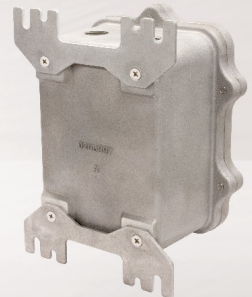
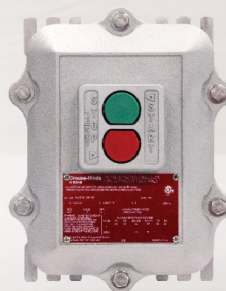
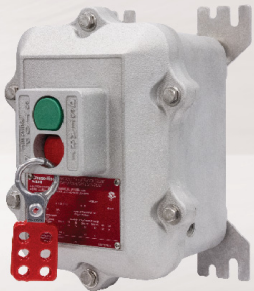
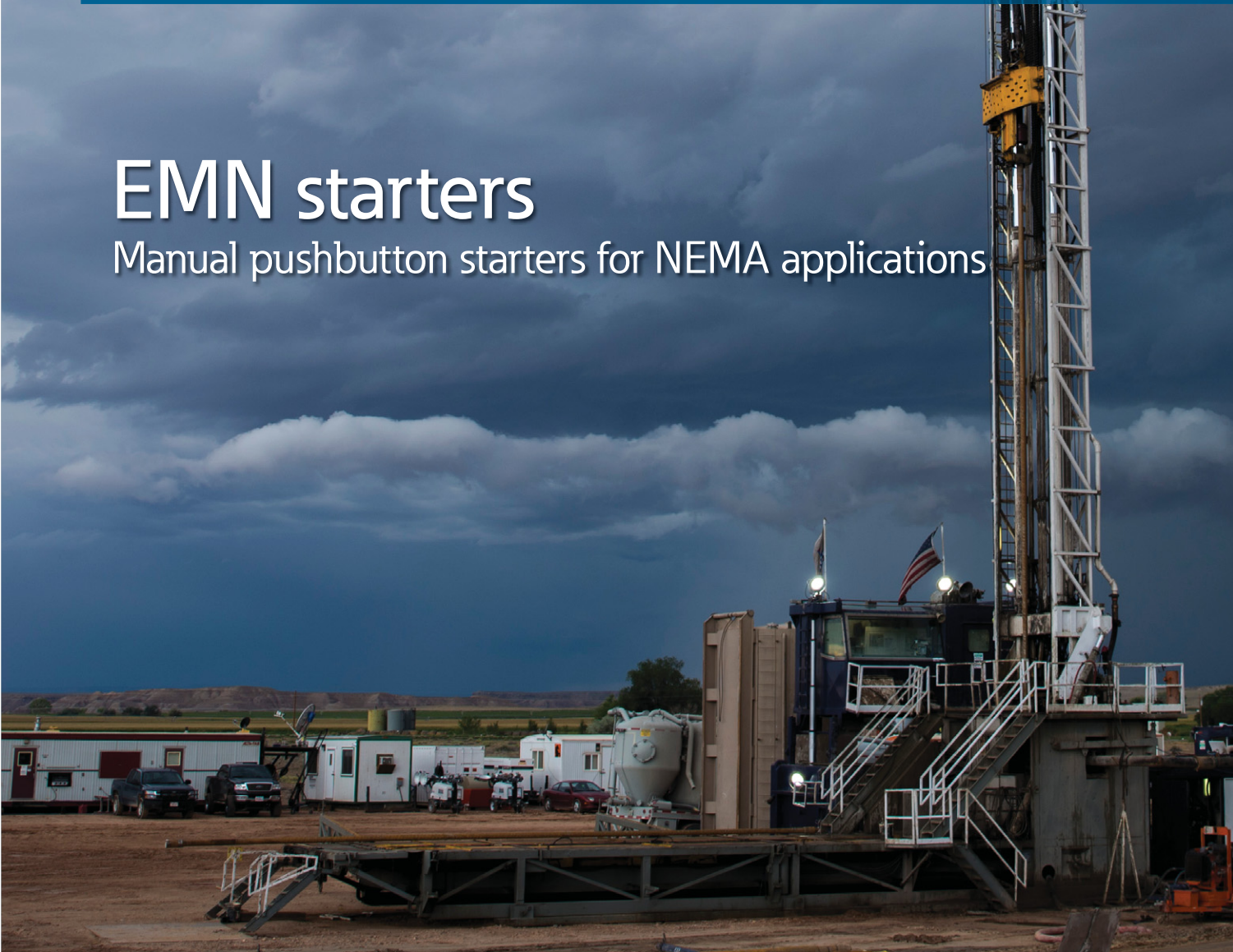


