

◀ **SPRING ENGAGED BRAKES**

“Air Champ”

**FMBES MOTOR BRAKE MODELS
625, 875, 1125 & 1375**

The FMBES is a NEMA C-Flange mounted, spring-engaged, nickel-plated motor brake that combines spring-on and air-release actuation with other performance-enhancing features to provide optimal reliability and application flexibility. Mountable on single shaft electric motors with 56C to 215TC frame sizes, the FMBES uses spring-actuation and designed-in greater heat-sink capacity to eliminate the heat-related brake inefficiencies and failure commonly associated with electric motor brakes. Additionally, the FMBES' dual friction interface provides a large volume of useable friction material for longer facing life.

- ▶ **Bore Sizes** of 0.625, 0.875, 1.125 and 1.375 in.
- ▶ Static Torque capacity up to 900 inch lbs.
- ▶ Covers fractional hp through 10 hp
- ▶ Maximum Operating Speed up to 3600 rpm

FMBES Features and Benefits:

- ▶ Spring-engaged for holding in power-off conditions
- ▶ Self-adjustment for friction material wear a standard feature. Totally eliminates the necessity to shut down for periodic adjustments
- ▶ No special requirements or additional parts for vertical-mounted applications
- ▶ Air-released, greater heat-sink capacity for cooler, more reliable performance
- ▶ Ideal for high-cycle applications
- ▶ Water protection per NEMA standard 1.26.55 (Waterproof machines)
- ▶ Torque from 17 to 75 ft. lbs. for varied applications, streamlined product selection
- ▶ Bearing arrangement designed for excellent overhung load capacity and bearing life
- ▶ Mounts on single shaft motors
- ▶ Side-mounted manual brake release
- ▶ Set screw to securely hold motor shaft key
- ▶ For additional corrosion protection, contact the factory

▶ **FMBES DOUBLE C-FACED MOTOR BRAKES**

FMBES is a NEMA C-Flange Mounted, Spring-engaged, Nickel-plated Motor Brake.

| Model Number | Product Number | Bore (In) | Static Torque (In. Lbs) | HP _T Up To | Inertia lb. ft ² | MAX RPM | MIN Diseng. Air Pressure | Overhung Load Capacity (Lbs) | Shipping Wt. (Lbs) |
|---------------|----------------|-----------|-------------------------|-----------------------|-----------------------------|---------|--------------------------|------------------------------|--------------------|
| FMBES-625-CC | 827320 | 0.625 | 200 | 0.30 | .024 | 3600 | 30 | 170 | 20 |
| FMBES-625-CC | 827323 | 0.625 | 100 | 0.30 | .024 | 3600 | 30 | 170 | 20 |
| FMBES-875-CC | 827340 | 0.875 | 300 | 0.30 | .024 | 3600 | 40 | 170 | 20 |
| FMBES-875-CC | 827343 | 0.875 | 100 | 0.30 | .024 | 3600 | 40 | 170 | 20 |
| FMBES-875-CC | 827344 | 0.875 | 200 | 0.30 | .024 | 3600 | 40 | 170 | 20 |
| FMBES-1125-CC | 827360 | 1.125 | 420 | 0.44 | .104 | 1800 | 60 | 290 | 40 |
| FMBES-1375-CC | 827380 | 1.375 | 900 | 0.44 | .104 | 1800 | 60 | 290 | 50 |

▶ **MOTOR BRAKE CONTROLS**

3-Way Air Controls, Normally Closed, Inline Mount

| Volts | Product Number | Operating Range (PSI) | Effective Orifice (In) | Port Size (NPT) | Power Consumption (Watts) |
|---------|----------------|-----------------------|------------------------|-----------------|---------------------------|
| 24 VDC | 948805 | 0 – 150 | .0468 | .125 | 6 |
| 90 VDC | 948806 | 0 – 150 | .0468 | .125 | 6 |
| 120 VAC | 948802 | 0 – 150 | .0468 | .125 | 6 |
| 240 VAC | 948807 | 0 – 150 | .0468 | .125 | 6 |

