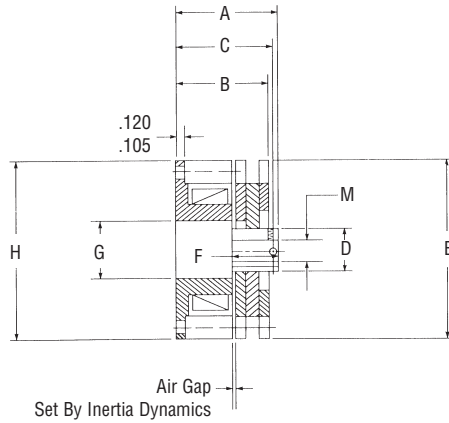


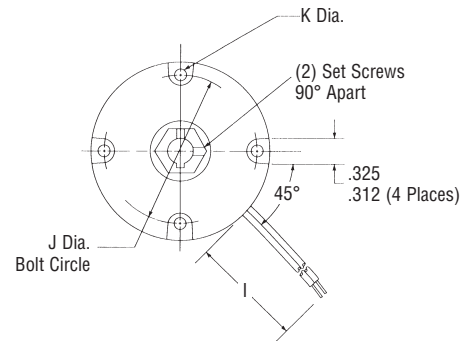
Spring Applied Brakes – Type SAB

Spring Applied Friction Brakes

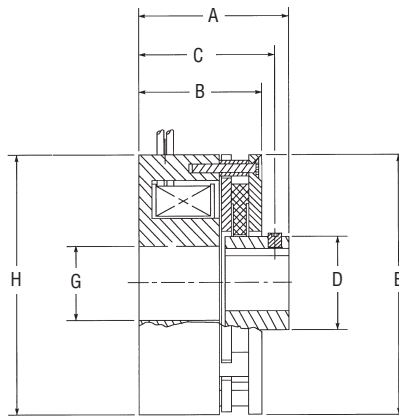
Inertia Dynamics features a type SAB spring applied brake. SAB brakes are designed to be engaged and disengaged in a static condition at zero RPM. They are best used as a parking brakes to hold loads in position. These brakes can be mounted to a flange or motor using thru-holes or tapped holes in the field cup. A conduit box is optional. SAB brakes have been used extensively for servo brake applications with minor modifications. High-temperature coil insulations are available upon request.



