



Motor Brakes

Selection Procedure

1. Determine the motor frame size, horsepower and speed.
2. Use chart for brake static torque selection. Note that chart selections are based on a **1.4 service factor** and increased to the next highest standard brake torque rating. To select a brake using a different service factor, use the formula below to determine the required brake static torque.

$$T = \frac{HP \times 5252 \times SF}{RPM}$$

T = Brake Static Torque (Ft-Lbs)

HP = Motor Horsepower

SF = Service Factor Desired

RPM = Motor Speed

Once your torque requirement has been determined, select a brake with at least that capacity.

3. Consult Part Number charts on pages PT2-6 thru PT2-10 for appropriate part number. Brake voltage should be matched with motor voltage rating.
4. Verify mounting dimensions (C-face tenon, mounting bolt pattern, shaft size, etc.) from pages PT2-6 thru PT2-10.
5. In positioning applications, use of a fast response kit allows you to obtain faster stop times. To order see page PT2-11.
6. In positioning applications, use 2.0 SF

Note: DODGE D Series brakes are intended as holding brakes. Contact application engineering with inertia and application information for cycle rates exceeding 6 per minute.

Brake Static Torque Ratings* (Ft.-Lbs)

| Motor HP | Motor Speed (RPM) | | | | | | | |
|----------|-------------------|-----|------|------|------|------|------|------|
| | 750 | 900 | 1200 | 1500 | 1800 | 3000 | 3600 | 5000 |
| 1/4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 1/3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 1/2 | 6 | 6 | 6 | 3 | 3 | 3 | 3 | |
| 3/4 | 10 | 10 | 6 | 6 | 6 | 3 | 3 | |
| 1 | 10 | 10 | 10 | 6 | 6 | 3 | 3 | |
| 1-1/2 | 15 | 15 | 10 | 10 | 10 | 6 | 6 | |
| 2 | 20 | 20 | 15 | 10 | 10 | 6 | 6 | |
| 3 | 35 | 25 | 20 | 15 | 15 | 10 | 10 | |
| 5 | 50 | 50 | 35 | 25 | 25 | 15 | 15 | |
| 7-1/2 | - | - | 50 | 50 | 35 | 20 | 20 | |
| 10 | - | - | - | 50 | 50 | 35 | 25 | |

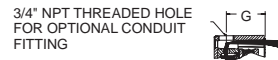
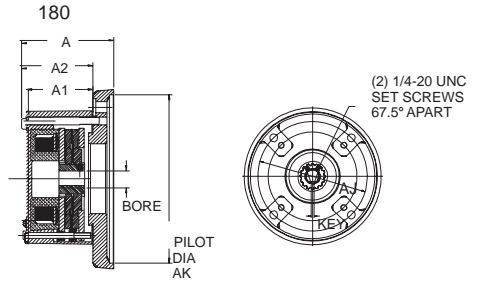
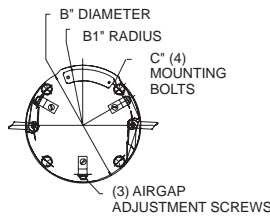
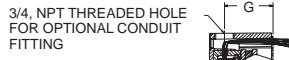
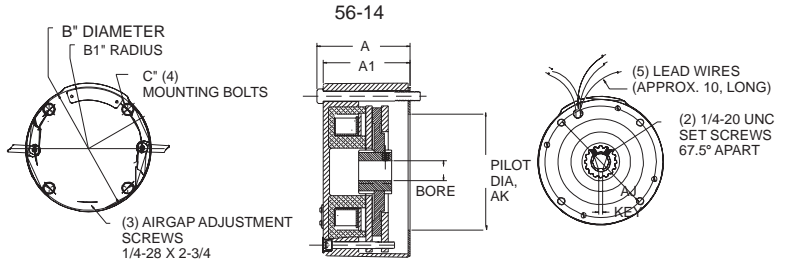
* Selections based on 1.4 service factor and increased to next highest standard brake torque rating.
Speed limit 5000 RPM maximum motor speed



