High Temperature VWART Calculations

VWART Calculation with Keep Warm

Test carried out by Enertek International for High Temperature BESA Tests

Manufacturer:	Albion	Primary Flow Temperature:	70°C
Model:	MTA TWIN 24-40	DHW Setpoint:	55°C
Serial number:	1901137	Space Heating Temperature:	60/40°C
Calculation performed by B Meekin of Enertek on:	10/08/2019		

	VWART (°C)	Volume (m3)
DHW	19	19.3
Standby	46	43.3
Space Heating	44	50.9

VWART with keep warm active

Period	VWART (°C)	% Time
No Heating	38	93%
Heating	41	7%
Overall	**38**	

		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	1229	0.040	44	111	90.5	3.60	-	-
2kW Space Heating	1b	2155	0.074	45	841	390.5	28.75	-	-
4kW Space Heating	1c	4040	0.130	43	577	142.7	18.54	-	-
DHW Low Flow Rate	2a	13503	0.171	18	552	54.0	9.21	-	-
DHW Medium Flow Rate	2a	22749	0.306	19	235	13.1	3.99	-	-
DHW High Flow Rate	2a	29562	0.408	21	350	15.0	6.12	-	-
DHW Post Low Flow Rate	2a	-	0.000	17	-	-	0.01	10000	30
DHW Post Medium Flow Rate	2a	-	0.000	19	-	-	0.00	660	70
DHW Post High Flow Rate	2a	-	0.000	20	-	-	0.00	300	145
DHW Keep Warm Standby	4a	-	0.005	46	-	8055.7	43.28	-	-