VIESMANN

Product parameters

Product range 2013

Datasheet

Product-specific parameters for calculating the energy efficiency requirement in building regulations Part L1 and L2

Product parameters

Introduction:

This leaflet provides product specific performance data which are measured to the relevant requirements of EU Directive 92/42/EEC. The measured performance data are for persons installing fixed building services in new and existing buildings to help them to comply with building regulations.

To assist compliance with the relevant energy efficiency requirements in building regulations, the quoted efficiencies and other performance data are as per SAP (Standard Assessment Procedure) and should exceed the minimum efficiency standards for space heating, domestic hot water, ventilation, cooling etc and for microgeneration of heat pumps and solar thermal as specified in the domestic and commercial compliance guide.

The Standard Assessment Procedure (SAP) is adopted by Government as the UK methodology for calculating the energy performance of dwellings.
The calculation is based on the energy balance taking into account a range of factors that contribute to energy efficiency:

- materials used for construction of the dwelling
- thermal insulation of the building fabric
- ventilation characteristics of the dwelling and ventilation equipment
- efficiency and control of the heating system(s)
- solar gains through openings of the dwelling
- the fuel used to provide space and water heating, ventilation and lighting
- energy for space cooling, if applicable
- renewable energy technologies

The calculation is independent of factors related to the individual characteristics of the household occupying the dwelling when the rating is calculated, for example:

- household size and composition;
- ownership and efficiency of particular domestic electrical appliances;
- individual heating patterns and temperatures.

Note: Conversion factors from gross to net:

-Natural gas: 0.902
-LPG: 0.925
-Oil: 0.937

Calculation: Gross calorific value x factor = Net calorific value

9443 711 GB

Product parameters (cont.)

Vitola 200 (type VB2A) – 18 to 63 kW with Vitoflame 200 pressure-jet oil burner
Vitola 200 (type VX2A) – 18 to 27 kW with Vitoflame 300 blue flame oil burner
Ultra-low temperature oil/gas boiler

Rated output	**kW**	**18**	**22**	**27**	**33**	**40**	**50**	**63**
Efficiency η at								
- 100 % of net rated output	%	93.4	93.6	93.6	93.7	93.8	93.8	93.8
- 30 % of net rated output	%	94.8	95.4	95.4	95.8	96.0	96.5	96.3
Standby loss $q_{B,70}$	%	1.2	1.0	0.8	0.7	0.65	0.6	0.5
Power consumption[*1] at								
- 100 % of rated output	W	180	198	219	241	264	294	329
- 30 % of rated output	W	60	66	73	80	88	98	110
Appliance in standby mode	W	3	3	3	3	3	3	3
Seasonal efficiency (gross) to Part L2	gas	85.2	85.6	85.6	86.0	86.1	86.5	86.3
	oil	88.6	89.1	89.1	89.4	89.6	89.9	89.8

Vitoplex 100 (type PV1) 150 to 2000 kW
Standard oil/gas boiler

Rated output	**kW**	**150**	**200**	**250**	**310**	**400**
Efficiency η at						
- 100 % of net rated output	%	90.8	91.0	90.9	91.0	90.9
- 30 % of net rated output	%	94.5	94.4	94.7	95.0	94.7
Standby loss $q_{B,70}$	%	0.45	0.45	0.4	0.4	0.35
Power consumption at						
- 100 % of net rated output	W	–	–	–	–	–
- 30 % of net rated output	W	-	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	84.5	84.5	84.7	84.9	84.7
	oil	87.9	87.8	88.1	88.3	88.1

Rated output	**kW**	**500**	**620**	**780**	**950**	**1120**
Efficiency η at						
- 100 % of net rated output	%	91.0	91.1	91.2	91.3	91.2
- 30 % of net rated output	%	95.0	95.2	95.6	95.7	95.5
Standby loss $q_{B,70}$	%	0.3	0.25	0.15	0.13	0.13
Power consumption at						
- 100 % of rated output	W	–	–	–	–	–
- 30 % of rated output	W	-	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	84.9	85.1	85.4	85.5	85.3
	oil	88.3	88.5	88.8	88.9	88.7

Rated output	**kW**	**1350**	**1700**	**2000**
Efficiency η at				
- 100 % of net rated output	%	91.2	91.3	91.3
- 30 % of net rated output	%	95.6	95.8	95.8
Standby loss $q_{B,70}$	%	0.12	0.12	0.11
Power consumption at				
- 100 % of net rated output	W	–	–	–
- 30 % of net rated output	W	-	-	-
Seasonal efficiency (gross) to Part L2	gas	85.4	85.5	85.5
	oil	88.8	89.0	89.0

Note: NOx is subject to third party burner specification.

*[*1] Standard parameters*

Product parameters (cont.)

Vitoplex 200 (type SX2A) – 90 to 1950 kW
Low temperature oil/gas boiler

Rated output	**kW**	**90**	**120**	**150**	**200**	**270**
Efficiency η at						
- 100 % of net rated output	%	91.9	92.0	92.0	92.0	92.1
- 30 % of net rated output	%	95.4	95.9	95.9	96.1	96.2
Standby loss $q_{B,70}$	%	0.4	0.35	0.30	0.30	0.25
Power consumption at						
- 100 % of net rated output	W	359	420	455	529	578
- 30 % of net rated output	W	123	140	155	175	225
Seasonal efficiency (gross) to Part L2	gas	85.4	85.7	85.7	85.9	86
	oil	88.8	89.2	89.2	89.3	89.4

Rated output	**kW**	**350**	**440**	**560**	**700**	**900**
Efficiency η at						
- 100 % of net rated output	%	92.2	92.2	92.3	92.2	92.2
- 30 % of net rated output	%	96.4	96.4	96.5	96.4	96.5
Standby loss $q_{B,70}$	%	0.25	0.22	0.20	0.15	0.13
Power consumption at						
- 100 % of net rated output	W	744	–	–	–	–
- 30 % of net rated output	W	240	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	86.1	86.1	86.2	86.1	86.2
	oil	89.6	89.6	89.7	89.6	89.7

Rated output	**kW**	**1100**	**1300**	**1600**	**1950**
Efficiency η at					
- 100 % of net rated output	%	92.2	92.3	92.2	92.3
- 30 % of net rated output	%	96.6	96.6	96.5	96.6
Standby loss $q_{B,70}$	%	0.13	0.12	0.13	0.11
Power consumption at					
- 100 % of net rated output	W	–	–	–	–
- 30 % of net rated output	W	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	86.3	86.3	86.2	86.3
	oil	89.7	89.7	89.7	89.7

Note: NOx is subject to third party burner specification.

