

Castrads®

Declaration of Performance

No. 202209-1086-US

Emmeline II 34in

Unique product code:	CI-EML2-870
Type, batch or serial number:	CI-EML2-870
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
27th August 2026





Appendix to DoP No. 202209-1086-US: Dimensions and thermal outputs

Panel dimensions: 34.3 in (870 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-EML2-870-03	3	9.1	1,363	2,174	8.9	2.290	1.2785
CI-EML2-870-04	4	11.7	1,817	2,899	11.9	3.053	1.2785
CI-EML2-870-05	5	14.3	2,271	3,624	14.8	3.816	1.2785
CI-EML2-870-06	6	16.9	2,725	4,349	17.8	4.579	1.2785
CI-EML2-870-07	7	19.5	3,180	5,073	20.8	5.342	1.2785
CI-EML2-870-08	8	22.1	3,634	5,798	23.7	6.105	1.2785
CI-EML2-870-09	9	24.8	4,088	6,523	26.7	6.869	1.2785
CI-EML2-870-10	10	27.4	4,542	7,248	29.7	7.632	1.2785
CI-EML2-870-11	11	30	4,997	7,973	32.6	8.395	1.2785
CI-EML2-870-12	12	32.6	5,451	8,697	35.6	9.158	1.2785
CI-EML2-870-13	13	35.2	5,905	9,422	38.6	9.921	1.2785
CI-EML2-870-14	14	37.8	6,359	10,147	41.5	10.685	1.2785
CI-EML2-870-15	15	40.5	6,814	10,872	44.5	11.448	1.2785
CI-EML2-870-16	16	43.1	7,268	11,596	47.5	12.211	1.2785
CI-EML2-870-17	17	45.7	7,722	12,321	50.4	12.974	1.2785
CI-EML2-870-18	18	48.3	8,176	13,046	53.4	13.737	1.2785
CI-EML2-870-19	19	50.9	8,631	13,771	56.4	14.500	1.2785
CI-EML2-870-20	20	53.5	9,085	14,495	59.3	15.264	1.2785
CI-EML2-870-21	21	56.2	9,539	15,220	62.3	16.027	1.2785
CI-EML2-870-22	22	58.8	9,993	15,945	65.3	16.790	1.2785
CI-EML2-870-23	23	61.4	10,447	16,670	68.3	17.553	1.2785
CI-EML2-870-24	24	64	10,902	17,395	71.2	18.316	1.2785
CI-EML2-870-25	25	66.7	11,356	18,119	74.2	19.080	1.2785
CI-EML2-870-26	26	69.3	11,810	18,844	77.2	19.843	1.2785
CI-EML2-870-27	27	71.9	12,264	19,569	80.1	20.606	1.2785
CI-EML2-870-28	28	74.5	12,719	20,294	83.1	21.369	1.2785
CI-EML2-870-29	29	77.1	13,173	21,018	86.1	22.132	1.2785
CI-EML2-870-30	30	79.7	13,627	21,743	89.0	22.895	1.2785
CI-EML2-870-31	31	82.4	14,081	22,468	92.0	23.659	1.2785
CI-EML2-870-32	32	85	14,536	23,193	95.0	24.422	1.2785
CI-EML2-870-33	33	87.6	14,990	23,918	97.9	25.185	1.2785
CI-EML2-870-34	34	90.2	15,444	24,642	100.9	25.948	1.2785
CI-EML2-870-35	35	92.8	15,898	25,367	103.9	26.711	1.2785
CI-EML2-870-36	36	95.4	16,353	26,092	106.8	27.474	1.2785
CI-EML2-870-37	37	98.1	16,807	26,817	109.8	28.238	1.2785
CI-EML2-870-38	38	100.7	17,261	27,541	112.8	29.001	1.2785
CI-EML2-870-39	39	103.3	17,715	28,266	115.7	29.764	1.2785
CI-EML2-870-40	40	105.9	18,170	28,991	118.7	30.527	1.2785

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.