SELECTION/DIMENSIONS



DBSC Model



COMPLETE UNIT PART NUMBERS

| Standard Enclosure | | Unit Size-Static Torque | | | | | |
|---------------------------|----------------------------|-------------------------|----------|-----------|-----------|-----------|-----------|
| | | 3 Ft-Lbs | 6 Ft-Lbs | 10 Ft-Lbs | 15 Ft-Lbs | 20 Ft-Lbs | 25 Ft-Lbs |
| C-FACE (FAN END MOUNTING) | DBSC Complete Units | | | | | | |
| | 56 Frame, 5/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 031351 | 031393 | 031435 | 031477 | 031507 | 031537 |
| | 230/460 VAC 60 HZ (2) | 031353 | 031395 | 031437 | 031479 | 031509 | 031539 |
| | 287/575 VAC 60 Hz (3) | 031355 | 031397 | 031439 | 031481 | 031511 | 031541 |
| | 104/208 VAC 60 Hz (4) | 031000 | 031015 | 031030 | 031043 | 031058 | 031073 |
| | 190/380 VAC 50 Hz (5) | 031001 | 031016 | 031031 | 031044 | 031059 | 031074 |
| | 250/500 VAC 50 Hz | 031002 | 031017 | 031032 | 031045 | 031060 | 031075 |
| | 48 VDC | 031003 | 031018 | 031033 | 031046 | 031061 | 031076 |
| | 24 VDC | 031004 | 031019 | 031034 | 031047 | 031062 | 031077 |
| | 12 VDC | 031005 | 031020 | 031035 | 031048 | 031063 | 031078 |
| | DBSC Complete Units | | | | | | |
| | 140 Frame, 7/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 031007 | 031022 | 031037 | 031050 | 031065 | 031080 |
| 230/460 VAC 60 HZ (2) | 031009 | 031024 | 031039 | 031052 | 031067 | 031082 | |
| 287/575 VAC 60 Hz (3) | 031011 | 031026 | 031041 | 031054 | 031069 | 031084 | |
| 104/208 VAC 60 Hz (4) | 031006 | 031021 | 031036 | 031049 | 031064 | 031079 | |
| 190/380 VAC 50 Hz (5) | 031008 | 031023 | 031038 | 031051 | 031066 | 031081 | |
| 250/500 VAC 50 Hz | 031010 | 031025 | 031040 | 031053 | 031068 | 031083 | |
| 48 VDC | 031012 | 031027 | 031042 | 031055 | 031070 | 031085 | |
| 24 VDC | 031013 | 031028 | 031160 | 031056 | 031071 | 031086 | |
| 12 VDC | 031014 | 031029 | 031161 | 031057 | 031072 | 031087 | |

| | | | |
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COMPLETE UNIT PART NUMBERS

| Standard Enclosure | | Unit Size-Static Torque | | | | | | |
|---------------------------|---|-------------------------|-----------|---------------|-----------|---------------|---------------|---------------|
| | | 6 Ft-Lbs | 10 Ft-Lbs | 15 Ft-Lbs | 20 Ft-Lbs | 25 Ft-Lbs | 35 Ft-Lbs | 50 Ft-Lb |
| C-FACE (FAN END MOUNTING) | 180 Frame, 1-1/8" Bore 8-1/2" Pilot Diameter | | | | | | | |
| | 115/230 VAC 60 Hz (1) | 027023 | 027032 | 027041 | 027050 | 027059 | 027068 | 027077 |
| | 230/460 VAC 60 Hz (2) | 027024 | 027033 | 027042 | 027051 | 027060 | 027069 | 027078 |
| | 287/575 VAC 60 Hz (3) | 027025 | 027034 | 027043 | 027052 | 027061 | 027070 | 027079 |
| | 104/208 VAC 60 Hz (4) | 027026 | 027035 | 027044 | 027053 | 027062 | 027071 | 027080 |
| | 190/380 VAC 50 Hz (5) | 027027 | 027036 | 027045 | 027054 | 027063 | 027072 | 027081 |
| | 250/500 VAC 50 Hz | 027028 | 027037 | 027046 | 027055 | 027064 | 027073 | 027082 |
| | 48 VDC | 027029 | 027038 | 027047 | 027056 | 027065 | 027074 | 027083 |
| | 24 VDC | 027030 | 027039 | 027048 | 027057 | 027066 | 027075 | 027084 |
| | 12 VDC | 027031 | 027040 | 027049 | 027058 | 027067 | 027076 | 027085 |

NOTES:

