



High Temperature VWART Calculation for Nexus Bitherm S Plus 60/10 HIU
 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: 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 7.2 - key metrics of High Temperature Package

	VWART(°C)	Volume (m3)
DHW	14	22.4
Standby	40	34.6
Space Heating	41	44.1

VWART with Keep warm active		
Period	VWART(°C)	% Time
No Heating	30	93%
Heating	40	7%
Overall	31	

	DHW Draw test results			Post DHW Draw (60 seconds)	
	Power (W)	Primary flow (ls)	VWART (°C)	Primary flow (m ³ /hr)	VWART (°C)
Low	10616	0.046	14	0.000	14
Medium	18597	0.082	15	0.000	14
High	22827	0.099	15	0.000	16

DHW Draw Volumes pa		
kWh pa	Hours	Volume pa (m ³)
729	65.00	10.90
297	16.00	4.70
444	19.00	6.80

Post DWH Draw Volumes pa		
Events pa	Average duration (secs)	Volume pa (m ³)
10000	-	-
660	-	-
300	-	-

Standby	Standby test results	
	Primary flow (Ls ⁻¹)	VWART (°C)
	0.001000	40

Standby Volumes pa	
Hours	Volume pa (m ³)
8,024	34.60

	Space Heating test results		
	Power (W)	Primary flow (Ls ⁻¹)	VWART (°C)
1kWp	1065	0.009	40
2kWp	1956	0.017	41
4kWp	3990	0.033	41

Space Heating Volumes pa		
kWh pa	Hours	Volume pa (m ³)
98	92.00	3.10
787	402.00	24.10
565	142.00	16.90