Product parameters (cont.)

Vitoplex 300 (type TX3A) – 90 to 2000 kW
Low temperature oil/gas boiler

Rated output	**kW**	**90**	**115**	**140**	**180**	**235**	**300**
Efficiency η at							
- 100 % of net rated output	%	92.7	92.7	92.8	92.7	92.5	92.8
- 30 % of net rated output	%	97.3	97.4	97.5	97.5	97.1	97.6
Standby loss $q_{B,70}$	%	0.40	0.37	0.32	0.34	0.37	0.29
Power consumption[*1] at							
- 100 % of net rated output	W	359	430	482	544	612	695
- 30 % of net rated output	W	123	143	161	181	204	232
Seasonal efficiency (gross) to Part L2	gas	86.9	87.0	87.0	87.0	87.6	87.1
	oil	90.4	90.4	90.5	90.5	90.2	90.6

Rated output	**kW**	**390**	**500**	**620**	**780**
Efficiency η at					
- 100 % of net rated output	%	92.9	93.3	93.0	93.1
- 30 % of net rated output	%	97.7	97.9	97.5	97.7
Standby loss $q_{B,70}$	%	0.25	0.23	0.15	0.13
Power consumption[*1] at					
- 100 % of net rated output	W	789	-	-	-
- 30 % of net rated output	W	263	-	-	-
Seasonal efficiency (gross) to Part L2	gas	87.2	87.4	87.1	87.2
	oil	90.7	90.9	90.6	90.7

Rated output	**kW**	**1000**	**1250**	**1600**	**2000**
Efficiency η at					
- 100 % of net rated output	%	92.9	93.0	93.0	93.1
- 30 % of net rated output	%	97.7	97.7	97.7	98.2
Standby loss $q_{B,70}$	%	0.13	0.12	0.12	0.11
Power consumption[*1] at					
- 100 % of net rated output	W	-	-	-	-
- 30 % of net rated output	W	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	87.2	87.2	87.2	87.6
	oil	90.7	90.7	90.7	91.1

Note: NOx is subject to third party burner specification.

*[*1] Standard parameters*

Product parameters (cont.)

Vitorond 100 (type VR2B) – 40 to 100 kW
Oil/gas boiler

Rated output	kW	40	50	63	80	100
Efficiency η at						
- 100 % of net rated output	%	92.8	93.2	93.1	92.3	93.0
- 30 % of net rated output	%	94.7	94.3	94.9	94.0	94.2
Standby loss $q_{B,70}$	%	0.7	0.6	0.5	0.5	0.4
Power consumption[*1] at						
- 100 % of net rated output	W	264	294	329	369	410
- 30 % of net rated output	W	88	98	110	123	137
Seasonal efficiency (gross) to Part L2	gas	85.0	84.8	85.2	84.4	84.7
	oil	88.4	88.2	88.6	87.8	88.1

Note: NOx is subject to third party burner specification.

Vitorond 200 (type VD2A) – 125 to 270 kW, type VD2 320 to 1080 kW
Oil/gas boiler

Rated output	kW	125	160	195	230	270	320
Efficiency η at							
- 100 % of net rated output	%	92.4	92.5	92.7	92.8	92.8	92.5
- 30 % of net rated output	%	95.2	94.9	95.5	95.6	95.6	96.3
Standby loss $q_{B,70}$	%	0.4	0.38	0.28	0.25	0.25	0.24
Power consumption at							
- 100 % of net rated output	W	457	514	565	612	661	717
- 30 % of net rated output	W	152	171	188	204	220	239
Seasonal efficiency (gross) to Part L2	gas	85.3	85.1	85.6	85.6	85.7	86.1
	oil	88.7	88.5	89.0	89.0	89.1	89.6

Rated output	kW	380	440	500	560	630	700
Efficiency η at							
- 100 % of net rated output	%	92.8	92.7	92.6	92.5	92.4	92.5
- 30 % of net rated output	%	96.4	96.3	96.3	96.4	96.3	96.5
Standby loss $q_{B,70}$	%	0.24	0.22	0.20	0.19	0.18	0.17
Power consumption at							
- 100 % of net rated output	W	779	–	–	–	–	–
- 30 % of net rated output	W	260	-	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	86.2	86.2	86.1	86.2	86.1	86.3
	oil	89.7	89.6	89.6	89.6	89.5	89.7

Rated output	kW	780	860	950	1080
Efficiency η at					
- 100 % of net rated output	%	92.3	92.5	92.4	92.3
- 30 % of net rated output	%	96.3	96.5	96.5	96.4
Standby loss $q_{B,70}$	%	0.16	0.14	0.13	0.13
Power consumption at					
- 100 % of net rated output	W	–	–	–	–
- 30 % of net rated output	W	-	-	-	-
Seasonal efficiency (gross) to Part L2	gas	86.1	86.3	86.2	86.2
	oil	89.5	89.8	89.7	89.6

Note: NOx is subject to third party burner specification.

*[*1] Standard parameters*

Product parameters (cont.)

