

EBMC combination line starters and enclosures

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III
NEMA 3, 3R, 4^A, 4X^B, 7BCD, 9EFG, 12

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations
Watertight

1C

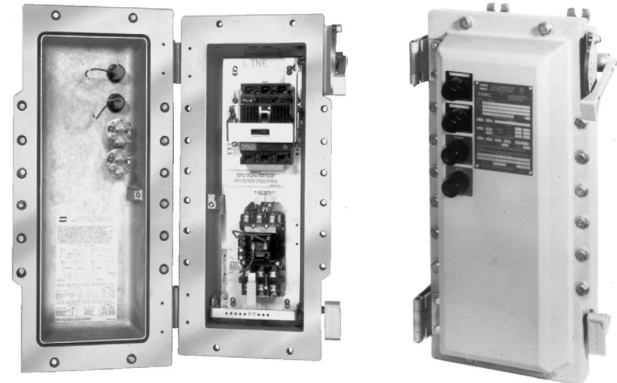
Applications:

EBM hinged cover motor control enclosures are used:

- For general motor control and circuit protection – indoors and outdoors – in damp, wet, dirty, dusty hazardous locations without the need for a protective shelter
- In areas where frequent wash downs are necessary or where heavy rain or water spray is prevalent
- For across-the-line starting, stopping, speed changing and reversing of polyphase AC induction motors
- To provide line disconnect means and short circuit protection
- To provide motor overload and undervoltage protection
- For service entrance, feeder or branch circuit protection for lighting, heating, appliance and motor circuits
- On switchracks or other assemblies where it's desired that motor control be centrally located

Features:

- Rugged, corrosion-resistant, cast copper-free aluminum construction (less than 0.4 of 1%)
- Component operating handles located through the right side wall of the body permits visual confirmation of correct component assembly and operation
- Total compliance to the wiring end room requirements of the National Electrical Code/Canadian Electrical Code
- Semi-clamshell enclosure design, with an external flanged ground joint between body and cover, makes interior components more accessible
- Minimum enclosure-to-enclosure spacing with little interference between the opened cover and an adjacent enclosure
- Stainless steel hinges allow the cover to swing well out of the way
- Stainless steel, quick release, captive, hex head cover bolts; stainless steel springs provide clear indication cover bolts are fully retracted from body
- Versatile, internal operating mechanisms allow for field adjustment to accommodate popular manufacturers' starters and breakers
- Simple, straightforward installation of breaker and starter on pre-drilled mounting plate within enclosure; mounting plate also field removable
- Circuit breaker motor circuit protector external operating handle can be padlocked in either "ON" or "OFF" positions
- Neoprene cover gasket permanently attached to the cover seals out moisture
- Bodies have top and bottom drilled and tapped entrances for power conduits plus one at the bottom for control conduit; removable reducers are supplied, as standard, to accommodate smaller size conduits; all conduit entrances are plugged
- Tap-on mounting feet
- Optional EMPS control devices may be added to enclosure cover
- Steel bracket for lifting larger enclosures during installation supplied as standard



Interior components are readily accessible with ample end room for wiring

Side operators leave cover free for control options

Certifications and compliances:

NEC/CEC:

- Class I, Divisions 1 & 2, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- Class II, Division 2, Groups F, G
- Class III

UL standards:

- UL1203 – Hazardous (Classified) Locations
- UL2062 – High AIC Ratings (Interrupting Capacity) for Groups C, D

| Voltage | RMS symmetrical amps |
|---------|----------------------|
| 240 | 65,000 |
| 480 | 50,000 |
| 600 | 25,000 |

CSA standard:

- C22.2 No. 30

Environmental ratings:

- NEMA/EMAC 3, 3R, 4^A, 4X^B, 7BCD, 9EFG, 12

Standard materials:

- Body and cover – copper-free aluminum
- Operating handle – copper-free aluminum
- Operating shafts and bushings – stainless steel
- Cover bolts, hinges, washer and retractile springs – stainless steel
- Interior parts – sheet steel, electrogalvanized

Electrical ratings:

- Motor starters – NEMA/EMAC sizes 0-5
- Circuit breakers – 100, 150, 225, 250, 400, 600, 800, 1000^C ampere frame sizes
- Motor circuit protectors – 150, 250, 400 ampere frame sizes

^A Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

^B With S752 or S753 suffix.

