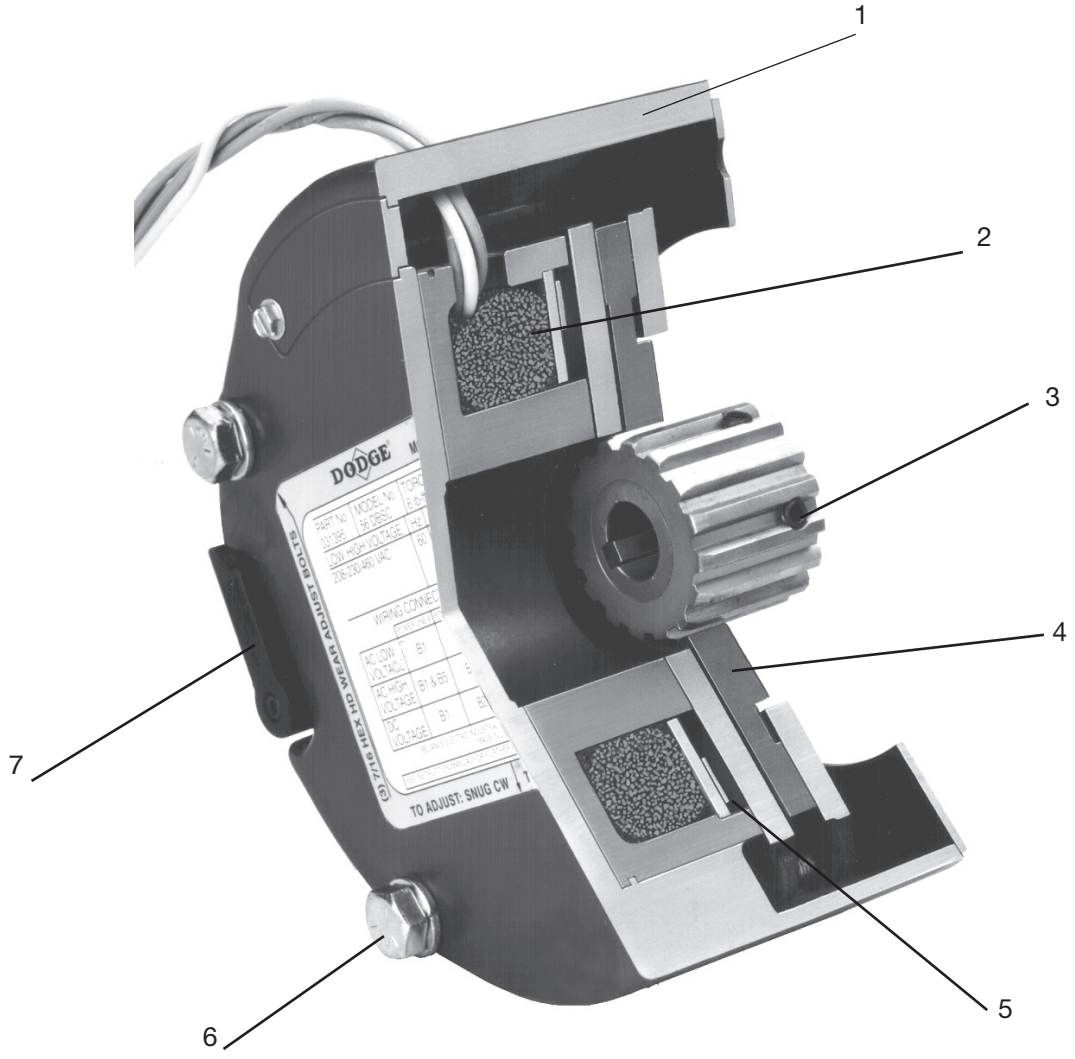
CONTENTS

Clutches and Brakes

FEATURES/BENEFITS

Motor Brakes

1. Rugged, die-cast aluminum housing mounts at any angle without modification.
2. Internally rectified DC voltage coil operates on either AC or DC voltage. Class B insulation is standard.
3. Splined hub permits uniform load distribution. Integral key design simplifies installation - no loose parts.
4. Single, non-asbestos friction disc design extends life, reduces replacement parts and allows quiet operation (1)
5. Wave spring provides 360° of force when power is removed from the brake.
6. Industry standard NEMA C-face mounting. Interchanges easily with competitive units.
7. Easy-to-use, reliable manual release levers reset automatically.



(1) 35 & 50 ft. lb. motor brakes employ two friction discs and can be mounted at any angle without modification

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DODGE®

Motor Brakes

SPECIFICATION

D-Series Motor Brakes are designed with a single* non-asbestos friction disc for fewer adjustments, reduced replacement parts, and extended life. They are released when power is applied to the brake coil. The friction disc hub assembly and ultimately the load are free to turn. However, when power is taken away, intentionally or accidentally, an internal wave spring clamps the friction disc to stop and hold the load. The single* disc design has significantly fewer parts than competitive brakes and provides a dramatic improvement in brake friction disc life. Just as dramatic is the quiet operation compared to solenoid type brakes. DODGE D-Series motor brakes are available as stock off-the-shelf units in 2 configurations. DBSC C-Face brakes mount on the fan end (non-driving end) of a motor. DBSS double C-Face brakes are generally used as a coupler between standard C-Face motors and C-Face gear reducers.

** 35/50 ft.-lb motor brakes employ two friction discs*

HOW TO ORDER

Motor Brakes are ordered by specifying the unit size, the motor frame size, and the voltage. Part numbers are found on the selection pages for each type of unit. Refer to the part number when ordering.

NOMENCLATURE

56 DBSS - 3 - MA - 115/230 VAC 60 HZ

NEMA C-Face Designation
- 56 = 56C (5/8” shaft)
- 140 = 143TC/145TC (7/8” shaft)
- 180 = 180TC/210TC (1-1/8” shaft)

DODGE Brakes

Housing Enclosure
- S = Standard Enclosure/Drip-Proof
- E = E-Z KLEEN (Food Duty/NEMA 4X)

Mounting Configuration
- C = C-face (single)/Fan End Mounting
- S = Shaft-out (Double C-Face) Coupler

Static Torque Rating (Ft.-Lbs)

Wear Adjustment Method
- MA = Manually Adjusted

Coil Voltage
- 115/230 VAC
- 230/460 VAC
- Others As Noted On Brake Label

Frequency
- 60 Hz
- 50 Hz
- Blank If DC Voltage Only

SELECTION/DIMENSIONS

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 PT2-11 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 PT2-11.
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	3
1/3	6	3	3	3	3	3	3	3
1/2	6	6	6	3	3	3	3	3
3/4	10	10	6	6	6	3	3	3
1	10	10	10	6	6	3	3	3
1-1/2	15	15	10	10	10	6	6	3
2	20	20	15	10	10	6	6	3
3	35	25	20	15	15	10	10	6
5	50	50	35	25	25	15	15	10
7-1/2	-	-	50	50	35	20	20	15
10	-	-	-	50	50	35	25	15

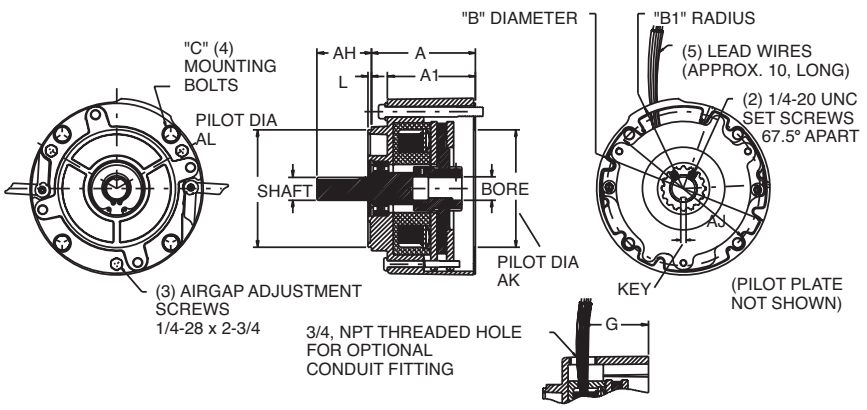
*Selections based on 1.4 service factor and increased to next highest standard brake torque rating.

