

AEB Series Bolted Motor Starters and Contactors

Explosionproof, Dust-Ignitionproof, Watertight

Full Voltage. Combination and Non-Combination.

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2, Groups IIB + H₂
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

NEMA 4, 4X, 7BCD, 9EFG
CSA Type 4, 4X

Application

- Combination and non-combination motor starters are used in areas where hazardous materials are handled or stored.
- These units provide disconnecting means, undervoltage protection, circuit protection, and motor running protection.

Features

- Copperfree cast aluminum.
- Precision machined flame path between box and cover.
- Bolt on slotted mounting feet.
- Stainless steel, captive Quad-Lead® cover bolts (disengage in 1-1/2 turns).
- External stainless steel breaker operating handle.
- Ground lug package and installation instructions for termination of ground wire enclosed.
- Four point control terminal block, NEMA 1B with wire markers.
- Breaker operators can be locked in the ON or OFF position (combination starters only).
- Four plugged 3/4" NPSM outlets drilled and tapped for control devices.
- Standard outlets top and bottom.
- Plugged 1/2" outlets top and bottom for optional breather/drain.
- Components are mounted on a galvanized steel removable pan.
- Enclosures are designed to accept Cutler-Hammer Ⓞ, or Square D ■ motor starters/circuit breakers. For other manufacturers, contact your local representative.
- O-ring gasket insures watertight integrity.

Standard Materials

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

Standard Finish

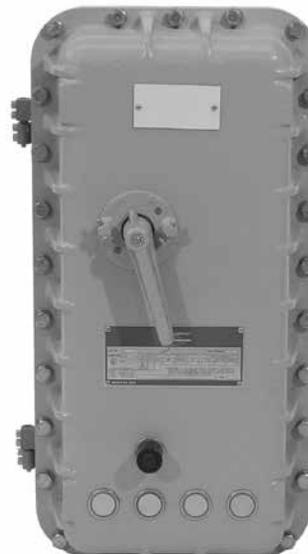
- Corrosion resistant gray powder coat epoxy inside and out

Options

- See modifications page.

NEC Certifications and Compliances

- ANSI/UL Standards: UL 508, UL 50, UL 1203
- CSA Standards: C22.2 No. 0-10, C22.2 No. 14-10, C22.2 No. 25-1996, C22.2 No. 30-M1986 and C22.2 No. 94-M91
- cCSAus Certified: 2561837



CONTROLS: NEC/CEC EXPLOSIONPROOF MOTOR STARTERS

APPLETON™

Cutler-Hammer is a registered trademark of Eaton Corporation.

■ Square D is a registered trademark of Schneider Electric.

Visit our website at www.emerson.com or contact us at (800) 621-1506.
© July 2020

281


EMERSON

AEB Series Bolted Motor Starters and Contactors

Explosionproof, Dust-Ignitionproof, Watertight

Full Voltage. Combination and Non-Combination.

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D
 Class I, Zone 1 and 2, Groups IIB + H2
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:

NEMA 4, 4X, 7BCD, 9EFG
 CSA Type 4, 4X

Catalog Numbering Guide

Example: The part number below depicts an Appleton, Class I, Division I, Groups B, C and D, NEMA Size 1, Bolted type, Combination Full Voltage Nonreversing Motor Starter operating at 480 Vac, Cutler-Hammer starter w/120 Vac control voltage, and a Cutler-Hammer 7A MCP. If a breaker is not required, omit last two characters.