^C 1000A frame (max. 800A trip).

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Options:

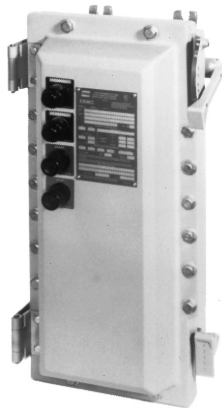
The following options are available from the factory by adding suffix to catalog number – suffixes are added alphanumerically.

Part number example:

EBMC1FB-[Ⓛ]WT30FDB36-W643-[Ⓜ]

[Ⓛ]Options in this position are additions to the enclosure itself and should be listed alphanumerically.

[Ⓜ]Options in this position are modifications to the starter and/or circuit breaker and should be listed alphanumerically.



EBMC motor control enclosures with combination line starters

When specifying any one of the following options with EBM motor controls (J1, J3, PB23, RR2, RR3), it is necessary to order DSL legend plates for identification and marking of the device(s) being used.

| Description | Position in Cat. # | Suffix |
|---|--------------------|--------------------------|
| • Ambient compensated circuit breaker trip setting [Ⓜ] | | AC |
| • Less overload relays (lighting contactor) [Ⓛ] | | CL |
| • Less overload relays (motor contactor) [Ⓛ] | | CM |
| • Control circuit transformer, 100VA [Ⓛ] | FTPS100 | |
| <i>100VA for NEMA/EEMAC sizes 0-2, 600/480/240-120, 50/60 Hz With provision for fusing both primary leads and one secondary lead Fuses not provided</i> | | |
| • Control circuit transformer, 200VA [Ⓛ] | FTPS200 | |
| <i>200VA for NEMA/EEMAC size 3, 600/480/240-120, 50/60 Hz With provision for fusing both primary leads and one secondary lead Fuses not provided</i> | | |
| • Control circuit transformer, 300VA [Ⓛ] | FTPS300 | |
| <i>300VA for NEMA/EEMAC sizes 4-5, 600/480/240-120, 50/60 Hz With provision for fusing both primary leads and one secondary lead Fuses not provided</i> | | |
| • Pilot light, 120 VAC, red jewel, with blank indicating plate [Ⓛ] | | J1 |
| • Pilot light, 120 VAC, green jewel, with blank indicating plate [Ⓛ] | | J3 |
| • LED pilot lights (in place of standard incandescent lamps) [Ⓛ] | | LED |
| • Less heaters in starter overload relay [Ⓜ] | | 0 |
| • START-STOP pushbuttons (requires two spaces) [Ⓛ] | | PB23[Ⓛ] |
| • ON-OFF selector switch [Ⓛ] | | RR2[Ⓛ] |
| • HAND-OFF-AUTO selector switch [Ⓛ] | | RR3[Ⓛ] |
| • Space heater, 120V, 25 watts [Ⓛ] | | R11 |
| • Space heater, 240V, 25 watts [Ⓛ] | | R22 |
| • Space heater, 480V, 25 watts [Ⓛ] | | R44 |
| • Automatic reset overload relay [Ⓛ] | | S1 |
| • Insulated neutral with two connectors [Ⓛ] | | S146 |
| • Standard drain (Class I, Groups B, C, D; Class II, Groups E, F, G; Class III) [Ⓛ] | | S756[Ⓛ] |
| • Standard breather and drain (Class I, Groups B, C, D; Class II, Groups E, F, G; Class III) [Ⓛ] | | S756V[Ⓛ] |
| • External epoxy finish [Ⓛ] | | S752 |
| • Internal and external epoxy finish [Ⓛ] | | S753 |
| • Auxiliary switch on circuit breaker 1A and 1B contacts . [Ⓜ] | | S784 |
| • Auxiliary switch on circuit breaker 2A and 2B contacts . [Ⓜ] | | S785 |
| • 12-point terminal block – 30 amp, 300V [Ⓛ] | | S786 |
| • General purpose control relay, 4-pole N.O., contacts rated 10A at 600V, coil 120 VAC, 50/60 Hz [Ⓛ] | | S787[Ⓛ] |
| Additional control contacts, N.O. or N.C.: | | |
| <i>For single-speed, non-reversing starters only (number limited by design of starter; details on specific makes and sizes available upon request)</i> | | |
| • Auxiliary contacts on starter 1 N.O. and 1 N.C. [Ⓜ] | | S781 |
| • Auxiliary contacts on starter 2 N.O. and 2 N.C. [Ⓜ] | | S782 |
| • Auxiliary contacts on starter 3 N.O. and 3 N.C. [Ⓜ] | | S783 |

[Ⓛ]Enclosure not suitable for NEMA 4 or 4X with cover mounted operators. Breather and drain entries must be plugged for NEMA 4 rating.

