

# ATX™ MS Series Motor Starters

## Flameproof

**ATEX/IECEX:**  
**Zone 1 and 2 - 21 and 22**  
 Ⓜ II 2 GD  
 IP66 - IK10

### Applications

- These motor starters are used in areas where hazardous material are handled or stored. These units provide:
  - Disconnecting means
  - Undervoltage protection
  - Circuit protection
  - Motor running protection
  - Thermal time delay overload protection

### Features

- Magnetic circuit breaker protects equipment and personnel and eliminates replacement of fuses.
- Three pole contactor.
- Thermal overload relay with manual reset push button.
- Green pilot light "Running/ON".
- Rated voltage 400/415 Vac 50/60 Hz AC-3 category.
- Control circuit supplied via a transformer fed between phases.
- Direct entries or indirect entries with Ex e box allows use of cable gland with elastomer seal.
- Type 2 coordinated protection (IEC 60947-4-1) has the following benefits:
  - Safety - limiting the energy delivered to the short circuit ensures the safest applications for personnel, facilities and equipment.
  - Reduced costs - preventing short circuit damage to components minimizes labor and replacement costs.
  - Increased productivity - as component replacement due to short circuits is minimized, so are interruptions to production.
- Direct ammeter for 0.37 kW to 2.2 kW versions. Ammeter with current transformer for 3 kW to 75 kW versions.

### Standard Materials

- Body and cover:
  - Gray painted marine grade aluminum alloy (RAL 7038)
  - Cover bolts: stainless steel
  - Hinges: stainless steel
- Ex e box for indirect entries:
  - Gray (RAL 7038) painted aluminum alloy (size 2 and 6) or stainless steel (size 8 and 11)
  - Cover bolts: stainless steel

### Standard Finish

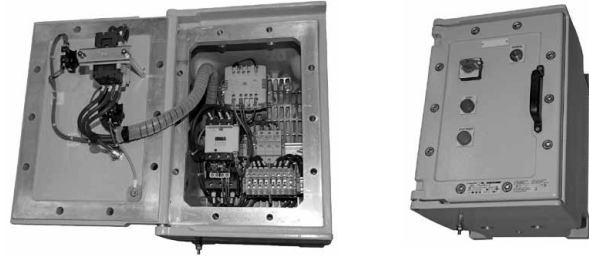
- Corrosion resistant gray powder coat epoxy

### Options

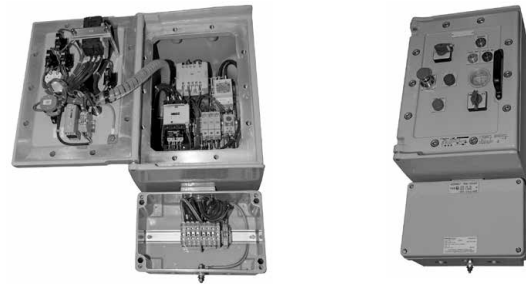
- Available up to 300 kW - contact your local representative.

### ATEX/IECEX Certifications and Compliances

- Certification Type CF
  - Gas: Zone 1 and 2
    - Conforming to ATEX 94/9/CE: Ⓜ II 2 G
    - Type of Protection: Ex d IIB
    - Temperature Class: T6
  - Dust: Zone 21 and 22
    - Conforming to ATEX 94/9/CE: Ⓜ II 2 D
    - Type of Protection: Ex tD A21
    - Surface Temperature: T80 °C (T176)
    - Ambient Temperature: CF 60: -50 °C to +55 °C (-58 °F to +131 °F); CF 20, 40, 50: -40 °C to +55 °C (-40 °F to +131 °F); CF 30: -20 °C to +55 °C (-4 °F to +131 °F)



Ex d Version



Ex de Version

- CE Declaration of Conformity: 50229
- ATEX Certificate: LCIE 02 ATEX 6057X
- IECEx Certificate: IECEx LCI 08.0023X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10
- Internal Volume: > 2 dm<sup>3</sup> (122 in<sup>3</sup>) - 2 liters