Speed limit 5000 RPM maximum motor speed

SELECTION/DIMENSIONS

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
(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

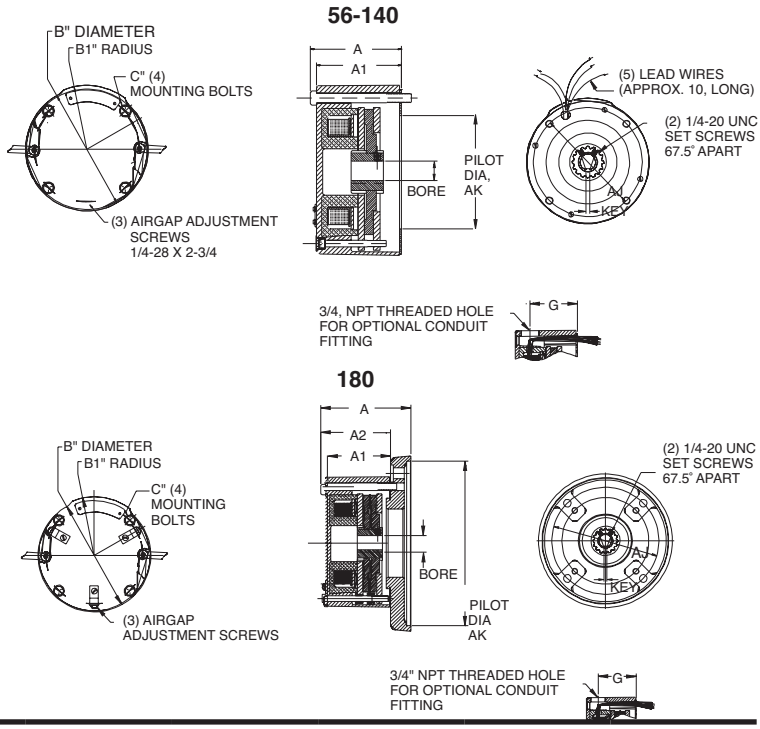
Standard Enclosure Double C-Face Coupler

Unit Size	Inertia Friction Disc & Hub (Lb-In2)	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		2.57	0.13	13.3

SELECTION/DIMENSIONS

Motor Brakes

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

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

FEATURES/BENEFITS PAGE PT2-2	SPECIFICATION/HOW TO ORDER PAGE PT2-3	MODIFICATION/ACCESSORIES PAGE PT2-10	ENGINEERING/TECHNICAL PAGE PT2-38

SELECTION/DIMENSIONS

Complete Unit Part Numbers (Continued)

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 (Lb-In2)	Inertia Friction Disc & Hub	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"	3/16 x 3/32	3.74	3.36	5.88	4.5	6.63	3.46		2.57	11.8

Unit Size (6)	Inertia Friction Disc & Hub (7) (Lb-In2)	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.

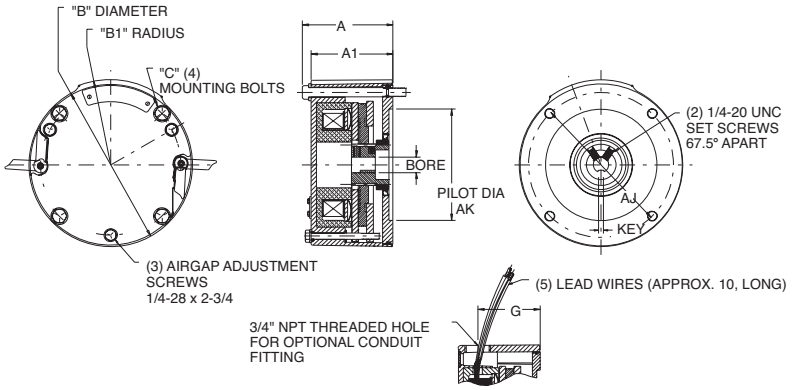
(7) Inertia for single-disc units.

*These sizes employ one friction disc.

SELECTION/DIMENSIONS

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

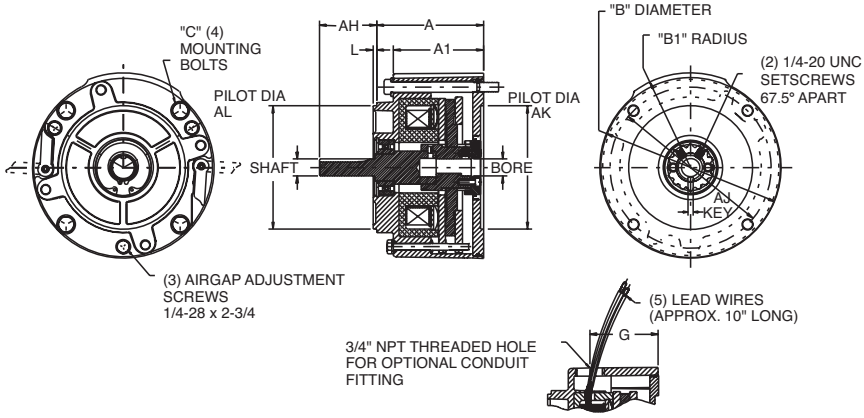
E-Z KLEEN Single C- Face (Fan End Mounting)

Unit Size	Inertia Friction Disc & Hub (Lb-In2)	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

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-In²)	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 56DBES-6 56DBES-10 56DBES-15 56DBES-20 56DBES-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	14.4
140DBES-3 140DBES-6 140DBES-10 140DBES-15 140DBES-20 140DBES-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		2.57	0.13	14.5

FEATURES/BENEFITS PAGE PT2-2	SPECIFICATION/HOW TO ORDER PAGE PT2-3	MODIFICATION/ACCESSORIES PAGE PT2-10	ENGINEERING/TECHNICAL PAGE PT2-38

MODIFICATIONS/ ACCESSORIES

DODGE®

Motor Brakes

Fast Response Kits

In positioning applications, use of a fast response kit allows you to obtain stop times equivalent to AC voltage brakes while continuing to get all of the benefits associated with DC voltage brakes:

- Low power draw = less energy consumption
- Constant current creates smooth operation
- Lower coil temperature during cycling applications
- Quieter operation

The kit has two wiring configurations:

- Wired to brake and motor
- Wired to brake and isolated AC line

Part Number

Description	Part Number
Fast Response Kit 115/230V	**031386**
Fast Response Kit 230/460V	**031389**
FRK w/ Conduit Cover 115/230V	**031424**
FRK w/ Conduit Cover 230/460V	**031425**
Fast Response Kit 190/380V	**032552**
Fast Response Kit 287/575V	**032525**
Fast Response Kit 575V	**032531**

Replacement Rectifier Kit

DODGE D-Series Motor Brakes come with an internal rectifier allowing operation on either AC or DC voltage. A “one size fits all” replacement rectifier is available, in the event a new rectifier is needed. The kit wires external to the brake housing.