EMN starters

Manual pushbutton starters for NEMA applications



EATON

Powering Business Worldwide

EMN starters

Manual pushbutton starters for NEMA applications

Explosionproof, compact, across-the-line manual NEMA starter for single and polyphase VAC or VDC motors.

Applications:

- Used on drilling rigs for mud agitators and shakers where flammable or explosive gases are present
- Used for fans and blowers, pumps, compressors and conveyors

Electrical ratings:

- NEMA starter sizes 0, 1 and 1P
- 1 to 10 HP
- 2 pole, single phase AC up to 230 VAC
- 3 pole, three phase AC up to 600 VAC
- 2 pole, VDC up to 230 VAC
- #14 - #10 wire size range

Certifications and compliances:

- Class I, Divisions 1 & 2, Groups C, D
- Class II, Division 1 & 2, Groups E, F, G
- Class III
- UL1203; cUL C22.2 No. 30

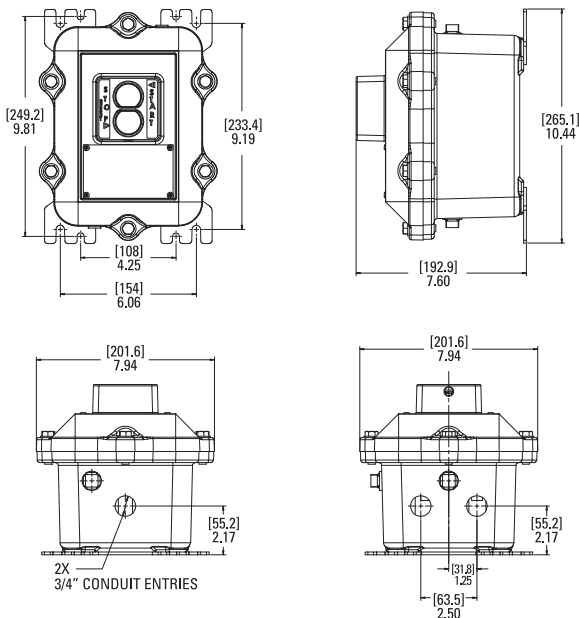
Environmental ratings:

- NEMA 3, 4, 7 (C, D) and 9 (E, F, G)
- Protected from hose-directed water
- NEMA 4X rated (when ordered with epoxy powder coat and gasket options)

Materials:

- Enclosure: copper-free aluminum
- Shaft, bearing and bolts: stainless steel
- O-ring gasket: Buna-N (optional)

Dimensions:



Top/bottom view

Bottom view
(No top entry option)

