

Merriott

Towel Warmers



What does Merriott stand for?

Our bespoke heating and cooling solutions are the better choice for commercial applications across the UK and Ireland.

Merriott offers a diverse and versatile range of designer heating solutions.

Whether they are building consultants, architects or designers, our customers can tailor our bespoke range of products to satisfy their specification requirements.

We have invested in world-class production facilities and manufacture products of the very highest standard - backed by revolutionary technology, rigorous testing and stringent quality control.

As a company, we have an unwavering commitment to innovation and sustainability, pioneering products that lead the way in design, performance and energy efficiency.

Underpinning all of this is our relationship with our customers: ensuring they can rely on best-in-class service and support, from specification right through to delivery.

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Range Overview

Towel Warmers

Merriott towel warmers offer outputs from 277 Watts to 1014 Watts at $\Delta T 50^{\circ}\text{C}$.

The range comprises of straight and curved Crystal hydronic towel warmers.

OUTPUTS

All Merriott hydronic towel warmers have been manufactured and tested in accordance with EN442.

FINISH

Every Merriott towel warmer undergoes an intensive pre-treatment process to protect against rust. In pre-treatment, the radiators are degreased, coated with iron phosphate and rinsed prior to painting. A cathodic electrodeposition primer coating is then applied to give total coverage of the bare steel and maximum corrosion protection. The durable topcoat (epoxy polyester powder) is electrostatically applied and stove enamel baked at 180°C . The process is monitored to ensure continuous achievement of optimum adhesion, opacity and gloss levels.

COLOUR

Crystal towel warmers are available in both white and chrome (polished to a high quality finish).

PACKAGING

All Crystal towel warmers are packaged with the entire surface, including all 4 corners, protected by a cardboard box.

CONNECTIONS

All Merriott hydronic towel warmers have standard connections of $4 \times \frac{1}{2}"$ (15mm) BSP connections at E, F, G & H connection positions, see Connection Ladder on page 08.

TESTING

Crystal towel warmers are tested to 9.6 Bar, with a working pressure of 7.4 Bar.

DIMENSIONAL TOLERANCES

Dimensional tolerances are in accordance with EN442.

ELECTRIC POWER OPTIONS (DUAL FUEL)

All towel warmers can be fitted with an electrical element and can be used when the central heating is not in use.

WARRANTY

Crystal towel warmers are guaranteed for a period of 10 years from date of purchase in respect of defective materials and workmanship. The system should be designed in accordance with British Standard Code of Practice for Water Based Heating Systems in Buildings **BS EN 12828:2012+A1:2014** and **BS EN 12831: 2003**. The installation and commissioning of the system should comply with **BS EN 14336:2004**. On completion of the installation, the system should be properly flushed and filled in accordance with the British Code of Practice for the Treatment of Water in Domestic Hot Water Central Heating Systems **BS 7593:2006**, Part L of Building Regulations and Good Practice Guidance for Scotland. Merriott strongly recommends the use of corrosion inhibitor for all applications. Failure to observe these standards may invalidate the manufacturer's warranty.



Range Options

CRYSTAL STRAIGHT

Available in both RAL 9016 (white) and chrome

Height options:

862mm

1222mm

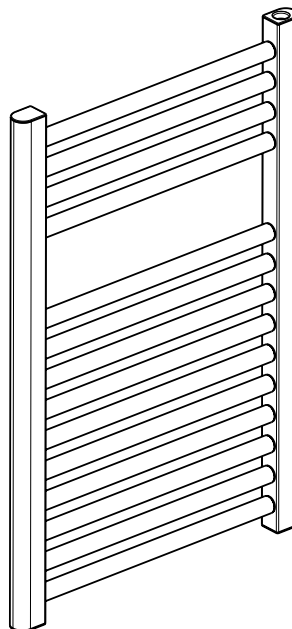
1807mm

Width options:

400mm

500mm

600mm



CRYSTAL CURVED

Available in both RAL 9016 (white) and chrome

Height options:

862mm

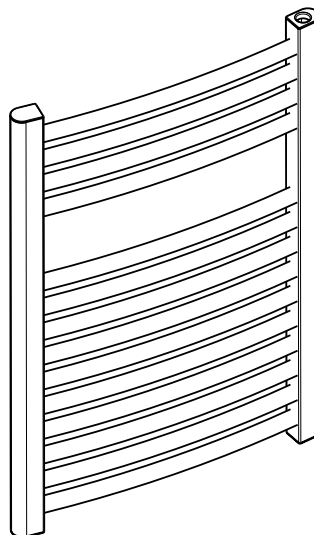
1222mm

1807mm

Width options:

500mm

600mm



Heat Outputs

Crystal models

CRYSTAL STRAIGHT

Height (mm)	Length (mm)	Heat Output (Watts)			Heat Output (Watts)		
		White			Chrome		
		'n'	$\Delta T50$	$\Delta T30$	'n'	$\Delta T50$	$\Delta T30$
862	500	1.29	417	217	1.30	277	114
	600	1.28	487	253	1.30	328	171
1222	400	-	-	-	1.32	334	172
	500	1.31	576	301	1.31	395	203
	600	1.28	676	353	1.29	467	240
1807	400	-	-	-	1.32	507	258
	500	1.29	866	455	1.33	598	304
	600	1.28	1014	705	1.35	533	359

CRYSTAL CURVED

Height (mm)	Length (mm)	Heat Output (Watts)			Heat Output (Watts)		
		White			Chrome		
		'n'	$\Delta T50$	$\Delta T30$	'n'	$\Delta T50$	$\Delta T30$
862	500	1.29	417	217	1.30	277	144
	600	1.28	487	328	1.30	253	171
1222	500	1.31	576	301	1.31	395	203
	600	1.28	676	353	1.29	467	240
1807	500	1.29	866	455	1.33	598	304
	600	1.28	1014	533	1.35	705	359

NOTE:

All outputs are in accordance with BS EN442 certification.

'n' = average exponent value.

Weights and Water Contents

Crystal models

CRYSTAL STRAIGHT & CURVED

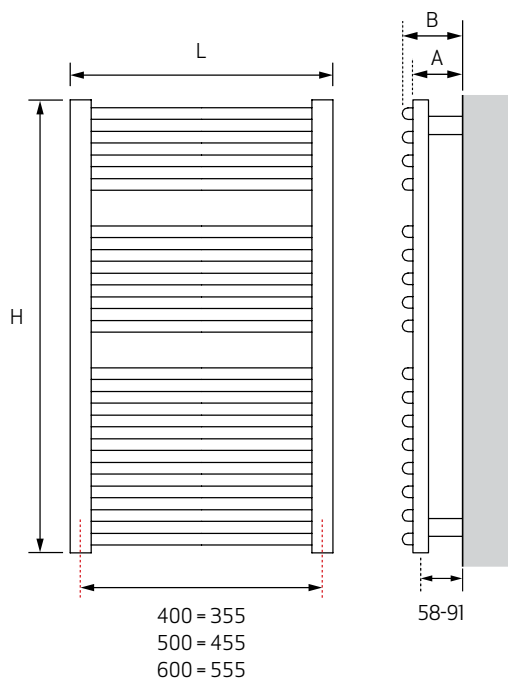
Height (mm)	Length (mm)	Straight		Curved	
		Dry Weight (kgs)	Water Content (ltr)	Dry Weight (kgs)	Water Content (ltr)
862	500	8	3.9	8	3.9
	600	8.2	4.4	8.2	4.4
1222	400	8.2	4.7	-	-
	500	11	5.5	11	5.5
	600	12.25	6.3	12.25	6.3
1807	400	12.15	7.1	-	-
	500	14	8.2	14	8.2
	600	15.2	9.5	15.2	9.5

Crystal - Optional Electric Elements

Towel rail height	<862mm high	<1222mm high	<1807mm high
Non-thermostatic	200W	300W/400W	600W
Thermostatic	150W	300W	600W

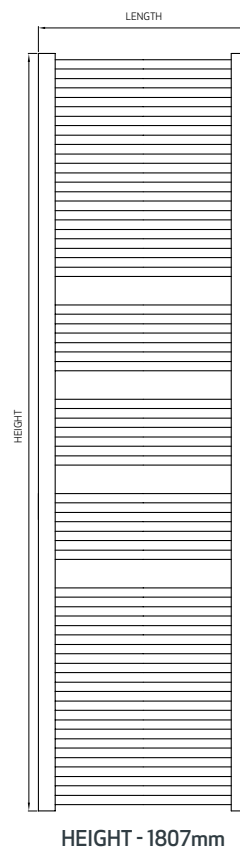
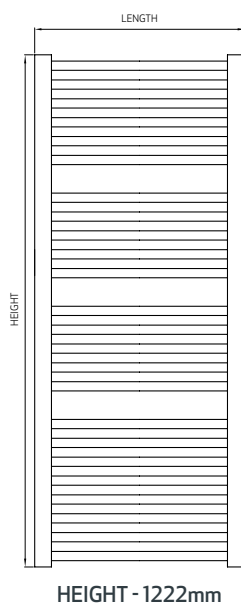
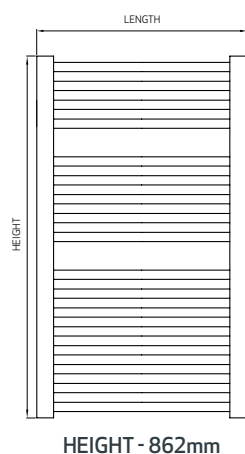
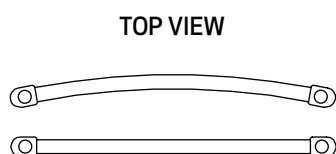
Dimensional Information

