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Summary of	Vitocal 100-S/111-S   12-16kW 230V	Reg. No.	011-1W0403	
Certificate Holder				
Name	Viessmann Wärmepumpen GmbH	Viessmann Wärmepumpen GmbH		
Address	Viessmannstr. 1	Zip	35107	
City	Allendorf/Eder	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH			
Subtype title	Vitocal 100-S/111-S   12-16kW 230V			
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-M 101.A12

Configure model			
Model name	Vitocal 100-S AWB-M 101.A12		
Application	Heating (medium temp)		
Units	Indoor + Outdoor		
Climate Zone	n/a		
Reversibility	No		
Cooling mode application (optional)	n/a		

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.50 kW	9.86 kW	
El input	2.45 kW	3.52 kW	
СОР	4.70	2.80	

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	8.9	00 kW		
$\eta_{s}$	16	0 %	113 %	
Prated	9.2	20 kW	8.90 kW	
SCOP	4.0	)8	2.90	
Tbiv	-7	°C	-7 °C	
TOL	-20	) °C	-20 °C	
Pdh Tj = -7°C	8.1	.5 kW	7.84 kW	
COP Tj = -7°C	2.8	38	1.93	
Cdh Tj = -7 °C	0.9	9	0.99	
Pdh Tj = +2°C	6.1	.7 kW	5.54 kW	
COP Tj = +2°C	3.9	)3	2.76	
Cdh Tj = +2 °C	0.9	9	0.99	
Pdh Tj = +7°C	5.9	99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.3	31	3.89	





	-	•
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.15 kW	7.84 kW
COP Tj = Tbiv	2.88	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.46 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E 101.A12	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.50 kW	9.86 kW	
El input	2.45 kW	3.52 kW	
СОР	4.70	2.80	

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.15 kW	7.84 kW	
COP Tj = -7°C	2.88	1.93	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.17 kW	5.54 kW	
$COP Tj = +2^{\circ}C$	3.93	2.76	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.31	3.89	





Cdh Tj = +7 °C       0.99       0.99         Pdh Tj = 12°C       7.44 kW       6.77 kW         COP Tj = 12°C       7.15       5.44         Cdh Tj = +12 °C       0.99       0.99         Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL <       6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL <       2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL <       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       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW         Annual energy consumption Qhe       19044 kWh       18303 kWh	This information was		,
COP Tj = 12°C	Cdh Tj = +7 °C	0.99	0.99
Cdh Tj = +12 °C       0.99       0.99         Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL        2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL        0.99       0.99         WTOL       55 °C       55 °C         Poff       15 W       15 W         PTO       0 W       0 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW         Annual energy consumption Qhe       19044       18303 kWh	Pdh Tj = 12°C	7.44 kW	6.77 kW
Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL        2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL        0.99       0.99         WTOL       55 °C       55 °C         Poff       15 W       15 W         PTO       0 W       0 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW         Annual energy consumption Qhe       19044       18303 kWh	COP Tj = 12°C	7.15	5.44
COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL <	Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL        2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL        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       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW         Annual energy consumption Qhe       19044       18303 kWh	Pdh Tj = Tbiv	8.15 kW	7.84 kW
Tdesignh       2.84       1.74         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	2.88	1.93
Tdesignh       0.99       0.99         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL        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       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW         Annual energy consumption Qhe       19044       18303 kWh		6.46 kW	7.02 kW
Tdesignh 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 Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh		2.84	1.74
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 Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh		0.99	0.99
PTO 0 W 0 W  PSB 0 W 0 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh	WTOL	55 °C	55 °C
PSB 0 W 0 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh	Poff	15 W	15 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh	РТО	o w	o w
Supplementary Heater: Type of energy input  Electricity  Electricity  2.75 kW  Backup Heater  0.00 kW  Annual energy consumption Qhe  19044  18303 kWh	PSB	o w	o w
Supplementary Heater: PSUP  2.75 kW  1.84 kW  Backup Heater  0.00 kW  Annual energy consumption Qhe  19044  18303 kWh	PCK	0 W	0 W
Backup Heater 0.00 kW  Annual energy consumption Qhe 19044 18303 kWh	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 19044 18303 kWh	Supplementary Heater: PSUP	2.75 kW	1.84 kW
	Backup Heater	0.00 kW	
<u></u>	Annual energy consumption Qhe		18303 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A12	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

