

# EPC Magnetic Line Starters and Enclosures

Cl. I, Div. 1 & 2, Groups C, D  
Cl. II, Div. 1, Groups E, F, G  
Cl. II, Div. 2, Groups F, G  
Cl. III  
NEMA 3, 4, 7CD, 9EFG, 12

Explosionproof  
Dust-Ignitionproof  
Raintight  
Wet Locations  
Watertight

2C

## Applications:

EPC magnetic line starters and enclosures are used:

- For across-the-line starting of polyphase AC induction motors
- In locations made hazardous due to the presence of flammable vapors, gases or highly combustible dusts
- In damp, wet or corrosive locations
- Indoors or outdoors at petroleum refineries, chemical and petrochemical plants and other process industry facilities where similar hazards exist
- To provide motor running protection, undervoltage protection, and remote starting and stopping

## Features:

- Quick-opening covers – less than two turns to remove or install
- Three section design for ease of installation
- Water-shedding construction with female threads on top cover, male threads on bottom cover, and top cover skirted
- Specially located stops and locks ensure adequate thread engagement and prevent overtightening
- Separate replaceable mounting bracket attached to the rear of the body provides three-point suspension for quick installation and leveling – one keyhole slot at top and two open slots at bottom
- Bodies have two taper tapped conduit hubs with integral bushings on the top, and two more directly below
- Universal mounting plate and reset mechanism will accommodate any of the motor starters in catalog listing
- When interior mounting plate is removed, line and load conductors are easily pulled into the wiring chamber. The interior assembly with starter attached is then replaced, final connections made, and covers assembled
- Furnished with third overload relay as standard

## Certifications and Complies:

- NEC/CEC  
Class I, Division 1 & 2, Groups C, D  
Class II, Division 1, Groups E, F, G  
Class II, Division 2, Groups F, G  
Class III
- NEMA/EMAC: 3, 4, 7CD, 9EFG, 12
- UL Standard: 1203
- CSA Standard: C22.2 No. 30

## Standard Materials:

- Bodies and covers – copper-free aluminum
- Reset handle – copper-free aluminum
- Reset shaft – stainless steel
- Interior parts – stainless steel

## Standard Finishes:

- Copper-free aluminum – natural
- Stainless steel – natural
- Sheet steel – electrogalvanized with chromate finish

## Electrical Rating Range:

- Starter Sizes 0 to 1 inclusive

## Options:

The following special options are available from factory by adding suffix to Cat. No. and many are available in kit form for field addition to existing units: See page 467 for listing of kits

### Description

Control circuit transformer 600/480/240–120 volts, 50 or 60 hertz

(Sizes 0 and 1 – 50VA, 100VA) Fusible – Secondary .....

Primary and secondary .....

Automatic reset overload relay .....

Less overload relays (lighting contactor) .....

Less overload relays (motor contactor) .....

Auxiliary Contacts:\*

1NO/1NC .....

2NO/2NC .....

3NO/3NC .....

Pilot light holes drilled, tapped and plugged for future addition of pilot lights –

one hole .....

two holes .....

Side bosses drilled and tapped same size as standard hubs .....

Back boss drilled and tapped same size as standard hubs .....

Standard Breather (Cl. I, Groups C, D; Cl. II, Groups E, F, G; Cl. III) .....

Standard Drain (Cl. I, Groups C, D; Cl. II, Groups E, F, G; Cl. III) .....

Standard Breather and Drain (Cl. I, Groups C, D; Cl. II, Groups E, F, G; Cl. III) .....

Universal Breather-Drain (Cl. I, Groups C, D; Cl. II, Groups F, G) .....

(2) Universal-Breather Drains (Cl. I, Groups C, D; Cl. II, Groups F, G) .....

Pushbuttons (heavy duty):

START-STOP .....

Selector switches (standard duty):

ON-OFF .....

HAND-OFF-AUTO.....

Pilot lights:

Red, 120 volt .....

Green, 120 volt .....

Pilot light transformers:

240 volt† .....