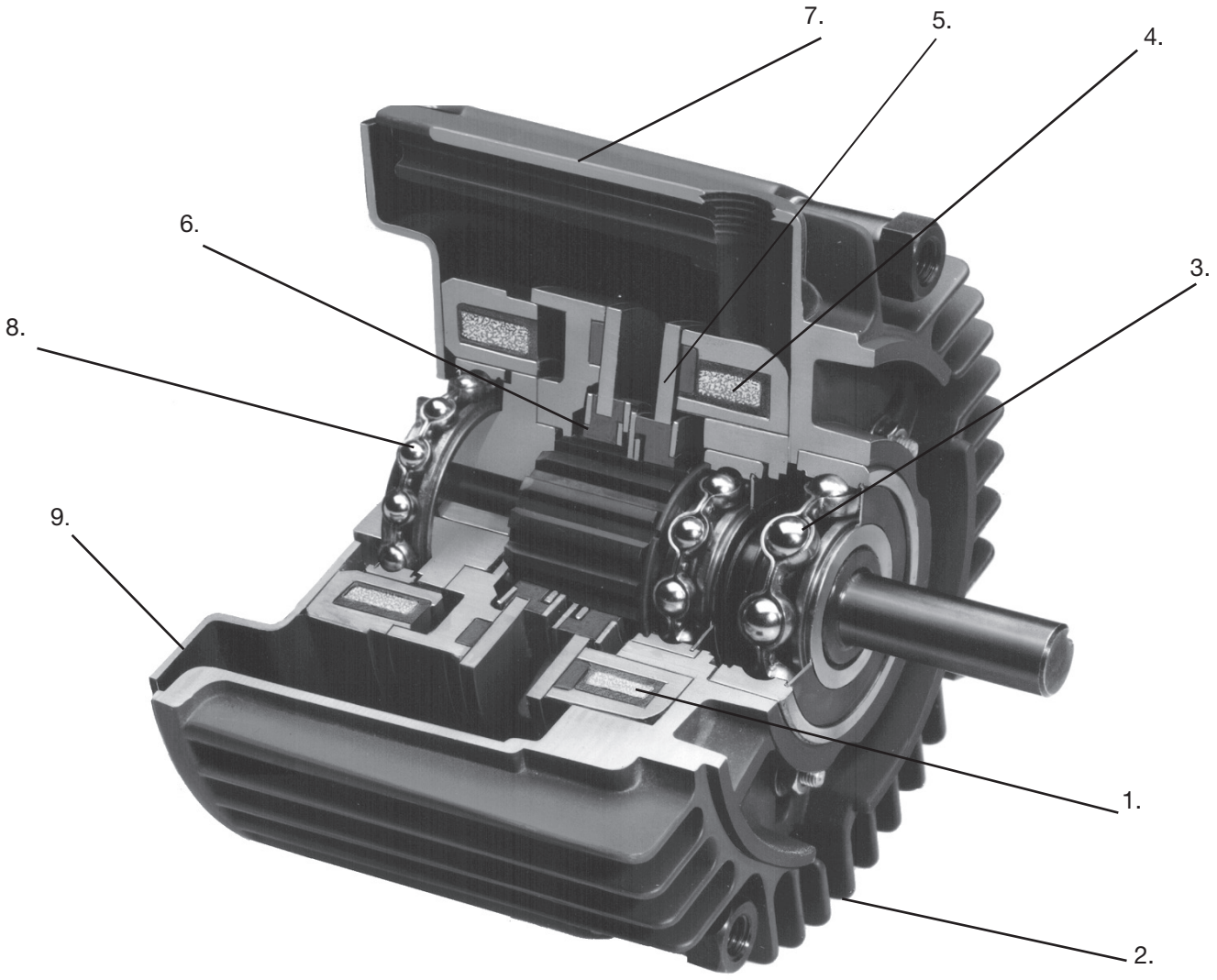
Part Number

Description	Part Number
DBSC/DBSS Replacement Rectifier	**024018**

FEATURES/BENEFITS

Clutch/Brakes Modules

1. Conforms to UL and C-UL requirements.
2. One-piece, die-cast housing simplifies mounting. Housing is finned for maximum heat dissipation.
3. Pre-lubricated and sealed ball bearings have higher B10 life rating than competitive modules.
4. High torque, non-asbestos friction material assures long life and environmental safety.
5. Armatures incorporate a high impact, high temp molded spline for heavy torque and high cycle capabilities. (Patent # 4,760,898)
6. DYNA-GAP automatic air gap mechanism automatically compensates for friction surface wear.
7. Modules are factory assembled, adjusted and burnished for easy installation and out-of-the-box operation.
8. Rotor incorporates ball bearing and Driv-Lok key for foolproof installation.
9. Standard NEMA C-face and Base Mounted, Shaft-in/ Shaft-out mounting configurations.



SPECIFICATION/HOW TO ORDER/NOMENCLATURE

DODGE®

CLUTCH/BRAKE MODULES

SPECIFICATION

Clutch/Brake Modules mount directly to NEMA C-face motors and reducers or can be used with separate base mount frames. These modules are completely factory assembled, tested, and pre-burnished for easy installation and long maintenance free operation. The units are designed with large ball-bearings to provide greater over-hung load capacity and longer life. They use larger armatures for high torque transmission.

HOW TO ORDER

Clutch/Brake Modules are ordered by specifying the type of unit, size and voltage. Part numbers are found on the selection pages for each type of unit. Refer to the part number when ordering.

NOMENCLATURE

D M C CB - 180 - PSM

DODGE

Module

Mounting Configuration
- C = Double C-Face
- S = Shaft-In (Base Mtd.)

Function
- CB = Clutch & Brake
- CO = Clutch Only
- BO = Brake Only
- BX = Brake Only (Less Output Shaft)

Module Size
- 50 = 56C
- 100 = 56C (180 Torque Rating)
- 180 = 143TC/145TC
- 210 = 182TC/184TC
- 256 = 213TC/ 215TC

Power Supply Mount

DODGE®

Clutch/Brake Modules
SELECTION

DMC Selection by NEMA Frame Size

Frame Size	Module Size
56C	DMC-50, 100 ◆
143TC/145TC	DMC-180
182TC/184TC	DMC-210
213TC/215TC	DMC-256

◆ DMC 100 module has rating of 180 module with 56C (5/8") shafts

Selection Procedure

(1) Determine the frame size, horsepower and speed at the module location (motor speed for DMC Series).

(2) Choose proper module size based on motor frame size for DMC Series or motor HP and operating speed for DMS Series.

(3) Check to ensure the max allowable cycles per minute rating is not exceeded by consulting charts in the engineering/technical section. Consult DODGE Engineering when allowable cycle rate is exceeded.

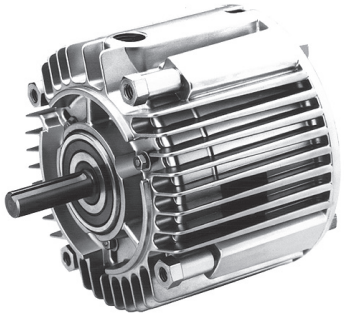
DMS Series Selection

HP	Shaft Speed at Module (RPM)																	
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600
1/4	210	180	180	180	50	50	50	50	50	50	50	50	50	50	50	50	50	50
1/2	210	210	180	180	180	180	180	180	50	50	50	50	50	50	50	50	50	50
3/4		210	210	210	180	180	180	180	180	180	180	50	50	50	50	50	50	50
1		210	210	210	210	210	180	180	180	180	180	180	180	50	50	50	50	50
1-1/2			210	210	210	210	210	210	210	210	180	180	180	180	180	180	180	180
2				210	210	210	210	210	210	210	210	210	210	180	180	180	180	180
3					210	210	210	210	210	210	210	210	210	210	210	210	180	180
5									256	256	256	210	210	210	210	210	210	210
7-1/2													256	210	210	210	210	210
10														256	256	256	256	256
15																	256	256

NOTE: 256 modules may be selected as an alternate to the 210 size. Check shaft diameter for proper drive components

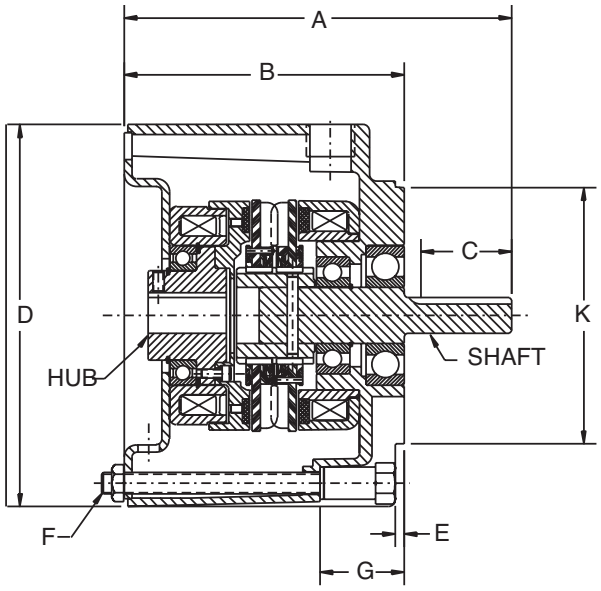
SELECTION/DIMENSIONS

Clutch/Brake Modules



DMCCB & DMCCO

DMCCB modules are ideal for rapid cycling applications. They can be mounted directly between a C-face motor and reducer. Five standard sizes are available in 90, 24 or 6 VDC input voltage. The brake is power on. The DMCCO mounts and operates in a manner similar to DMCCB, but as a clutch only. The clutch ratings and external dimensions of both units are the same and are completely factory preassembled, adjusted, burnished and dynamically tested.