3-Way Air Controls, Normally Closed, Air Inlet Mount

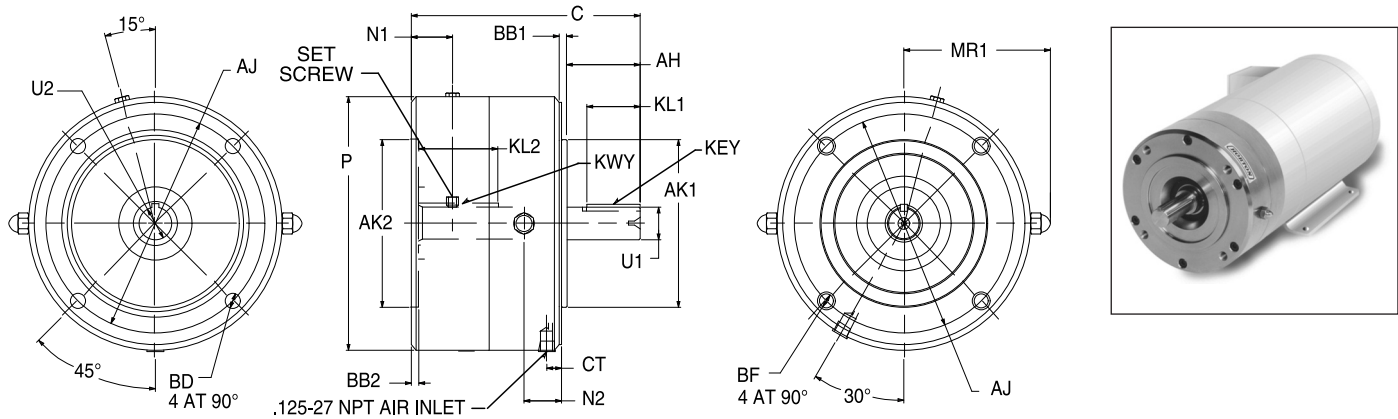
| Volts | Product Number | Operating Range (PSI) | Effective Orifice (In) | Port Size (NPT) | Power Consumption (Watts) |
|---------|----------------|-----------------------|------------------------|-----------------|---------------------------|
| 24 VDC | 948808 | 0 – 150 | .0468 | .125 | 6 |
| 90 VDC | 948809 | 0 – 150 | .0468 | .125 | 6 |
| 120 VAC | 948804 | 0 – 150 | .0468 | .125 | 6 |
| 240 VAC | 948810 | 0 – 150 | .0468 | .125 | 6 |

▶ **NEMA MOTOR/FRAME SELECTION CHART**

Use this chart as specification and operational criteria for your application.

| HP of Motor | RPM | Frame Number | Motor Shaft (In) | Brake Model Number | HP of Motor | RPM | Frame Number | Motor Shaft (In) | Brake Model Number |
|-------------|------|--------------|------------------|--------------------|-------------|------|--------------|------------------|--------------------|
| 1/4 | 1800 | 56C | 0.625 | FMBES-625 | 1-1/2 | 1800 | 145TC | 0.875 | FMBES-875 |
| 1/4 | 1200 | 56C | 0.625 | FMBES-625 | 1-1/2 | 1200 | 182TC | 1.125 | FMBES-1125 |
| 1/3 | 1800 | 56C | 0.625 | FMBES-625 | 1-1/2 | 900 | 184TC | 1.125 | FMBES-1125 |
| 1/3 | 1200 | 56C | 0.625 | FMBES-625 | 2 | 1800 | 145TC | 0.875 | FMBES-875 |
| 1/2 | 1800 | 56C | 0.625 | FMBES-625 | 2 | 1200 | 184TC | 1.125 | FMBES-1125 |
| 1/2 | 1200 | 56C | 0.625 | FMBES-625 | 2 | 900 | 213TC | 1.375 | FMBES-1375 |
| 1/2 | 900 | 143TC | 0.875 | FMBES-875 | 3 | 1800 | 182TC | 1.125 | FMBES-1125 |
| 3/4 | 1800 | 56C | 0.625 | FMBES-625 | 3 | 1200 | 213TC | 1.375 | FMBES-1375 |
| 3/4 | 1200 | 143TC | 0.875 | FMBES-875 | 3 | 900 | 215TC | 1.375 | FMBES-1375 |
| 3/4 | 900 | 145TC | 0.875 | FMBES-875 | 5 | 1800 | 184TC | 1.125 | FMBES-1125 |
| 1 | 1800 | 56TC | 0.625 | FMBES-625 | 5 | 1200 | 215TC | 1.375 | FMBES-1375 |
| 1 | 1800 | 143TC | 0.875 | FMBES-875 | 7-1/2 | 1800 | 213TC | 1.375 | FMBES-1375 |
| 1 | 1200 | 145TC | 0.875 | FMBES-875 | 10 | 1800 | 215TC | 1.375 | FMBES-1375 |
| 1 | 900 | 182TC | 1.125 | FMBES-1125 | | | | | |