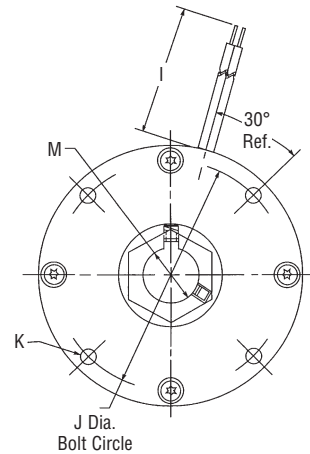
SAB20



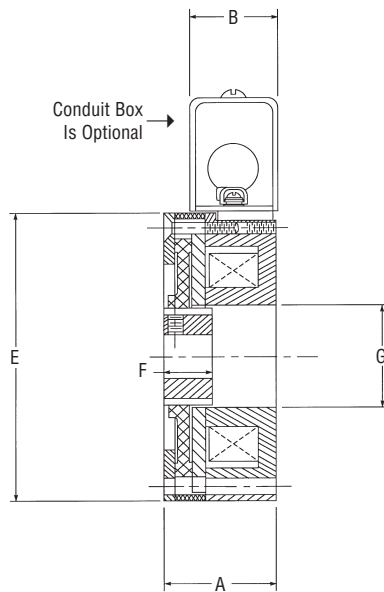
SAB90 shown



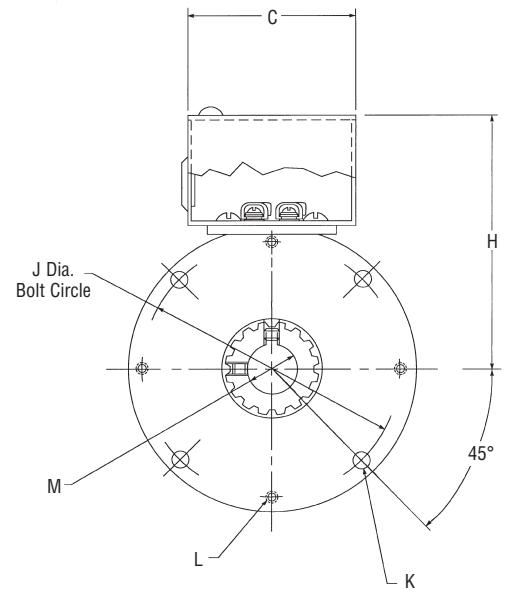
SAB90



SAB180 shown with optional conduit box



SAB180, 400, 1200



Mechanical

| MODEL NO. | STATIC TORQUE LB.-IN. | INERTIA LB. – IN. ² ARMATURE & HUB ASSEMBLY | WGT. LB. |
|-----------|-----------------------|--------------------------------------------------------|----------|
| SAB20 | 20 | .018 | 1 |
| SAB90 | 90 | .130 | 3 |
| SAB180 | 180 | .312 | 5 |
| SAB400 | 400 | .748 | 7.1 |
| SAB1200 | 1200 | 1.732 | 12.4 |

Electrical

| MODEL NO. | 90 VDC | | 24 VDC | | 12 VDC | | 120 VAC | |
|-----------|--------|------|--------|-------|--------|------|---------|------|
| | AMPS | OHMS | AMPS | OHMS | AMPS | OHMS | AMPS | OHMS |
| SAB20 | .098 | 922 | .37 | 65 | .72 | 16.7 | .08 | N.A. |
| SAB90 | .17 | 534 | .68 | 35.3 | 1.34 | 8.95 | .13 | N.A. |
| SAB180 | .29 | 314 | 1.14 | 21.10 | 2.25 | 5.33 | .25 | N.A. |
| SAB400 | .39 | 230 | 1.54 | 15.50 | 3.01 | 3.98 | .33 | N.A. |
| SAB1200 | .58 | 156 | 2.27 | 10.60 | 4.51 | 2.66 | .49 | N.A. |

Dimensions

| MODEL NO. | HUB STYLE | A MAX. | B MAX. | C NOM. | D MAX. | E MAX. | F MIN. | G REF. | H MAX. | I ± .500 | J NOM. | K DIA. | L | M BORES & KEYWAYS | | |
|-----------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|---------------|---------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| | | | | | | | | | | | | | | BORE | NOMINAL KEYWAY | |
| | | | | | | | | | | | | | | | X** | Y** |
| SAB20 | HEX | 1.400 | 1.200 | 1.255 | 0.722 | 2.465 | 0.605 | 0.781 | 2.436 | 12.0 | 2.125 | 0.172 | – | 3/8 5/16 3/8 | .094 – .097 .0625 – .0655 .094 – .097 | .417 – .427 .347 – .352 .417 – .427 |
| SAB90 | HEX | 1.938 | 1.658 | 1.753 | 1.298 | 3.530 | 0.740 | 1.375 | 3.530 | 18.0 | 3.125 | 0.190 | #6 – 32 X .5 | 3/8 1/2 5/8 3/4 | .094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905 | .417 – .427 .560 – .567 .709 – .716 .836 – .844 |
| SAB180 | SPLINE | 1.770 | 1.500 | 2.930 | – | 4.260 | 0.800 | 1.500 | 4.129* | – | 3.75 | 0.223 | #8 – 32 X .5 | 3/8 1/2 5/8 3/4 7/8 | .094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 | .417 – .427 .560 – .567 .709 – .716 .836 – .844 .962 – .970 |
| SAB400 | SPLINE | 1.940 | 1.500 | 2.930 | – | 5.010 | 0.800 | 1.770 | 4.514* | – | 4.5 | 0.283 | #10 – 24 X .5 | 1/2 5/8 3/4 7/8 1 | .125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 .251 – .253 | .560 – .567 .709 – .716 .836 – .844 .962 – .970 1.113 – 1.121 |
| SAB1200 | SPLINE | 2.050 | 1.500 | 2.930 | – | 6.510 | 0.900 | 2.425 | 5.252* | – | 5.875 | 0.409 | 1/4 – 20 X .5 | 1 1 1/8 1 1/4 1 3/8 1 1/2 | .251 – .253 .251 – .253 .251 – .253 .3135 – .3155 .376 – .379 | 1.114 – 1.124 1.241 – .1.251 1.367 – .1.377 1.518 – .1.528 1.606 – 1.616 |

