

ES Bolt-On Series Line Starter Enclosures

Explosionproof, Dust-Ignitionproof

ES, ERS, and ESS Series.

CEC:

Class I, Groups B, C, D

Class II, Groups E, F, G

Class III

NEMA 3R ①, 7CD, 9EFG, 12 ①

Applications

- Enclosures combine thermal magnetic circuit breakers and magnetic motor starters to provide across the line starting and stopping of polyphase AC motors, branch circuit protection, disconnect means, and motor running overcurrent protection.

Features

- Bolt-On Series incorporates compact, ruggedly built enclosures with hinged, removable covers secured by stainless steel bolts.
- Mating surfaces are precision-ground to explosionproof specifications.
- All starters are 3-pole and equipped with overload protection.
- Optional accessories provide for start-stop control, either remotely or on the enclosure.
- Removable hinged cover with captive, hex head bolts allow fast, easy release of cover with a few turns on each.
- Covers are hinged on left side and are removable. Provides easy access to interior for installation and maintenance. The hinged cover may be left in place to help protect the explosionproof machined surface during routine maintenance.
- Breaker handles are rugged and positive operating. The breaker actuator is designed to self-locate on the breaker handle. This unique feature prevents damage to the breaker toggle if the door is closed without aligning handle with breaker toggle position.
- Enclosures have two tapped and plugged openings in the cover (3/4" N.P.S.M.) for installation of push buttons, pilot lights, selector switches and other accessories.
- Accessories may be factory installed or added later in the field.
- Enclosures feature compact design. Four removable mounting lugs have pear shaped holes, permitting easy installation for rack or individual mounting.
- Standard conduit openings are located top and bottom
- Openings for drain and breather or control circuit are also provided, with close-up plugs.
- Interior components are mounted on easily removable pan. Complete removal of this assembly gives full access to enclosure interior for wire pulling. Room for a control transformer is provided in all EBC series enclosures.

Standard Materials

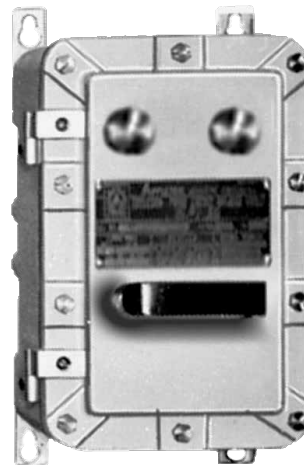
- Bodies and covers: copperfree (4/10 of 1%) aluminum
- Operating shafts, bushings, cover bolts and hinges: stainless steel
- O-ring: neoprene

Standard Finish

- Corrosion resistant gray powder coat epoxy

CEC Certifications and Compliances

- CSA Standards: C22.2 No. 14M, C22.2 No. 25, C22.2 No. 30
- CSA Certified: 035831



CONTROLS: NEC/CEC EXPLOSIONPROOF MOTOR STARTERS

Appleton

① Available upon request. CSA 4X is also available on request.

