

Summary of	Vitocal 2xx-S ODU4	Reg. No.	011-1W0202
Certificate Holder			
Name	Viessmann Wärmepumper	n 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 Institu	ut für GebäudeEner	getik
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

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
СОР	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	
180 %	132 %	
9.75 kW	9.67 kW	
4.58	3.37	
-7 °C	-7 °C	
-20 °C	-20 °C	
8.63 kW	8.56 kW	
3.27	2.28	
5.34 kW	5.48 kW	
4.34	3.19	
	Low temperature  180 %  9.75 kW  4.58  -7 °C  -20 °C  8.63 kW  3.27  5.34 kW	



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Pdh Tj = +7°C	6.63 kW	6.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	0 W	0 W
PSB	25 W	25 W
PCK	o 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

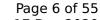


# Model: Vitocal 200-S AWB-E-AC 201.D13

General Data		
Power supply	3x400V 50Hz	

## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
РТО	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)



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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
СОР	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	

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
СОР	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
$\eta_{s}$	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



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Pdh Tj = +7°C	7.27 kW	6.78 kW
$COP Tj = +7^{\circ}C$	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
РТО	0 W	o w
PSB	25 W	25 W
PCK	o 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	

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	
СОР	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
$\eta_{S}$	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 = $-7^{\circ}$ C	3.27	2.28
Pdh Tj = $+2$ °C	5.34 kW	5.48 kW
$COP Tj = +2^{\circ}C$	4.34	3.19



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	<u> </u>	
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
РТО	o w	0 W
PSB	25 W	25 W
PCK	o 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

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	
СОР	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	
182 %	134 %	
10.99 kW	11.00 kW	
4.64	3.42	
-7 °C	-7 °C	
-20 °C	-20 °C	
9.73 kW	9.73 kW	
3.16	2.28	
5.98 kW	5.87 kW	
4.46	3.28	
	Low temperature  182 %  10.99 kW  4.64  -7 °C  -20 °C  9.73 kW  3.16  5.98 kW	



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	<u> </u>	
Pdh Tj = $+7^{\circ}$ C	6.86 kW	6.53 kW
$COP Tj = +7^{\circ}C$	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
РТО	o 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		

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
СОР	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
$\eta_{S}$	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 = $-7^{\circ}$ C	10.30 kW	10.60 kW
COP Tj = $-7^{\circ}$ C	3.09	2.32
Pdh Tj = $+2$ °C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34



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Pdh Tj = $+7^{\circ}$ C	7.27 kW	6.78 kW
$COP Tj = +7^{\circ}C$	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
РТО	o w	0 W
PSB	25 W	25 W
PCK	o 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		

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
СОР	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
$\eta_{s}$	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



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Pdh Tj = $+7^{\circ}$ C	6.63 kW	6.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	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	

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
СОР	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
$\eta_{S}$	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 = $-7^{\circ}$ 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



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		ANN database on 17 Dec 2020
Pdh Tj = +7°C	6.86 kW	6.53 kW
$COP Tj = +7^{\circ}C$	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
РТО	o w	o w
PSB	25 W	25 W
PCK	o w	o 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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
СОР	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	
182 %	134 %	
11.65 kW	11.98 kW	
4.62	3.42	
-7 °C	-7 °C	
-20 °C	-20 °C	
10.30 kW	10.60 kW	
3.09	2.32	
6.41 kW	6.25 kW	
4.49	3.34	
	Low temperature  182 %  11.65 kW  4.62  -7 °C  -20 °C  10.30 kW  3.09  6.41 kW	



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	·	
Pdh Tj = +7°C	7.27 kW	6.78 kW
$COP Tj = +7^{\circ}C$	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
РТО	o 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	

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	7.58 kW	7.89 kW	
El input	1.51 kW	2.67 kW	
СОР	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
$\eta_{s}$	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



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	<u> </u>	
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
РТО	o w	0 W
PSB	25 W	25 W
PCK	o 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		