*Reference Dimension

**X denotes keyway width, Y denotes keyway height plus bore

NOTES:

- SAB1200 – Special .375 x .250 key is supplied with unit. Mating shaft to have conventional ASA Standard Keyway.
- Conduit box is optional on models SAB180, 400 & 1200. Screw terminals supplied in place of conduit box.
- Consult factory for Zero Backlash Hub Style

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

| A | | | A | | | B | | | B-C | | D | | E | | F | |
|-------|-------|-----------------------|-------|-------|------|-------|---------|-------|-------|-------|-------------------------------------|-------|------------------------------------|--|---|--|
| DIGIT | DIGIT | MODEL NO. | DIGIT | DIGIT | SIZE | DIGIT | VOLTS | DIGIT | BORE | DIGIT | DRIVE | DIGIT | CONNECTION | | | |
| 1 | 7 | FSB | 0 | 1 | 001 | 1 | 90 VDC | 1 | 1/8 | 1 | ZERO BACKLASH | 1 | LEAD WIRES | | | |
| 1 | 9 | FSBR | 0 | 2 | 003 | 2 | 24 VDC | 2 | 3/16 | 2 | HEX/SQUARE | 2 | SCREW TERMINALS | | | |
| 2 | 1 | FSBR (MANUAL RELEASE) | 0 | 3 | 007 | 3 | 12 VDC | 3 | 1/4 | 3 | DYNAMIC (MANUAL RELEASE BRAKE ONLY) | 3 | SWITCH (MANUAL RELEASE BRAKE ONLY) | | | |
| | | | 0 | 4 | 015 | 4 | 120 VAC | 4 | 5/16 | 4 | STATIC (MANUAL RELEASE BRAKE ONLY) | 4 | CONDUIT BOX | | | |
| | | | 0 | 5 | 035 | | | 5 | 3/8 | 5 | SPLINE | | | | | |
| | | | 0 | 6 | 050 | | | 6 | 1/2 | | | | | | | |
| | | | 0 | 7 | 100 | | | 7 | 5/8 | | | | | | | |
| | | | 0 | 8 | 200 | | | 8 | 3/4 | | | | | | | |
| 0 | 1 | SL | 0 | 9 | 08 | | | 9 | 7/8 | | | | | | | |
| 0 | 3 | BSL | 1 | 0 | 11 | | | 0 | 1 | | | | | | | |
| 0 | 5 | FL | 1 | 1 | 15 | | | 11 | 1 1/8 | | | | | | | |
| 0 | 7 | SO | 1 | 2 | 17 | | | 12 | 1 1/4 | | | | | | | |
| 0 | 9 | FO | 1 | 3 | 19 | | | 13 | 1 3/8 | | | | | | | |
| 1 | 1 | FB | 1 | 4 | 22 | | | 14 | 1 1/2 | | | | | | | |
| 1 | 3 | SLB | 1 | 5 | 26 | | | | | | | | | | | |
| 1 | 5 | SOB | 1 | 6 | 30 | | | | | | | | | | | |
| | | | 1 | 7 | 42 | | | | | | | | | | | |
| 1 | 8 | SAB | 1 | 8 | 20 | | | | | | | | | | | |
| | | | 1 | 9 | 90 | | | | | | | | | | | |
| | | | 2 | 1 | 180 | | | | | | | | | | | |
| | | | 2 | 3 | 400 | | | | | | | | | | | |
| | | | 2 | 5 | 1200 | | | | | | | | | | | |

How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521