subtype title	Vitocal 2xx-S ODU4		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.6 kg		

Model: Vitocal 200-S AWB-E-AC 201.D10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 200-S AWB-E-AC 201.D13

General Data	
Power supply	3x400V 50Hz

Average Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28
Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28

Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6658 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Model: Vitocal 200-S AWB-E-AC 201.D16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh

Model: Vitocal 200-S AWB 201.D10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 200-S AWB 201.D13

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28

Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28
Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6652 kWh

Model: Vitocal 200-S AWB 201.D16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh

Model: Vitocal 200-S AWB-E 201.D10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 200-S AWB-E 201.D13

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28

Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28
Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6652 kWh

Model: Vitocal 200-S AWB-E 201.D16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh

Model: Vitocal 222-S AWBT 221.C10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 222-S AWBT 221.C13

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28

Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28
Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6652 kWh

Model: Vitocal 222-S AWBT 221.C16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh

Model: Vitocal 222-S AWBT-E-AC 221.C10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 222-S AWBT-E-AC 221.C13

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28

Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28
Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6652 kWh

Model: Vitocal 222-S AWBT-E-AC 221.C16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh

Model: Vitocal 222-S AWBT-E 221.C10

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
COP	5.01	2.96
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	9.75 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	132 %
Prated	9.75 kW	9.67 kW
SCOP	4.58	3.37
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.63 kW	8.56 kW
COP Tj = -7°C	3.27	2.28
Pdh Tj = +2°C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19

Pdh Tj = +7°C	6.63 kW	6.30 kW
COP Tj = +7°C	5.98	4.43
Pdh Tj = 12°C	6.85 kW	6.61 kW
COP Tj = 12°C	7.81	5.86
Pdh Tj = Tbiv	8.63 kW	8.56 kW
COP Tj = Tbiv	3.27	2.28
Pdh Tj = TOL	7.87 kW	8.32 kW
COP Tj = TOL	2.93	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.93 kW	1.40 kW
Annual energy consumption Qhe	4398 kWh	5933 kWh

Model: Vitocal 222-S AWBT-E 221.C13

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
COP	4.99	3.01
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	10.99 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	10.99 kW	11.00 kW
SCOP	4.64	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.73 kW	9.73 kW
COP Tj = -7°C	3.16	2.28
Pdh Tj = +2°C	5.98 kW	5.87 kW
COP Tj = +2°C	4.46	3.28

Pdh Tj = +7°C	6.86 kW	6.53 kW
COP Tj = +7°C	6.05	4.50
Pdh Tj = 12°C	6.87 kW	6.61 kW
COP Tj = 12°C	7.91	5.90
Pdh Tj = Tbiv	9.73 kW	9.73 kW
COP Tj = Tbiv	3.16	2.28
Pdh Tj = TOL	8.86 kW	9.47 kW
COP Tj = TOL	2.84	2.07
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.19 kW	1.59 kW
Annual energy consumption Qhe	4898 kWh	6652 kWh

Model: Vitocal 222-S AWBT-E 221.C16

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
COP	4.95	3.00
Indoor water flow rate	1.40 m³/h	1.40 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14825	
Pdesignh	11.65 kW
Rated airflow rate	4500 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	182 %	134 %
Prated	11.65 kW	11.98 kW
SCOP	4.62	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	10.30 kW	10.60 kW
COP Tj = -7°C	3.09	2.32
Pdh Tj = +2°C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34

Pdh Tj = +7°C	7.27 kW	6.78 kW
COP Tj = +7°C	5.94	4.54
Pdh Tj = 12°C	6.88 kW	6.63 kW
COP Tj = 12°C	7.94	5.98
Pdh Tj = Tbiv	10.30 kW	10.60 kW
COP Tj = Tbiv	3.09	2.32
Pdh Tj = TOL	9.39 kW	9.92 kW
COP Tj = TOL	2.79	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	40 W	40 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.31 kW	2.13 kW
Annual energy consumption Qhe	5210 kWh	7248 kWh