Crystal models



Length (mm)	A (mm)	B (mm)
400	83-106	-
500	83-106	92-115
600	83-106	100-123

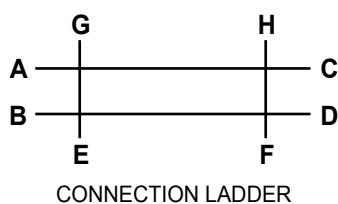
A = Straight, B = Curved.



Connection Options

CONNECTION VARIATIONS

Standard connections on all towel warmers are 4 x 1/2" connections at **E, F, G** and **H**.



DUAL FUEL ADAPTOR KIT

Consists of a dual fuel element and a T-Piece (illustrated below) and can be used on all towel warmers to achieve heat when the central heating is not being used, during summer months for example.

Dual Fuel Adaptor Kits can be retrofitted if necessary. The size of dual fuel element will depend on the size of the towel warmer and its heat output.

Fig. 1

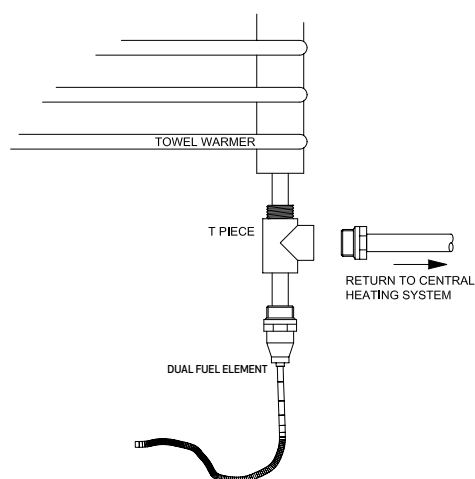
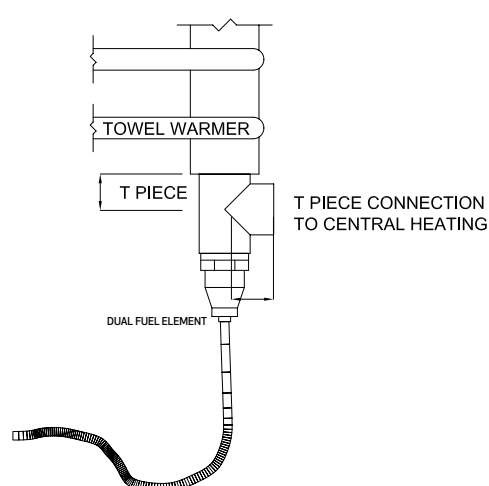


Fig. 2



Correction Factors

How to calculate a corrected output

1. Calculate the Delta T including air temperature - example:
Mean Water Temperature (MWT) = (°C Flow + °C Return) / 2 = (65 + 55) / 2 = 60 °C
Required Air Temperature = 21 °C
Delta T (ΔT) = Mean Water Temperature - Required Air Temperature = 60 - 21 = 39 °C
2. Note the Delta T 50 output shown for the specific size you require.
3. Locate the Exponent ('n') for the product you have selected within the Correction Factor table and your calculated Delta T (ΔT).
4. Multiply the Delta T 50 output noted, by the correction factor shown.

Outputs stated within this catalogue are shown at ΔT50 °C and also calculated at ΔT30 °C.

Multiplying factors required to calculate outputs at different Delta Ts (ΔTs) between 15 °C and 60 °C are shown in the Correction Factor tables overleaf.