### EURASEC Certification

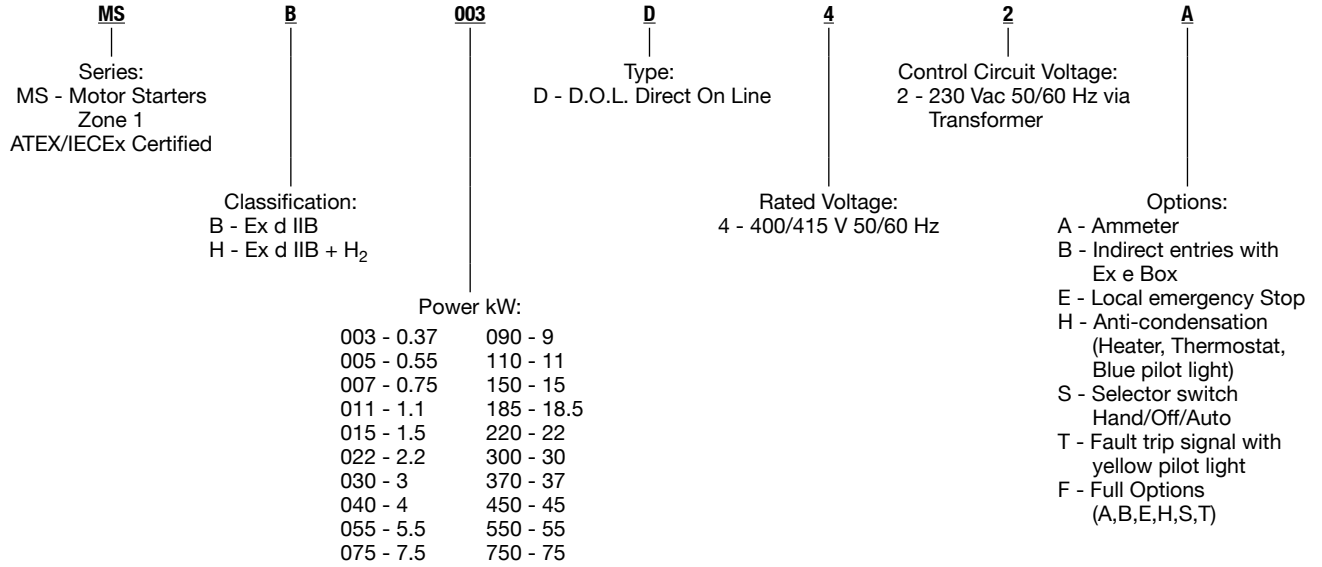
- EURASEC RU C-FR. Г505.B.00911

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### Catalog Numbering Guide



CONTROLS: ATEX/IECEX FLAMEPROOF MOTOR STARTERS



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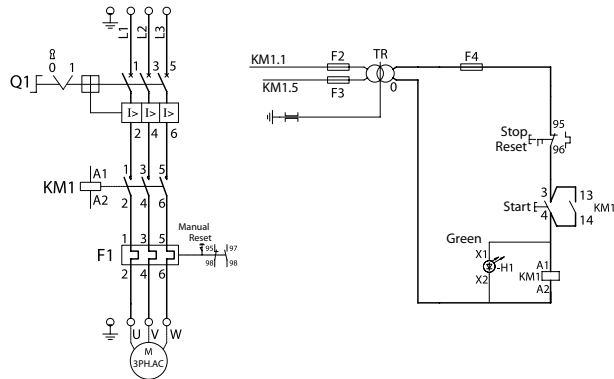
Motor Capacity AC-3 to 415 Vac	Size	Terminals Cross Section mm <sup>2</sup> (in <sup>2</sup> )	Cable Entries at Bottom	Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Catalog Number
<b>Standard Version</b>						
<i>Fitted with magnetic circuit breaker, contactor with overload relay, Start/Stop buttons and green pilot light. (1 x M20 plugged).</i>						
0.37 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB003D42</b>
0.55 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB005D42</b>
0.75 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB007D42</b>
1.1 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB011D42</b>
1.5 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB015D42</b>
2.2 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB022D42</b>
3 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB030D42</b>
4 kW	1	2.5 (0.004)	2 x M20 + 1 M20	16 (35)	25 (1525.59)	<b>MSB040D42</b>
5.5 kW	5	4.0 (0.006)	2 x M25 + 1 M20	56 (123)	126 (7688.99)	<b>MSB055D42</b>
7.5 kW	5	6.0 (0.009)	2 x M25 + 1 M20	56 (123)	126 (7688.99)	<b>MSB075D42</b>
9 kW	5	10.0 (0.016)	2 x M25 + 1 M20	56 (123)	126 (7688.99)	<b>MSB090D42</b>
11 kW	5	10.0 (0.016)	2 x M25 + 1 M20	56 (123)	126 (7688.99)	<b>MSB110D42</b>
15 kW	5	16.0 (0.025)	2 x M32 + 1 M20	56 (123)	126 (7688.99)	<b>MSB150D42</b>
18.5 kW	7	25.0 (0.039)	2 x M32 + 1 M20	72 (159)	236 (14401.60)	<b>MSB185D42</b>
22 kW	7	25.0 (0.039)	2 x M32 + 1 M20	72 (159)	236 (14401.60)	<b>MSB220D42</b>
30 kW	7	35.0 (0.054)	2 x M40 + 1 M20	72 (159)	236 (14401.60)	<b>MSB300D42</b>
37 kW	9	50.0 (0.078)	2 x M40 + 1 M20	132 (291)	370 (22578.79)	<b>MSB370D42</b>
45 kW	9	70.0 (0.109)	2 x M50 + 1 M20	132 (291)	370 (22578.79)	<b>MSB450D42</b>