[Ⓛ]With S752 or S753 suffix.

[Ⓜ]Use of this option with NEMA/EEMAC size 0 or 1 starters necessitates using the larger size D enclosure.

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Options (continued):

- If desired, markings on indicating plates may be added to catalog number. Select from the list of standard markings below.
- Insert legend plate(s) catalog number (i.e. DSL16) immediately after optional device in the EBM catalog number.
- If EMP devices are to be added in the field, DSL legend plates must be ordered separately, as they are not furnished with the EMP/EMPS devices.

Part number example:

EBMC1FB-①-WT30FDB36-W643-②

Use the charts below to select the appropriate legend plate(s) for your application. Markings shown in **bold print** are etched; all others are stamped.

Single function legend plates

| Marking | Cat. # |
|-------------------------|--------|
| AUTOMATIC | DSL16 |
| BLANK | DSL01 |
| BLANK WITH SINGLE FIELD | DSL02 |
| CLOSE | DSL21 |
| DOWN | DSL23 |
| EMERG. STOP | DSL17 |
| FAST | DSL46 |
| FORWARD | DSL18 |
| HAND | DSL15 |
| IN | DSL24 |
| JOG | DSL10 |
| LOWER | DSL27 |
| ON | DSL07 |
| OFF | DSL08 |
| OPEN | DSL20 |
| OUT | DSL25 |
| POWER ON | DSL14 |
| RAISE | DSL26 |
| RESET | DSL12 |
| REVERSE | DSL19 |
| RUN | DSL09 |
| SAFE | DSL85 |
| SLOW | DSL47 |
| START | DSL05 |
| STOP | DSL06 |
| TEST | DSL13 |
| TRIP | DSL11 |
| UP | DSL22 |

Two function legend plates

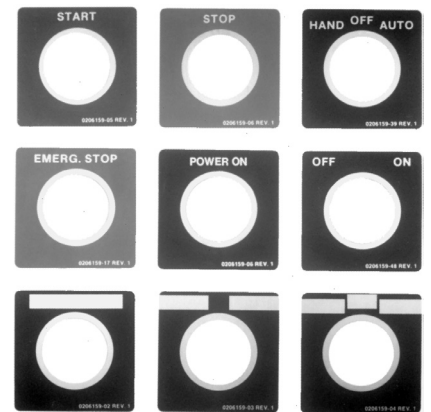
| Marking | Cat. # |
|-----------------------|--------|
| BLANK WITH TWO FIELDS | DSL03 |
| FOR-REV | DSL30 |
| HAND-AUTO | DSL29 |
| IN-OUT | DSL35 |
| OFF-ON | DSL48 |
| OPEN-CLOSE | DSL32 |
| RAISE-LOWER | DSL36 |
| RUN-JOG | DSL28 |
| SAFE-RUN | DSL86 |
| START-STOP | DSL37 |
| SLOW-FAST | DSL65 |
| UP-DOWN | DSL33 |

Three function legend plates

| Marking | Cat. # |
|-------------------------|--------|
| AUTO-OFF-HAND | DSL49 |
| BLANK WITH THREE FIELDS | DSL04 |
| FAST-OFF-SLOW | DSL41 |
| FOR-OFF-REV | DSL40 |
| HAND-OFF-AUTO | DSL39 |
| RUN-OFF-JOG | DSL38 |
| OPEN-OFF-CLOSE | DSL43 |
| RAISE-OFF-LOWER | DSL87 |
| SLOW-OFF-FAST | DSL88 |
| UP-OFF-DOWN | DSL44 |
| 1-OFF-2 | DSL42 |

Background color for all legend plates is black with the following exceptions:

| Marking | Plate color |
|-------------|-------------|
| START | Green |
| STOP | Red |
| EMERG. STOP | Red |



ⓐ Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

ⓑ With S752 or S753 suffix.