Clutch/Brake Module
(Clutch Only - Same Dimensions)

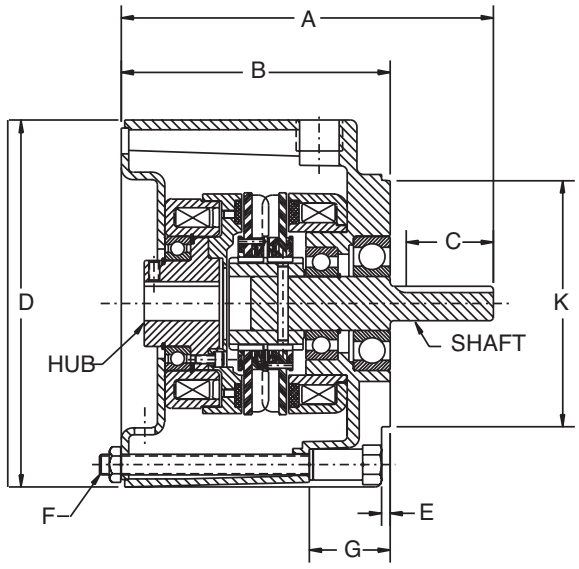
Part Numbers		Static Torque (Lb. - Ft.)	Coil Voltage		
			90 VDC	24 VDC	6 VDC
C-Face Clutch & Brake	DMCCB-50	22	**028765**	**028763**	**028761**
	DMCCB-100	34	**028770**	**028768**	**028766**
	DMCCB-180	34	**028775**	**028773**	**028771**
	DMCCB-210	100	**028780**	**028778**	**028776**
	DMCCB-256	100	**028785**	**028783**	**028781**
C-Face Clutch Only	DMCCO-50	22	**028855**	**028853**	**028851**
	DMCCO-100	34	**028860**	**028858**	**028856**
	DMCCO-180	34	**028865**	**028863**	**028861**
	DMCCO-210	100	**028870**	**028868**	**028866**
	DMCCO-256	100	**028875**	**028873**	**028871**

Size	Static Torque (Lb.-Ft.)	C-Face Frame	Input Hub Dia	Output Shaft Dia	Keyway	A Max	B	C	D Max	E Max	F	G*	K
50	22	56C	5/8	5/8	3/16 x 3/32	6.75	4.84	1.59	6.75	.16	4 Equally Spaced 3/8-16 UNC on 5.875" Dia. B.C.	1.30	4.50
100	34	56C	5/8	5/8	3/16 x 3/32	6.75	4.84	1.59	6.75	.16		1.30	4.50
180	34	143TC and 145TC	7/8	7/8	3/16 x 3/32	6.75	4.84	1.59	6.75	.16		1.30	4.50
210	100	182TC and 184TC	1-1/8	1-1/8	1/4 x 1/8	8.83	6.20	2.00	9.05	.27	4 Equally Spaced 1/2-13 UNC on 7.25" Dia. B.C.	1.57	8.50
256	100	213TC and 215TC	1-3/8	1-3/8	5/16 x 5/32	9.32	6.20	2.50	9.05	.27		1.57	8.50

* G Dimension = Electrical Connection

Clutch/Brake Modules

DMCCB-PSM
Power Supply Mounted †
Clutch Brake Motor



Part Number		Static Torque (Lb-Ft)	Coil Voltage 90 VDC
C-Face Clutch & Brake	DMCCB-50-PSM	22	**028977**
	DMCCB-180-PSM	34	**028979**
	DMCCB-210-PSM	100	**028981**

Size	Static Torque (Lb.-Ft.)	C-Face Frame	Input Hub Dia	Output Shaft Dia	Keyway	A Max	B	C	D Max	E Max	F	G*	K
50	22	56C	5/8	5/8	3/16 x 3/32	6.75	4.84	1.59	6.75	.16	4 Equally Spaced 3/8-16 UNC on 5.875" Dia. B.C.	1.30	4.50
180	34	143TC and 145TC	7/8	7/8	3/16 x 3/32	6.75	4.84	1.59	6.75	.16		1.30	4.50
210	100	182TC and 184TC	1-1/8	1-1/8	1/4 x 1/8	8.83	6.20	2.00	9.05	.27	4 Equally Spaced 1/2-13 UNC on 7.25" Dia. B.C.	1.570	8.50

* G Dimension = Electrical Connection

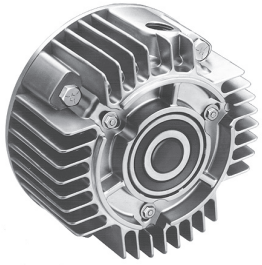
† **NOTE:** Unit includes two model 50 power supplies (120 VAC input) part number **032408**

SELECTION/DIMENSIONS

DODGE®

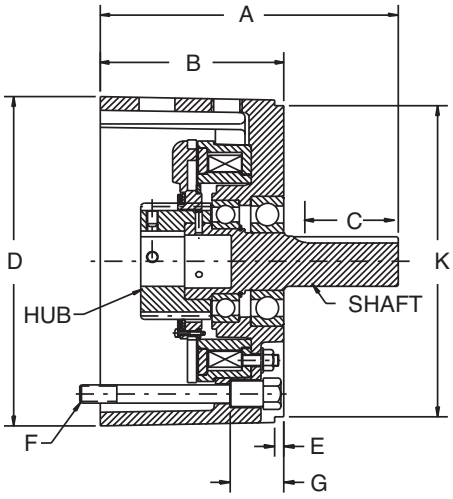
Clutch/Brake Modules

DMCBO



DMCBX

The DMCBO mounts and operates in a manner similar to DMCCB, but as a power-on brake only. Brake ratings are the same as the DMCCB. Dimensionally, the DMCBO is shorter axially from C-face to output shaft. The DMCBX power-on brake is designed to be mounted on a double shafted C-face motor. It is shorter axially than comparable power-off brakes and provides the advantages of C-face mounting in space restricted applications. Sizes and ratings are the same as the DMCBO brakes.



Brake Only Module
(Style without Shaft Not Shown)

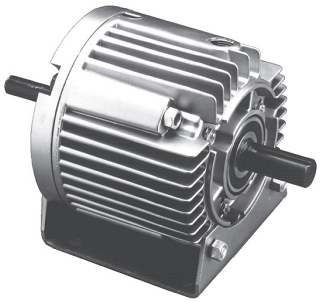
Part Numbers		Static Torque (Lb.-Ft.)	Coil Voltage		
			90 VDC	24 VDC	6 VDC
C-Face Brake Only	DMCBO-50	22	**028120**	**028123**	**028121**
	DMCBO-100	34	**028920**	**028923**	**028921**
	DMCBO-180	34	**028220**	**028223**	**028221**
	DMCBO-210	100	**028320**	**028323**	**028321**
	DMCBO-256	100	**028820**	**028823**	**028821**
C-Face Brake Only (No Shaft)	DMCBX-50	22	**028125**	**028128**	**028126**
	DMCBX-180	34	**028225**	**028228**	**028226**
	DMCBX-210	100	**028325**	**028328**	**028326**
	DMCBX-256	100	**028825**	**028828**	**028826**

Size	Static Torque (Lb.-Ft.)	C-Face Frame Size	Hub Dia.	Output Shaft Dia.	Keyway	A Max	B	C	D Max	E Max	F	G*	K
DMCBO-50	22	56C	5/8	5/8	3/16x3/32	5.18	3.28	1.59	6.75	.16	4 Equally Spaced 3/8-16 UNC on 5.875" Dia. B.C.	1.30	4.50
DMCBX-50	22	56C	5/8	-	3/16x3/32	3.30	3.28	-	6.75	.16		1.30	4.50
DMCBO-100	34	56C	5/8	5/8	3/16x3/32	5.18	3.28	1.59	6.75	.16	4 Equally Spaced 3/8-16 UNC on 5.875" Dia. B.C.	1.30	4.50
DMCBO-180	34	143TC and 145TC	7/8	7/8	3/16x3/32	5.18	3.28	1.59	6.75	.16		1.30	4.50
DMCBX-180				-		3.30		-					
DMCBO-210	100	182TC and 184TC	1-1/8	1-1/8	1/4X1/8	7.65	5.02	2.00	9.00	.27	4 Equally Spaced 1/2-13UNC on 7.25" Dia. B. C.	1.57	8.50
DMCBX-210				-		5.17		-					
DMCBO-256	100	213TC and 215TC	1-3/8	1-3/8	3/16x5/32	8.04	5.02	2.50	9.00	.27		1.57	8.50
DMCBX-256				-		4.92		-					