CONTROLS: NEC/CEC EXPLOSIONPROOF MOTOR STARTERS

APPLETON™

<p>AE</p> <p>NEC/CEC Certified AE Series</p>	<p>1</p> <p>NEMA Size: 0 1 2 3 4 5</p>	<p>B</p> <p>Starter Function: A - FVNR (ATL) B - Combination FVNR M - Lighting Contactor (3- thru 12-pole) ① N - Combination Lighting Contactor (3- thru 12-pole) ①</p> <p>Optional Starter Function ②: C - FVR D - Combination FVR E - 2S1W F - Comb. 2S1W G - 2S2W H - Combination 2S2W J - Contactor (3 pole) K - Combination Contactor (3-pole)</p>	<p>4</p> <p>Operating Voltage: 1 - 120 Vac 2 - 240 Vac 3 - 380 Vac 4 - 480 Vac 6 - 600 Vac 9 - 208 Vac</p>	<p>W</p> <p>Starter Manufacturer: ③ W - Standard; Eaton/Cutler-Hammer (A200) C - Freedom (AN16) Bi Metal; Eaton/Cutler-Hammer and A - Freedom (AN19) Electronic; Eaton/Cutler-Hammer S - Square D</p>	<p>1</p> <p>Control Voltage (120 V coil standard): 1 - 120 Vac 2 - 240 Vac 3 - 380 Vac 4 - 480 Vac 6 - 600 Vac 8 - 480 V Coil/120 V Control 9 - 208 Vac 0 - 277 Vac</p>	<p>C</p> <p>Breaker Manufacturer: ③ C - Cutler-Hammer S - Square D</p>	<p>2</p> <p>MCP or Breaker Trip: MCP 1 - 3 Amp 2 - 7 Amp 3 - 15 Amp 4 - 30 Amp 5 - 50 Amp 6 - 70 Amp 7 - 100 Amp 8 - 150 Amp 9 - 250 Amp 0 - 400 Amp</p>	<p>—</p> <p>Suffix for Other Options/Features: See Modifications</p> <p>Breaker Trip (Thermal Mag): A - 15 Amp B - 20 Amp C - 25 Amp D - 30 Amp E - 35 Amp F - 40 Amp G - 50 Amp H - 60 Amp J - 70 Amp K - 80 Amp M - 90 Amp N - 100 Amp P - 125 Amp Q - 150 Amp R - 175 Amp S - 200 Amp T - 225 Amp U - 250 Amp V - 300 Amp W - 350 Amp X - 400 Amp</p>
---	---	--	---	--	--	---	---	--

① Standard starter is manufactured by Square D; electrically operated, electrically held. Optional starter manufacture is ASCO; electrically operated, mechanically held. Contact your local sales representative for details.

② Contact your local sales representative for details.

③ Contact your local sales representative for additional UL Classified starters (Allen Bradley 509 and Vacuum, Sprecher and Schuh, Siemens, GE, and Cutler Hammer ITT Softstart and V200 Vacuum).

AEB Series Bolted Motor Starters and Contactors

Explosionproof, Dust-Ignitionproof, Watertight

Full Voltage. Combination and Non-Combination.

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D
 Class I, Zone 1 and 2, Groups IIB + H₂
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:

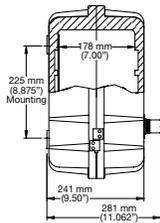
NEMA 4, 4X, 7BCD, 9EFG
 CSA Type 4, 4X

Empty Enclosure

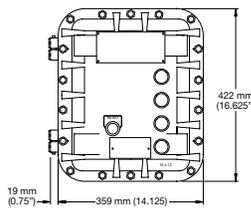
NEMA Size	Catalog Number ①	Approximate Weight kg (lb)	Standard Conduit (Inches)	Mounting Hardware Set Catalog Number
Full Voltage Nonreversing Enclosure Only				
0	AE0BA	36 (80)		
1	AE1BA	36 (80)	1-1/2	
2	AE2BA	39 (85)		AMH7
3	AE3BA	64 (140)	2	
4	AE4BA	64 (140)	2-1/2	
5	AE5BA	227 (500)	4	AMH8

Dimensions in Millimeters (Inches) – Starter Only

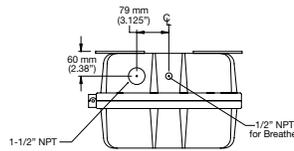
Enclosure Layout for Size 0, 1 and 2 – Starter Only



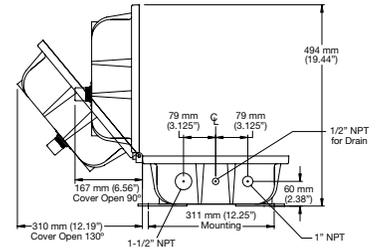
Left Side View



Front View

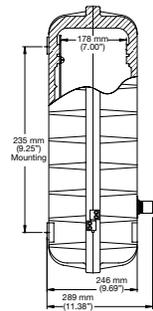


Top View

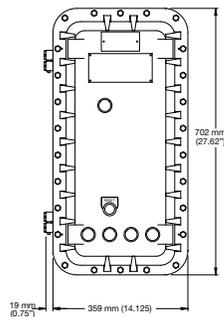


Bottom View

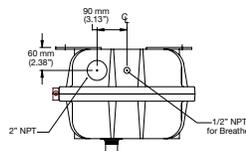
Enclosure Layout for Size 3 – Starter Only



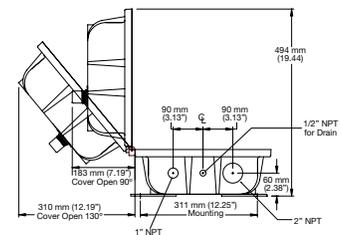
Left Side View



Front View



Top View



Bottom View

① To complete the catalog number please add the appropriate suffix for other options/features. Suffixes, see AEB Series Motor Starters Modifications.