- Bold Part Numbers are stock units. Other voltage units available on standard non-stock basis.
- Coil will operate at the following voltages:

| | | | | |
|---|--|--|---|---|
| (1) 115/208-230 VAC 50 or 60 Hz, 133/265 VAC 60 Hz, 110-125 VDC | (2) 208-230/460 VAC 50 or 60 Hz, 240/480 VAC 60 Hz, 220/440 VAC 50 Hz, 230 VDC | (3) 287/575 VAC 60 Hz, 300/600 VAC 60 Hz | (4) 104/208 VAC 50 or 60 Hz, 100/200 VAC 60 Hz, 90-95 VDC | (5) 190/380 VAC 50 Hz, 200/400 VAC 60 Hz, 206/416 VAC 50 Hz |
|---|--|--|---|---|

DIMENSIONS

Standard Enclosure Single C-face (Fan End Mounting)

| Unit Size | Inertia Friction Disc & Hub (Lb-In ²) | Input Bore | Key | A Max | A1 Nom | AJ | AK Pilot Dia. | B Dia. Max. | B1 Radius Max | C Mounting Bolts | G | Shipping Weight (Lbs) |
|--|---|------------|-------------------|-------|--------|------|---------------|-------------|---------------|---|------|-----------------------|
| 56DBSC-3 56DBSC-6 56DBSC-10 56DBSC-15 56DBSC-20 56DBSC-25 | 1.52 | 5/8" | 3/16 x 3/32 | 3.74 | 3.36 | 5.88 | 4.5 | 6.63 | 3.46 | 3/8 - 16 UNC-2A (4) Equally Spaced on 5.875" Dia. Bolt Circle | 2.57 | 11.7 |
| 140DBSC-3 140DBSC-6 140DBSC-10 140DBSC-15 140DBSC-20 140DBSC-25 | 1.51 | 7/8" | 3/16x3/32 | 3.74 | 3.36 | 5.88 | 4.5 | 6.63 | 3.46 | Bolt Circle | 2.57 | 11.8 |

| Unit Size (6) | Inertia Friction Disc & Hub (7) (Lb-In ²) | Input Bore | Key | A Max | A1 Nom | A2 | AJ | AK Pilot Dia. | B Dia. Max. | B1 Radius Max. | C Mounting Bolts | G | Shipping Weight (Lbs) |
|--|---|------------|-------------------|-------|--------|------|------|---------------|-------------|----------------|---|------|-----------------------|
| 180DBSC-6* 180DBSC-10* 180DBSC-15* 180DBSC-20* 180DBSC-25* 180DBSC-35 180DBSC-50 | 1.51 | 1-1/8" | 1/4" X 1/8" | 4.78 | 3.36 | 3.74 | 7.25 | 8.5 | 6.63 | 3.46 | 3/8 - 16 UNC-2A (4) Equally Spaced on 5.875" Dia. Bolt Circle | 2.57 | 20.6 |

(6) 140 Sizes do not require an adapter plate.

(7) Inertia for single-disc units.

*These sizes employ one friction disc.

| | | | |
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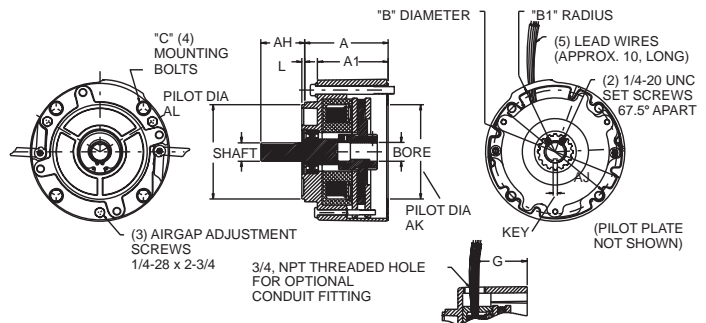
SELECTION/DIMENSIONS