* G Dimension = Electrical Connection

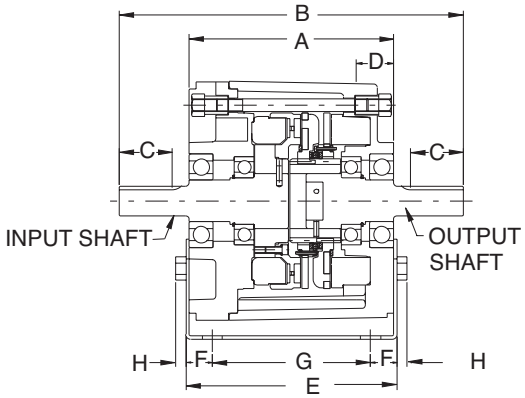
DODGE®

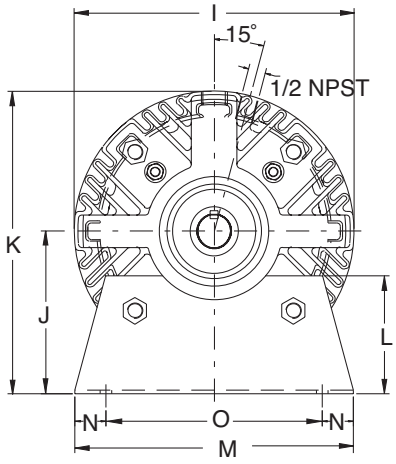
Clutch/Brake Modules



DMSCB & DMSCO

The DMSCB clutch/brake module is rated identically to the C-face version, but is mounted on a base with standard shaft input and output. It can be direct coupled or linked by belt drive to motor and driven equipment. The DMSCO mounts and operates in a manner similar to the DMSCB, but as a clutch only. Clutch ratings and dimensions of both units are identical.





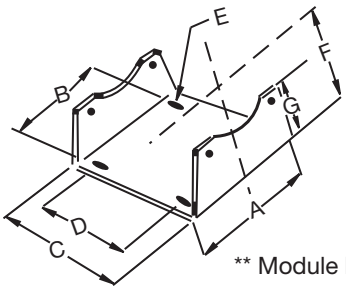
Part Numbers		Static Torque (Lb.-Ft.)	Coil Voltage		
			90 VDC	24 VDC	6 VDC
Base Mount	DMSCB-50	22	**028130**	**028133**	**028131**
Clutch &	DMSCB-180	34	**028230**	**028233**	**028231**
Brake	DMSCB-210	100	**028330**	**028333**	**028331**
Base Mount	DMSCO-50	22	**028140**	**028143**	**028141**
Clutch	DMSCO-180	34	**028240**	**028243**	**028241**
Only	DMSCO-210	100	**028340**	**028343**	**028341**

Size	Static Torque (Lb.-Ft.)	Shaft Dia.	Keyway	A	B	C Min	D*	E	F	G	H	I Max	J	K	L	M	N	O
50	22	5/8	3/16 x 3/32	5.72	9.49	1.59	1.30	5.70	0.85	4	0.34	6.75	3.50	6.87	2.00	6	0.50	5.00
180	34	7/8			9.49	1.59							4.50	7.87	3.00			
210	100	1-1/8	1/4 x 1/8	7.71	12.97	2.00	1.57	8.20	1.09	6	0.44	9.05	5.25	9.78	3.37	9	0.62	7.75

* D Dimension - Electrical Connection

DMS Series Module Bases

Style	Size	Base Part Number
Module Base	DM-50-B	**028180**
	DM-180-B	**028280**
	DM-210-B	**028380**



Size	A	B	C	D Nom	E (Slot)	F	G
DM-50-B	6.00	5.00	5.70	4.00	.75 x.40	3.50	2.00
DM-180-B	6.00	5.00	5.70	4.00	.75 x.40	4.50	3.00
DM-210-B	9.00	7.75	8.20	6.00	.75 x.53	5.25	3.80

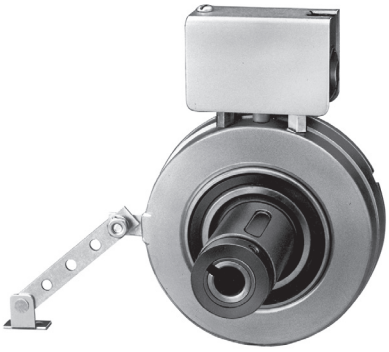
** Module base sold separately

FEATURES/BENEFITS

DODGE®

Shaft Mounted Clutches & Brakes

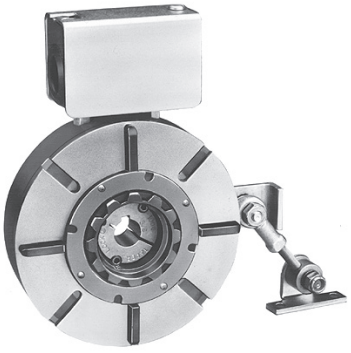
IEC SERIES - Shaft Mounted Clutches



DODGE IEC Electric Clutches are engineered to mount on standard motor shafts or thru shafts. These clutches are designed to accept standard sheaves, sprockets & gears. The product features include:

- **Mounting Flexibility**-Offered in bore sizes from 1/2” to 1-3/8”
- **Torque Range**-Rating from 22 lb-ft. to 175 lb-ft. handling from 1/50 to 7-1/2 HP @ 1800 RPM. Units are pre-burnished at the factory.
- **Easy Installation**-Sheaves, sprockets, gears or other standard power transmission components mount directly to the clutch hub.
- **Conduit Box** meets Industry Standards-C-UL-UL.
- **Long Life**-Minimal Maintenance-Integral splined armature and fan designed for maximum cooling.
- **DYNA-GAP**-Automatic Wear Compensation.
- **Maintenance**- Friction surfaces easily replaced.

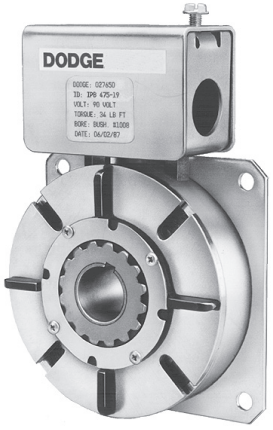
IEB SERIES - Shaft Mounted Power-On Brakes



DODGE IEB Electric Brakes are engineered to mount on standard motor shafts or thru shafts.

- **Mounting Flexibility**-Offered in bore sizes from 1/2” to 1-11/16”
- **Torque Range**-Rating from 22 lb-ft. to 175 lb-ft. handling from 3/4 to 20 HP @1800 RPM. Units are pre-assembled at the factory.
- **Conduit Box** meets Industry Standards-C-UL-UL.
- **Long Life**-Minimal Maintenance-Integral splined armature and fan designed for maximum cooling.
- **DYNA-GAP**-Automatic Wear Compensation

IPB SERIES - Flange Mounted Brakes



DODGE IPB Electric Brakes are equipped with flange for ease of mounting to any suitable mounting surface.

- **Mounting Flexibility**-Offered in bore sizes from 1/2” to 1-3/8”
- **Torque Range**-Rating from 22 lb-ft. to 100 lb-ft. handling from 3/4 HP to 10 HP@ 1800 RPM.
- **Conduit Box** meets Industry Standards-CUL-UL.
- **Long Life**-Minimal maintenance-Integral splined armature and fan designed for maximum cooling.
- **DYNA-GAP**-Automatic wear compensation.

Shaft Mounted Clutches & Brakes

SPECIFICATION

The Shaft Mounted Series of Clutches and Brakes are factory assembled, tested, and pre-burnished. They are engineered and ready to mount on standard motor shafts or thru shafts. The IPB brake is flange mounted on a bulkhead, suitable frame, or on the motor. They are long life and minimal maintenance with an integral splined armature with fan designed for maximum cooling.

HOW TO ORDER

Shaft Mounted Clutches & Brakes are ordered by specifying the unit size, bore size (or bushing size if Taper-Lock), and voltage. Part numbers are found on the selection pages for each type of unit. Refer to the part number when ordering.