480 volt† .....

600 volt† .....

Space heaters:

120 volt .....

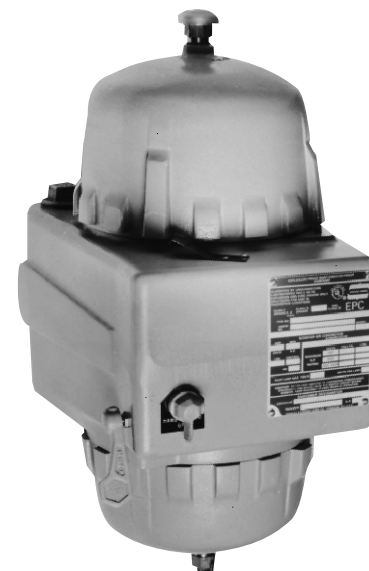
240 volt .....

480 volt .....

\*Application limited by starter or contactor design – consult factory.

†Required for pilot lights on other than 120 volt control circuits. One required for each lamp.

‡Not suitable for NEMA 4.



### Suffix

FT

FTPS

S1

CL

CM

S781

S782

S783

S541

S542

S366

S367

S219

S198

S198V

S454‡

S454V‡

PB3‡

RR2‡

RR3‡

J1

J3

T2

T4

T5

R11

R22

R44

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Explosionproof  
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## Ordering Information:

To order an enclosure complete with starter, insert the manufacturer's symbol in the designated position of the catalog number. Symbols are shown in the footnote at the bottom of this page. Specify HP, voltage, frequency, RPM, type and full load ampere rating of motor – or specify ampere rating of heaters.

Enclosures only can be ordered. Select from listings.

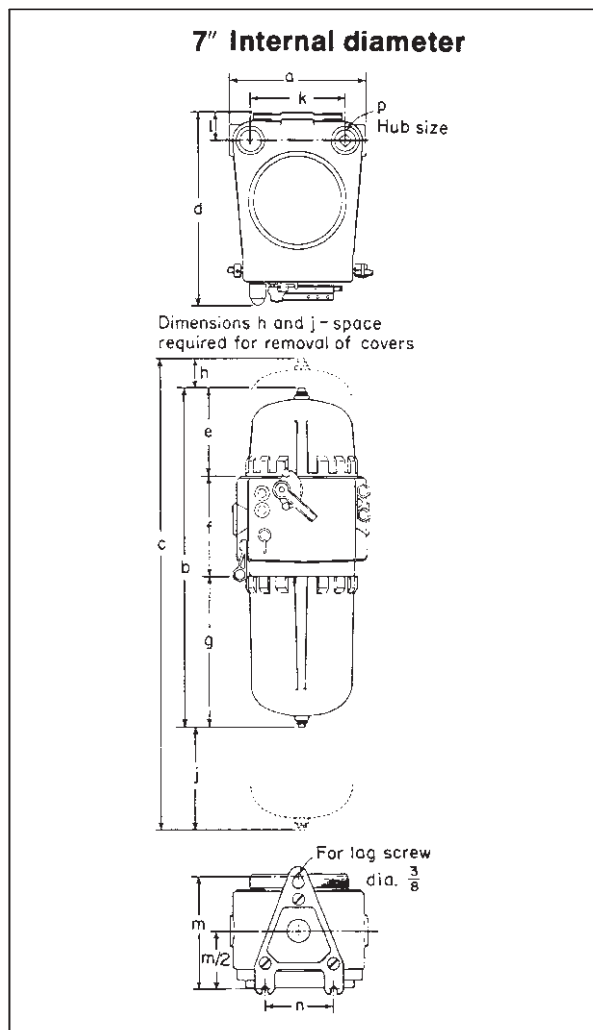
Motor Starter			Enclosure			Without Starter	With Starter
Max. HP	Polyphase	Volts	NEMA/EEMAC Size	Hub Size in.	Int. Dia. in.	Cat. #	Cat. # §
2	120	0		1¼	7	EPC97	EPC970 ①613
3	120	1		1¼	7	EPC97	EPC971 ①613
3	240	0		1¼	7	EPC97	EPC970 ①623
5	480	0		1¼	7	EPC97	EPC970 ①643
5	600	0		1¼	7	EPC97	EPC970 ①653
7½	240	1		1¼	7	EPC97	EPC971 ①623
10	480	1		1¼	7	EPC97	EPC971 ①643
10	600	1		1¼	7	EPC97	EPC971 ①653