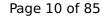
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	11.50 kW	9.86 kW	
El input	2.45 kW	3.52 kW	
СОР	4.70	2.80	

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.15 kW	7.84 kW	
COP Tj = -7°C	2.88	1.93	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.17 kW	5.54 kW	
COP Tj = +2°C	3.93	2.76	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.25 kW	
$COPTj = +7^{\circ}C$	5.31	3.89	





Cdh Tj = +7 °C       0.99       0.99         Pdh Tj = 12°C       7.44 kW       6.77 kW         COP Tj = 12°C       7.15       5.44         Cdh Tj = +12 °C       0.99       0.99         Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL <       6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL <       2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL <       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       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW	This information was g	1	, <u></u>
COP Tj = 12°C	Cdh Tj = +7 °C	0.99	0.99
Cdh Tj = +12 °C       0.99       0.99         Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL <	Pdh Tj = 12°C	7.44 kW	6.77 kW
Pdh Tj = Tbiv       8.15 kW       7.84 kW         COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL <	COP Tj = 12°C	7.15	5.44
COP Tj = Tbiv       2.88       1.93         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL        6.46 kW       7.02 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL        2.84       1.74         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL        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       Electricity       Electricity         Supplementary Heater: PSUP       2.75 kW       1.84 kW         Backup Heater       0.00 kW	Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL          6.46 kW         7.02 kW           COP Tj = TOL or COP Tj = Tdesignh if TOL          2.84         1.74           Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL          0.99         0.99           WTOL         55 °C         55 °C           Poff         15 W         15 W           PTO         0 W         0 W           PCK         0 W         0 W           Supplementary Heater: Type of energy input         Electricity         Electricity           Supplementary Heater: PSUP         2.75 kW         1.84 kW           Backup Heater         0.00 kW	Pdh Tj = Tbiv	8.15 kW	7.84 kW
Tdesignh       2.84       1.74         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	2.88	1.93
Tdesignh         0.99         0.99           Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL          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         Electricity         Electricity           Supplementary Heater: PSUP         2.75 kW         1.84 kW           Backup Heater         0.00 kW		6.46 kW	7.02 kW
Tdesignh 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 Electricity Electricity Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater		2.84	1.74
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 Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW		0.99	0.99
PTO 0 W 0 W  PSB 0 W 0 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW	WTOL	55 °C	55 °C
PSB 0 W 0 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW	Poff	15 W	15 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW	РТО	o w	o w
Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW	PSB	0 W	o w
Supplementary Heater: PSUP 2.75 kW 1.84 kW  Backup Heater 0.00 kW	PCK	0 W	o w
Backup Heater 0.00 kW	Supplementary Heater: Type of energy input	Electricity	Electricity
	Supplementary Heater: PSUP	2.75 kW	1.84 kW
	Backup Heater	0.00 kW	
Annual energy consumption Qhe 19044 kWh 18303 kWh	Annual energy consumption Qhe		18303 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A12 F	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

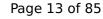
	EN 14511-2	
	Low temperature	Medium temperature
Heat output	11.50 kW	9.86 kW
El input	2.45 kW	3.52 kW
СОР	4.70	2.80

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.15 kW	7.84 kW	
COP Tj = -7°C	2.88	1.93	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.17 kW	5.54 kW	
$COP Tj = +2^{\circ}C$	3.93	2.76	
Cdh Tj = +2 °C	0.99	0.99	
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	o w	o w
PSB	0 W	0 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 kWh



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

Co	onfigure model
Model name	Vitocal 111-S AWBT-M-AC 111.A12
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 50Hz	

### Heating

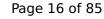
	EN 14511-2	
	Low temperature	Medium temperature
Heat output	11.50 kW	9.86 kW
El input	2.45 kW	3.52 kW
СОР	4.70	2.80

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
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Pdh Tj = -7°C	8.15 kW	7.84 kW	
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Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.31	3.89	





		, -
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.15 kW	7.84 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	0 W
PSB	o w	0 W
РСК	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 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	



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

Configure model		
Model name Vitocal 111-S AWBT-M-E 111.A12		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.50 kW	9.86 kW	
El input	2.45 kW	3.52 kW	
СОР	4.70	2.80	

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.15 kW	7.84 kW	
COP Tj = -7°C	2.88	1.93	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.17 kW	5.54 kW	
$COP Tj = +2^{\circ}C$	3.93	2.76	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.31	3.89	