Motor Brakes



DBSS Model



COMPLETE UNIT PART NUMBERS

| Standard Enclosure | | Unit Size --- Static Torque | | | | | |
|--------------------|--|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| | | 3 Ft.-Lbs | 6 Ft.-Lbs | 10 Ft.-Lbs | 15 Ft.-Lbs | 20 Ft.-Lbs | 25 Ft.-Lbs |
| DOUBLE C-FACE | DBSS Complete Units 56 Frame, 5/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 031369 | 031411 | 031453 | 031342 | 031345 | 031348 |
| | 230/460 VAC 60 Hz (2) | 031371 | 031413 | 031455 | 031343 | 031346 | 031349 |
| | 287/575 VAC 60 Hz (3) | 031373 | 031415 | 031457 | 031344 | 031347 | 031350 |
| | 104/208 VAC 60 Hz (4) | 031088 | 031100 | 031112 | 031124 | 031136 | 031148 |
| | 190/380 VAC 50 Hz (5) | 031089 | 031101 | 031113 | 031125 | 031137 | 031149 |
| | 250/500 VAC 50 Hz | 031090 | 031102 | 031114 | 031126 | 031138 | 031150 |
| | 48 VDC | 031091 | 031103 | 031115 | 031127 | 031139 | 031151 |
| | 24 VDC | 031092 | 031104 | 031116 | 031128 | 031140 | 031152 |
| | 12 VDC | 031093 | 031105 | 031117 | 031129 | 031141 | 031153 |
| | DBSS Complete Units 140 Frame, 7/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 031375 | 031417 | 031459 | 031495 | 031525 | 031555 |
| | 230/460 VAC 60 Hz (2) | 031377 | 031419 | 031461 | 031497 | 031527 | 031557 |
| | 287/575 VAC 60 Hz (3) | 031379 | 031421 | 031463 | 031499 | 031529 | 031559 |
| | 104/208 VAC 60 Hz (4) | 031094 | 031106 | 031118 | 031130 | 031142 | 031154 |
| | 190/380 VAC 50 Hz (5) | 031095 | 031107 | 031119 | 031131 | 031143 | 031155 |
| | 250/500 VAC 50 Hz | 031096 | 031108 | 031120 | 031132 | 031144 | 031156 |
| | 48 VDC | 031097 | 031109 | 031121 | 031133 | 031145 | 031157 |
| | 24 VDC | 031098 | 031110 | 031122 | 031134 | 031146 | 031158 |
| | 12 VDC | 031099 | 031111 | 031123 | 031135 | 031147 | 031159 |

NOTES:

- Bold Part Numbers are stock units. Other voltage units available on standard non-stock basis.
- Coil will operate at the following voltages:

| | |
|--|---|
| (1) 115/208-230 VAC 50 or 60 Hz, 133/265 VAC 60 Hz, 110-125 VDC | (3) 287/575 VAC 60 Hz, 300/600 VAC 60 Hz |
| (2) 208-230/460 VAC 50 or 60 Hz, 240/480 VAC 60 Hz, 220/440 VAC 50 Hz, 230 VDC | (4) 104/208 VAC 50 or 60 Hz, 100/200 VAC 60 Hz, 90-95 VDC |
| | (5) 190/380 VAC 50 Hz, 200/400 VAC 60 Hz, 206/416 VAC 50 Hz |

DIMENSIONS

Standard Enclosure Double C-face Coupler

| Unit Size | Inertia Friction Disc & Hub (Lb-In ²) | Input Bore Output Shaft Dia. | Output Keyway & Input Key | A Max | A1 Nom | AK Pilot Dia. | AL Pilot Dia. | AH | AJ | B Dia. Max | B1 Radius Max. | C Mounting Bolts | G | L | Shipping Weight (Lbs) |
|--|---|------------------------------|---------------------------|-------|--------|---------------|---------------|------|------|------------|----------------|--|------|------|-----------------------|
| 56DBSS-3 56DBSS-6 56DBSS-10 56DBSS-15 56DBSS-20 56DBSS-25 | 1.73 | 5/8" | 3/16 x 3/32 | 3.97 | 3.36 | 4.5 | 4.5 | 2.12 | 5.88 | 6.63 | 3.46 | 3/8 -16 UNC-2A (4) Equally Spaced on 5.875 Dia. Bolt Circle | 2.57 | 0.13 | 13.2 |
| 140DBSS-3 140DBSS-6 140DBSS-10 140DBSS-15 140DBSS-20 140DBSS-25 | 1.74 | 7/8" | 3/16 x 3/32 | 3.97 | 3.36 | 4.5 | 4.5 | 2.12 | 5.88 | 6.63 | 3.46 | 3/8 -16 UNC-2A (4) Equally Spaced on 5.875 Dia. Bolt Circle | 2.57 | 0.13 | 13.3 |