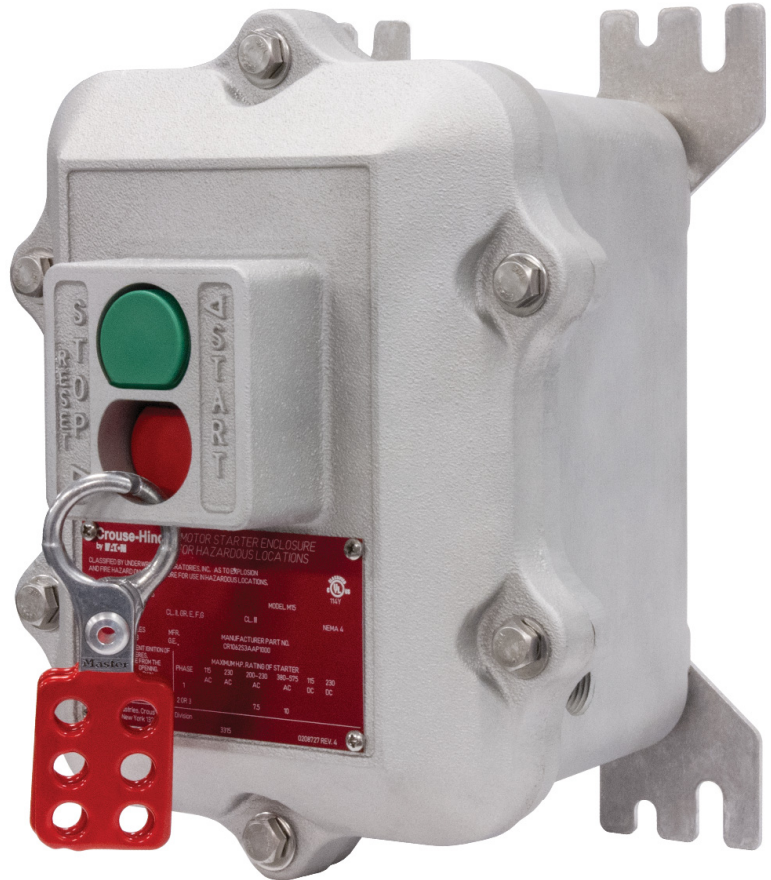
Features and benefits:

Moisture protection:

- Optional gasket protects from mud and hose-directed water
- Option for no top entries provides additional ingress protection

Safe:

- Lockout/tagout option allows for starter to be locked in "OFF" position



Versatile installation:

- Detachable mounting hardware
- Mounting footprint with multiple options for field flexibility

Durable, easy to use:

- Redesigned buttons allow for ease of use with gloves
- Enclosure designed to protect buttons from damage

Ordering information

EMN25

Enclosure type	
25	Pre-drilled for Square D starter
27	Pre-drilled for GE starter

Starter type	
D	Square D starter
G	GE starter

D31

Suffix	# of poles	NEMA size	Motor voltage	Single phase	Poly-phase	DC
20		0	115	1	–	–
			230	2	–	–
21	2	1	115	2	–	–
			230	3	–	–
21P		1P	115	3	–	–
			230	5	–	–
30		0	200-230	–	3	–
			380-575	–	5	–
31	3	1	200-230	–	7.5	–
			380-575	–	10	–
20DC		0	115	–	–	1
			230	–	–	1.5
21DC	2 DC	1	115	–	–	1.5
			230	–	–	2

M15

Options	
S752	Gray epoxy powder coat, outside only
S753	Gray epoxy powder coat, inside & outside
S198V	Breather and drain
NTE	No top entry
GSK	Gasket (for NEMA 4 rating)
See below	Heater element (see tables below for Square D or GE options)

Heater elements:

Select heater elements based on motor nameplate listed Full Load Amps (FLA). Trip rating of elements is 125% of motor minimum FLA listed for the elements. One heater is furnished with 2-pole AC or DC starters and three heaters with 3-pole starters.