55 kW	9	95.0 (0.147)	2 x M50 + 1 M20	132 (291)	370 (22578.79)	<b>MSB550D42</b>
75 kW	9	120.0 (0.189)	2 x M63 + 1 M20	132 (291)	370 (22578.79)	<b>MSB750D42</b>
<b>Full Options Version</b>						
<i>Standard version + HOA selector switch, local emergency stop, fault trip signal, ammeter, anti-condensation and indirect entries. (1 x M20 plugged).</i>						
0.37 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB003D42F</b>
0.55 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB005D42F</b>
0.75 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB007D42F</b>
1.1 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB011D42F</b>
1.5 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB015D42F</b>
2.2 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB022D42F</b>
3 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB030D42F</b>
4 kW	4	2.5 (0.004)	2 x M20 + 1 x M20	51 (112)	700 (42716.62)	<b>MSB040D42F</b>
5.5 kW	6	4.0 (0.006)	2 x M25 + 1 x M20	62 (137)	700 (42716.62)	<b>MSB055D42F</b>
7.5 kW	6	6.0 (0.009)	2 x M25 + 1 x M20	62 (137)	700 (42716.62)	<b>MSB075D42F</b>
9 kW	6	10.0 (0.016)	2 x M25 + 1 x M20	62 (137)	700 (42716.62)	<b>MSB090D42F</b>
11 kW	6	10.0 (0.016)	2 x M25 + 1 x M20	62 (137)	700 (42716.62)	<b>MSB110D42F</b>
15 kW	6	16.0 (0.025)	2 x M32 + 1 x M20	62 (137)	700 (42716.62)	<b>MSB150D42F</b>
18.5 kW	8	25.0 (0.039)	2 x M32 + 1 x M20	81 (179)	700 (42716.62)	<b>MSB185D42F</b>
22 kW	8	25.0 (0.039)	2 x M32 + 1 x M20	81 (179)	700 (42716.62)	<b>MSB220D42F</b>
30 kW	8	35.0 (0.054)	2 x M40 + 1 x M20	81 (179)	700 (42716.62)	<b>MSB300D42F</b>
37 kW	10	50.0 (0.078)	2 x M40 + 1 x M20	145 (320)	700 (42716.62)	<b>MSB370D42F</b>
45 kW	10	70.0 (0.109)	2 x M50 + 1 x M20	145 (320)	700 (42716.62)	<b>MSB450D42F</b>
55 kW	10	95.0 (0.147)	2 x M50 + 1 x M20	145 (320)	700 (42716.62)	<b>MSB550D42F</b>
75 kW	10	120.0 (0.189)	2 x M63 + 1 x M20	145 (320)	700 (42716.62)	<b>MSB750D42F</b>

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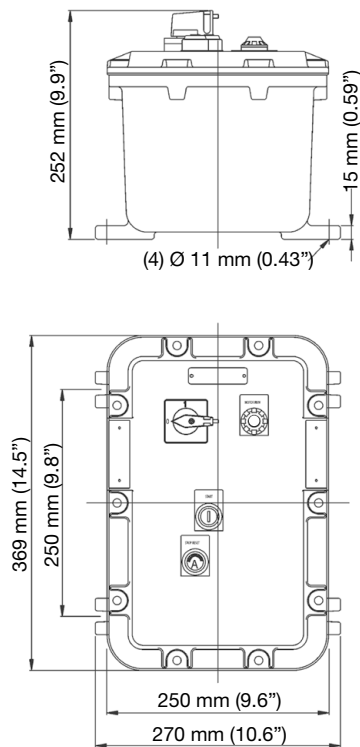
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### Wiring Diagram