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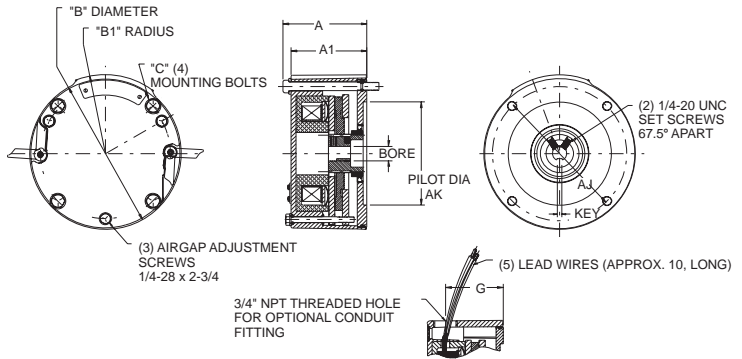
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Motor Brakes



DBEC Model

COMPLETE UNIT PART NUMBERS*

| E-Z KLEEN Enclosure | | Unit Size-Static Torque | | | | | |
|------------------------------|---|-------------------------|-----------|------------|------------|------------|------------|
| | | 3 Ft- Lbs | 6 Ft- Lbs | 10 Ft- Lbs | 15 Ft- Lbs | 20 Ft- Lbs | 25 Ft- Lbs |
| C-FACE (FAN END MOUNTING) | DBEC Complete Units 56 Frame, 5/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 031910 | 031913 | 031915 | 031918 | 031921 | 031924 |
| | 230/460 VAC 60 Hz (2) | 031716 | 031718 | 031916 | 031919 | 031922 | 031925 |
| | 287/575 VAC 60 Hz (3) | 031911 | 031914 | 031917 | 031920 | 031923 | 031926 |
| | DBEC Complete Units 140 Frame, 7/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 029436 | 029439 | 029442 | 029445 | 029448 | 029451 |
| 230/460 VAC 60 Hz (2) | 029437 | 029440 | 029443 | 029446 | 029449 | 029452 | |
| 287/575 VAC 60 Hz (3) | 029438 | 029441 | 029443 | 029447 | 029450 | 029453 | |

NOTES:

* All torque ratings and voltages not listed here are available as standard non-stock units. Please contact DODGE Customer Service for part numbers, pricing & availability

● Coil will operate at the following voltages:

- (1) 115/208-230 VAC 50 or 60 Hz, 133/265 VAC 60 Hz, 110-125 VDC
- (2) 208-230/460 VAC 50 or 60 Hz, 240/480 VAC 60 Hz, 220/440 VAC 50 Hz, 230 VDC
- (3) 287/575 VAC 60 Hz, 300/600 VAC 60 Hz

DIMENSIONS

E-Z KLEEN Single C- face (Fan End Mounting)

| Unit Size | Inertia Friction Disc & Hub (Lb-In ²) | Input Bore | Key | A Max | A1 Nom | AJ | AK Pilot Dia. | B Dia. Max | B1 Radius Max. | C Mounting Bolts | G | Shipping Weight (Lbs) |
|--|---|------------|-------------------|-------|--------|------|---------------|------------|----------------|--|------|-----------------------|
| 56DBEC-3 56DBEC-6 56DBEC-10 56DBEC-15 56DBEC-20 56DBEC-25 | 1.52 | 5/8" | 3/16 x 3/32 | 3.74 | 3.36 | 5.88 | 4.5 | 6.63 | 3.46 | 3/8 -16 UNC-2A (4) Equally Spaced on 5.875" Dia. Bolt Circle | 2.57 | 14.4 |
| 140DBEC-3 140DBEC-6 140DBEC-10 140DBEC-15 140DBEC-20 140DBEC-25 | 1.51 | 7/8" | 3/16 x 3/32 | 3.74 | 3.36 | 5.88 | 4.5 | 6.63 | 3.46 | | 2.57 | 14.5 |

| | | | |
|---------------------------------|--|-----------------------------|--------------------------------------|
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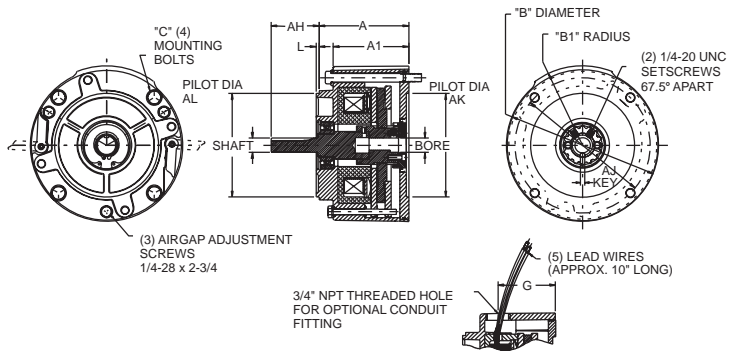
SELECTION/DIMENSIONS