	,	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.15 kW	7.84 kW
COP Tj = Tbiv	2.88	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	6.46 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 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-M-E-AC 111.A12

Configure model		
Model name	Vitocal 111-S AWBT-M-E-AC 111.A12	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	11.50 kW	9.86 kW	
El input	2.45 kW	3.52 kW	
СОР	4.70	2.80	

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	8.90 kW		
$\eta_{s}$	160 %	113 %	
Prated	9.20 kW	8.90 kW	
SCOP	4.08	2.90	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.15 kW	7.84 kW	
COP Tj = -7°C	2.88	1.93	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.17 kW	5.54 kW	
$COP Tj = +2^{\circ}C$	3.93	2.76	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.31	3.89	





Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.15 kW	7.84 kW
COP Tj = Tbiv	2.88	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.46 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 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-M-E-AC 111.A12 F

С	onfigure model
Model name	Vitocal 111-S AWBT-M-E-AC 111.A12 F
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 50Hz	

### Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	11.50 kW	9.86 kW
El input	2.45 kW	3.52 kW
СОР	4.70	2.80

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 14	825		
			Low temperature	Medium temperature
Pdesignh	8.9	00 kW		
$\eta_{s}$	16	0 %	113 %	
Prated	9.2	20 kW	8.90 kW	
SCOP	4.0	)8	2.90	
Tbiv	-7	°C	-7 °C	
TOL	-20	) °C	-20 °C	
Pdh Tj = -7°C	8.1	.5 kW	7.84 kW	
COP Tj = -7°C	2.8	38	1.93	
Cdh Tj = -7 °C	0.9	9	0.99	
Pdh Tj = +2°C	6.1	.7 kW	5.54 kW	
COP Tj = +2°C	3.9	)3	2.76	
Cdh Tj = +2 °C	0.9	9	0.99	
Pdh Tj = +7°C	5.9	99 kW	9.25 kW	
$COP Tj = +7^{\circ}C$	5.3	31	3.89	





	-	-
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.15 kW	7.84 kW
COP Tj = Tbiv	2.88	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	6.46 kW	7.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.75 kW	1.84 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	19044 kWh	18303 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-M 101.A14

Configure model		
Model name	Vitocal 100-S AWB-M 101.A14	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

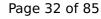
EN 14511-2		
	Low temperature	Medium temperature
Heat output	13.50 kW	11.82 kW
El input	2.89 kW	4.23 kW
СОР	4.67	2.80

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	10.70 kW		-
$\eta_{s}$	160 %	117 %	
Prated	9.90 kW	10.70 kW	_
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
$COP Tj = -7^{\circ}C$	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
$COPTj = +2^{\circ}C$	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
$COP Tj = +7^{\circ}C$	5.31	4.03	





	,	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	o w	o w
PSB	o w	0 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.41 kW	3.86 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E 101.A14	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

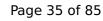
EN 14511-2		
	Low temperature	Medium temperature
Heat output	13.50 kW	11.82 kW
El input	2.89 kW	4.23 kW
СОР	4.67	2.80

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	10.70 kW		-
$\eta_{s}$	160 %	117 %	
Prated	9.90 kW	10.70 kW	
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
$COP Tj = -7^{\circ}C$	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.34 kW	6.11 kW	
$COP Tj = +2^{\circ}C$	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
$COP Tj = +7^{\circ}C$	5.31	4.03	





	,	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	o w	o w
PSB	o w	0 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.41 kW	3.86 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 kWh



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

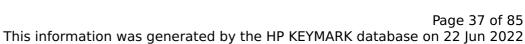
Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A14	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	13.50 kW	11.82 kW
El input	2.89 kW	4.23 kW
СОР	4.67	2.80

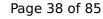
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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)	

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EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.70 kW		
$\eta_{s}$	160 %	117 %	
Prated	9.90 kW	10.70 kW	
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
COP Tj = -7°C	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
COP Tj = +2°C	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
COP Tj = +7°C	5.31	4.03	





	, c c. a c a c	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.41 kW	3.86 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A14 F	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.82 kW	
El input	2.89 kW	4.23 kW	
СОР	4.67	2.80	

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	10.70 kW		
$\eta_{s}$	160 %	117 %	
Prated	9.90 kW	10.70 kW	
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
COP Tj = -7°C	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
$COP Tj = +2^{\circ}C$	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
$COP Tj = +7^{\circ}C$	5.31	4.03	