Square D

Size M-0, M-1 & M-1P only

Suffix	1 PH	3 PH
B44	0.33-0.36	0.29-0.32
B51	0.37-0.40	0.33-0.36
B57	0.41-0.45	0.37-0.39
B63	0.46-0.52	0.40-0.47
B71	0.53-0.59	0.48-0.56
B81	0.60-0.66	0.57-0.63
B92	0.67-0.73	0.64-0.69
B103	0.74-0.81	0.70-0.77
B116	0.82-0.91	0.78-0.86
B130	0.92-1.02	0.87-0.96
B145	1.03-1.14	0.97-1.11
B167	1.15-1.29	1.12-1.23
B188	1.20-1.42	1.24-1.37
B210	1.43-1.64	1.38-1.55
B240	1.65-1.80	1.56-1.75
B265	1.81-2.10	1.76-1.92
B300	2.11-3.20	1.93-2.16
B330	2.31-2.61	2.17-2.50

Size M-1 & M-1P only

Suffix	1 PH	3 PH
B195	–	11.3-12.1
B220	–	12.2-13.6
B250	16.2-17.6	13.7-15.3
B280	17.7-20.6	15.4-17.3
B320	20.7-23.1	17.4-19.1
B360	23.2-26.0	19.2-21.7
B400	–	21.8-24.2
B450	–	24.3-26.0

Size M-0, M-1 & M-1P only

Suffix	1 PH	3 PH
B370	2.62-2.99	2.51-2.81
B415	3.00-3.37	2.82-3.16
B485	3.38-3.94	3.17-3.40
B550	3.95-4.24	3.41-3.76
B625	4.25-4.54	3.77-4.00
B690	4.55-5.29	4.01-4.68
B770	5.30-5.73	4.69-5.18
B820	5.74-6.35	5.19-5.51
B910	6.36-7.08	5.52-6.19
B102	7.09-7.83	6.20-7.12
B115	7.84-8.47	7.13-8.15
B128	8.48-9.83	8.16-8.60
B140	9.84-10.5	8.61-9.21
B155	10.6-11.4	9.22-10.1
B175	11.5-12.8	10.2-11.2
B195	12.9-13.9	11.3-12.0
B220	14.0-16.1	–
B250	16.2-18.0	–

Size M-1P only

Suffix	1 PH	3 PH
B360	23.2-27.1	–
B400	27.2-29.2	–
B450	29.3-33.0	–
B500	33.1-36.0	–

General Electric

Size M-0 & M-1 only

Suffix	1 PH	3 PH
36A	0.34	0.29
39A	0.37	0.31
43A	0.42	0.34
48A	0.47	0.40
54A	0.52	0.44
60A	0.57	0.48
66A	0.63	0.52
71A	0.69	0.58
78A	0.77	0.64
87A	0.87	0.71
97A	0.97	0.81
109A	1.06	0.89
118A	1.18	0.98
131A	1.33	1.12
148A	1.47	1.22
163A	1.66	1.38
184A	1.78	1.48
196A	2.00	1.66
220A	2.18	1.80
239A	2.45	2.03
268A	2.76	2.28
301A	3.00	2.47
326A	3.27	2.71
356A	3.49	2.87
379A	3.86	3.18
419A	4.30	3.54
466A	4.88	3.89
526A	5.49	4.51
592A	5.85	4.90
630A	6.45	5.30
695A	7.22	5.94
778A	8.05	6.70
867A	8.88	7.36

Size M-0 & M-1 only

Suffix	1 PH	3 PH
955A	9.66	7.98
104B	10.5	8.59
113B	11.6	9.46
125B	12.7	10.3
137B	13.2	11.7
151B	15.1	12.6
163B	16.6	13.8
180B	17.6	15.4
198B	–	16.6
214B	–	17.4
198B	19.8	–
214B	21.1	–
228B	23.1	19.4
250B	25.2	20.6
273B	–	22.0
303B	–	25.3

Size M-1P only

Suffix	1 PH
778A	8.56
867A	9.43
955A	10.3
104B	11.0
113B	12.1
125B	13.2
137B	15.0
151B	16.2
163B	17.7

Size M-1P only

Suffix	1 PH
180B	19.7
198B	21.2
214B	22.2
228B	24.9
250B	26.4
273B	30.0
303B	32.7
330B	34.0

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