NOMENCLATURE

I EC - 375

Integral HP

Style
- EC = Electric Shaft Mounted Clutch
- EB = Electric Shaft Mounted Brake
- PB = Electric Flange Mounted Brake

Unit Size (Outside Dia.)
- 375 = 3.75”
- 475 = 4.75”
- 650 = 6.50”
- 825 = 8.25”

SELECTION/DIMENSIONS

Shaft Mounted Clutches & Brakes

1. Determine the horsepower and the speed at the clutch or brake.
2. Choose proper size based on motor HP and operating speed.
3. Check to ensure the maximum allowable cycles per minute rating is not exceeded by consulting the charts in the Engineering/Technical section.

IEC Series/RPM

HP	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	4500	5000
1/50																					
1/20																					
1/12									IEC-375												
1/8																					
1/6																					
1/4																					
1/2																					
3/4									IEC-475												
1																					
1-1/2																					
2									IEC-650												
3																					
5									IEC-825												
7-1/2																					

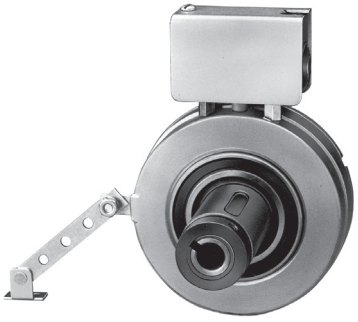
IEB and IPB* Series/RPM

HP	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	4500	5000
1/12																					
1/8																					
1/6																					
1/4									IEB-375/IPB-375												
1/3																					
1/2																					
3/4																					
1																					
1-1/2									IEB-475/IPB-475												
2																					
3									IEB-650/IPB-650												
5																					
7-1/2									IEB-825*												
10																					
15																					
20																					
25																					
30																					
40																					

* IPB selection through size 650

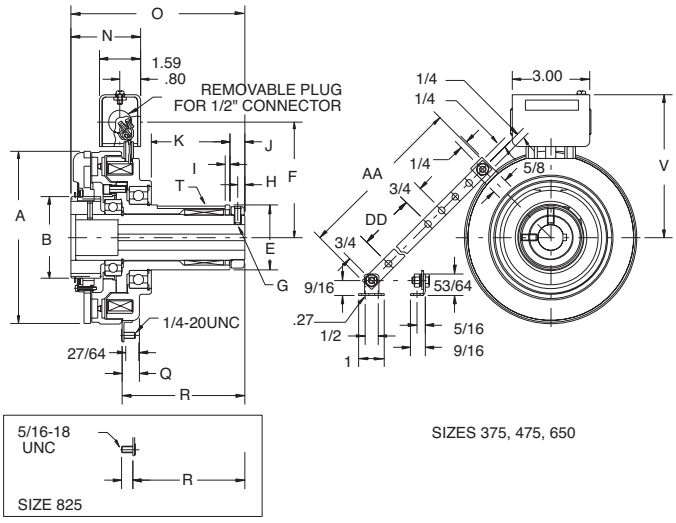
SELECTION/DIMENSIONS

Shaft Mounted Clutches & Brakes



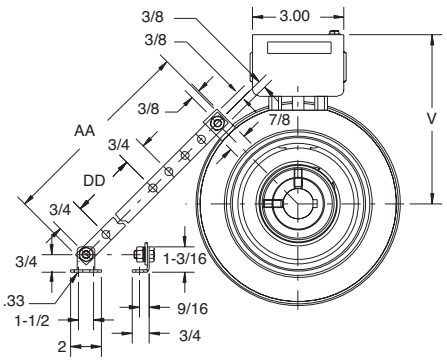
IEC SERIES

IEC Series Shaft Mounted Clutches are factory assembled, tested, preburnished and ready to mount on standard motor shafts. Sheaves, sprockets, gears or other power transmission components can be mounted directly on the clutch hub extension with standard DODGE TAPER-LOCK® bushings.



Part Numbers

Unit Size	Voltage	Bore Size							
		1/2"	5/8"	3/4"	7/8"	1	1- 1/8"	1- 1/4"	1 -3/8"
IEC-375	90 VDC	**027500**	**027501**						
	24 VDC	**027506**	**027507**						
	6 VDC	**027502**	**027503**						
IEC-475	90 VDC		**027600**	**027601**	**027602**				
	24 VDC		**027609**	**027610**	**027611**				
	6 VDC		**027603**	**027604**	**027605**				
IEC-650	90 VDC					**027700**	**027701**	**027702**	**027703**
	24 VDC					**027712**	**027713**	**027714**	**027715**
	6 VDC					**027704**	**027705**	**027706**	**027707**
IEC-825	90 VDC					**027806**	**027800**	**027801**	**027802**
	24 VDC					**027812**	**027813**	**027814**	**027815**
	6 VDC					**027807**	**027803**	**027804**	**027805**



SIZE 825

IEC Series Dimensions

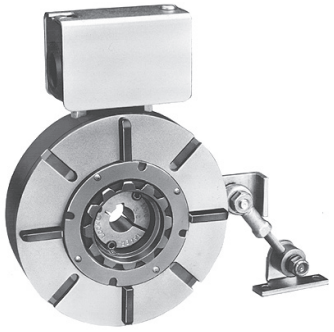
Size	Bore ±.001	Keyway	Static Torque Lb-Ft	A Max	B Max	E Dia	F	G Set Screw	H	I	J	K	N Max	O Max	Q	R	T Keyway	V Max	W	AA	DD
IEC-375	1/2 5/8	1/8 x 1/16 3/16 x 1/16*	22	4.08	1.70	1.375 1.3735	3.20	#10-24	.18	.22	.35	2.10	2	4.65	.60	3	5/16x3/16*	4.23	2.44	5	1.50
IEC-475	5/8 3/4 7/8	3/16 x 3/32 3/16 x 3/32 3/16 x 3/32*	34	5.17	2.20	1.625 1.6235	3.78	1/4-20	.28	.20	.58	2.39	2.10	5.30	.60	3.53	3/8x1/16*	4.98	2.98	5	1.50
IEC-650	1 1-1/8 1-1/4 1-3/8	1/4 x 1/8 1/4 x 1/8 1/4 x 1/8 5/6 x 3/32*	100	6.68	3.17	2.500 2.4985	4.47	1/4-20	.27	.19	.56	3.08	2.69	6.72	.52	4.61	5/8x3/32*	5.66	3.73	10◆	6.50
IEC-825	1 1-1/8 1-1/4 1-3/8	1/4 x 1/8 1/4 x 1/8 1/4 x 1/8 5/16x3/32*	175	8.43	3.17	2.500 2.4985	5.35	1/4-20	.27	.19	.56	3.08	2.81	7.01	-	4.19	5/8x3/32*	6.54	5.06	17◆	2.88

◆ Tab location on IEC-650 45° counterclockwise from top; tab location on IC-825 45° clockwise from top

* Non-standard keyway - keys furnished with clutch

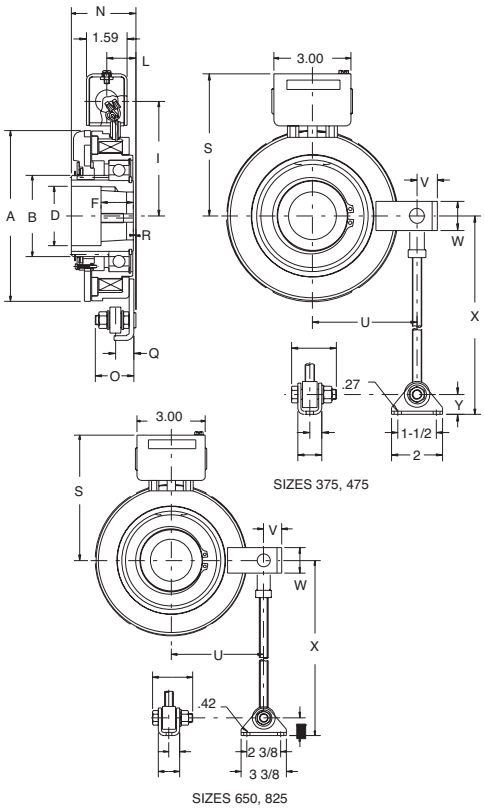
SELECTION/DIMENSIONS

Shaft Mounted Clutches & Brakes



IEB SERIES

IEB Series Shaft Mounted Power-On Brakes offer a wide selection of bore sizes with the use of the DODGE TAPER-LOCK bushings. The anti-rotation torque arm can be mounted in any location around the shaft for further application flexibility.