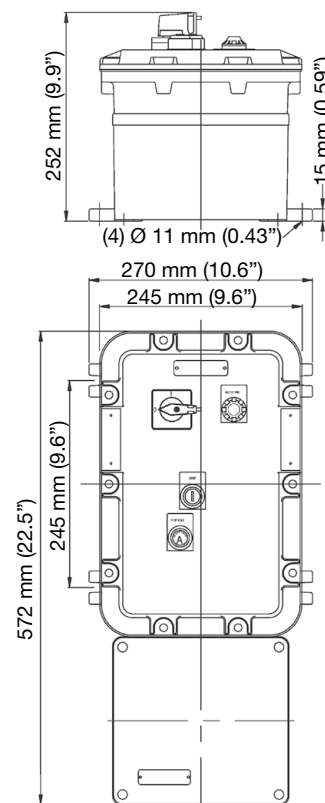


### Dimensions in Millimeters (Inches)

Size 1: CF20B



Size 2: CF20B + CAe1



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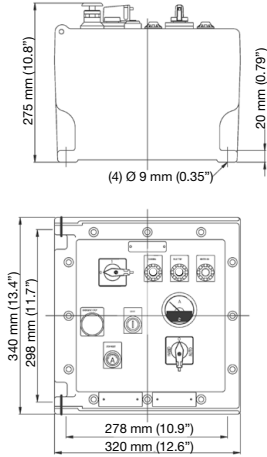
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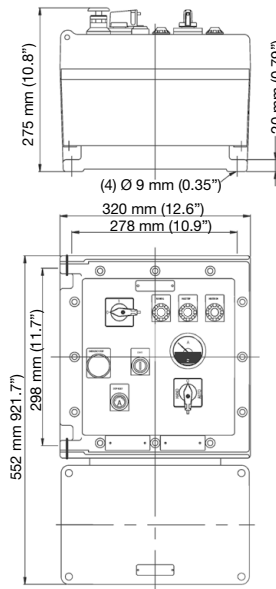
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Dimensions in Millimeters (Inches)

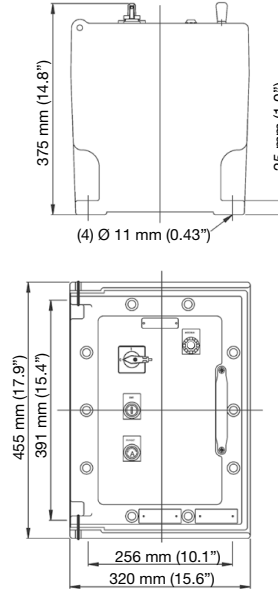
Size 3: CF30B



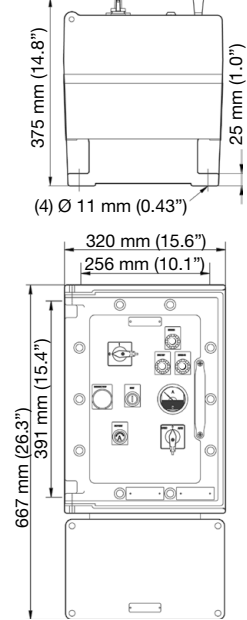
Size 4: CF30B + CAe2



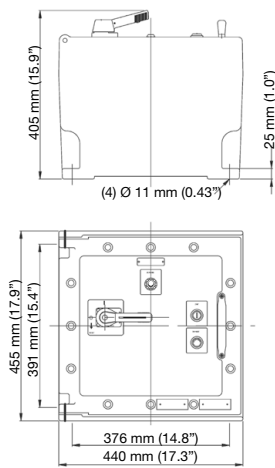
Size 5: CF40B



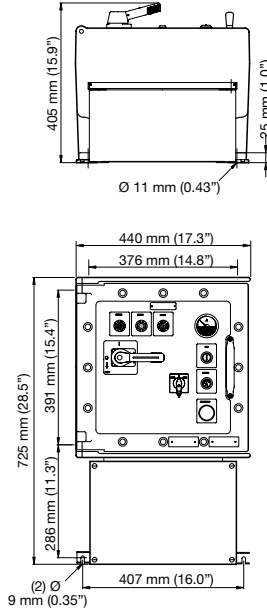
Size 6: CF40B + CAe2



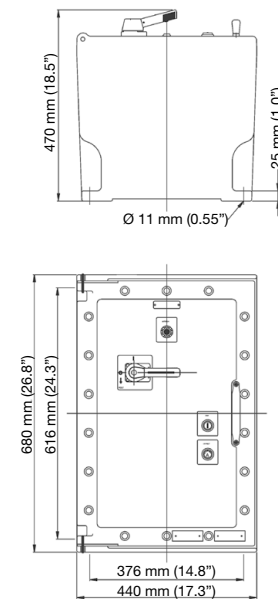
Size 7: CF50B



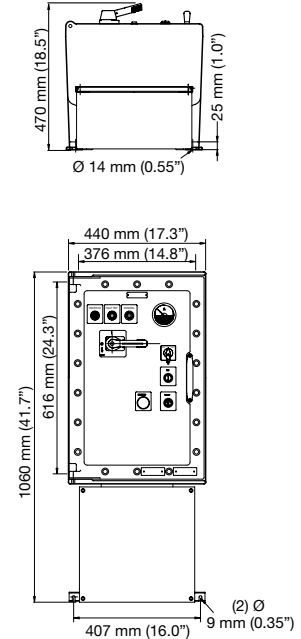
Size 8: CF50B + JBe47



Size 9: CF60B



Size 10: CF60B + JBe55



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