



**VWART Calculation with Keep Warm**

Test carried out by Enertek International for Low Temperature BESA Tests  
 Manufacturer: George Fischer Sales  
 Model: HPTP Indirect Heat Interface Unit  
 Serial number: GF2039 0001  
 Calculation performed by I.Williamson of Enertek on: 18/12/2020

Primary Flow Temperature: 60°C  
 DHW Setpoint: 50°C  
 Space Heating Temperature: 45/35°C

Table 7.2 Key Metrics of Low temperature package

	VWART (°C)	Volume (m3)
DHW	25	33.8
Standby	40	25.4
Space Heating	36	53.6

Period	VWART with keep warm active	
	VWART (°C)	% Time
No Heating	31	93%
Heating	36	7%
Overall	32	

		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	1d	1057	0.038	36	105	99.5	3.79	-	-
2kW Space Heating	1e	2030	0.072	36	811	399.4	28.71	-	-
4kW Space Heating	1f	4051	0.149	36	574	141.6	21.08	-	-
DHW Low Flow Rate	2b	791	0.019	23	732	922.0	17.58	-	-
DHW Medium Flow Rate	2b	1198	0.027	26	258	248.0	6.60	-	-
DHW High Flow Rate	2b	1273	0.028	27	363	348.7	9.66	-	-
DHW Post Low Flow Rate	2b	-	0.000	0	-	-	0.00	10000	30
DHW Post Medium Flow Rate	2b	-	0.000	0	-	-	0.00	660	70
DHW Post High Flow Rate	2b	-	0.000	0	-	-	0.00	300	145
DHW Keep Warm Standby	4b	-	0.004	40	-	6600.8	25.44	-	-