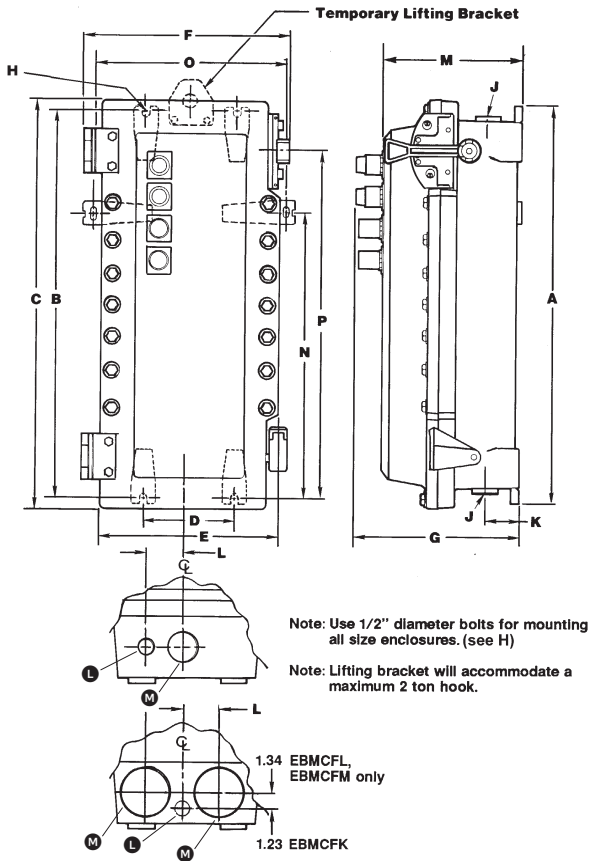
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Dimensions[Ⓞ] (in inches):



J[Ⓜ]
 (conduit entry
 trade size)

| Cat. # Enclosure only | Enclosure size symbol | A | B | C | D | E | F | G | J [Ⓜ] (conduit entry trade size) | | K | L | M | N | O | P |
|--|-----------------------------|-------|-------|-------|-------|-------|-------|-------|---|------------|------|------|-------|-------|-------|-------|
| | | | | | | | | | Drilled and tapped | With RE | | | | | | |
| Size 0, 1 FVNR combination line starter[Ⓝ] | | | | | | | | | | | | | | | | |
| EBMCFB | B | 25.75 | 24.75 | 26.90 | 6.00 | 13.03 | 14.78 | 12.13 | 2" | 1.5" | 3.25 | 3.13 | 10.25 | - | - | 22.00 |
| Size 2 FVNR combination line starter | | | | | | | | | | | | | | | | |
| EBMCFD | D | 28.25 | 27.25 | 29.40 | 6.00 | 13.03 | 14.67 | 12.13 | 3" | 2.5" | 3.25 | 3.13 | 10.25 | - | - | 24.50 |
| Size 3 FVNR combination line starter | | | | | | | | | | | | | | | | |
| EBMCFH | H | 37.50 | 36.50 | 38.65 | 6.00 | 14.65 | 16.65 | 13.54 | 3" | 2.5" | 3.25 | 3.94 | 11.66 | - | - | 33.75 |
| Size 4 FVNR combination line starter | | | | | | | | | | | | | | | | |
| EBMCFL | L | 53.47 | 51.50 | 53.28 | 12.00 | 17.90 | 20.58 | 15.00 | (2) 4" | (2) 3.5" | 4.00 | 3.50 | 13.03 | 41.50 | 18.40 | 29.88 |
| Size 5 FVNR combination line starter | | | | | | | | | | | | | | | | |
| EBMCFM | M | 64.22 | 62.50 | 64.03 | 12.00 | 17.90 | 21.08 | 15.00 | (2) 4" | (2) 3.5" | 4.00 | 3.50 | 13.03 | 41.50 | 18.40 | 34.46 |

¹ Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

^J With S752 or S753 suffix.

^K Dimensions are approximate, not for construction purposes.

^L 1" conduit entrance for control conductors (top and bottom).

^M Conduit entrance for power conductors (top and bottom). All conduit entrances supplied with RE reducer and PLG plug.