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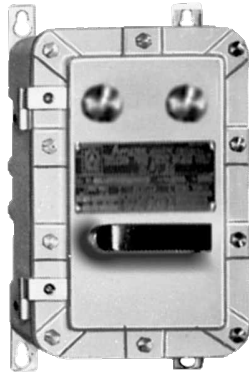
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Max. H.P.	Line Starter			Catalog Number	
	Volts, 60 Hz	NEMA Size	Tap Size ②	Enclosure Only	With Starter
ES Series 2 thru 220 Horsepower — Single Speed, Non-Reversing					
2	120	0	1-1/2	ES2	ES0W1
2	240	0	1-1/2	ES2	ES0W2
2	480	0	1-1/2	ES2	ES0W4
2	600	0	1-1/2	ES2	ES0W5
3	120	1	1-1/2	ES2	ES1W1
3	240	0	1-1/2	ES2	ES0W2
3	480	0	1-1/2	ES2	ES0W4
3	600	0	1-1/2	ES2	ES0W5
5	240	1	1-1/2	ES2	ES1W2
5	480	0	1-1/2	ES2	ES0W4
5	600	0	1-1/2	ES2	ES0W5
7-1/2	120	2	2	ES2	ES2W1
7-1/2	240	1	1-1/2	ES2	ES1W2
7-1/2	480	1	1-1/2	ES2	ES1W4
7-1/2	600	1	1-1/2	ES2	ES1W5
10	240	2	2	ES2	ES2W2
10	480	1	1-1/2	ES2	ES1W4
10	600	1	1-1/2	ES2	ES1W5
15	120	3	2-1/2	ES3	ES3W1
15	240	2	2	ES2	ES2W2
15	480	2	2	ES2	ES2W4
15	600	2	2	ES2	ES2W5
20	240	3	2-1/2	ES3	ES3W2
20	480	2	2	ES2	ES2W4
20	600	2	2	ES2	ES2W5
25	240	3	2-1/2	ES3	ES3W2
25	480	2	2	ES2	ES2W4
25	600	2	2	ES2	ES2W5
30	240	3	2-1/2	ES3	ES3W2
30	480	3	2-1/2	ES3	ES3W4
30	600	3	2-1/2	ES3	ES3W5
40	240	4	3	ES4	ES4W2
40	480	3	2-1/2	ES3	ES3W4
40	600	3	2-1/2	ES3	ES3W5
50	240	4	3	ES4	ES4W2
50	480	3	2-1/2	ES3	ES3W4
50	600	3	2-1/2	ES3	ES3W5
60	480	4	3	ES4	ES4W4
60	600	4	3	ES4	ES4W5
75	480	4	3	ES4	ES4W4
75	600	4	3	ES4	ES4W5
100	480	4	3	ES4	ES4W4
100	600	4	3	ES4	ES4W5
125	480	5	4	ES5	ES5W4
125	600	5	4	ES5	ES5W5
150	480	5	4	ES5	ES5W4
150	600	5	4	ES5	ES5W5
220	600	5	4	ES5	ES5W5

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② Conduit openings are tapped to size shown. A removable reducer bushing is furnished for each opening which, when installed, makes the conduit opening one size smaller.

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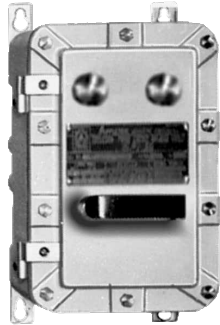
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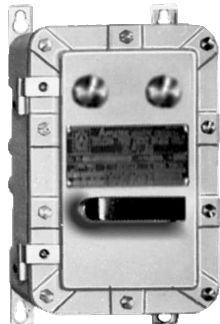
Max. H.P.	Line Starter Volts, 60 Hz	NEMA Size	Tap Size ②	Catalog Number Enclosure Only
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ERS Series 3 thru 50 Horsepower — 3-Phase, Single Speed, Non-Reversing



3	240	0	2	ERS2
5	480	0	2	ERS2
5	600	0	2	ERS2
7-1/2	240	1	2	ERS2
10	480	1	2	ERS2
10	600	1	2	ERS2
15	240	2	2	ERS2
25	480	2	2	ERS2
25	600	2	2	ERS2
30	240	3	2-1/2	ERS3
50	480	3	2-1/2	ERS3
50	600	3	2-1/2	ERS3

ESS Series 3 thru 50 Horsepower — 3-Phase Two-Speed, Single-Winding (Consequent-Pole, Constant or Variable-Torque) Motors



3	240	0	2	ESS2
5	480	0	2	ESS2
5	600	0	2	ESS2
7-1/2	240	1	2	ESS2
10	480	1	2	ESS2
10	600	1	2	ESS2
15	240	2	2	ESS2
25	480	2	2	ESS2
25	600	2	2	ESS2
30	240	3	3	ESS3
50	480	3	3	ESS3
50	600	3	3	ESS3

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ES Bolt-On Series Line Starter Enclosure