Part Numbers

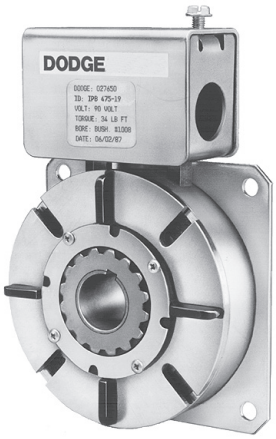
Unit Size	Voltage	Bore Size			
		1/2"	5/8"	TAPER-LOCK	
IEB-375	90 VDC	**027550**	**027551**		
IEB-375	24 VDC	**027556**	**027557**		
IEB-375	6 VDC	**027552**	**027553**		
IEB-475	90 VDC			**027650**	TAPER-LOCK
IEB-475	24 VDC			**027653**	#1008
IEB-475	6 VDC			**027651**	1" Max.
IEB-650	90 VDC			**027750**	TAPER-LOCK
IEB-650	24 VDC			**027753**	#1310
IEB-650	6 VDC			**027751**	1-7/16" Max.
IEB-825	90 VDC			**027850**	TAPER-LOCK
IEB-825	24 VDC				#1615
IEB-825	6 VDC			**027851**	1-11/16" Max.

* TL Bushing sold separately

Size	Bore	Keyway	Static Torque Lb-Ft.	A Max.	B	D	F	I	L	N Max.	O	Q	R Max.	S	U	V	W	X Max.	Y
IEB-375	1/2 5/8	1/8 x 1/16 3/16 x 3/32	22	4.08	1.70	.98	1.66	3.34	.90	2.25	1.00	.33	.15	4.45	2.52	.66	1.00	8	.69
IEB-475	TAPER-LOCK Bushing #1008 1" Max.		34	5.17	2.20	1.45	1.00	3.88	.75	1.88	1.00	.33	.15	4.98	3.05	.78	1.00	10	.69
IEB-650	TAPER-LOCK Bushing #1310 1-7/16" Max.		100	6.65	3.17	2.30	1.27	4.55	1.13	2.51	1.31	.80	.09	5.74	4.06	.78	1.13	11.78	.78
IEB-825	TAPER-LOCK Bushing #1615 1-11/16" Max.		175	8.39	3.17	2.25	1.63	5.42	1.18	2.72	1.31	.80	-	6.61	4.81	.84	1.13	11.78	.78

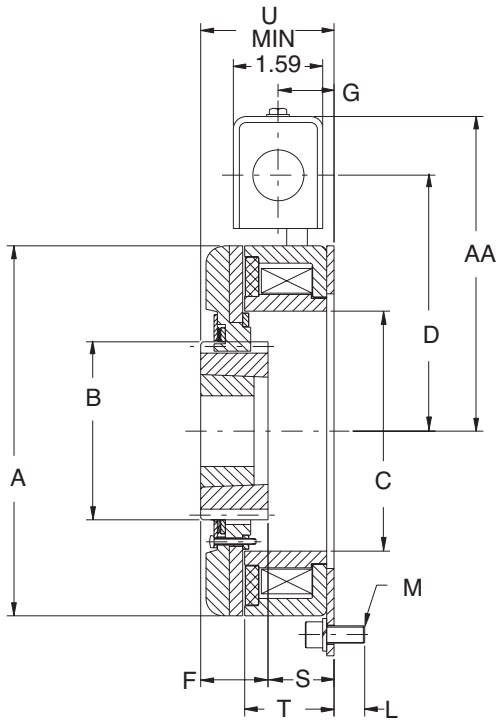
SELECTION/DIMENSIONS

Shaft Mounted Clutches & Brakes



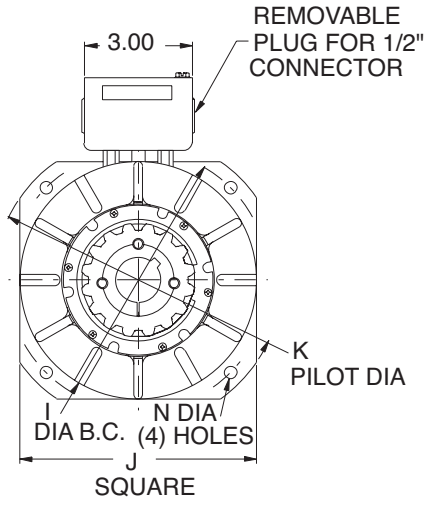
IPB SERIES

IPB Series Flange Mounted Power-On Brakes operate similar to the FB Series brake. The brake magnet/flange can be mounted to any suitable mounting surface.
Armature mounts to load shaft using DODGE TAPER-LOCK bushings.



Unit	Voltage Size	Bore Size				
		1/2"	5/8"	3/4"	7/8"	TAPER-LOCK
IPB-375	90 VDC	**029900**	**029901**	**029902**	**029903**	
	24 VDC	**029918**	**029919**	**029920**	**029921**	
	6 VDC	**029909**	**029910**	**029911**	**029912**	
IPB-475	90 VDC					**029904** TAPER-LOCK
	24 VDC					**029922** #1008
	6 VDC					**029913** 1" Max.
IPB-650	90 VDC					**029905** TAPER-LOCK
	24 VDC					**029923** #1610
	6 VDC					**029914** 1-11/16" Max.

* TL Bushing sold separately

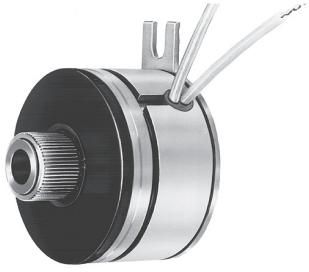


Size	Bore	Keyway	Static Torque (Lb.-Ft.)	A Max	B	C	D	F	G	I	J Sq.	K	S	T	U Min.	M	L Max.	AA*	N	P
IPB-375	1/2	1/8x1/16	22	4.08	1.70	2.62	3.34	1.66	.78	5.00	4.25	5.625	1.04	1.15	2.36	4.45	.61	1/4-20 UNC	.280	4.00
	5/8	3/16x3/32																		
	3/4	3/16 x 3/32										5.623							.300	
	7/8	3/16 x 3/32																		
IPB-475	Bushing 1008-1 1" Max.		34	5.17	2.20	3.15	3.88	1.00	.88	5.88	5.00	6.500	.97	1.31	2.23	4.98	.52	3/8-16 UNC	0.389	4.00
												6.498							0.409	
IPB-650	Bushing 1610 1-3/8" Max.		100	6.65	3.17	4.27	4.55	1.20	.99	7.25	6.50	8.000	1.17	1.59	2.37	5.74	.55	5/16-18 UNC	0.338	4.00
												7.998							0.358	

* Screw not included

FEATURES/BENEFITS

Fractional HP Clutches & Brakes

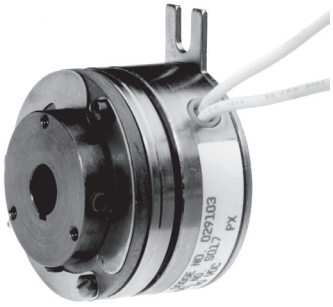


SL SERIES

BSL SERIES

SL & BSL SERIES ELECTRIC CLUTCHES

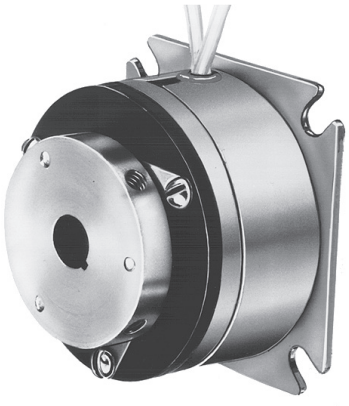
- Bearing Mounted
- Couples 2 Parallel Shafts
- Sl Has 9 Sizes For Shaft Diameters 3/16-3/4”
- Bsl Has 2 Sizes For Shaft Diameters 1/2-1”
- Protective Zinc Chromate Plating



SO SERIES

SO SERIES ELECTRIC CLUTCH-COUPLINGS

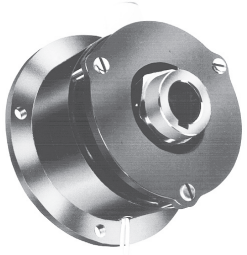
- Couples In-Line Shafts
- Zinc Chromate Plating For Corrosion Resistance
- 9 Sizes For Shaft Diameters 3/16-1”