Vitocrossal 200 (type CM2) – 87 to 620 kW
Gas condensing boiler with MatriX radiant burner

Rated output						
T_V/T_F = 50/30 °C	**kW**	**87**	**115**	**142**	**186**	**246**
T_V/T_F = 80/60 °C	**kW**	**80**	**105**	**130**	**170**	**225**
Efficiency η at						
- 100 % of net rated output	%	97.2	97.4	97.6	97.7	97.8
- 30 % of net rated output	%	107.9	108.0	108.0	108.1	108.2
Standby loss $q_{B,70}$	%	0.6	0.5	0.4	0.4	0.3
Power consumption at						
- 100 % of net rated output	W	85	150	195	280	340
- 30 % of net rated output	W	35	50	55	55	60
NOx classification	class	5	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.4	95.5	95.5	95.6	95.7

Rated output					
T_V/T_F = 50/30 °C	**kW**	**311**	**400**	**500**	**620**
T_V/T_F = 80/60 °C	**kW**	**285**	**370**	**460**	**575**
Efficiency η at					
- 100 % of net rated output	%	97.8	97.2	97.2	96.6
- 30 % of net rated output	%	108.2	108.2	107.8	107.9
Standby loss $q_{B,70}$	%	0.3	0.3	0.2	0.2
Power consumption at					
- 100 % of net rated output	W	395	576	655	835
- 30 % of net rated output	W	65	84	86	95
NOx classification	class	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.7	95.6	95.3	95.3

Vitocrossal 300 (type CT3U) – 400 to 630 kW

Rated output				
T_V/T_F = 50/30 °C	**kW**	**400**	**500**	**620**
T_V/T_F = 80/60 °C	**kW**	**370**	**460**	**575**
Efficiency η at				
- 100 % of net rated output	%	97.4	97.4	97.6
- 30 % of net rated output	%	108.2	108.1	107.9
Standby loss $q_{B,70}$	%	0.2	0.2	0.1
Power consumption at				
- 100 % of net rated output	W	585	630	890
- 30 % of net rated output	W	90	95	105
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.6	95.6	95.5

Vitocrossal 300 (type CU3A) – 19 to 60 kW
Gas condensing boiler with MatriX radiant burner

Rated output						
T_V/T_F = 50/30 °C	**kW**	**5.2 to 19.0**	**5.2 to 26.0**	**7.0 to 35.0**	**9.0 to 45.0**	**12.0 to 60.0**
T_V/T_F = 80/60 °C	**kW**	**4.7 to 17.2**	**4.7 to 23.7**	**6.3 to 31.7**	**8.2 to 40.8**	**10.9 to 54.3**
Efficiency η at						
- 100 % of net rated output	%	96.8	96.8	96.6	96.9	97.1
- 30 % of net rated output	%	108.3	108.3	108.4	108.3	108.5
Standby loss $q_{B,70}$	%	1.2	1.2	0.8	0.7	0.5
Power consumption at						
- 100 % of net rated output	W	33	33	34	39	41
- 30 % of net rated output	W	15	15	16	17	19
Appliance in standby mode	W	5	5	5	5	5
NOx classification	class	5	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.6	95.6	95.6	95.6	95.8

Product parameters (cont.)

Vitocrossal 300 (type CM3) – 87 to 142 kW
Gas condensing boiler with MatriX radiant burner

Rated output				
T_V/T_F = 50/30 °C	**kW**	**29 to 87**	**38 to 115**	**47 to 142**
T_V/T_F = 80/60 °C	**kW**	**27 to 80**	**35 to 105**	**43 to 130**
Efficiency η at				
- 100 % of net rated output	%	97.2	97.5	97.6
- 30 % of net rated output	%	108.0	108.1	107.6
Standby loss $q_{B,70}$	%	0.6	0.5	0.4
Power consumption at				
- 100 % of rated output	W	369	420	465
- 30 % of rated output	W	123	140	155
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.5	95.6	95.2

Vitocrossal 300 (type CT3) – 187 to 635 kW
Gas condensing boiler, up to a rated output of 314 kW with MatriX radiant burner

Rated output							
T_V/T_F = 40/30 °C	**kW**	**187**	**248**	**314**	**408**	**508**	**635**
T_V/T_F = 80/60 °C	**kW**	**170**	**225**	**285**	**370**	**460**	**575**
Efficiency η at							
- 100 % of net rated output	%	97.8	97.6	97.8	97.5	97.6	97.6
- 30 % of net rated output	%	107.5	108.2	108.2	108.0	108.2	108.2
Standby loss $q_{B,70}$	%	0.4	0.3	0.3	0.3	0.28	0.25
Power consumption*1 at							
- 100 % of rated output	W	280	340	395	575	620	880
- 30 % of rated output	W	55	60	65	80	85	95
NOx classification	class	5	5	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.2	95.7	95.7	95.5	95.7	95.7
	LPG	97.3	97.8	97.8	97.6	97.8	97.8

Vitocrossal 300 (type CR3B) – 787 to 1400 kW
Gas condensing boiler

Rated output					
T_V/T_F = 50/30 °C	**kW**	**787**	**978**	**1100**	**1400**
T_V/T_F = 80/60 °C	**kW**	**720**	**895**	**1006**	**1280**
Efficiency η at					
- 100 % of net rated output	%	97.0	97.1	97.0	97.0
- 30 % of net rated output	%	108.5	108.2	108.4	108.4
Standby loss $q_{B,70}$	%	0.25	0.25	0.25	0.25
Power consumption at					
- 100 % of net rated output	W	1059	1175	-	-
- 30 % of net rated output	W	353	140	-	-
Seasonal efficiency (gross) to Part L2	gas	95.8	95.6	95.7	95.7
	LPG	99.6	99.4	99.5	99.5

Note: NOx is subject to third party burner specification.

**1 Standard parameters*

Product parameters (cont.)

Vitoradial 300-T (type VR3) – 101 to 545 kW
Oil condensing boiler

Rated output					
T_V/T_F = 50/30 °C	**kW**	**101**	**129**	**157**	**201**
T_V/T_F = 80/60 °C	**kW**	**94**	**120**	**146**	**188**
Efficiency η at					
- 100 % of net rated output	%	98	98.1	97.6	98.0
- 30 % of net rated output	%	100.3	100.2	100.1	100.2
Standby loss $q_{B,70}$	%	0.6	0.6	0.5	1.2
Power consumption at					
- 100 % of net rated output	W	345	425	435	505
- 30 % of net rated output	W	104	128	131	152
Seasonal efficiency (gross) to Part L2	oil	93.6	93.5	93.3	93.5

Rated output					
T_V/T_F = 50/30 °C	**kW**	**263**	**335**	**425**	**545**
T_V/T_F = 80/60 °C	**kW**	**245**	**313**	**407**	**522**
Efficiency η at					
- 100 % of net rated output	%	97.7	97.8	97.3	97.0
- 30 % of net rated output	%	100.1	100.5	99.4	99.3
Standby loss $q_{B,70}$	%	1.0	1.0	0.9	0.8
Power consumption at					
- 100 % of net rated output	W	615	635	805	907
- 30 % of net rated output	W	185	191	268	302
Seasonal efficiency (gross) to Part L2	oil	93.4	93.7	92.8	92.6

Note: NOx is subject to third party burner specification.