^N Use EBMCF_D enclosure when S787 option is ordered with size 0 or 1 combination starters.

EBMC combination line starters and enclosures

Single-speed, non-reversing with circuit breakers
3-pole, 60 Hz, 600 VAC maximum

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NEMA 3, 3R, 4[Ⓞ], 4X[Ⓞ], 7BCD,
9EFG, 12

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Raintight
Wet Locations
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Ordering information:

To order an enclosure complete with starter and breaker, insert the manufacturer's symbols in the designated positions of the catalog number. Symbols are shown in the footnotes on the following page.

Select the complete catalog number below and specify horsepower, 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 below.

Instantaneous magnetic trip circuit breakers (magnetic circuit interrupters) can be supplied (please contact factory).

| Motor starter | | | Circuit breaker | | | Enclosure | |
|-------------------|--------------|-----------|-----------------|---------------|-------------|------------------------------------|--|
| Max. HP polyphase | Line voltage | NEMA size | Amperage | Frame voltage | Frame types | Cat. # Without breaker and starter | Cat. # With breaker and starter [Ⓞ] |
| 2 | 120 | 0 | 30 | 240 | TEB | EBMCFB | EBMC0FB ①30②32 ③613 |
| 2 | 120 | 0 | 30 | 480 | TED, EHD | EBMCFB | EBMC0FB ①30②34 ③613 |
| 2 | 120 | 0 | 30 | 600 | TED, FDB | EBMCFB | EBMC0FB ①30②36 ③613 |
| 3 | 240 | 0 | 20 | 240 | TEB | EBMCFB | EBMC0FB ①20②32 ③623 |
| 3 | 240 | 0 | 20 | 480 | TED, EHD | EBMCFB | EBMC0FB ①20②34 ③623 |
| 3 | 240 | 0 | 20 | 600 | TED, FDB | EBMCFB | EBMC0FB ①20②36 ③623 |
| 5 | 480 | 0 | 15 | 480 | TED, EHD | EBMCFB | EBMC0FB ①15②34 ③643 |
| 5 | 480 | 0 | 15 | 600 | TED, FDB | EBMCFB | EBMC0FB ①15②36 ③643 |
| 5 | 600 | 0 | 15 | 600 | TED, FDB | EBMCFB | EBMC0FB ①15②36 ③663 |
| 5 | 240 | 1 | 30 | 240 | TEB | EBMCFB | EBMC1FB ①30②32 ③623 |
| 5 | 240 | 1 | 30 | 480 | TED, EHD | EBMCFB | EBMC1FB ①30②34 ③623 |
| 5 | 240 | 1 | 30 | 600 | TED, FDB | EBMCFB | EBMC1FB ①30②36 ③623 |
| 7.5 | 240 | 1 | 50 | 240 | TEB | EBMCFB | EBMC1FB ①50②32 ③623 |
| 7.5 | 240 | 1 | 50 | 480 | TED, EHD | EBMCFB | EBMC1FB ①50②34 ③623 |
| 7.5 | 240 | 1 | 50 | 600 | TED, FDB | EBMCFB | EBMC1FB ①50②36 ③623 |
| 10 | 480 | 1 | 30 | 480 | TED, EHD | EBMCFB | EBMC1FB ①30②34 ③643 |
| 10 | 480 | 1 | 30 | 600 | TED, FDB | EBMCFB | EBMC1FB ①30②36 ③643 |
| 10 | 600 | 1 | 30 | 600 | TED, FDB | EBMCFB | EBMC1FB ①30②36 ③663 |
| 10 | 240 | 2 | 50 | 240 | TEB | EBMCFD | EBMC2FD ①50②32 ③623 |
| 10 | 240 | 2 | 50 | 480 | TED, EHD | EBMCFD | EBMC2FD ①50②34 ③623 |
| 10 | 240 | 2 | 50 | 600 | TED, FDB | EBMCFD | EBMC2FD ①50②36 ③623 |
| 15 | 240 | 2 | 70 | 240 | TEB | EBMCFD | EBMC2FD ①70②32 ③623 |
| 15 | 240 | 2 | 70 | 480 | TED, EHD | EBMCFD | EBMC2FD ①70②34 ③623 |
| 15 | 240 | 2 | 70 | 600 | TED, FDB | EBMCFD | EBMC2FD ①70②36 ③623 |
| 15 | 480 | 2 | 40 | 480 | TED, EHD | EBMCFD | EBMC2FD ①40②34 ③643 |
| 15 | 480 | 2 | 40 | 600 | TED, FDB | EBMCFD | EBMC2FD ①40②36 ③643 |
| 15 | 600 | 2 | 40 | 600 | TED, FDB | EBMCFD | EBMC2FD ①40②36 ③663 |
| 20 | 480 | 2 | 50 | 480 | TED, EHD | EBMCFD | EBMC2FD ①50②34 ③643 |
| 20 | 480 | 2 | 50 | 600 | TED, FDB | EBMCFD | EBMC2FD ①50②36 ③643 |
| 20 | 600 | 2 | 50 | 600 | TED, FDB | EBMCFD | EBMC2FD ①50②36 ③663 |
| 25 | 480 | 2 | 70 | 480 | TED, EHD | EBMCFD | EBMC2FD ①70②34 ③643 |
| 25 | 480 | 2 | 70 | 600 | TED, FDB | EBMCFD | EBMC2FD ①70②36 ③643 |
| 25 | 600 | 2 | 70 | 600 | TED, FDB | EBMCFD | EBMC2FD ①70②36 ③663 |
| 20 | 240 | 3 | 90 | 240 | TEB | EBMCFH | EBMC3FH ①90②32 ③623 |
| 25 | 240 | 3 | 100 | 240 | TEB | EBMCFH | EBMC3FH ①100②32 ③623 |
| 30 | 240 | 3 | 125 | 480 | TED | EBMCFH | EBMC3FH ①125②34 ③623 |
| 30 | 480 | 3 | 70 | 480 | TED, EHD | EBMCFH | EBMC3FH ①70②34 ③643 |
| 30 | 480 | 3 | 70 | 600 | TED, FDB | EBMCFH | EBMC3FH ①70②36 ③643 |
| 30 | 600 | 3 | 70 | 600 | TED, FDB | EBMCFH | EBMC3FH ①70②36 ③663 |

