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Summary of	Vitocal 100-S/111-S   12-16kW 400V	Reg. No.	011-1W0404
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   12-16kW 400V		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2.5 kg		
Certification Date	02.11.2020		
Testing basis	HP KEYMARK certification scheme rules rev. 7		



# Model: Vitocal 100-S AWB 101.A12

General Data		
Power supply	3x400V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.50 kW	9.72 kW
El input	2.58 kW	3.65 kW
СОР	4.45	2.66
Indoor water flow rate	0.90 m³/h	0.90 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	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = +2°C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



EN 14825		
	Low temperature	
COP Tj = +2°C	3.50	

## Warmer Climate

EN 14825		
	Low temperature	Medium temperature
COP Tj = +2°C	n/a	1.93
Cdh	0.99	



# Model: Vitocal 100-S AWB-E 101.A12

General Data		
Power supply	3x400V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.50 kW	9.72 kW
El input	2.58 kW	3.65 kW
СОР	4.45	2.66
Indoor water flow rate	0.90 m³/h	0.90 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	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = +2°C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



EN 14825	
	Low temperature
COP Tj = +2°C	3.50

## Warmer Climate

EN 14825			
Low temperature Medium temperature			
COP Tj = +2°C	n/a	1.93	
Cdh	0.99		



# Model: Vitocal 100-S AWB-E-AC 101.A12

General Data	
Power supply	3x400V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.50 kW	9.72 kW
El input	2.58 kW	3.65 kW
СОР	4.45	2.66
Indoor water flow rate	0.90 m³/h	0.90 m³/h

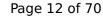
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7^{\circ}$ C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = $+2$ °C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



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EN 14825	
	Low temperature
COP Tj = +2°C	3.50

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
COP Tj = +2°C	n/a	1.93
Cdh	0.99	



# Model: Vitocal 111-S AWBT-AC 111.A12

General Data		
Power supply	3x400V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.50 kW	9.72 kW
El input	2.58 kW	3.65 kW
СОР	4.45	2.66
Indoor water flow rate	0.90 m³/h	0.90 m³/h

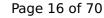
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	-
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = +2°C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	n/a	0.99	
Pdh Tj = +7°C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



EN 14825	
	Low temperature
COP Tj = +2°C	3.50

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
COP Tj = +2°C	n/a	1.93
Cdh	0.99	

### Domestic Hot Water (DHW)

## Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290	
Mixed water at 40 C	2301	



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This information was generated by the HP KEYMARK database on 17 Dec 2020

### Warmer Climate



# Model: Vitocal 111-S AWBT-E 111.A12

General Data		
Power supply	3x400V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.50 kW	9.72 kW
El input	2.58 kW	3.65 kW
СОР	4.45	2.66
Indoor water flow rate	0.90 m³/h	0.90 m³/h

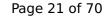
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	-
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = $+2$ °C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



EN 14825	
	Low temperature
COP Tj = +2°C	3.50

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
COP Tj = +2°C	n/a	1.93
Cdh	0.99	

### Domestic Hot Water (DHW)

## Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290	



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This information was generated by the HP KEYMARK database on 17 Dec 2020

### Warmer Climate



# Model: Vitocal 111-S AWBT-E-AC 111.A12

General Data		
Power supply 3x400V 50Hz		

## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.50 kW	9.72 kW	
El input	2.58 kW	3.65 kW	
СОР	4.45	2.66	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

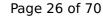
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	8.80 kW		
$\eta_{s}$	156 %	110 %	
Prated	9.00 kW	8.79 kW	-
SCOP	3.98	2.83	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.98 kW	7.70 kW	
COP Tj = -7°C	2.87	1.93	
Cdh	0.99	0.99	
Pdh Tj = +2°C	5.63 kW	5.17 kW	
COP Tj = +2°C	3.90	3.50	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.78 kW	8.52 kW	
COP Tj = +7°C	4.86	3.66	





Cdh 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.08 4.84
Cdh 0.99 0.99
Pdh Tj = Tbiv 7.70 kW 7.70 kW
COP Tj = Tbiv 2.87 1.93
Pdh Tj = TOL 7.54 kW 6.94 kW
COP Tj = TOL 2.80 1.75
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 1.48 kW 1.85 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 4696 kWh 6362 kWh



EN 14825	
	Low temperature
COP Tj = +2°C	3.50

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
COP Tj = +2°C	n/a	1.93
Cdh	0.99	

### Domestic Hot Water (DHW)

## Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290	



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This information was generated by the HP KEYMARK database on 17 Dec 2020