EXAMPLE:

Radiator selected =
Crystal Straight, 862mm (Height) x 600mm (Length)

Delta T of System (ΔT) =
39 °C

Exponent ('n') =
1.28

Output @ Delta T50 =
487 (w)

Corrected Output =
487 (w) x 0.7263 (Correction Factor) = 354(w) at ΔT39

Height (mm)	'n'	Length (mm)	Heat Output	
			ΔT50	ΔT30
862	1.29	500	417	217
	1.28	600	487	253
1222	-	400	-	-
	1.31	500	576	301
	1.28	600	676	353

Product example: Crystal extracted from page 06.

Correction Factors

Crystal White & Chrome models

ΔT	Curved & Straight White						Curved & Straight Chrome							
	H 862		H 1222		H 1807		H 862		H 1222			H 1807		
	L 500	L 600	L 500	L 600	L 500	L 600	L 500	L 600	L 400	L 500	L 600	L 400	L 500	L 600
	Exponent 'n'													
	1.287	1.278	1.312	1.282	1.289	1.275	1.302	1.297	1.317	1.306	1.294	1.324	1.334	1.345
60	1.2645	1.2624	1.2702	1.2633	1.2649	1.2617	1.2679	1.2668	1.2714	1.2689	1.2661	1.2730	1.2753	1.2779
59	1.2374	1.2356	1.2425	1.2364	1.2378	1.2350	1.2405	1.2395	1.2436	1.2413	1.2388	1.2450	1.2471	1.2493
58	1.2105	1.2089	1.2150	1.2096	1.2108	1.2083	1.2132	1.2123	1.2159	1.2139	1.2117	1.2171	1.2190	1.2209
57	1.1837	1.1823	1.1876	1.1829	1.1840	1.1818	1.1860	1.1852	1.1883	1.1866	1.1848	1.1894	1.1910	1.1927
56	1.1570	1.1558	1.1603	1.1564	1.1573	1.1555	1.1590	1.1583	1.1610	1.1595	1.1579	1.1619	1.1632	1.1647
55	1.1305	1.1295	1.1332	1.1300	1.1307	1.1292	1.1321	1.1316	1.1337	1.1326	1.1313	1.1345	1.1356	1.1368
54	1.1041	1.1034	1.1062	1.1037	1.1043	1.1031	1.1054	1.1050	1.1067	1.1057	1.1047	1.1073	1.1081	1.1091
53	1.0779	1.0773	1.0794	1.0776	1.0780	1.0771	1.0788	1.0785	1.0798	1.0791	1.0783	1.0802	1.0808	1.0815
52	1.0518	1.0514	1.0528	1.0516	1.0519	1.0513	1.0524	1.0522	1.0530	1.0526	1.0521	1.0533	1.0537	1.0542
51	1.0258	1.0256	1.0263	1.0257	1.0259	1.0256	1.0261	1.0260	1.0264	1.0262	1.0260	1.0266	1.0268	1.0270
50	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	0.9743	0.9745	0.9738	0.9744	0.9743	0.9746	0.9740	0.9741	0.9737	0.9740	0.9742	0.9736	0.9734	0.9732
48	0.9488	0.9492	0.9479	0.9490	0.9487	0.9493	0.9482	0.9484	0.9477	0.9481	0.9485	0.9474	0.9470	0.9466
47	0.9235	0.9240	0.9220	0.9237	0.9233	0.9241	0.9226	0.9229	0.9217	0.9224	0.9231	0.9213	0.9208	0.9201
46	0.8982	0.8989	0.8964	0.8986	0.8981	0.8991	0.8971	0.8975	0.8960	0.8968	0.8977	0.8955	0.8947	0.8939
45	0.8732	0.8740	0.8709	0.8737	0.8730	0.8743	0.8718	0.8723	0.8704	0.8714	0.8725	0.8698	0.8689	0.8679
44	0.8483	0.8493	0.8456	0.8488	0.8481	0.8496	0.8467	0.8472	0.8451	0.8462	0.8475	0.8443	0.8432	0.8420
43	0.8236	0.8247	0.8205	0.8242	0.8233	0.8251	0.8217	0.8223	0.8199	0.8212	0.8227	0.8190	0.8178	0.8164
42	0.7990	0.8003	0.7955	0.7997	0.7987	0.8007	0.7969	0.7976	0.7948	0.7964	0.7980	0.7939	0.7925	0.7910
41	0.7746	0.7760	0.7708	0.7754	0.7743	0.7764	0.7723	0.7731	0.7700	0.7717	0.7735	0.7689	0.7674	0.7657