	,	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.41 kW	3.86 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 kWh



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

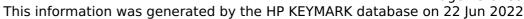
Configure model		
Model name	Vitocal 111-S AWBT-M-AC 111.A14	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	13.50 kW	11.82 kW	
El input	2.89 kW	4.23 kW	
СОР	4.67	2.80	

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	
10.70 kW			
160 %	117 %		
9.90 kW	10.70 kW		
4.08	3.00		
-7 °C	-7 °C		
-20 °C	-20 °C		
8.73 kW	9.44 kW		
2.86	2.05		
0.99	0.99		
6.34 kW	6.11 kW		
3.92	2.82		
0.99	0.99		
5.99 kW	9.33 kW		
5.31	4.03		
	10.70 kW 160 % 9.90 kW 4.08 -7 °C -20 °C 8.73 kW 2.86 0.99 6.34 kW 3.92 0.99 5.99 kW	Low temperature  10.70 kW  160 % 117 %  9.90 kW 10.70 kW  4.08 3.00  -7 °C -7 °C  -20 °C -20 °C  8.73 kW 9.44 kW  2.86 2.05  0.99 0.99  6.34 kW 6.11 kW  3.92 2.82  0.99 0.99  5.99 kW 9.33 kW	





	-	-
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 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-M-E 111.A14

Configure model		
Model name Vitocal 111-S AWBT-M-E 111.A14		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

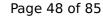
EN 14511-2			
Low temperature Medium temperature			
Heat output	13.50 kW	11.82 kW	
El input	2.89 kW	4.23 kW	
СОР	4.67	2.80	

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	10.70 kW		
$\eta_s$	160 %	117 %	
Prated	9.90 kW	10.70 kW	
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
COP Tj = -7°C	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
COP Tj = +2°C	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
COP Tj = +7°C	5.31	4.03	





		·
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.44 kW	6.77 kW
COP Tj = 12°C	7.15	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.73 kW	9.44 kW
COP Tj = Tbiv	2.86	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	7.46 kW	6.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.42	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	o w	o w
PSB	o w	o w
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.41 kW	3.86 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	20384 kWh	22040 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-M-E-AC 111.A14

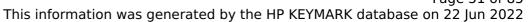
Configure model		
Model name	Vitocal 111-S AWBT-M-E-AC 111.A14	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.82 kW	
El input	2.89 kW	4.23 kW	
СОР	4.67	2.80	

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)	

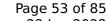
EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.70 kW		
$\eta_s$	160 %	117 %	
Prated	9.90 kW	10.70 kW	
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
COP Tj = -7°C	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
COP Tj = +2°C	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.99 kW	9.33 kW	
$COPTj = +7^{\circ}C$	5.31	4.03	





Cdh Tj = $+7$ °C 0.99 0.99
Cull 1) = +7 C 0.99 0.99
Pdh Tj = $12^{\circ}$ C 7.44 kW 6.77 kW
COP Tj = 12°C 7.15 5.44
Cdh Tj = +12 °C $0.99$ $0.99$
Pdh Tj = Tbiv $8.73 \text{ kW} \qquad 9.44 \text{ kW}$
COP Tj = Tbiv 2.86 2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ 7.46 kW 6.81 kW Tdesignh
COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ 2.42 1.72 Tdesignh
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ 0.99 0.99 Tdesignh
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 Electricity Electricity
Supplementary Heater: PSUP 2.41 kW 3.86 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 20384 kWh 22040 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-M-E-AC 111.A14 F

Configure model		
Model name	Vitocal 111-S AWBT-M-E-AC 111.A14 F	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	13.50 kW	11.82 kW	
El input	2.89 kW	4.23 kW	
СОР	4.67	2.80	

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)

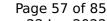
EN 14825			
		Low temperature	Medium temperature
Pdesignh	10.70 kW		-
$\eta_{s}$	160 %	117 %	
Prated	9.90 kW	10.70 kW	_
SCOP	4.08	3.00	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.73 kW	9.44 kW	
$COP Tj = -7^{\circ}C$	2.86	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.34 kW	6.11 kW	
$COPTj = +2^{\circ}C$	3.92	2.82	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.99 kW	9.33 kW	
$COP Tj = +7^{\circ}C$	5.31	4.03	





