



**High Temperature VVART Calculation for Greenstar HIU E+ with heat meter**  
 Primary flow temperature: 70°C; DHW set point: 55°C; Space heating temperatures: 60°C/40°C  
 Test carried out by Enertek International for HIGH Temperature BESA Tests  
 Manufacturer: Worcester Bosch; Model: Greenstar HIU E+ with heat meter; Serial number: 7733600136;  
 VVART calculation prepared by Ian Williamson of Enertek International on 26 February 2020

	VVART(°C)	Volume (m <sup>3</sup> )
DHW	23	25.9
Standby	51	57.2
Space Heating	44	48.3

  

VVART with Keep warm active		
Period	VVART(°C)	% Time
No Heating	42	93%
Heating	43	7%
Overall	42	

	DHW Draw test results			Post DHW Draw (60 seconds)		
	Power (W)	Primary flow (ls)	VVART (°C)	Primary flow (m <sup>3</sup> /hr)	VVART (°C)	
Low	10713	0.054	22	0.000	20	
Medium	18228	0.092	23	0.000	21	
High	23949	0.124	24	0.000	23	

Standby test results	
Primary flow (m <sup>3</sup> /hr)	VVART (°C)
0.002000	51

Space Heating test results		
Power (W)	Primary flow (Ls <sup>-1</sup> )	VVART (°C)
1kWp	1059	0.011
2kWp	2072	0.019
4kWp	3998	0.036

DHW Draw Volumes pa			
kWh pa	Hours	Volume pa (m <sup>3</sup> )	Volume pa (m <sup>3</sup> )
729	65.00	12.50	
297	16.00	5.30	
444	18.00	8.10	

Standby Volumes pa	
Hours	Volume pa (m <sup>3</sup> )
8,045	57.20

Post DHW Draw Volumes pa		
Events pa	Average duration (secs)	Volume pa (m <sup>3</sup> )
10000	30	
660	75	
300	145	

Space Heating Volumes pa		
kWh pa	Hours	Volume pa (m <sup>3</sup> )
98	93.00	3.51
787	380.00	26.42
565	141.00	18.39

Table 7.2 - key metrics of High Temperature Package