①Motor Starters:

Manufacturer	Symbol
Allen-Bradley	AB
General Electric	G
Square D	D
Cutler-Hammer	W

## Dimensions

In Inches\*:



## Single-Speed Non-Reversing Sizes 0, 1, Starters

Int. Dia.	EPC97	EPC97-FT EPC97-FTPS
	7"	7"
	Dimensions	Dimensions†
a	10 <sup>5</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>
b	19 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>
c	25 <sup>13</sup> / <sub>16</sub>	37 <sup>13</sup> / <sub>16</sub>
d	14 <sup>11</sup> / <sub>16</sub>	14 <sup>11</sup> / <sub>16</sub>
e	6 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>
f	7 <sup>11</sup> / <sub>16</sub>	7 <sup>11</sup> / <sub>16</sub>
g	5 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>
h	2	9
j	4	4
k	7 <sup>3</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>
l	2 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>
m	9 <sup>3</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>
n	5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>
p	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>

\*Dimensions are approximate, not for construction.

†For units with Control Circuit Transformer (suffix FT or FTPS).

§ Starters are furnished with three heaters when heater ratings are fully specified.

## Special Feature Kits

### Pushbutton Station and Selector Switch Kits

EPC magnetic line starter and EPC combination line starter enclosures are provided as standard with switch operating shaft holes drilled, tapped and plugged. Pushbutton stations and selector switches can be assembled in these enclosures in the field, using kits listed below.

Applies to 7" and 11" EPC

Description	Cat. #
START-STOP pushbutton station assembly	<b>EPC PB3 KIT</b>
Replacement pushbutton station only for EPC-PB3-KIT	<b>16320 N</b>
ON-OFF selector switch assembly (2 position)	<b>EPC RR2 KIT</b>
Replacement switch only for EPC-RR2-KIT	<b>ESWP126</b>
HAND-OFF-AUTO selector switch assembly (3 position)	<b>EPC RR3 KIT</b>
Replacement switch only for EPC-RR3-KIT	<b>ESWP126</b>

### Pilot Light Kits

When EPC magnetic line starter and EPC combination line starter enclosures have been ordered with pilot light holes drilled, tapped and plugged (Cat. No. suffix S541 and S542), pilot lights can be assembled in the field, using kits listed below.

Description	Applies to	Cat. #
Pilot light assembly less transformer	7", 11" EPC	<b>EMP015 ① KIT</b>
Pilot light assemblies with transformer and transformer mounting strap (for single pilot light) suffix S541	7" EPC only	<b>EPC87 ① ② KIT</b>
	11" EPC only	<b>EPC813 ① ② KIT</b>
2 pilot light assemblies with 2 transformers and transformer mounting strap (for double pilot light) suffix S542	7" EPC only	<b>EPC87 ① ① ② KIT</b>
	11" EPC only	<b>EPC813 ① ① ② KIT</b>
Replacement pilot light transformer only (240V primary)	All units	<b>15129 A</b>
Replacement pilot light transformer only (480V primary)	All units	<b>15130 A</b>
Replacement pilot light transformer only (600V primary)	All units	<b>15131 A</b>

①Insert color symbol from table below and

②add primary voltage symbol

Example: EPC87-①-①-②-KIT with red and green pilot lights for 480 volts is EPC-J1-J3-T4-KIT.

Color	Symbol	Color	Symbol
Red	J1	Clear	J10
Green	J3	Blue	J11
Amber	J6		

Voltage	Symbol
240	T2
480	T4
600	T5