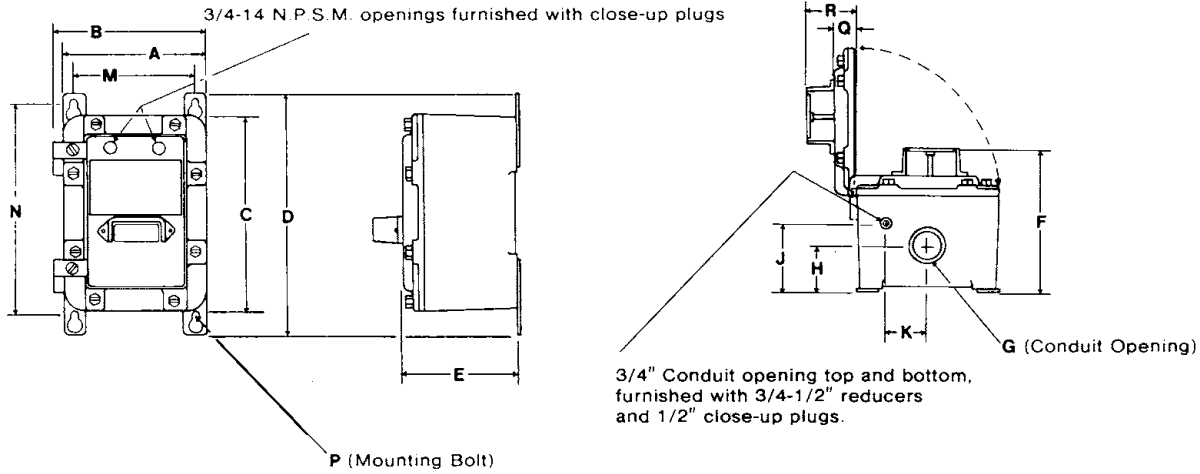
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Dimensions in Millimeters (Inches) — Dimensions are approximate, not for construction

	ES2	ERS2	ERS3	ES3/ESS2	ES4/ESS4	ES5
A	231.8 (9.13)	231.8 (9.13)	314.4 (12.38)	393.7 (15.50)	393.7 (15.50)	393.7 (15.50)
B	244.5 (9.23)	244.5 (9.23)	336.6 (13.25)	406.4 (16.00)	406.4 (16.00)	406.4 (16.00)
C ②	358.8 (14.13)	714.4 (28.13)	816.0 (32.13)	596.9 (23.50)	800.1 (31.50)	1028.7 (40.50)
D	425.45 (16.75)	781.1 (30.75)	936.6 (36.88)	614.4 (24.19)	817.6 (32.19)	1058.9 (41.69)
E	184.2 (7.25)	184.2 (7.25)	269.9 (10.63)	289.6 (11.40)	289.6 (11.40)	289.6 (11.40)
F	222.3 (8.75)	222.3 (8.75)	308.0 (12.13)	323.9 (12.75)	323.9 (12.75)	323.9 (12.75)
G ③	50.8 (2.00)	50.8 (2.00)	76.2 (3.00)	50.8 (2.00)	76.2 (3.00)	101.6 (4.00)
H	69.9 (2.75)	69.9 (2.75)	117.5 (4.63)	100.1 (3.94)	100.1 (3.94)	100.1 (3.94)
J	95.3 (3.75)	95.3 (3.75)	171.5 (6.75)	115.8 (4.56)	115.8 (4.56)	115.8 (4.56)
K	69.9 (2.75)	69.9 (2.75)	79.4 (3.13)	—	—	—
M	190.5 (7.50)	190.5 (7.50)	254.0 (10.00)	298.5 (11.75)	298.5 (11.75)	298.5 (11.75)
N	384.2 (15.13)	739.8 (29.13)	892.2 (35.13)	576.3 (22.69)	779.5 (30.69)	1008.1 (39.69)
P	9.5 (0.38)	9.5 (0.38)	9.5 (0.38)	—	—	—
Q	44.5 (1.75)	44.5 (1.75)	57.2 (2.25)	—	—	—
R	85.7 (3.38)	85.7 (3.38)	101.6 (4.00)	—	—	—

Approximate Weight in Kilograms (Pounds)

Enclosure Only	6.4 (14)	13.2 (29)	18.6 (41)	36.7 (81)	45.8 (101)	57.2 (126)	61.2 (135)
With Interior ④	10.9 (24)	18.6 (41)	29.5 (65)	49.9 (110)	38.6 (85)	63.5 (140)	142.4 (314)

① Available upon request. CSA 4X is also available on request.

② For Drain and Breather set, add 2" to Dimension C. Close-up plugs furnished when enclosures are ordered without drains and breathers.

③ Conduit openings are tapped to size shown. A removable reducer bushing is furnished for each opening which, when installed, makes the conduit opening one size smaller.

④ Approximate weights shown reflect largest size component that will fit in each respective enclosure.