Vitodens 100-W (type WB1C) gas combi – 7.4 to 35.0 kW

Rated output CH and DHW	**kW**	**7.4-26**	**8.8-30**	**8.8-35**
Efficiency η at				
- 100 % of gross rated output	%	88.3	88.3	88.2
- 30 % of gross rated output	%	97.9	97.5	98.5
Power consumption				
Maximum power consumption	W	119	134	154
Appliance in standby mode	W	4.9	4.8	4.8
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
SEDBUK annual efficiency 2009	gas	89.1	88.9	89.3
{206, 207}	LPG	90.1	88.9	90.4

Vitodens 100-W (type WB1C) gas system – 7.4 to 35.0 kW

Rated output CH	**kW**	**7.4-19**	**7.4-26**	**8.8-30**	**8.8-35**
Efficiency η at					
- 100 % of gross rated output	%	88.2	88.3	88.3	88.2
- 30 % of gross rated output	%	97.9	97.9	97.5	98.5
Power consumption					
Maximum power consumption	W	102	106	107	154
Appliance in standby mode	W	4.9	4.9	4.8	4.8
NOx classification	class	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39
SEDBUK annual efficiency 2009	gas	89.2	89.2	89.0	89.4
{206, 207}	LPG	89.4	90.2	90.4	90.5

{} SAP field numbers

Product parameters (cont.)

Vitodens 100-W gas compact – 7.9 to 35.0 kW

Rated output CH	**kW**	**7.9-13**	**7.9-16**	**7.9-19**	**7.9-26**	**11-35**
Efficiency η at						
- 100 % of gross rated output	%	86.7	86.7	86.7	86.8	86.8
- 30 % of gross rated output	%	95.4	95.5	95.4	95.8	95.9
Power consumption						
Maximum power consumption	W	45	50	55	60	65
Appliance in standby mode	W	-	-	-	-	-
NOx classification	class	5	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39	<39
SEDBUK seasonal efficiency 2009	gas	89.2	89.1	89.1	89.1	89.2
{206, 207}						

Vitodens 111 (type B1LA) gas storage combi - 6.5 to 35kW

Rated output CH and DHW	**kW**	**6.5-26**	**8.8-35**
Efficiency η at			
- 100 % of gross rated output	%	88.2	88.3
- 30 % of gross rated output	%	97.8	98.5
Power consumption			
Maximum power consumption	W	160	160
Appliance in standby mode	W	2.1	2.1
Standby loss $q_{B,S}$ of the boiler	kWh/24 h	1.0	1.0
NOx classification	class	5	5
NOx emissions	mg/kWh	<39	<39
SEDBUK annual efficiency 2009	gas	89.2	89.4
{206, 207}	LPG	90.2	90.5

Vitodens 100 (BPJA) gas combi - 6.5 to 25.0 kW

Rated output CH	**kW**	**6.5-21**	**6.5-25**
Efficiency η at			
- 100 % of gross rated output	%	88.2	88.3
- 30 % of gross rated output	%	97.7	97.9
Power consumption			
Maximum power consumption	W	97	97
Appliance in standby mode	W	4.8	4.8
NOx classification	class	5	5
NOx emissions	mg/kWh	<39	<39
SEDBUK annual efficiency 2009	gas	89.2	89.2
{206, 207}	LPG	90.2	90.2

Vitodens 200-W (type B2KA) combi – 5.2 to 35.0 kW
Gas condensing combi boiler

Rated output				
Central heating				
T_V/T_F = 50/30 °C	**kW**	**5.2-26.0**	**5.2-30.0**	**5.2 -35.0**
T_V/T_F = 80/60 °C	**kW**	**4.7-24.1**	**7.9-27.8**	**4.7-32.2**
DHW heating	**kW**	**4.7-29.7**	**4.7-30.5**	**4.7-34.0**
Efficiency η at				
- 100 % of gross rated output	%	88.9	89.1	88.7
- 30 % of gross rated output	%	97.9	97.8	97.8
Power consumption at				
Maximum power consumption	W	114	116	126
Appliance in standby mode	W	4.2	4.2	4.2
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
SEDBUK annual efficiency 2009	gas	89.0	89.0	89.1
{206, 207}	LPG	90.0	90.0	90.1

{} SAP field numbers

Product parameters (cont.)

Vitodens 200-W (type B2HA) system – 3.2 to 35.0 kW
Gas condensing boiler

Rated output					
T_V/T_F = 50/30 °C	**kW**	**3.2-19.0**	**5.2-26.0**	**5.2-35.0**	**5.2-35.0**
T_V/T_F = 80/60 °C	**kW**	**2.9-17.5**	**4.7-24.1**	**4.7-27.8**	**4.7-31.7**
- DHW heating	**kW**	**-**	**-**	**-**	**-**
Efficiency η at					
- 100 % of gross rated output	%	88.9	89	88.6	88.6
- 30 % of gross rated output	%	97.9	97.8	97.8	97.8
Standby loss $q_{B,70}$	%	0.9	0.8	0.8	0.7
Power consumption					
Appliance without pump at					
- 100 % of net rated output	W	28	33	-	49
- 30 % of net rated output	W	14	15	-	15
Appliance in standby mode	W	4	4	4	4
Power consumption, pump					
Stage 1	W	6	7	-	7
Stage 2	W	22	32	-	68
NOx classification	class	5	5	5	5
NOx emissions	mg/kWh	<39	<39	<39	<39
SEDBUK annual efficiency 2009	gas	89.0	89.1	89.1	89.2
{206, 207}	LPG	90.0	90.0	90.1	90.2