CONTROLS: NEC/CEC EXPLOSIONPROOF MOTOR STARTERS

APPLETON

AEB Series Bolted Motor Starters and Contactors

Explosionproof, Dust-Ignitionproof, Watertight

Full Voltage. Combination and Non-Combination.

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2, Groups IIB + H₂
Class II, Division 1 and 2, Groups E, F, G
Class III

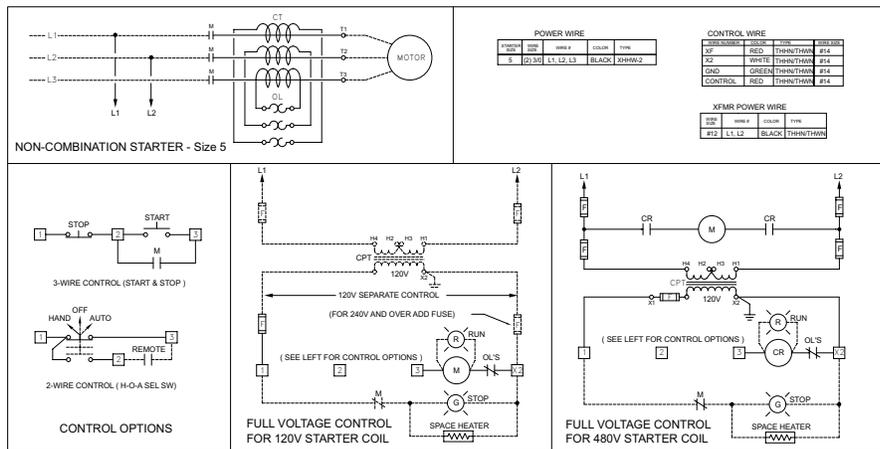
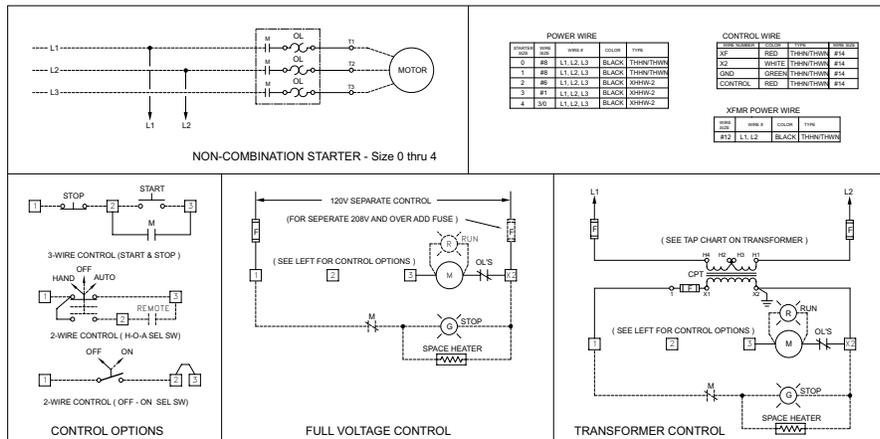
NEC/CEC:

NEMA 4, 4X, 7BCD, 9EFG
CSA Type 4, 4X

Full Voltage Motor Starter – Nonreversing – 3-Phase, 60 Hertz, 120 V Coil

Line Voltage	NEMA Size	Maximum Horsepower	Amp Trip	Catalog Number ①	Approximate Weight kg (lb)	Conduit Size (Inches)	Mounting Hardware Set Catalog Number
480	0	5	NA	AE0BA4W1	36 (80)	1-1/2	AMH7
	1	10	NA	AE1BA4W1	36 (80)		
	2	25	NA	AE2BA4W1	39 (85)	2	
	3	50	NA	AE3BA4W1	64 (140)		
	4	100	NA	AE4BA4W1	64 (140)	2-1/2	
600	5	200	NA	AE5BA4W1	227 (500)	4	AMH8
	0	5	NA	AE0BA6W1	57 (125)	1-1/2	AMH7
	1	10	NA	AE1BA6W1	57 (125)		
	2	25	NA	AE2BA6W1	59 (130)	2	
	3	50	NA	AE3BA6W1	88 (195)		
	4	100	NA	AE4BA6W1	88 (195)	2-1/2	
5	200	NA	AE5BA6W1	227 (500)	4	AMH8	

Wiring Diagrams



① To complete the catalog number please add the appropriate suffix for other options/features. Suffixes, see AEB Series Motor Starters Modifications.