Motor Brakes



DBES Model



COMPLETE UNIT PART NUMBERS

| E-Z KLEEN Enclosure | | Unit Size-Static Torque | | | | | |
|-----------------------------|----------------------------|-------------------------|-----------|------------|------------|------------|------------|
| | | 3 Ft.-Lbs | 6 Ft.-Lbs | 10 Ft.-Lbs | 15 Ft.-Lbs | 20 Ft.-Lbs | 25 Ft.-Lbs |
| DOUBLE C-FACE | DBES Complete Units | | | | | | |
| | 56 Frame, 5/8" Bore | | | | | | |
| | 115/230 VAC 60 Hz (1) | 030381 | 030384 | 030387 | 030390 | 030393 | 030396 |
| | 230/460 VAC 60 HZ (2) | 030382 | 030385 | 030388 | 030391 | 030394 | 030397 |
| | 287/575 VAC 60 Hz (3) | 030383 | 030386 | 030389 | 030392 | 030395 | 030398 |
| | DBES Complete Units | | | | | | |
| 140 Frame, 7/8" Bore | | | | | | | |
| 115/230 VAC 60 Hz (1) | 029400 | 029403 | 029406 | 029409 | 029412 | 029415 | |
| 230/460 VAC 60 HZ (2) | 029401 | 029404 | 029407 | 029410 | 029413 | 029416 | |
| 287/575 VAC 60 Hz (3) | 029402 | 029405 | 029408 | 029411 | 029414 | 029417 | |

NOTES:

* All torque ratings and voltages not listed here are available as standard non-stock units. Please contact DODGE Customer Service for part numbers, pricing & availability

● Coil will operate at the following voltages:

- (1) 115/208-230 VAC 50 or 60 Hz, 133/265 VAC 60 Hz, 110-125 VDC
- (2) 208-230/460 VAC 50 or 60 Hz, 240/480 VAC 60 Hz, 220/440 VAC 50 Hz, 230 VDC
- (3) 287/575 VAC 60 Hz, 275/550 VAC 60 Hz, 300/600 VAC 60 Hz

DIMENSIONS

E-Z KLEEN Double C-Face Coupler

| Unit Size | Inertia Friction Disc & Hub (Lb-In ²) | Input Bore & Output Shaft Dia. | Output Keyway & Input Key | A Max | A1 Nom | AK Pilot Dia. | AL Pilot Dia. | AH | AJ | B Dia Max. | B1 Radius Max | C Mounting Bolts | G | L | Shipping Weight (Lbs) |
|------------|---|--------------------------------|---------------------------|-------|--------|---------------|---------------|------|------|------------|---------------|---|------|------|-----------------------|
| 56DBES-3 | 1.73 | 5/8" | 3/16 x 3/32 | 3.97 | 3.36 | 4.5 | 4.5 | 2.12 | 5.88 | 6.63 | 3.46 | 3/8-16 UNC-2A (4) Equally Spaced on 5.875" Dia. Bolt Circle | 2.57 | 0.13 | 14.4 |
| 56DBES-6 | | | | | | | | | | | | | | | |
| 56DBES-10 | | | | | | | | | | | | | | | |
| 56DBES-15 | | | | | | | | | | | | | | | |
| 56DBES-20 | | | | | | | | | | | | | | | |
| 56DBES-25 | | | | | | | | | | | | | | | |
| 140DBES-3 | 1.74 | 7/8" | 3/16 x 3/32 | 3.97 | 3.36 | 4.5 | 4.5 | 2.12 | 5.88 | 6.63 | 3.46 | 3/8-16 UNC-2A (4) Equally Spaced on 5.875" Dia. Bolt Circle | 2.57 | 0.13 | 14.5 |
| 140DBES-6 | | | | | | | | | | | | | | | |
| 140DBES-10 | | | | | | | | | | | | | | | |
| 140DBES-15 | | | | | | | | | | | | | | | |
| 140DBES-20 | | | | | | | | | | | | | | | |
| 140DBES-25 | | | | | | | | | | | | | | | |

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