40	0.7504	0.7519	0.7462	0.7512	0.7500	0.7524	0.7479	0.7487	0.7454	0.7472	0.7492	0.7442	0.7425	0.7407
39	0.7263	0.7279	0.7218	0.7272	0.7260	0.7285	0.7236	0.7245	0.7209	0.7229	0.7251	0.7197	0.7179	0.7159
38	0.7024	0.7042	0.6976	0.7034	0.7021	0.7048	0.6996	0.7005	0.6967	0.6988	0.7011	0.6953	0.6934	0.6913
37	0.6787	0.6806	0.6736	0.6798	0.6783	0.6812	0.6757	0.6767	0.6726	0.6749	0.6773	0.6712	0.6692	0.6670
36	0.6552	0.6572	0.6499	0.6563	0.6548	0.6578	0.6520	0.6531	0.6488	0.6511	0.6537	0.6473	0.6452	0.6429
35	0.6319	0.6339	0.6263	0.6330	0.6314	0.6346	0.6285	0.6296	0.6252	0.6276	0.6303	0.6236	0.6214	0.6190
34	0.6087	0.6109	0.6029	0.6099	0.6083	0.6116	0.6052	0.6064	0.6017	0.6043	0.6071	0.6001	0.5978	0.5953
33	0.5858	0.5880	0.5798	0.5870	0.5853	0.5887	0.5822	0.5834	0.5785	0.5812	0.5841	0.5769	0.5745	0.5719
32	0.5631	0.5653	0.5568	0.5643	0.5626	0.5661	0.5593	0.5606	0.5556	0.5583	0.5613	0.5538	0.5514	0.5487
31	0.5405	0.5428	0.5341	0.5418	0.5400	0.5436	0.5367	0.5379	0.5328	0.5356	0.5387	0.5310	0.5285	0.5257
30	0.5182	0.5206	0.5116	0.5195	0.5177	0.5214	0.5142	0.5155	0.5103	0.5132	0.5163	0.5085	0.5059	0.5031
29	0.4961	0.4985	0.4893	0.4974	0.4955	0.4993	0.4920	0.4934	0.4880	0.4909	0.4942	0.4862	0.4835	0.4806
28	0.4742	0.4766	0.4673	0.4755	0.4736	0.4775	0.4700	0.4714	0.4660	0.4690	0.4722	0.4641	0.4614	0.4585
27	0.4525	0.4550	0.4456	0.4539	0.4519	0.4558	0.4483	0.4497	0.4442	0.4472	0.4505	0.4423	0.4396	0.4366
26	0.4310	0.4336	0.4240	0.4324	0.4305	0.4344	0.4268	0.4282	0.4226	0.4257	0.4291	0.4207	0.4180	0.4150
25	0.4098	0.4124	0.4028	0.4112	0.4092	0.4132	0.4056	0.4070	0.4014	0.4044	0.4078	0.3994	0.3967	0.3937
24	0.3888	0.3914	0.3818	0.3903	0.3883	0.3923	0.3846	0.3860	0.3804	0.3834	0.3868	0.3784	0.3756	0.3726
23	0.3681	0.3707	0.3610	0.3695	0.3675	0.3715	0.3638	0.3653	0.3596	0.3627	0.3661	0.3577	0.3549	0.3519
22	0.3476	0.3502	0.3406	0.3491	0.3471	0.3511	0.3434	0.3448	0.3392	0.3423	0.3456	0.3372	0.3345	0.3315
21	0.3274	0.3300	0.3204	0.3289	0.3269	0.3309	0.3232	0.3246	0.3190	0.3221	0.3255	0.3171	0.3144	0.3114
20	0.3075	0.3101	0.3005	0.3089	0.3069	0.3109	0.3033	0.3047	0.2992	0.3022	0.3055	0.2973	0.2945	0.2916
19	0.2879	0.2904	0.2810	0.2893	0.2873	0.2912	0.2837	0.2851	0.2796	0.2826	0.2859	0.2777	0.2751	0.2722
18	0.2685	0.2710	0.2617	0.2699	0.2680	0.2718	0.2644	0.2658	0.2604	0.2633	0.2666	0.2585	0.2559	0.2531
17	0.2495	0.2519	0.2428	0.2508	0.2489	0.2527	0.2455	0.2468	0.2415	0.2444	0.2476	0.2397	0.2371	0.2343
16	0.2307	0.2331	0.2243	0.2321	0.2302	0.2339	0.2268	0.2281	0.2230	0.2258	0.2289	0.2212	0.2187	0.2160
15	0.2124	0.2147	0.2061	0.2136	0.2118	0.2154	0.2086	0.2098	0.2048	0.2075	0.2106	0.2031	0.2007	0.1980

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