EN 14511-2			
Low temperature Medium temperature			
Heat output	8.88 kW	8.44 kW	
El input	1.78 kW	2.80 kW	
СОР	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
$\eta_{S}$	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
РТО	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		

EN 14511-2			
Low temperature Medium temperature			
Heat output	10.11 kW	9.16 kW	
El input	2.04 kW	3.05 kW	
СОР	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
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	3.09	2.32
Pdh Tj = $+2$ °C	6.41 kW	6.25 kW
COP Tj = +2°C	4.49	3.34



**PCK** 

Supplementary Heater: Type of energy input

Supplementary Heater: PSUP

Annual energy consumption Qhe

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This information was generated by the HP KEYMARK database on 17 Dec 2020 Pdh Tj =  $+7^{\circ}$ C 7.27 kW 6.78 kW  $COP Tj = +7^{\circ}C$ 5.94 4.54 Pdh Tj =  $12^{\circ}$ C 6.88 kW 6.63 kW 7.94 5.98  $COP Tj = 12^{\circ}C$ Pdh Tj = Tbiv10.30 kW 10.60 kW 3.09 2.32 COP Tj = Tbiv9.39 kW 9.92 kW Pdh Tj = TOLCOPTj = TOL2.79 2.05 Cdh 0.98 0.99 60 °C WTOL 60 °C 40 W 40 W Poff PTO 0 W 0 W **PSB** 25 W 25 W

0 W

electrical

2.31 kW

5210 kWh

0 W

electrical

2.13 kW

7248 kWh



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

General Data		
Power supply	3x400V 50Hz	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
СОР	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	
180 %	132 %	
9.75 kW	9.67 kW	
4.58	3.37	
-7 °C	-7 °C	
-20 °C	-20 °C	
8.63 kW	8.56 kW	
3.27	2.28	
5.34 kW	5.48 kW	
4.34	3.19	
	Low temperature  180 %  9.75 kW  4.58  -7 °C  -20 °C  8.63 kW  3.27  5.34 kW	



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Pdh Tj = $+7^{\circ}$ C	6.63 kW	6.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	o w	o w
PSB	25 W	25 W
PCK	o w	o 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	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
СОР	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
$\eta_{S}$	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 = $-7^{\circ}$ 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



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Pdh Tj = $+7^{\circ}$ C	6.86 kW	6.53 kW
$COP Tj = +7^{\circ}C$	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
РТО	0 W	0 W
PSB	25 W	25 W
PCK	o w	o 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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.11 kW	9.16 kW
El input	2.04 kW	3.05 kW
СОР	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
$\eta_{S}$	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 = $-7^{\circ}$ 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



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Pdh Tj = +7°C	7.27 kW	6.78 kW
$COP Tj = +7^{\circ}C$	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
РТО	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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	7.58 kW	7.89 kW
El input	1.51 kW	2.67 kW
СОР	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
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	3.27	2.28
Pdh Tj = $+2$ °C	5.34 kW	5.48 kW
COP Tj = +2°C	4.34	3.19



		AIR database on 17 Dec 2020
Pdh Tj = +7°C	6.63 kW	6.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	o w	o w
PSB	25 W	25 W
PCK	o w	o 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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.88 kW	8.44 kW
El input	1.78 kW	2.80 kW
СОР	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	
182 %	134 %	
10.99 kW	11.00 kW	
4.64	3.42	
-7 °C	-7 °C	
-20 °C	-20 °C	
9.73 kW	9.73 kW	
3.16	2.28	
5.98 kW	5.87 kW	
4.46	3.28	
	Low temperature  182 %  10.99 kW  4.64  -7 °C  -20 °C  9.73 kW  3.16  5.98 kW	



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	•	
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
РТО	o w	0 W
PSB	25 W	25 W
PCK	o 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	

EN 14511-2				
	Low temperature	Medium temperature		
Heat output	10.11 kW	9.16 kW		
El input	2.04 kW	3.05 kW		
СОР	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	
$\eta_{s}$	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
РТО	o w	o w
PSB	25 W	25 W
PCK	o 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