



**Low Temperature VwART Calculation for Nexus Bitherm S Plus 60/10 HIU**  
 Primary flow temperature: 60°C; DHW set point: 50°C; Space heating temperatures: 45°C/35°C  
 Test carried out by Enertek International for HIGH Temperature BESA Tests  
 Manufacturer: ELCO UK; Model: Nexus Bitherm S Plus 60/10; Serial number: 5MS18340901;  
 VwART calculation prepared by Ian Williamson of Enertek International on 25 February 2020

Table 7.1 - key metrics of Low Temperature Package

	VwART(°C)	Volume (m3)
DHW	15	26.8
Standby	43	60.7
Space Heating	35	50.2

VwART with Keep warm active		
Period	VwART(°C)	% Time
No Heating	34	93%
Heating	35	7%
Overall	34	

	DHW Draw test results			Post DHW Draw (60 seconds)	
	Power (W)	Primary flow (ls)	VwART (°C)	Primary flow (m <sup>3</sup> /hr)	VwART (°C)
Low	9871	0.048	14	0.000	13
Medium	16592	0.087	15	0.000	15
High	21335	0.111	15	0.000	17

DHW Draw Volumes pa		
kWh pa	Hours	Volume pa (m <sup>3</sup> )
729	74.00	12.90
297	18.00	5.60
444	21.00	8.30

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

Standby	Standy test results	
	Primary flow (Ls <sup>-1</sup> )	VwART (°C)
	0.002000	43

Standby Volumes pa	
Hours	Volume pa (m <sup>3</sup> )
8,021	60.70

	Space Heating test results		
	Power (W)	Primary flow (Ls <sup>-1</sup> )	VwART (°C)
1kWp	1007	0.010	35
2kWp	2041	0.019	35
4kWp	3940	0.038	36

Space Heating Volumes pa		
kWh pa	Hours	Volume pa (m <sup>3</sup> )
98	97.00	3.60
787	386.00	27.00
565	143.00	19.50