



High Temperature VVART Calculation for Greenstar HIU KE+ 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 Er+ with heat meter; Serial number: 7733600134 ;

VVART calculation prepared by Ian Williamson of Enertek International on 31 October 2019

	VVART(°C)	Volume (m3)
DHW	20	24.5
Standby	49	47.3
Space Heating	44	52.0

	VVART with Keep warm active	% Time
Period	VVART(°C)	% Time
No Heating	39	93%
Heating	44	7%
Overall	40	

	VVART with Keep warm inactive	% Time
Period	VVART	% Time
No Heating	20	93%
Heating	43	7%
Overall	21	

	DHW Draw test results		Post DHW Draw (60 seconds)		
	Power (W)	Primary flow (l/s)	VVART (°C)	Primary flow (m ³ /hr)	VVART (°C)
Low	9859	0.047	19	0.000	16
Medium	18073	0.087	20	0.001	20
High	23206	0.113	21	0.000	20

Standby test results	
Primary flow (Ls ⁻¹)	VVART (°C)
0.002000	49

Space Heating test results		
Power (W)	Primary flow (Ls ⁻¹)	VVART (°C)
1kwp	995	0.010
2kwp	2046	0.020
4kwp	4041	0.041

DHW Draw Volumes pa		
kWh pa	Hours	Volume pa (m ³)
729	69.00	11.70
297	16.00	5.10
444	19.00	7.70

Standby Volumes pa	
Hours	Volume pa (m ³)
8,033	47.30

Space Heating Volumes pa		
kWh pa	Hours	Volume pa (m ³)
98	98.00	3.60
787	385.00	27.90
565	140.00	20.50

Post DHW Draw Volumes pa		
Events pa	Average duration (secs)	Volume pa (m ³)
10000	30	-
660	75	0.01
300	145	-

Table 7.2 - key metrics of High Temperature Package