①②③ See following page for configurable options.

The standard coil voltage is equal to the line voltage. To include a 120V coil, insert a '1' between the last two characters in the catalog number. The 120V coil is required with the FTFS suffix.
Example: EBMCFB-①30②36-③643 becomes EBMCFB-①30②36-①1③643.

Ⓞ Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

Ⓟ With S752 or S753 suffix.

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

EBMC combination line starters and enclosures

Single-speed, non-reversing
3-pole, 60 Hz, 600 VAC maximum

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Cl. II, Div. 2, Groups F, G
Cl. III
NEMA 3, 3R, 4^R, 4X^S, 7BCD,
9EFG, 12

Explosionproof
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1C

Ordering information (continued):

| Motor starter | | | Circuit breaker | | | Enclosure | |
|-------------------|--------------|-----------|-----------------|---------------|-------------|------------------------------------|--|
| Max. HP polyphase | Line voltage | NEMA size | Amperage | Frame voltage | Frame types | Cat. # Without breaker and starter | Cat. # With breaker and starter [Ⓘ] |
| 40 | 480 | 3 | 90 | 480 | TED, EHD | EBMCFH | EBMC3FH ①90②34 ③643 |
| 40 | 480 | 3 | 90 | 600 | TED, FDB | EBMCFH | EBMC3FH ①90②36 ③643 |
| 40 | 600 | 3 | 90 | 600 | TED, FDB | EBMCFH | EBMC3FH ①90②36 ③663 |
| 50 | 480 | 3 | 100 | 480 | TED, EHD | EBMCFH | EBMC3FH ①100②34 ③643 |
| 50 | 480 | 3 | 100 | 600 | TED, FDB | EBMCFH | EBMC3FH ①100②36 ③643 |
| 50 | 600 | 3 | 100 | 600 | TED, FDB | EBMCFH | EBMC3FH ①100②36 ③663 |
| 40 | 240 | 4 | 175 | 600 | JD, JDB | EBMCFH | EBMC4FL WT175②36 ③623 |
| 50 | 240 | 4 | 200 | 600 | JD, JDB | EBMCFH | EBMC4FL WT200②36 ③623 |
| 60 | 480 | 4 | 125 | 600 | JD, JDB | EBMCFH | EBMC4FL ①125②36 ③643 |
| 60 | 600 | 4 | 100 | 600 | JD, JDB | EBMCFH | EBMC4FL ①100②36 ③663 |
| 75 | 480 | 4 | 150 | 600 | JD, JDB | EBMCFH | EBMC4FL ①150②36 ③643 |
| 75 | 600 | 4 | 125 | 600 | JD, JDB | EBMCFH | EBMC4FL ①125②36 ③663 |
| 100 | 480 | 4 | 200 | 600 | JD, JDB | EBMCFH | EBMC4FL WT200②36 ③643 |
| 100 | 600 | 4 | 150 | 600 | JD, JDB | EBMCFH | EBMC4FL ①150②36 ③663 |
| 125 | 480 | 5 | 300 | 600 | KD, KDB | EBMCFH | EBMC5FM WT300②36 ③643 |
| 150 | 480 | 5 | 400 | 600 | KD, KDB | EBMCFH | EBMC5FM WT400②36 ③643 |