Cdh Tj = $+7$ °C 0.99 0.99
Cull 1) = +7 C 0.99 0.99
Pdh Tj = $12^{\circ}$ C 7.44 kW 6.77 kW
COP Tj = 12°C 7.15 5.44
Cdh Tj = +12 °C $0.99$ $0.99$
Pdh Tj = Tbiv $8.73 \text{ kW} \qquad 9.44 \text{ kW}$
COP Tj = Tbiv 2.86 2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ 7.46 kW 6.81 kW Tdesignh
COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ 2.42 1.72 Tdesignh
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ 0.99 0.99 Tdesignh
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 Electricity Electricity
Supplementary Heater: PSUP 2.41 kW 3.86 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 20384 kWh 22040 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-M 101.A16

Configure model			
Model name Vitocal 100-S AWB-M 101.A16			
Application	Heating (medium temp)		
Units	Indoor + Outdoor		
Climate Zone	n/a		
Reversibility	No		
Cooling mode application (optional) n/a			

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	15.50 kW	13.43 kW	
El input	3.42 kW	4.94 kW	
СОР	4.53	2.72	

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	11.80 kW		'
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.60 kW	6.65 kW	
COP Tj = +2°C	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7$ °C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	





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Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	14.93 kW	6.77 kW
COP Tj = 12°C	6.49	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.85 kW	10.45 kW
COP Tj = Tbiv	2.54	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	7.15	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	4.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	24394 kWh	24394 kWh
		•



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

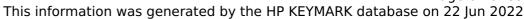
Configure model		
Model name	Vitocal 100-S AWB-M-E 101.A16	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	15.50 kW	13.43 kW
El input	3.42 kW	4.94 kW
СОР	4.53	2.72

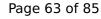
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





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	
11.80 kW			
155 %	119 %		
10.00 kW	11.80 kW		
3.95	3.05		
-7 °C	-7 °C		
-20 °C	-20 °C		
8.85 kW	10.45 kW		
2.54	2.05		
0.99	0.99		
6.60 kW	6.65 kW		
3.76	2.86		
0.99	0.99		
5.93 kW	9.42 kW		
5.40	4.13		
	11.80 kW 155 % 10.00 kW 3.95 -7 °C -20 °C 8.85 kW 2.54 0.99 6.60 kW 3.76 0.99 5.93 kW	Low temperature  11.80 kW  155 %  119 %  10.00 kW  11.80 kW  3.95  -7 °C  -7 °C  -20 °C  -20 °C  8.85 kW  10.45 kW  2.54  2.05  0.99  0.99  6.60 kW  6.65 kW  3.76  2.86  0.99  0.99  5.93 kW  9.42 kW	





This information was generated by the fir KETMAKK
Cdh Tj = $+7$ °C 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.49 5.44
Cdh Tj = $+12$ °C 0.99 0.99
Pdh Tj = Tbiv 8.85 kW 10.45 kW
COP Tj = Tbiv 2.54 2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ 7.44 kW 7.81 kW 7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ 7.15 1.81 Tdesignh
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 Electricity Electricity
Supplementary Heater: PSUP 2.56 kW 4.00 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 24394 kWh kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A16	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.50 kW	13.43 kW	
El input	3.42 kW	4.94 kW	
СОР	4.53	2.72	

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	11.80 kW		
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.60 kW	6.65 kW	
$COP Tj = +2^{\circ}C$	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7^{\circ}$ C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	





		•
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	14.93 kW	6.77 kW
COP Tj = 12°C	6.49	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.85 kW	10.45 kW
COP Tj = Tbiv	2.54	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	7.15	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	4.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	24394 kWh	24394 kWh



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

Configure model		
Model name	Vitocal 100-S AWB-M-E-AC 101.A16 F	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	15.50 kW	13.43 kW	
El input	3.42 kW	4.94 kW	
СОР	4.53	2.72	

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	11.80 kW		-
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	_
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
$COP Tj = -7^{\circ}C$	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.60 kW	6.65 kW	
$COP Tj = +2^{\circ}C$	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	





	,	,
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	14.93 kW	6.77 kW
COP Tj = 12°C	6.49	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.85 kW	10.45 kW
COP Tj = Tbiv	2.54	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	7.15	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	o w	o w
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	4.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	24394 kWh	24394 kWh

