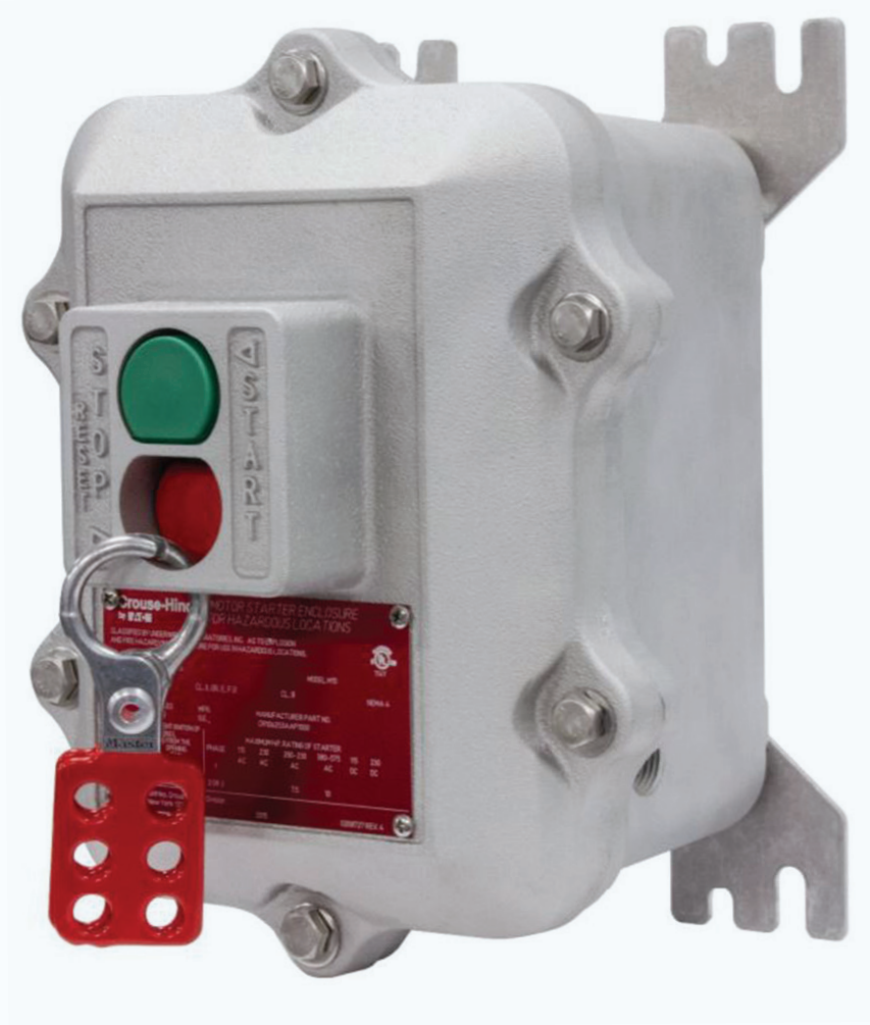




Explosionproof, compact, across-the-line manual NEMA starter for single and polyphase VAC or VDC motors.



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

# Manual pushbutton STARTERS for NEMA applications

# EMIN

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# EMN

## Manual pushbutton STARTERS for NEMA Applications

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

### 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

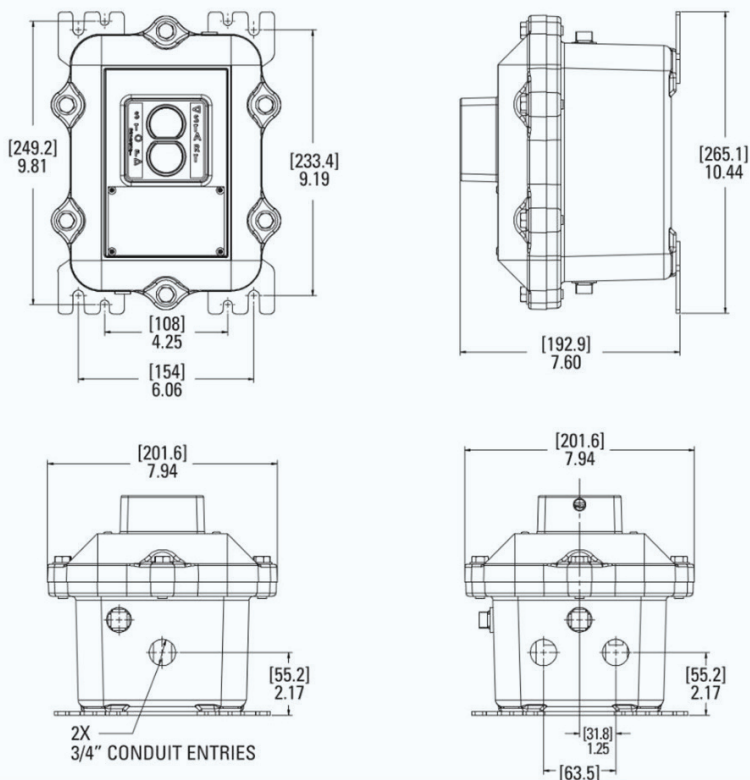
### Certifications and Compliances:

- 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)

### Dimensions:



### Materials:

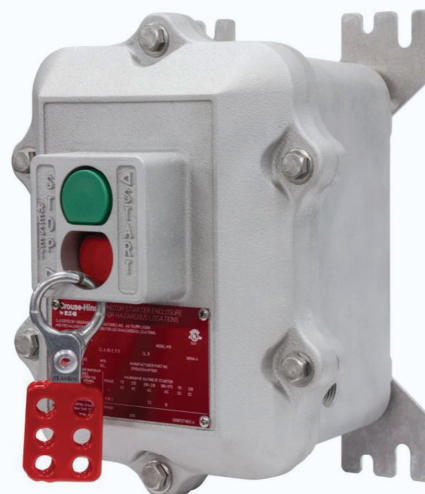
- Enclosure: copper-free aluminum
- Shaft, bearing and bolts: stainless steel
- O-ring gasket: Buna-N (optional)

### 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

# Catalog Number System

## EMN 25

## D 31

## S198V

## M15

SERIES	
EMN	Manual pushbutton starters for NEMA applications

STARTER TYPE	
D	Square D starter
G	GE starter

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	230-230	-	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

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)
	Heater element (see tables below for Square D or GE options)

See Below



ENCLOSURE TYPE	
25	Pre-drilled for Square D starter
27	Pre-drilled for GE starter

### 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-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	-

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	0.4
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	1.66
220A	2.18	1.8
239A	2.45	2.03
268A	2.76	2.28
301A	3	2.47
326A	3.27	2.71
356A	3.49	2.87
379A	3.86	3.18
419A	4.3	3.54
466A	4.88	3.89
526A	5.49	4.51
592A	5.85	4.9
630A	6.45	5.3
695A	7.22	5.94
778A	8.05	6.7
867A	8.88	7.3

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
303B	-	25.3

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- 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	-

SIZE M-1P ONLY		SIZE M-1P ONLY	
SUFFIX	1 PH	SUFFIX	1 PH
778A	8.56	80B	19.7
867A	9.43	198B	21.2
955A	10.3	214B	22.2
104B	11	228B	24.9
113B	12.1	250B	26.4
125B	13.2	273B	30
137B	15	303B	32.7
151B	16.2	330B	34
163B	17.7		