Vitodens 200-W (type B2HA) 17.0 to 150 kW
Gas condensing boiler

Rated output				
T_V/T_F = 50/30 °C	**kW**	**17.0-45.0**	**17.0-60.0**	**30.0-80.0**
T_V/T_F = 80/60 °C	**kW**	**15.4-40.7**	**15.4-54.4**	**27.0-72.6**
Efficiency η at				
- 100 % of net rated output	%	96.4	96.8	98.7
- 30 % of net rated output	%	107.6	107.8	108.7
Standby loss $q_{B,70}$	%	0.5	0.4	0.5
Power consumption at				
- 100 % of net rated output	W	56	82	90
- 30 % of net rated output	W	25	25	32
Appliance in standby mode	W	7	7	7
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	95.0	95.2	96.2

Rated output				
T_V/T_F = 50/30 °C	**kW**	**30.0-100.0**	**32.0-125.0**	**32.0-150.0**
T_V/T_F = 80/60 °C	**kW**	**27.0-72.6**	**29.0-114.0**	**29.0-136.0**
Efficiency η at				
- 100 % of net rated output	%	98.6	97.5	97.4
- 30 % of net rated output	%	108.7	106.8	107.1
Standby loss $q_{B,70}$	%	0.4	0.2	0.2
Power consumption at				
- 100 % of net rated output	W	148	146	222
- 30 % of net rated output	W	32	31	31
Appliance in standby mode	W	7	5	5
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
Seasonal efficiency (gross) to Part L2	gas	96.2	94.6	94.8

{} SAP field numbers

Product parameters (cont.)

Vitodens 222-F (type B2TA) – 3.2 to 35.0 kW
Gas condensing storage combi boiler with 100 or 130 l loading cylinder

Rated output				
Central heating				
T_V/T_F = 50/30 °C	**kW**	**3.2-19.0**	**5.2-26.0**	**5.2-35.0**
T_V/T_F = 80/60 °C	**kW**	**2.9-17.2**	**4.7-23.7**	**4.7-31.7**
DHW heating	**kW**	**2.9-17.2**	**4.7-29.3**	**4.7-33.5**
Efficiency η at				
- 100 % of net rated output	%	96.9	97.4	97.5
- 30 % of net rated output	%	107.7	108.1	108.4
Standby loss $q_{B,S}$ of the boiler	kWh/24 h	0.9	0.8	0.7
Standby heat loss $q_{B,S}$ of the loading cylinder at 45 K temp. differential	kWh/24 h	1.2	1.2	1.5
Power consumption				
Appliance without pump at				
- 100 % of net rated output	W	28	33	49
- 30 % of net rated output	W	14	15	15
Appliance in standby mode	W	4	4	4
Power consumption, pumps				
- Pump for cylinder heating	W	40	40	40
- Heating circuit pump				
Stage 1	W	6	7	7
Stage 2	W	22	32	68
NOx classification	class	5	5	5
NOx emissions	mg/kWh	<39	<39	<39
SEDBUK annual efficiency 2009	gas	89.3	89.4	89.5
{206, 207}	LPG	90.3	90.4	90.5

Vitodens 242-F (type B2UA) – 3.2 to 26.0 kW
Compact Energy Tower for combined gas condensing/solar thermal systems

Rated output			
T_V/T_F = 50/30 °C	**kW**	**3.2-19.0**	**5.2-26.0**
T_V/T_F = 80/60 °C	**kW**	**2.9-17.5**	**4.7-24.1**
DHW heating	**kW**	**4.3-17.2**	**5.9-29.3**
Efficiency η at			
- 100 % of gross rated output	%	88	88.9
- 30 % of gross rated output	%	97.7	97.9
Standby loss $q_{B,S}$ of the boiler	kWh/24 h	0.9	0.9
Power consumption			
- Total	W	210	210
- Heating circuit pump	W	60	60
- Solar circuit pump	W	60	60
Power consumption, pumps			
- Two-stage heating circuit pump			
Stage 1	W	80	80
Stage 2	W	95	95
- Three-stage solar circuit pump			
Stage 1	W	50	50
Stage 2	W	65	65
Stage 3	W	80	80
NOx classification	class	5	5
NOx emissions	mg/kWh	<39	<39
SEDBUK annual efficiency 2009	gas	89.3	89.4
{206, 207}	LPG	90.3	90.4
Cylinder capacity	**litres**	**170**	**170**
Standby heat loss $q_{B,S}$	kWh/24 h	1.7	1.7
V_{aux} (standby capacity)	litres	85	85
V_{sol} (solar capacity) {H11}	litres	85	85

{} SAP field numbers

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Product parameters (cont.)

Vitocal 200-G, type BWC 201.A

Vitocal 200-G, 230 V appliances, type BWC-M 201.A	Type	06	08	10
Heat pump output data (to EN 14511, B0/W35, ΔT 5 K)				
Rated heating output	kW	5.61	7.54	9.70
Cooling capacity	kW	4.35	5.94	7.61
Power consumption	kW	1.36	1.72	2.25
Coefficient of performance ε (COP), heating		4.13	4.39	4.31
Heat pump output data (to EN 14511, B0/W35, ΔT 10 K)				
Heating output	kW	5.75	7.57	9.97
Cooling capacity	kW	4.35	6.01	7.97
Power consumption	kW	1.32	1.68	2.14
Coefficient of performance ε (COP), heating		4.37	4.50	4.65
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	43	44	44

Vitocal 222-G, 230 V appliances

	Type	BWT 106	BWT 108	BWT 110
Heat pump output data (to EN 14511, B0/W35, ΔT 5 K)				
Rated heating output	kW	6.0	7.8	10.1
Cooling capacity	kW	4.6	6.0	7.9
Power consumption	kW	1.5	1.85	2.34
Coefficient of performance ε (COP)		4.0	4.2	4.3
Heat pump output data (B0/W35, ΔT 10 K)				
Rated heating output	kW	6.2	8.0	10.4
Cooling capacity	kW	4.9	8.4	8.3
Power consumption	kW	1.45	1.77	2.27
Coefficient of performance ε (COP), heating		4.3	4.5	4.6
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	46	46	46

Vitocal 242-G, 230 V appliances

	Type	BWT 106	BWT 108	BWT 110
Heat pump output data (to EN 14511, B0/W35, ΔT 5 K)				
Rated heating output	kW	6.0	7.8	10.1
Cooling capacity	kW	4.6	6.0	7.9
Power consumption	kW	1.5	1.85	2.34
Coefficient of performance ε (COP)		4.0	4.2	4.3
Heat pump output data (B0/W35, ΔT 10 K)				
Rated heating output	kW	6.2	8.0	10.4
Cooling capacity	kW	4.9	8.4	8.3
Power consumption	kW	1.45	1.77	2.27
Coefficient of performance ε (COP), heating		4.3	4.5	4.6
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	46	46	46

Product parameters (cont.)

