

Castrads®

Declaration of Performance

No. 202209-1084-US

Emmeline II 18in

Unique product code:	CI-EML2-470
Type, batch or serial number:	CI-EML2-470
Intended use of the construction product:	In heating systems in buildings
Manufacturer:	Castrads Ltd 1 Kenwood Road North Reddish SK5 6PH, Manchester, United Kingdom
Test standard:	EN 442-1:2014
Test laboratory:	BSRIA
Test report number:	104331/2

Declared performance

Essential characteristics	Performance	Reference standard
Reaction to fire	A1 — non-combustible	
Release of dangerous substances	None	
Pressure tightness	No leakage at 1.3 × maximum working pressure (psi)	
Surface temperature	Maximum 248 °F	
Resistance to pressure	No breakage at 1.69 × maximum working pressure (psi) Maximum working pressure: 145 psi	EN 442-1:2014
Rated thermal outputs	See appendix 1	
Thermal output in different operating conditions (characteristic curve)	$\phi = K_m \cdot \Delta T^n$. See appendix for factor K_m and exponent n .	
Resistance against corrosion	No corrosion after 100h humidity	
Resistance against minor impact	Class 0	

Performance values are derived from testing to EN 442-1:2014 and are presented here in US customary units for the North American market. This document is a statement of manufacturer performance data; it is not issued under, and does not imply conformity with, any US regulatory or certification scheme.

Signed for and on behalf of the manufacturer by:

Nick Baylis
CEO
Syosset, England
26th August 2026





Appendix to DoP No. 202209-1084-US: Dimensions and thermal outputs

Panel dimensions: 18.5 in (470 mm) high when floor standing, 6.7 in (170 mm) deep, for all numbers of sections. See table for length.

SKU	Num of sec.	Length, in	Output (Hydronic, 170°F)	Output (Steam, 215°F)	EDR	Factor, Km	Exponent, n
CI-EML2-470-03	3	9.1	731	1,165	4.8	1.250	1.2742
CI-EML2-470-04	4	11.7	975	1,553	6.4	1.666	1.2742
CI-EML2-470-05	5	14.3	1,218	1,941	7.9	2.083	1.2742
CI-EML2-470-06	6	16.9	1,462	2,329	9.5	2.499	1.2742
CI-EML2-470-07	7	19.5	1,706	2,717	11.1	2.916	1.2742
CI-EML2-470-08	8	22.1	1,949	3,105	12.7	3.332	1.2742
CI-EML2-470-09	9	24.8	2,193	3,494	14.3	3.749	1.2742
CI-EML2-470-10	10	27.4	2,437	3,882	15.9	4.166	1.2742
CI-EML2-470-11	11	30	2,680	4,270	17.5	4.582	1.2742
CI-EML2-470-12	12	32.6	2,924	4,658	19.1	4.999	1.2742
CI-EML2-470-13	13	35.2	3,168	5,046	20.7	5.415	1.2742
CI-EML2-470-14	14	37.8	3,411	5,435	22.3	5.832	1.2742
CI-EML2-470-15	15	40.5	3,655	5,823	23.8	6.248	1.2742
CI-EML2-470-16	16	43.1	3,899	6,211	25.4	6.665	1.2742
CI-EML2-470-17	17	45.7	4,142	6,599	27.0	7.082	1.2742
CI-EML2-470-18	18	48.3	4,386	6,987	28.6	7.498	1.2742
CI-EML2-470-19	19	50.9	4,630	7,375	30.2	7.915	1.2742
CI-EML2-470-20	20	53.5	4,873	7,764	31.8	8.331	1.2742
CI-EML2-470-21	21	56.2	5,117	8,152	33.4	8.748	1.2742
CI-EML2-470-22	22	58.8	5,361	8,540	35.0	9.164	1.2742
CI-EML2-470-23	23	61.4	5,604	8,928	36.6	9.581	1.2742
CI-EML2-470-24	24	64	5,848	9,316	38.1	9.997	1.2742
CI-EML2-470-25	25	66.7	6,092	9,704	39.7	10.414	1.2742
CI-EML2-470-26	26	69.3	6,335	10,093	41.3	10.831	1.2742
CI-EML2-470-27	27	71.9	6,579	10,481	42.9	11.247	1.2742
CI-EML2-470-28	28	74.5	6,823	10,869	44.5	11.664	1.2742
CI-EML2-470-29	29	77.1	7,066	11,257	46.1	12.080	1.2742
CI-EML2-470-30	30	79.7	7,310	11,645	47.7	12.497	1.2742
CI-EML2-470-31	31	82.4	7,554	12,034	49.3	12.913	1.2742
CI-EML2-470-32	32	85	7,797	12,422	50.9	13.330	1.2742
CI-EML2-470-33	33	87.6	8,041	12,810	52.5	13.746	1.2742
CI-EML2-470-34	34	90.2	8,285	13,198	54.0	14.163	1.2742
CI-EML2-470-35	35	92.8	8,528	13,586	55.6	14.580	1.2742
CI-EML2-470-36	36	95.4	8,772	13,974	57.2	14.996	1.2742
CI-EML2-470-37	37	98.1	9,016	14,363	58.8	15.413	1.2742
CI-EML2-470-38	38	100.7	9,259	14,751	60.4	15.829	1.2742
CI-EML2-470-39	39	103.3	9,503	15,139	62.0	16.246	1.2742
CI-EML2-470-40	40	105.9	9,747	15,527	63.6	16.662	1.2742

Output (Hydronic, 170°F): BTU/h at 170°F mean water, 68°F room. **Output (Steam, 215°F):** BTU/h at 215°F steam, 68°F room. **EDR:** square feet of Equivalent Direct Radiation at the reference condition (215°F steam, 70°F room; 1 sq ft = 240 BTU/h). Outputs are derived from the EN 442-1 power law $\phi = Km \times \Delta T^n$ (ΔT = mean water – room, °C); BTU/h rounded to whole numbers, EDR to one decimal place.