

Castrads®

Declaration of Performance

No. 202309-1087-US

Emmeline III 18in

Unique product code:	CI-EML3-470
Type, batch or serial number:	CI-EML3-470
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	EN 442-1:2014
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	
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. 202309-1087-US: Dimensions and thermal outputs

Panel dimensions: 18.5 in (470 mm) high when floor standing, 9.1 in (230 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-EML3-470-03	3	9.1	974	1,546	6.3	1.727	1.2650
CI-EML3-470-04	4	11.7	1,298	2,061	8.4	2.303	1.2650
CI-EML3-470-05	5	14.3	1,623	2,576	10.5	2.879	1.2650
CI-EML3-470-06	6	16.9	1,947	3,091	12.7	3.455	1.2650
CI-EML3-470-07	7	19.5	2,272	3,607	14.8	4.030	1.2650
CI-EML3-470-08	8	22.1	2,596	4,122	16.9	4.606	1.2650
CI-EML3-470-09	9	24.8	2,921	4,637	19.0	5.182	1.2650
CI-EML3-470-10	10	27.4	3,245	5,152	21.1	5.758	1.2650
CI-EML3-470-11	11	30	3,570	5,667	23.2	6.333	1.2650
CI-EML3-470-12	12	32.6	3,894	6,183	25.3	6.909	1.2650
CI-EML3-470-13	13	35.2	4,219	6,698	27.4	7.485	1.2650
CI-EML3-470-14	14	37.8	4,543	7,213	29.5	8.061	1.2650
CI-EML3-470-15	15	40.5	4,868	7,728	31.6	8.636	1.2650
CI-EML3-470-16	16	43.1	5,192	8,244	33.8	9.212	1.2650
CI-EML3-470-17	17	45.7	5,517	8,759	35.9	9.788	1.2650
CI-EML3-470-18	18	48.3	5,841	9,274	38.0	10.364	1.2650
CI-EML3-470-19	19	50.9	6,166	9,789	40.1	10.939	1.2650
CI-EML3-470-20	20	53.5	6,490	10,305	42.2	11.515	1.2650
CI-EML3-470-21	21	56.2	6,815	10,820	44.3	12.091	1.2650
CI-EML3-470-22	22	58.8	7,139	11,335	46.4	12.667	1.2650
CI-EML3-470-23	23	61.4	7,464	11,850	48.5	13.242	1.2650
CI-EML3-470-24	24	64	7,788	12,365	50.6	13.818	1.2650
CI-EML3-470-25	25	66.7	8,113	12,881	52.7	14.394	1.2650
CI-EML3-470-26	26	69.3	8,437	13,396	54.9	14.970	1.2650
CI-EML3-470-27	27	71.9	8,762	13,911	57.0	15.545	1.2650
CI-EML3-470-28	28	74.5	9,086	14,426	59.1	16.121	1.2650
CI-EML3-470-29	29	77.1	9,411	14,942	61.2	16.697	1.2650
CI-EML3-470-30	30	79.7	9,735	15,457	63.3	17.273	1.2650
CI-EML3-470-31	31	82.4	10,060	15,972	65.4	17.848	1.2650
CI-EML3-470-32	32	85	10,384	16,487	67.5	18.424	1.2650
CI-EML3-470-33	33	87.6	10,709	17,002	69.6	19.000	1.2650
CI-EML3-470-34	34	90.2	11,033	17,518	71.7	19.576	1.2650
CI-EML3-470-35	35	92.8	11,358	18,033	73.8	20.151	1.2650
CI-EML3-470-36	36	95.4	11,682	18,548	76.0	20.727	1.2650
CI-EML3-470-37	37	98.1	12,007	19,063	78.1	21.303	1.2650
CI-EML3-470-38	38	100.7	12,331	19,579	80.2	21.879	1.2650
CI-EML3-470-39	39	103.3	12,656	20,094	82.3	22.454	1.2650
CI-EML3-470-40	40	105.9	12,980	20,609	84.4	23.030	1.2650

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.