Vitocal 300-G BW/BWS and Vitocal 300-G BWC

Vitocal 300-G	Type	BW/BWS 06	BW/BWS 08	BW/BWS 10	BW/BWS 13	BW/BWS 17
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)						
Rated heating output	kW	5.94	7.86	10.06	13.14	17.17
Cooling capacity	kW	4.71	6.29	8.08	10.54	13.77
Power consumption	kW	1.32	1.69	2.13	2.79	3.65
Coefficient of performance ε (COP)		4.51	4.45	4.72	4.71	4.70
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	40	41	41	41	42

Vitocal 300-G	Type	BW/BWS 21	BW/BWS 29	BW/BWS 45
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)				
Rated heating output	kW	21.2	28.8	42.8
Cooling capacity	kW	17.0	23.3	34.2
Power consumption	kW	4.48	5.96	9.28
Coefficient of performance ε (COP)		4.73	4.83	4.60
Heat pump output data (to EN 14511 B0/W35, ΔT 10 K)				
Rated heating output	kW	21.5	29.2	43.5
Cooling capacity	kW	17.5	23.8	35.0
Power consumption	kW	4.33	5.75	9.16
Coefficient of performance ε (COP)		4.97	5.08	4.8
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	42	44	44

Vitocal 300-G	Type	BWC 06	BWC 08	BWC 10	BWC 13	BWC 17
Heat pump output data (to EN 14511, B0/W35, ΔT 5 K)						
Rated heating output	kW	5.86	7.74	9.97	12.95	17.00
Cooling capacity	kW	4.68	6.28	8.04	10.49	13.66
Power consumption	kW	1.27	1.64	2.07	2.64	3.60
Coefficient of performance ε (COP)		4.60	4.71	4.81	4.81	4.73
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	40	41	41	41	42

Note: COP to EN 255 at 0/35 °C with 10 K spread approx. 5 to 6 % higher than according to EN 14511.

Vitocal 300-G BW/BWS and Vitocal 300-G BWC in connection with a water/water heat pump kit

Vitocal 300-G in connection with a water/water heat pump kit	Type	BW/BWS 06	BW/BWS 08	BW/BWS 10	BW/BWS 13	BW/BWS 17
Heat pump output data (to EN 14511 W10/W35, ΔT 5 K)						
Rated heating output	kW	7.96	10.46	13.08	17.35	22.69
Cooling capacity	kW	6.73	8.87	11.09	14.74	19.09
Power consumption	kW	1.32	1.71	2.04	2.18	3.87
Coefficient of performance ε (COP)		6.03	6.11	6.12	6.18	5.87
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	40	41	41	41	42

Vitocal 300-G in connection with a water/water heat pump kit	Type	BW/BWS 21	BW/BWS 29	BW/BWS 45
Heat pump output data (to EN 14511 W10/W35, ΔT 5 K)				
Rated heating output	kW	28.1	37.1	58.9
Cooling capacity	kW	23.7	31.4	48.9
Power consumption	kW	4.73	6.2	10.7
Coefficient of performance ε (COP)		5.94	6.0	5.5
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	42	44	44

Vitocal 300-G in connection with a water/water heat pump kit	Type	BWC 06	BWC 08	BWC 10	BWC 13	BWC 17
Heat pump output data (to EN 14511, W10/W35, ΔT 5 K)						
Rated heating output	kW	7.86	10.36	13.40	17.13	23.00
Cooling capacity	kW	6.70	8.84	11.44	14.56	19.54
Power consumption	kW	1.25	1.64	2.12	2.77	3.72
Coefficient of performance ε (COP)		6.3	6.33	6.33	6.19	6.19
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	40	41	41	41	42

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Product parameters (cont.)

Vitocal 350-G BW/BWS and Vitocal 350-G BWC

Vitocal 350-G	Type	BW/ BWS 351.A07	BW/ BWS 351.A18
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)			
Rated heating output	kW	7.35	18.66
Cooling capacity	kW	5.83	14.52
Power consumption	kW	1.63	4.14
Coefficient of performance ε (COP)		4.50	4.49
Heat pump output data (to EN 14511 B0/W35, ΔT 10 K)			
Rated heating output	kW	7.55	18.97
Cooling capacity	kW	6.05	15.18
Power consumption	kW	1.60	4.07
Coefficient of performance ε (COP)		4.70	4.66
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	44	48

Vitocal 350-G	Type	BWC 351.A07
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)		
Rated heating output	kW	7.45
Cooling capacity	kW	5.77
Power consumption	kW	1.68
Coefficient of performance ε (COP)		4.67
Heat pump output data (to EN 14511 B0/W35, ΔT 10 K)		
Rated heating output	kW	7.59
Cooling capacity	kW	6.12
Power consumption	kW	1.58
Coefficient of performance ε (COP)		4.81
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	44

Vitocal 350-G BWS and Vitocal 350G BWC in connection with a water/water heat pump kit

Vitocal 350-G	Type	BW in connection with a water/water heat pump kit 351.A07	BW/BWS in connection with a water/ water heat pump kit 351.A18
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)			
Rated heating output	kW	10.22	25.73
Cooling capacity	kW	8.59	21.45
Power consumption	kW	1.75	4.60
Coefficient of performance ε (COP)		5.83	5.40
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	44	48

Vitocal 350-G	Type	BWC in connection with a water/water heat pump kit 351.A07
Heat pump output data (to EN 14511 B0/W35, ΔT 5 K)		
Rated heating output	kW	10.26
Cooling capacity	kW	8.69
Power consumption	kW	1.69
Coefficient of performance ε (COP)		6.07
Sound power level (to EN 12102/EN ISO 9614-2)	dB(A)	44

Product parameters (cont.)