| Motor starter | | | Fusible disconnect switch | | | |
|-------------------|-------------------|-----------|---------------------------|--------------|-------------|---|
| Max. HP polyphase | Max. line voltage | NEMA size | Amperage | Max. voltage | Switch type | Cat. # With disconnect switch and starter |
| 5 | 600 | 0 | 30 | 600 | DS161R | EBMC0FD WFD30J36 W643 |
| 10 | 600 | 1 | 30 | 600 | DS161R | EBMC1FD WFD30J36 W643 |
| 25 | 600 | 2 | 60 | 600 | DS262R | EBMC2FD WFD60J36 W643 |
| 30 | 600 | 3 | 100 | 600 | DS363R | EBMC3FH WFD100J36 W643 |

ⓄCircuit breakers

| Manufacturer | Symbol |
|------------------|--------|
| Cutler-Hammer | WT |
| General Electric | TT |

| NEMA size | Cat. # Without switch and starter |
|-----------|-----------------------------------|
| 0 | EBMCFD FD |
| 1 | EBMCFD FD |
| 2 | EBMCFD FD |
| 3 | EBMCFH FD |

ⓄSelect circuit breaker frame type based on frame size, voltage and manufacturer desired

| Manufacturer | 100A and 150A frame | | | 250A frame | 400A frame | 600A frame | 800A frame |
|------------------|---------------------|---------|-------------------------|---|---|------------------------|------------|
| | 240 VAC | 480 VAC | 600 VAC | 600 VAC | 600 VAC | 600 VAC | 600 VAC |
| Cutler-Hammer | – | EHD | FDB HFD [Ⓐ] | JD [Ⓥ] JDB [Ⓦ] HJD [Ⓤ] | KD [Ⓥ] KDB [Ⓦ] HKD [Ⓧ] | LD HLD [Ⓧ] | MD |
| General Electric | TEB | TED | TED | | | | |

ⓄMotor starters

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

- [Ⓐ]Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.
- [Ⓥ]With S752 or S753 suffix.
- [Ⓦ]Starters are furnished with three heaters, when heater ratings are fully specified.
- [Ⓤ]Cutler-Hammer HFD and HJD are rated at 65 kAIC at 480V and 25 kAIC at 600V.
- [Ⓥ]Interchangeable trip unit.
- [Ⓦ]Non-interchangeable trip unit.
- [Ⓧ]Cutler-Hammer HKD and HLD are rated at 65 kAIC at 480V and 35 kAIC at 600V.

EBMC combination line starters and enclosures

Single-speed, non-reversing with motor circuit protectors
3-pole, 60 Hz, 600 VAC maximum

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III
NEMA 3, 3R, 4[ⓧ], 4X[ⓧ], 7BCD,
9EFG, 12

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations
Watertight

1C

Ordering information (continued):

Select the complete catalog number below and specify horsepower, voltage, frequency, RPM, type and full load ampere rating of motors – or specify ampere rating of heaters.

