

Room name	Location	Maximum Rads Height	Maximum Rads Width	Price	Make	Rad type	H	x	L	Column	Heat Output Δt60°C	Conversion Factor	Actual Output of Radiator	EPC Heat Loss Watts Calculation	Design Shortfall	Design Shortfall %	
											Watts		Watts	Per Room	Watts	%	
Entrance Hall/ Living Room	Door	2000	600	£0.00	Aspen	ASP18-55VDW	1,800	x	540	2	2,461	4.62	533	2,615	-2,672	-102.17%	
	Stairs	800	1000	£0.00	Aspen	ASP60-97DW	600	x	960	2	1,536	4.62	332				
	Window	2000	720	£600.00	Milano	DRDHWMVL	1,784		590	2 Elec			3,000				
	Living Garden	800++	1800	£647.00	Ultraheat	ULT-6TS2000	600	x	2,000	K3	5,174	3.64	1,421				
Kitchen	Kitchen Window	2000	1000	£390.00	Ultraheat	ULT-20VDF600	2,000	x	600	K2	3,347	3.64	919	1,991	152	7.64%	
	Kitchen	2000	800	£390.00	Ultraheat	ULT-20VDF600	2,000	x	600	K2	3,347	3.64	919				
Toilet	Toilet	2000	700	£0.00	Aspen	ASP18-55VDW	1,800	x	540	2	2,461	4.62	533	202	-331	-163.71%	
Utility Room	Utility Room	900	500	£332.00	Type 33	ULT-9TS600	900	x	600	K3	2,071	3.64	569	375	-194	-51.74%	
Ground Floor Area														5,183	-3,044	-58.73%	
En-Suite Bedroom 1	Bedroom 1	800	1500	£0.00	Aspen	ASP60-115DW	600	x	1,140	2	1,824	4.62	395	760	-167	-22.03%	
	Behind Door	2000	1000	£279.06	Aspen	ASP18-55VDW	1,800	x	540	2	2,461	4.62	533				
En-suite (Bathroom)	Towel RAD	2000	450	£226.14	Aspen	ASP18-43VDW	1,800	x	300	2	1,367	4.62	296	266	-30	-11.23%	
Bedroom 2	Office	500	1500+	£0.00	Type 21 P+	KAR-P411K	400	x	1,100	-	1,453	4.62	315	453	138	30.55%	
Landing	Hallway 1	2000	1000+	£0.00	Aspen	ASP18-43VDW	1,800	x	420	2	1,914	4.62	414	406	-8	-2.05%	
	Stairs/Hallway	2000	950								0	4.62	0				
Living room (first floor)	Rear Garden	500	1800+	£360.86	Aspen	ASP60-145DW	600	x	1,440	2	2,304	4.62	499	1,012	15	1.45%	
Playroom	Front	500	1800+	£360.86	Aspen	ASP60-145DW	600	x	1,440	2	2,304	4.62	499				
Shower room (first floor)	Toilet	2000	800	£279.06	Aspen	ASP18-55VDW	1,800	x	540	2	2,461	4.62	533	224	-309	-137.81%	
First Floor Area														3,121	-361	-11.58%	
Bathroom (second floor)	Towel RAD	1600	550	£226.14	Aspen	ASP18-43VDW	1,600	x	420	2	1,707	4.62	369	535	-365	-68.19%	
	Mirror	1000	500	£229.95	Metro/Mirror	WVT18X499M	1,800	x	500	2	1,931	3.64	530				
Bedroom 3	Front	600	1500+	£0.00	Aspen	ASP60-115DW	600	x	1,140	2	1,824	4.62	395	987	197	20.01%	
	Back	700	1500+	£0.00	Aspen	ASP60-115DW	600	x	1,140	2	1,824	4.62	395				
Bedroom 4	Front 1	700	2000+	£360.86	Aspen	ASP60-145DW	600	x	1,440	2	2,304	4.62	499	652	153	23.51%	
Landing Second floor	Hallway 1	700	650	£173.21	Aspen	ASP60-55DW	600	x	540	2	864	4.62	187	219	32	14.61%	
	Cylinder Wall	2000	1000														
Second Floor Area														2,393	18	0.75%	
				£4,855.14							46,938		14,085	10,697	-3,388	-31.67%	
											1 Watt = 3.412 BTU	Design room temperature 24 degrees, design flow temperature MWT 45 degrees. 42.5-24=18.5					
												Catalogued Delta T60 & T50: (60/18.5)^1.3=4.62 (Conversion Factor) (50/18.5)^1.3=3.64 (Conversion Factor)					