FMBES DOUBLE C-FACED MOTOR BRAKES - APPROXIMATE DIMENSIONS (INCHES)



| MODEL | PRODUCT NUMBER | AH | AJ | AK1 ^{+0.000} _{-0.002} | AK2 ^{+0.002} _{-0.000} | BB1 | BB2 | BD | BF | C | CT | KEY (SQ) | KL1 | KWY | | KL2 | P | MR1 | N1 | N2 | U1 ^{+0.000} _{-0.001} | U2 ^{+0.001} _{-0.000} |
|---------------|----------------|------|-------|---|---|------|------|------|---------|------|------|----------|------|------|------|------|------|------|------|------|--|--|
| FMBES-625-CC | 827320 | 2.12 | 5.875 | 4.500 | 4.500 | 0.06 | 0.20 | 0.41 | .375-16 | 6.14 | 0.40 | .188 | 1.43 | .188 | .094 | 2.12 | 6.81 | 3.93 | 1.10 | 1.06 | .625 | .625 |
| FMBES-625-CC | 827323 | 2.12 | 5.875 | 4.500 | 4.500 | 0.06 | 0.20 | 0.41 | .375-16 | 6.14 | 0.40 | .188 | 1.43 | .188 | .094 | 2.12 | 6.81 | 3.93 | 1.10 | 1.06 | .625 | .625 |
| FMBES-875-CC | 827340 | 2.12 | 5.875 | 4.500 | 4.500 | 0.06 | 0.20 | 0.41 | .375-16 | 6.14 | 0.40 | .188 | 1.43 | .188 | .094 | 2.12 | 6.81 | 3.93 | 1.10 | 1.06 | .875 | .875 |
| FMBES-875-CC | 827343 | 2.12 | 5.875 | 4.500 | 4.500 | 0.06 | 0.20 | 0.41 | .375-16 | 6.14 | 0.40 | .188 | 1.43 | .188 | .094 | 2.12 | 6.81 | 3.93 | 1.10 | 1.06 | .875 | .875 |
| FMBES-875-CC | 827344 | 2.12 | 5.875 | 4.500 | 4.500 | 0.06 | 0.20 | 0.41 | .375-16 | 6.14 | 0.40 | .188 | 1.43 | .188 | .094 | 2.12 | 6.81 | 3.93 | 1.10 | 1.06 | .875 | .875 |
| FMBES-1125-CC | 827360 | 2.63 | 7.250 | 8.500 | 8.500 | 0.25 | 0.20 | 0.53 | .500-13 | 7.47 | .542 | .251 | 1.78 | .251 | .125 | 2.75 | 9.00 | 5.05 | 1.54 | 1.38 | 1.125 | 1.125 |
| FMBES-1375-CC | 827380 | 3.13 | 7.250 | 8.500 | 8.500 | 0.25 | 0.20 | 0.53 | .500-13 | 7.85 | .542 | .314 | 1.78 | .314 | .156 | 2.75 | 9.00 | 5.05 | 1.54 | 1.38 | 1.375 | 1.375 |

NOTE: Torque values for spring applied brakes will vary over the life of the brake as a function of spring force and the burnishing process of the lining. Over the life of the linings, torque values may exceed published values by up to 40%.