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

Configure model		
Model name	Vitocal 111-S AWBT-M-AC 111.A16	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

### Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	15.50 kW	13.43 kW
El input	3.42 kW	4.94 kW
СОР	4.53	2.72

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	l 14825		
		Low temperature	Medium temperature
Pdesignh	11.80 kW		
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.60 kW	6.65 kW	
COP Tj = +2°C	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7$ °C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	





		•
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	14.93 kW	6.77 kW
COP Tj = 12°C	6.49	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.85 kW	10.45 kW
COP Tj = Tbiv	2.54	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	7.15	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	55 °C	55 °C
Poff	15 W	15 W
РТО	o w	o w
PSB	0 W	o w
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	4.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	24394 kWh	24394 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-M-E 111.A16

Configure model		
Model name Vitocal 111-S AWBT-M-E 111.A16		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	15.50 kW	13.43 kW	
El input	3.42 kW	4.94 kW	
СОР	4.53	2.72	

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	11.80 kW		'
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.60 kW	6.65 kW	
COP Tj = +2°C	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7$ °C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	

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Cdh Tj = $+7$ °C 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.49 5.44
Cdh Tj = $+12  ^{\circ}$ C 0.99 0.99
Pdh Tj = Tbiv 8.85 kW 10.45 kW
COP Tj = Tbiv 2.54 2.05
COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ 7.15 1.81 Tdesignh
WTOL 55 °C 55 °C
Poff 15 W 15 W
PTO 0 W 0 W
PSB 0 W 0 W
PCK 0 W
Supplementary Heater: Type of energy input Electricity Electricity
Supplementary Heater: PSUP 2.56 kW 4.00 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 24394 kWh 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-M-E-AC 111.A16

Configure model		
Model name   Vitocal 111-S AWBT-M-E-AC 111.A16		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data			
Power supply 1x230V 50Hz			

### Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	15.50 kW	13.43 kW	
El input	3.42 kW	4.94 kW	
СОР	4.53	2.72	

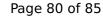
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



	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	11.80 kW		'
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = $+2$ °C	6.60 kW	6.65 kW	
COP Tj = +2°C	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = $+7$ °C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	

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Cdh Tj = $+7$ °C 0.99 0.99
Pdh Tj = 12°C
COP Tj = 12°C 6.49 5.44
Cdh Tj = $+12  ^{\circ}$ C 0.99 0.99
Pdh Tj = Tbiv 8.85 kW 10.45 kW
COP Tj = Tbiv 2.54 2.05
COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ 7.15 1.81 Tdesignh
WTOL 55 °C 55 °C
Poff 15 W 15 W
PTO 0 W 0 W
PSB 0 W 0 W
PCK 0 W
Supplementary Heater: Type of energy input Electricity Electricity
Supplementary Heater: PSUP 2.56 kW 4.00 kW
Backup Heater 0.00 kW
Annual energy consumption Qhe 24394 kWh 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-M-E-AC 111.A16 F

C	Configure model
Model name	Vitocal 111-S AWBT-M-E-AC 111.A16 F
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 50Hz	

### Heating

	EN 14511-2	
	Low temperature	Medium temperature
Heat output	15.50 kW	13.43 kW
El input	3.42 kW	4.94 kW
СОР	4.53	2.72

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

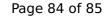


CEN heat pump KEYMARK

	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	11.80 kW		
$\eta_{s}$	155 %	119 %	
Prated	10.00 kW	11.80 kW	
SCOP	3.95	3.05	
Tbiv	-7 °C	-7 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	8.85 kW	10.45 kW	
COP Tj = -7°C	2.54	2.05	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	6.60 kW	6.65 kW	
COP Tj = +2°C	3.76	2.86	
Cdh Tj = +2 °C	0.99	0.99	
Pdh Tj = +7°C	5.93 kW	9.42 kW	
$COP Tj = +7^{\circ}C$	5.40	4.13	

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	-	-
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	14.93 kW	6.77 kW
COP Tj = 12°C	6.49	5.44
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	8.85 kW	10.45 kW
COP Tj = Tbiv	2.54	2.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.44 kW	7.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	7.15	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	4.00 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	24394 kWh	24394 kWh

### Domestic Hot Water (DHW)



EN 16147	
Declared load profile	XL
Efficiency ηDHW	124 %
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Reference hot water temperature	53.0 °C
Mixed water at 40°C	290 I