Vitocal 300-A, AWCI/AWO, 230 V appliances

Vitocal 300-A, 230 V appliances	Type	AWC-I-M	AW-O-M	AW-O-M (silent)
Heat pump output data at 100 % (to EN 14511, A2/W35, ΔT 5 K)				
Rated heating output	kW		8.6	
Power consumption	kW		2.4	
Coefficient of performance ε (COP)			3.5	
Output control	kW		3 to 8.6	
Heat pump output data at 100 % (to EN 14511, A2/W35, ΔT 10 K)				
Rated heating output	kW		9.2	
Power consumption	kW		2.4	
Coefficient of performance ε (COP)			3.8	
Output control	kW		3 to 9.2	
Cooling capacity data at 100 % (to EN 14511, A27/W7, ΔT 5 K)				
Rated cooling capacity	kW		8.6	
Power consumption	kW		2.76	
Energy efficiency ratio EER			3.12	
Output control	kW		3 to 8.6	
Cooling capacity data at 100 % (to EN 14511, A35/W18, ΔT 10 K)				
Rated cooling capacity	kW		9.40	
Power consumption	kW		3.43	
Energy efficiency ratio EER			2.74	
Output control	kW		3 to 9.4	
Sound power level (to EN ISO 12102 / EN ISO 9614-2)				
- fan level 1	dB(A)	55		55
- fan level 2	dB(A)	58		56
- fan level 3	dB(A)	60		57

Vitocal 350-A, AWHI/AWHO, 400 V appliances

Vitocal 350-A, 400 V appliances	Type	AWH-I			AWH-O		
		10	14	20	10	14	20
Heat pump output data at 100 % (to EN 14511, A2/W35, ΔT 5 K)							
Rated heating output	kW	10.6	14.5	18.5	10.6	14.5	18.5
Power consumption	kW	2.9	4.2	5.8	2.9	4.2	5.8
Coefficient of performance ε (COP)		3.6	3.5	3.2	3.6	3.5	3.2
Heat pump output data at 100 % (to EN 14511, A7/W35, ΔT 5 K)							
Rated heating output	kW	12.7	16.7	20.6	12.7	16.7	20.6
Power consumption	kW	3.1	4.2	6.1	3.1	4.2	6.1
Coefficient of performance ε (COP)		4.0	3.8	3.4	4.0	3.8	3.4
Sound power level (to EN ISO 12102 / EN ISO 9614-2)		*2	*2	*2			
- fan level 1	dB(A)	48	49	55	54	56	61
- fan level 2	dB(A)	48	49	56	54	57	63
- fan level 3	dB(A)	48	50	57	56	59	63

*2 *Measurement in the room where HP is located*
*3 *The calculated values are the max. permissible values*

Product parameters (cont.)

Vitocal 200-S / 222-S / 242-S

Vitocal 200-S AWB/AWB-AC **Vitocal 222-S AWT-AC** **Vitocal 242-S AWT-AC**	**Type**	**201.B04** **221.A04** **241.A04**	**201.B07** **221.A07** **241.A07**	**201.C10** **221.B10** **241.B10**	**201.C13** **221.B13** **241.B13**
Heat pump output data at 100 % (to EN 14511, A2/W35, ΔT 5 K)					
Rated heating output	kW	3.0	5.6	7.57	9.06
Power consumption	kW	0.91	1.73	2.00	2.45
Coefficient of performance ε (COP)		3.30	3.24	3.79	3.70
Output control	kW	1.1 to 3.8	1.3 to 7.7	2.7 to 10.9	3.3 to 12.3
Heat pump output data at 100 % (to EN 14511, A2/W35, ΔT 10 K)					
Rated heating output	kW	4.5	8.39	10.16	12.07
Power consumption	kW	0.97	1.96	2.00	2.57
Coefficient of performance ε (COP)		4.64	4.28	5.08	4.69
Cooling capacity data at 100 % (to EN 14511, A27/W7, ΔT 5 K)					
Rated cooling capacity	kW	3.2	6.2	9.14	10.75
Power consumption	kW	1.08	2.40	3.37	4.15
Performance factor EER		2.96	2.58	2.71	2.59
Output control	kW	1.2 to 3.8	1.6 to 8.0	1.96 to 9.85	2.14 to 11.5
Cooling capacity data at 100 % (to EN 14511, A35/W18, ΔT 10 K)					
Rated cooling capacity	kW	4.2	8.8	8.83	12.83
Power consumption	kW	1.13	2.63	1.98	3.45
Performance factor EER		3.72	3.35	4.46	3.72
Sound power level (to EN ISO 12102 / EN ISO 9614-2)					
- A7 °C (±3K)/W35 °C (±5K)	dB(A)	60	62		
-A7 °C (±3K)/W55 °C (±5K)	dB(A)			61	65

Vitoligno 300-P
Pellet boiler

Rated output	**kW**	**4-12**	**6-18**	**8-24**	**11-32**	**13-40**	**16-48**
Efficiency η at							
- 100 % of net rated output	%	91.9	92.2	91.6	93.0	94.0	92.9
- 30 % of net rated output	%	87.6	88.4	89.6	92.5	93.2	94.0
Standby loss $q_{B,70}$	%	2.1	1.8	1.3	1.3	1.2	1.0
Power consumption at							
- 100 % of rated output	W						
- 30 % of rated output	W	62	65	68	85	91	123
Calculated max. values[*3]		39	41	43	48	53	60
- 100 % of rated output	W	64	76	88	104	120	136
- 30 % of rated output	W	62	72	83	98	112	126

*[*2] Measurement in the room where HP is located*
*[*3] The calculated values are the max. permissible values*

Product parameters (cont.)

