



### VWART Calculation with Keep Warm

Test carried out by Enertek International for High Temperature BESA Tests

Manufacturer: Ideal  
 Model: i505  
 Serial number: 0

Calculation performed by S.Broxham of Enertek on: 30/11/2021

Primary Flow Temperature: 70°C  
 DHW Setpoint: 55°C  
 Space Heating Temperature: 60/40°C

	VWART (°C)	Volume (m3)
DHW	22	26.7
Standby	45	46.6
Space Heating	45	51.5

Period	VWART with keep warm active	
	VWART (°C)	% Time
No Heating	36	94%
Heating	44	6%
Overall	37	

Test Results									
		Power [W]	Primary flow [m³/hr]	VWART [°C]	Energy Used [kWh]	Annual Operation [Hours]	Volume [m³]	Events [Per Year]	Average duration [Seconds]
1kW Space Heating	1a	1511	0.065	49	105	69.6	4.50	-	-
2kW Space Heating	1b	2533	0.083	44	814	321.2	26.69	-	-
4kW Space Heating	1c	4317	0.150	45	583	135.2	20.26	-	-
DHW Low Flow Rate	2a	10830	0.190	21	706	67.3	12.78	-	-
DHW Medium Flow Rate	2a	19789	0.374	22	304	15.0	5.61	-	-
DHW High Flow Rate	2a	24015	0.452	23	448	18.5	8.35	-	-
DHW Post Low Flow Rate	2a	-	0.000	0	-	-	0.00	10000	30
DHW Post Medium Flow Rate	2a	-	0.000	0	-	-	0.00	660	70
DHW Post High Flow Rate	2a	-	0.000	0	-	-	0.00	300	145
DHW Keep Warm Standby	4a	-	0.006	45	483	8133.2	46.65	-	-

Table 7.1 - Key Metrics of High Temperature Package