### Warmer Climate



# Model: Vitocal 100-S AWB 101.A14

General Data		
Power supply 3x400V 50Hz		

## Heating

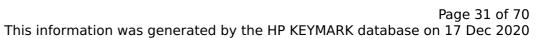
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = $-7^{\circ}$ C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = $+2^{\circ}$ C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	





		by the HI KETMAKK
Cdh	0.99	0.99
Pdh Tj = 12°C	14.35 kW	6.41 kW
COP Tj = 12°C	6.08	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.92 kW	8.70 kW
COP Tj = Tbiv	2.55	2.02
Pdh Tj = TOL	8.52 kW	7.71 kW
COP Tj = TOL	2.72	1.78
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	0 W
PSB	o w	0 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.43 kW	2.13 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	18488 kWh	20328 kWh



# Model: Vitocal 100-S AWB-E 101.A14

General Data		
Power supply 3x400V 50Hz		

## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

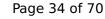
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

	EN 1482	5	
		Low temperature	Medium temperature
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	





Cdh	0.99	0.99
Pdh Tj = 12°C	14.35 kW	6.41 kW
COP Tj = 12°C	6.08	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.92 kW	8.70 kW
COP Tj = Tbiv	2.55	2.02
Pdh Tj = TOL	8.52 kW	7.71 kW
COP Tj = TOL	2.72	1.78
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	o w	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.43 kW	2.13 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	18488 kWh	20328 kWh



# Model: Vitocal 100-S AWB-E-AC 101.A14

General Data		
Power supply	3x400V 50Hz	

## Heating

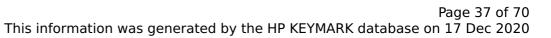
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

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



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	41 dB(A)	41 dB(A)	
Sound power level outdoor	64 dB(A)	64 dB(A)	

	EN 1482	5	
		Low temperature	Medium temperature
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	





_			
0.99	0.99		
14.35 kW	6.41 kW		
6.08	4.84		
0.99	0.99		
7.92 kW	8.70 kW		
2.55	2.02		
8.52 kW	7.71 kW		
2.72	1.78		
0.99	0.99		
55 °C	55 °C		
15 W	15 W		
0 W	0 W		
0 W	0 W		
0 W	o w		
electrical	electrical		
0.43 kW	2.13 kW		
0.00 kW			
18488 kWh	20328 kWh		
	14.35 kW 6.08 0.99 7.92 kW 2.55 8.52 kW 2.72 0.99 55 °C 15 W 0 W 0 W electrical 0.43 kW 0.00 kW	14.35 kW       6.41 kW         6.08       4.84         0.99       0.99         7.92 kW       8.70 kW         2.55       2.02         8.52 kW       7.71 kW         2.72       1.78         0.99       0.99         55 °C       55 °C         15 W       0 W         0 W       0 W         0 W       0 W         electrical       electrical         0.43 kW       2.13 kW         0.00 kW	14.35 kW       6.41 kW         6.08       4.84         0.99       0.99         7.92 kW       8.70 kW         2.55       2.02         8.52 kW       7.71 kW         2.72       1.78         0.99       0.99         55 °C       55 °C         15 W       15 W         0 W       0 W         0 W       0 W         electrical       electrical         0.43 kW       2.13 kW         0.00 kW



# Model: Vitocal 111-S AWBT-AC 111.A14

General Data	
Power supply 3x400V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 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	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperatur
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	

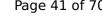
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Cdh	0.99	0.99
Pdh Tj = 12°C	14.35 kW	6.41 kW
COP Tj = 12°C	6.08	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.92 kW	8.70 kW
COP Tj = Tbiv	2.55	2.02
Pdh Tj = TOL	8.52 kW	7.71 kW
COP Tj = TOL	2.72	1.78
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	0 W
PSB	0 W	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.43 kW	2.13 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	18488 kWh	20328 kWh

### Domestic Hot Water (DHW)





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EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290 I	



# Model: Vitocal 111-S AWBT-E 111.A14

General Data	
Power supply 3x400V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 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	

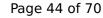


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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	

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Cdh	0.99	0.99
Pdh Tj = 12°C	14.35 kW	6.41 kW
COP Tj = 12°C	6.08	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.92 kW	8.70 kW
COP Tj = Tbiv	2.55	2.02
Pdh Tj = TOL	8.52 kW	7.71 kW
COP Tj = TOL	2.72	1.78
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	0 W
PSB	0 W	o w
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.43 kW	2.13 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	18488 kWh	20328 kWh

### Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290 I	



# Model: Vitocal 111-S AWBT-E-AC 111.A14

General Data		
Power supply 3x400V 50Hz		

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.61 kW	
El input	3.00 kW	4.38 kW	
СОР	4.50	2.81	
Indoor water flow rate	0.90 m³/h	0.90 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



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

	EN 14825		
		Low temperature	Medium temperature
Pdesignh	9.80 kW		
$\eta_{s}$	154 %	111 %	
Prated	8.90 kW	9.80 kW	
SCOP	3.93	2.85	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	7.92 kW	8.70 kW	
COP Tj = -7°C	2.55	2.02	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.35 kW	5.90 kW	
COP Tj = +2°C	3.91	2.68	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.97 kW	8.12 kW	
COP Tj = +7°C	5.04	3.75	

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Cdh	0.99	0.99
Pdh Tj = 12°C	14.35 kW	6.41 kW
COP Tj = 12°C	6.08	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.92 kW	8.70 kW
COP Tj = Tbiv	2.55	2.02
Pdh Tj = TOL	8.52 kW	7.71 kW
COP Tj = TOL	2.72	1.78
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
РСК	o w	o w
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	0.43 kW	2.13 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	18488 kWh	20328 kWh

### Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290 I	



# Model: Vitocal 100-S AWB 101.A16

General Data	
Power supply 3x400V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.74 kW	12.67 kW	
El input	3.60 kW	4.95 kW	
СОР	4.37	2.62	
Indoor water flow rate	0.90 m³/h	0.90 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	



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EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	41 dB(A)	41 dB(A)	
Sound power level outdoor	64 dB(A)	64 dB(A)	

EN 14825			
		Low temperature	Medium temperatur
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	
SCOP	3.85	2.85	
Tbiv	-7 °C	-4 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
COP Tj = +7°C	5.17	3.74	





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		· · · · · · · · · · · · · · · · · · ·
Cdh	0.99	0.99
Pdh Tj = 12°C	7.17 kW	6.41 kW
COP Tj = 12°C	6.92	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	11.33 kW	8.33 kW
COP Tj = Tbiv	2.46	2.06
Pdh Tj = TOL	10.68 kW	9.51 kW
COP Tj = TOL	2.41	1.88
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	0 W
PSB	0 W	o w
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.12 kW	1.32 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	26449 kWh	22384 kWh



# Model: Vitocal 100-S AWB-E 101.A16

General Data		
Power supply 3x400V 50Hz		

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.74 kW	12.67 kW	
El input	3.60 kW	4.95 kW	
СОР	4.37	2.62	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

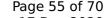
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



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EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	41 dB(A)	41 dB(A)	
Sound power level outdoor	64 dB(A)	64 dB(A)	

EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	
SCOP	3.85	2.85	
Tbiv	-7 °C	-4 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
$COP Tj = +7^{\circ}C$	5.17	3.74	





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		· · · · · · · · · · · · · · · · · · ·
Cdh	0.99	0.99
Pdh Tj = 12°C	7.17 kW	6.41 kW
COP Tj = 12°C	6.92	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	11.33 kW	8.33 kW
COP Tj = Tbiv	2.46	2.06
Pdh Tj = TOL	10.68 kW	9.51 kW
COP Tj = TOL	2.41	1.88
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	0 W
PSB	0 W	o w
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.12 kW	1.32 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	26449 kWh	22384 kWh



# Model: Vitocal 100-S AWB-E-AC 101.A16

General Data		
Power supply	3x400V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.74 kW	12.67 kW	
El input	3.60 kW	4.95 kW	
СОР	4.37	2.62	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

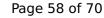
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	
SCOP	3.85	2.85	
Tbiv	-7 °C	-4 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
COP Tj = +7°C	5.17	3.74	





COP Tj = 12°C 6.92 4.84  Cdh 0.99 0.99  Pdh Tj = Tbiv 11.33 kW 8.33 kW
COP Tj = 12°C 6.92 4.84  Cdh 0.99 0.99  Pdh Tj = Tbiv 11.33 kW 8.33 kW
Cdh     0.99       Pdh Tj = Tbiv     11.33 kW       8.33 kW
Pdh Tj = Tbiv 11.33 kW 8.33 kW
COP Tj = Tbiv 2.46 2.06
Pdh Tj = TOL 10.68 kW 9.51 kW
COP Tj = TOL 2.41 1.88
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 2.12 kW 1.32 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 26449 kWh 22384 kWh