Vitosol 100-F
Solar collectors

Type		**SV1A/SH1A**
Gross area	m^2	2.51
Absorber area	m^2	2.32
Aperture area {H1}	m^2	2.33
Optical efficiency η_0*4 {H2}	%	0.758
Heat loss factor k_1*4 {H3}	$W/(m^2 \cdot K)$	4.13
Heat loss factor k_2*4	$W/(m^2 \cdot K^2)$	0.0108
Incidence angle modifier $I_{AM\,(50°)}$		0.9
Thermal capacity C	$kJ/(m^2 \cdot K)$	4.7

Vitosol 200-F
Solar collectors

Type		**SV2A/SH2A**
Gross area	m^2	2.51
Absorber area	m^2	2.32
Aperture area {H1}	m^2	2.33
Optical efficiency η_0*4 {H2}	%	0.793
Heat loss factor k_1*4 {H3}	$W/(m^2 \cdot K)$	4.04
Heat loss factor k_2*4	$W/(m^2 \cdot K^2)$	0.0182
Incidence angle modifier $I_{AM\,(50°)}$		0.93
Thermal capacity C	$kJ/(m^2 \cdot K)$	5.0

Vitosol 200-T
Vacuum tube collectors

Type SP2		**2 m²**	**3 m²**
Gross area	m^2	2.88	4.34
Absorber area	m^2	2.00	3.02
Aperture area {H1}	m^2	2.15	3.22
Optical efficiency η_0*4 {H2}	%	76.6	77.7
Heat loss factor k_1*4 {H3}	$W/(m^2 \cdot K)$	1.42	1.39
Heat loss factor k_2*4	$W/(m^2 \cdot K^2)$	0.0050	0.0082
Incidence angle modifier $I_{AM\,(50°)}$		1.02	1.02
Thermal capacity C	$kJ/(m^2 \cdot K)$	8.4	8.4

Vitosol 300-T
Vacuum tube collectors

Type SP3A		**2 m²**	**3 m²**
Gross area	m^2	2.88	4.32
Absorber area	m^2	2.00	3.02
Aperture area {H1}	m^2	2.15	3.23
Optical efficiency η_0*4 {H2}		80.9	80.4
Heat loss factor k_1*4 {H3}	$W/(m^2 \cdot K)$	1.37	1.33
Heat loss factor k_2*4	$W/(m^2 \cdot K^2)$	0.0068	0.0067
Incidence angle modifier $I_{AM\,(50°)}$		0.98	0.98
Thermal capacity C	$kJ/(m^2 \cdot K)$	8.5	8.4

{ } SAP field number
**4 Relative to the aperture area*

Product parameters (cont.)

Vitovent 300 (air flow rate up to 180 m^3/h)

Max. air flow rate	m^3/h	**180**
Max electrical consumption	W	132
Heat recovery level η'_{HRL}		0.89
Sound emission		
-75 m^3/h	dB(A)	29.0
-100 m^3/h	dB(A)	35.5
-150 m^3/h	dB(A)	45.0
-180 m^3/h	dB(A)	49.0

Vitovent 300-W (air flow rate up to 300 m^3/h and 400 m^3/h)

Max. air flow rate	m^3/h	**300**	**400**
Max electrical consumption	W	138	192
Heat recovery level η'_{HRL}		0.87	0.87
Sound emission			
-100 m^3/h	dB(A)	30.0-33.0	29.5-32.5
-150 m^3/h	dB(A)	38.0	-
-200 m^3/h	dB(A)	44.0	40.5-41.5
-225 m^3/h	dB(A)	49.0	43.5-47.5
-300 m^3/h	dB(A)	50.0-52.0	51.0-54.0
-400 m^3/h	dB(A)	-	54.5-57.0

Product parameters (cont.)

Vitocell 200-V – 90 to 300 litre capacity

Cylinder capacity	**litres**	**90**	**120**	**150**	**180**	**210**	**250**	**300**
Standby heat loss $q_{B,S}$ at 45 K temp. differential	kWh/24 h	0.80	1.00	1.20	1.40	1.60	1.75	1.93
Volume	litres	90	120	150	180	210	250	300

Vitocell 300-V (type EVI) – 200 to 500 litre capacity

Cylinder capacity {50}	**litres**	**200**	**300**	**500**
Standby heat loss $q_{B,S}$ at 45 K temp. differential {51}	kWh/24 h	1.70	2.10	2.40

Vitocell 200-B – 210 to 300 litre capacity

Cylinder capacity {50}	**litres**	**210**	**250**	**300**
Standby heat loss $q_{B,S}$ at 45 K temp. differential {51}	kWh/24 h	1.60	1.75	1.93*5
$\mathbf{V_{aux}}$ (standby capacity)	litres	140	166	200
$\mathbf{V_{sol}}$ (solar capacity) {H11}	litres	70	84	100

Vitocell 300-B (type EVB) – 300 and 500 litre capacity

Cylinder capacity {50}	**litres**	**300**	**500**
Standby heat loss $q_{B,S}$ at 45 K temp. differential {51}	kWh/24 h	1.17*5	1.37*5
$\mathbf{V_{aux}}$ (standby capacity)	litres	149	245
$\mathbf{V_{sol}}$ (solar capacity) {H11}	litres	151	255

Vitocell 100-E (type SVW, SVP and SVPA) – 200 to 950 litre capacity

Type		**SVW**	**SVP**	**SVPA**	
Cylinder capacity	**litres**	**200**	**400**	**750**	**950**
Standby heat loss $q_{B,S}$ at 45 K temp. differential	kWh/24 h	1.80	2.40	3.50	4.2

Vitocell 140-E (type SEIA) – 750 and 950 litre capacity
Vitocell 160-E (type SESA) – 750 and 950 litre capacity

Cylinder capacity	**litres**	**750**	**950**
Standby heat loss $q_{B,S}$ at 45 K temp. differential	kWh/24 h	1.63*5	1.67*5
$\mathbf{V_{aux}}$ (standby capacity)	litres	380	453
$\mathbf{V_{sol}}$ (solar capacity)	litres	370	497

Vitocell 340-M (type SVKA) – 750 and 950 litre capacity
Vitocell 360-M (type SVSA) – 750 and 950 litre capacity

Cylinder capacity	**litres**	**750**	**950**
Standby heat loss $q_{B,S}$ at 45 K temp. differential	kWh/24 h	1.49*5	1.61*5
$\mathbf{V_{aux}}$ (standby capacity)	litres	346	435
$\mathbf{V_{sol}}$ (solar capacity)	litres	404	515

All Viessmann cylinders are insulated with PUR hard foam blown with CO_2

Subject to technical modifications.

GWP: < 0.001 (Global Warming Potential)
ODP: 0 (Ozone Depletion Potential)

{ } SAP field number
**5 Standard parameter to DIN V 18599*

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