| Motor starter | | | | Enclosure | |
|-------------------|---------|-----------|--------------|--------------------------------|--|
| Max. HP polyphase | Voltage | NEMA size | MCP amperage | Cat. # Without starter and MCP | Cat. # With starter and MCP [Ⓐ] |
| 3 | 240 | 0 | 15 | EBMCFB | EBMC0FB WP15AHMCP36 ③623 |
| 3 | 480 | 0 | 7 | EBMCFB | EBMC0FB WP7AHMCP36 ③643 |
| 3 | 600 | 0 | 7 | EBMCFB | EBMC0FB WP7AHMCP36 ③663 |
| 5 | 480 | 0 | 15 | EBMCFB | EBMC0FB WP15AHMCP36 ③643 |
| 5 | 600 | 0 | 15 | EBMCFB | EBMC0FB WP15AHMCP36 ③663 |
| 7.5 | 240 | 1 | 30 | EBMCFB | EBMC1FB WP30AHMCP36 ③623 |
| 7.5 | 480 | 1 | 15 | EBMCFB | EBMC1FB WP15AHMCP36 ③643 |
| 10 | 480 | 1 | 30 | EBMCFB | EBMC1FB WP30AHMCP36 ③643 |
| 10 | 600 | 1 | 15 | EBMCFB | EBMC1FB WP15AHMCP36 ③663 |
| 10 | 240 | 2 | 50 | EBMCFD | EBMC2FD WP50BHMCP36 ③623 |
| 15 | 240 | 2 | 100 | EBMCFD | EBMC2FD WP100BHMCP36 ③623 |
| 15 | 480 | 2 | 30 | EBMCFD | EBMC2FD WP30AHMCP36 ③643 |
| 20 | 600 | 2 | 30 | EBMCFD | EBMC2FD WP30AHMCP36 ③663 |
| 25 | 480 | 2 | 50 | EBMCFD | EBMC2FD WP50BHMCP36 ③643 |
| 25 | 600 | 2 | 50 | EBMCFD | EBMC2FD WP50BHMCP36 ③663 |
| 30 | 240 | 3 | 100 | EBMCFH | EBMC3FH WP100BHMCP36 ③623 |
| 30 | 600 | 3 | 50 | EBMCFH | EBMC3FH WP50BHMCP36 ③663 |
| 50 | 480 | 3 | 100 | EBMCFH | EBMC3FH WP100BHMCP36 ③643 |
| 50 | 600 | 3 | 100 | EBMCFH | EBMC3FH WP100BHMCP36 ③663 |
| 50 | 240 | 4 | 250 | EBMCFH | EBMC4FL WP250JHMCP36 ③623 |
| 100 | 480 | 4 | 250 | EBMCFH | EBMC4FL WP250JHMCP36 ③643 |
| 100 | 600 | 4 | 250 | EBMCFH | EBMC4FL WP250JHMCP36 ③663 |
| 60 | 240 | 5 | 250 | EBMCFM | EBMC5FM WP250JHMCP36 ③623 |
| 100 | 240 | 5 | 400 | EBMCFM | EBMC5FM WP400GHMCP36 ③623 |
| 125 | 480 | 5 | 250 | EBMCFM | EBMC5FM WP250JHMCP36 ③643 |
| 150 | 600 | 5 | 250 | EBMCFM | EBMC5FM WP250JHMCP36 ③663 |
| 200 | 480 | 5 | 400 | EBMCFM | EBMC5FM WP400GHMCP36 ③643 |
| 200 | 600 | 5 | 400 | EBMCFM | EBMC5FM WP400GHMCP36 ③663 |

1C

Motor circuit protectors

| Manufacturer | Symbol |
|---------------|--------|
| Cutler-Hammer | WP |

Motor circuit protector frame type based on frame size and manufacturer desired

| Manufacturer | 150A frame | 250A frame | 400A frame |
|---------------|----------------|----------------|----------------|
| Cutler-Hammer | HMCP (F-frame) | HMCP (J-frame) | HMCP (K-frame) |

MCP

| amperage | Symbol | Trip range |
|---------------------------|--------|--------------|
| Cutler-Hammer (WP) | | |
| 7 | A | 21 to 70 |
| 15 | A | 45 to 150 |
| 30 | A | 90 to 300 |
| 50 | B | 150 to 500 |
| 100 | B | 300 to 1000 |
| 250 | J | 1250 to 2500 |
| 400 | G | 1250 to 2500 |

Note: Other trip ranges are available; contact factory for more information.

ⓐ Motor starters

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

ⓧ Enclosure not suitable for NEMA 4 or 4X with cover mounted operators.

Ⓩ With S752 or S753 suffix.

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