# Model: Vitocal 111-S AWBT-AC 111.A16

General Data		
Power supply	3x400V 50Hz	

### Heating

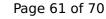
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.74 kW	12.67 kW	
El input	3.60 kW	4.95 kW	
СОР	4.37	2.62	
Indoor water flow rate	0.90 m³/h	0.90 m³/h	

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



	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

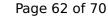
EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	-
SCOP	3.85	2.85	-
Tbiv	-7 °C	-4 °C	-
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
COP Tj = +7°C	5.17	3.74	





Cdh       0.99       0.99         Pdh Tj = 12°C       7.17 kW       6.41 kW         COP Tj = 12°C       6.92       4.84         Cdh       0.99       0.99         Pdh Tj = Tbiv       11.33 kW       8.33 kW         COP Tj = Tbiv       2.46       2.06         Pdh Tj = TOL       10.68 kW       9.51 kW
COP Tj = 12°C 6.92 4.84  Cdh 0.99 0.99  Pdh Tj = Tbiv 11.33 kW 8.33 kW  COP Tj = Tbiv 2.46 2.06
Cdh       0.99       0.99         Pdh Tj = Tbiv       11.33 kW       8.33 kW         COP Tj = Tbiv       2.46       2.06
Pdh Tj = Tbiv 11.33 kW 8.33 kW  COP Tj = Tbiv 2.46 2.06
COP Tj = Tbiv 2.46 2.06
Pdh Tj = TOL 10.68 kW 9.51 kW
COP Tj = TOL $2.41$ 1.88
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 2.12 kW 1.32 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 26449 kWh 22384 kWh

# Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	124 %	
СОР	2.55	
Heating up time	0:58 h:min	
Standby power input	35.0 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	290 I	



# Model: Vitocal 111-S AWBT-E 111.A16

General Data		
Power supply	3x400V 50Hz	

### Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	15.74 kW	12.67 kW
El input	3.60 kW	4.95 kW
СОР	4.37	2.62
Indoor water flow rate	0.90 m³/h	0.90 m³/h

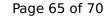
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

	EN 14825	5	
		Low temperature	Medium temperature
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	
SCOP	3.85	2.85	
Tbiv	-7 °C	-4 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
$COP Tj = +7^{\circ}C$	5.17	3.74	





Cdh	0.99	0.99
Pdh Tj = 12°C	7.17 kW	6.41 kW
COP Tj = 12°C	6.92	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	11.33 kW	8.33 kW
COP Tj = Tbiv	2.46	2.06
Pdh Tj = TOL	10.68 kW	9.51 kW
COP Tj = TOL	2.41	1.88
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	o w
PSB	0 W	o w
PCK	0 W	o w
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.12 kW	1.32 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	26449 kWh	22384 kWh

### Domestic Hot Water (DHW)





EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
СОР	2.55
Heating up time	0:58 h:min
Standby power input	35.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	290 I



# Model: Vitocal 111-S AWBT-E-AC 111.A16

General Data		
Power supply	3x400V 50Hz	

### Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	15.74 kW	12.67 kW
El input	3.60 kW	4.95 kW
СОР	4.37	2.62
Indoor water flow rate	0.90 m³/h	0.90 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



	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

	EN 1482	5	
		Low temperature	Medium temperatur
Pdesignh	10.80 kW		
$\eta_{s}$	151 %	111 %	
Prated	12.80 kW	10.83 kW	
SCOP	3.85	2.85	
Tbiv	-7 °C	-4 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	11.33 kW	9.20 kW	
COP Tj = -7°C	2.46	1.89	
Cdh	0.99	0.99	
Pdh Tj = +2°C	7.16 kW	6.61 kW	
COP Tj = +2°C	3.70	2.77	
Cdh	0.99	0.99	
Pdh Tj = +7°C	5.98 kW	5.08 kW	
COP Tj = +7°C	5.17	3.74	

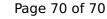
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Cdh	0.99	0.99
Pdh Tj = 12°C	7.17 kW	6.41 kW
COP Tj = 12°C	6.92	4.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	11.33 kW	8.33 kW
COP Tj = Tbiv	2.46	2.06
Pdh Tj = TOL	10.68 kW	9.51 kW
COP Tj = TOL	2.41	1.88
Cdh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	0 W	0 W
PSB	o w	0 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.12 kW	1.32 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	26449 kWh	22384 kWh

#### Domestic Hot Water (DHW)





EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
СОР	2.55
Heating up time	0:58 h:min
Standby power input	35.0 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	290 I