FB SERIES

FB SERIES POWER ON BRAKES

- Power-On Brake, Engages When Voltage Is Applied, Releases When Voltage Is Turned Off
- 9 Sizes For Shaft Diameters 3/16-1”



FSB SERIES

FSBR SERIES

FSB AND FSBR SERIES POWER OFF BRAKES

FSB

- Flange Mounted
- Engages When Voltage Is Removed
- 7 Sizes For Shaft Diameters 3/16-3/4”
- Non-Asbestos, Non-Lead Friction Material For Long-Life And Quiet Operation

FSBR

- Designed For Applications Requiring Minimal Space
- 5 Sizes For Shaft Diameters 5/16-3/4”
- Non-Asbestos, Non-Lead Friction Material For Long-Life And Quiet Operation

Fractional HP Clutches & Brakes

SPECIFICATION

The Fractional HP product offerings include three shaft mounted clutches and three flange mounted brakes. In the shaft mounted line, the SL and BSL series are used to couple two parallel shafts, and the SO series is used to couple two in-line shafts. They are engineered for easy installation, and incorporate a zero backlash armature hub assembly. In the flange mounted line, the FB series is "power-on" and the FSB and FSBR series are "power-off".

HOW TO ORDER

Fractional HP Clutches and Brakes are ordered by specifying the type of unit, size, voltage and bore size. Part numbers are found on the selection pages for each type of unit. Refer to the part number when ordering.

NOMENCLATURE

SL 15 - 90 x 38

TYPE

SL	Shaft Mounted Clutch
BSL	Ball Bearing Mounted Clutch
SO	Shaft Mounted Clutch Coupling
FB	Flange Mounted Brake
FSB	Fail Safe (Power-off) Brake
FSBR	Fail Safe (Power-off) Brake Reverse Mount

SIZE (Approximate O.D. of Unit)

VOLTAGE

24 VOLT
90 VOLT
* Other Voltages Available by Special Order

BORE SIZE

PT Component Quick References
Couplings
Clutches and Brakes
FLEXIDYNE
Fluid Couplings
TORQUE-TAMER
Bushings

SELECTION

Fractional Hp Clutches & Brakes

Power-On Clutch & Brake Selection

1. Determine the motor horsepower required (or torque required for sizes 08-15) and speed at the clutch location. For optimum performance, the clutch should be mounted on the highest speed shaft.
2. Using the Selection Chart, identify the proper clutch size-where the shaft speed intersects the HP (or torque) required.
3. Where rapid cycling occurs, check the Allowable Cycles Chart below. If the allowable cycle rate is exceeded, consult DODGE Engineering.
4. Specify the voltage and shaft size when ordering.
5. For optimum performance, use a properly sized control.

Allowable Cycles/Minute*

Unit Size	RPM	Inertia (Lb-In2)				Unit Size	RPM	Inertia (Lb-In2)			
		5	10	50	100			50	100	500	1000
08	225	300	200	30	12	19	225	200	120	20	8
	900	30	12	2	1		900	9	5	1	-
11	225	-	300	60	30	22	225	250	150	25	10
	900	45	20	3	2		900	12	6	1	-
15	225	-	350	120	60	26	225	300	200	30	12
	900	60	30	6	3		900	20	9	2	1
17	225	-	-	150	100	30	225	350	250	40	20
	900	80	40	7	4		900	25	12	3	1
						42	225	-	300	60	30
							900	30	20	4	2

* Chart intended as a guide. For other speeds and inertias, consult DODGE

For SL, BSL, SO Series

Torque Lb-In★	Shaft Speed At Clutch (Rpm)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
0.50								08												
1.00																				
1.50																				
2.00																				
2.50										11										
3.00																				
3.50																				
4.00																				
4.50																				
5.00										15										
5.50																				
6.00																				
6.50																				
7.00																				

★ Slightly higher torque ratings may be allowable for some speeds. Consult DODGE

SELECTION

HP vs. RPM (Sizes 17 thru 42) - Selection Chart

HP	Shaft Speed At Clutch (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
1/50																				
1/20													17							
1/12																				
1/8												19								
1/6											22									
1/4											26									
1/3																				
1/2											30									
3/4											42									
1																				
1 1/2																				
2																				
3																				
5																				
7-1/2																				
10																				

For FB Series:
Torque Rating vs. RPM (Sizes 08 thru 15)- Selection Chart

Torque Lb-In ★	Shaft Speed At Clutch (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
0.5								08												
1.0																				
1.5																				
2.0																				
2.5										11										
3.0																				
3.5																				
4.0																				
4.5																				
5.0										15										
5.5																				
6.0																				
6.5																				
7.0																				

★ Slightly higher torque ratings may be allowable for some speeds. Consult DODGE.

HP vs. RPM (Sizes 17 thru 42)-Selection Chart

HP	Shaft Speed At Clutch (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
1/50																				
1/20																				
1/12												17								
1/8																				
1/6																				
1/4											19									
1/3																				
1/2											22									
3/4											26									
1																				
1 1/2											30									
2											42									
3																				
5																				
7 1/2																				
10																				

SELECTION

Fractional HP Clutches & Brakes

1. Determine the motor horsepower required and speed at the brake location. For optimum performance, the brake should be mounted on the highest speed shaft.
2. Using the Selection Chart, identify the proper brake size-where the shaft speed intersects the HP required.
3. Where rapid cycling occurs, check the Allowable Cycles Chart below. If the allowable cycle rate is exceeded, consult DODGE Engineering.
4. Specify the voltage and shaft size when ordering.
5. For optimum performance, use a properly sized control.

FSB Allowable Cycles/Minutes*

Unit Size	RPM	Inertia (Lb-In2)				Unit Size	RPM	Inertia (Lb-In2)			
		1	5	10	50			10	50	100	500
01	1800	60	12	6	1	35	1800	25	5	2.50	0.50
	3600	15	3	1.50	-		3600	5	1	0.50	-
03	1800	80	16	8	2	50	1800	25	5	2.50	0.50
	3600	20	4	2	-		3600	5	1	0.50	-
07	1800	150	30	15	3	100	1800	50	10	5	1
	3600	40	8	4	3		3600	12	2.50	1.20	-
15	1800	150	30	15	3						
	3600	40	8	4	0.80						

* Chart intended as guide. For other speed and inertias, consult DODGE

For FSB Series:
Torque Rating vs. RPM (Sizes 001 thru 007) - Selection

Torque Lb-In	Shaft Speed At Brake (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
0.50											1									
0.75																				
1.00																				
2.00											3									
2.50																				
2.75																				
3.00																				
5.00																				
6.25											7									
6.50																				
6.75																				
7.00																				

HP vs. RPM (Sizes 17 thru 42) - Selection

HP	Shaft Speed At Brake (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
1/50																				
1/20																				
1/12											15									
1/8																				
1/6																				
1/4																				
1/3											35									
1/2																				
3/4											50									
1																				
1-1/2											100									
2																				
3																				
5																				
7-1/2																				
10																				

DODGE®

Fractional HP Clutches & Brakes

For FSBR Series

HP	Shaft Speed At Brake (RPM)																			
	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1800	2000	2400	3000	3600	4000	5000
1/50																				
1/20																				
1/12											7									
1/8																				
1/6											15									
1/4																				
1/3																				
1/2											35									
3/4											50									
1																				
1-1/2											100									
2																				
3																				
5																				
7-1/2																				
10																				

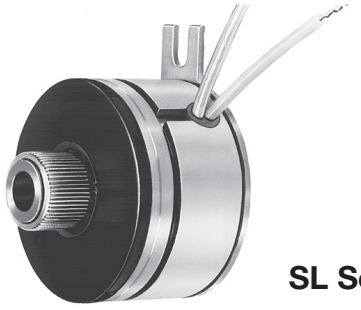
FSBR Allowable Cycles/Minutes ★

Unit Size	RPM	Inertia (Lb.- in.2)			
		5	10	50	100
07	1800	30	15	3	-
	3600	8	4	0.8	-
15	1800	30	15	3	-
	3600	8	4	0.8	-
35	1800	50	25	5	2.5
	3600	10	5	1	0.5
50	1800	50	25	5	2.5
	3600	10	5	1	0.5
100	1800	100	50	10	5
	3600	25	12	2.5	1.2

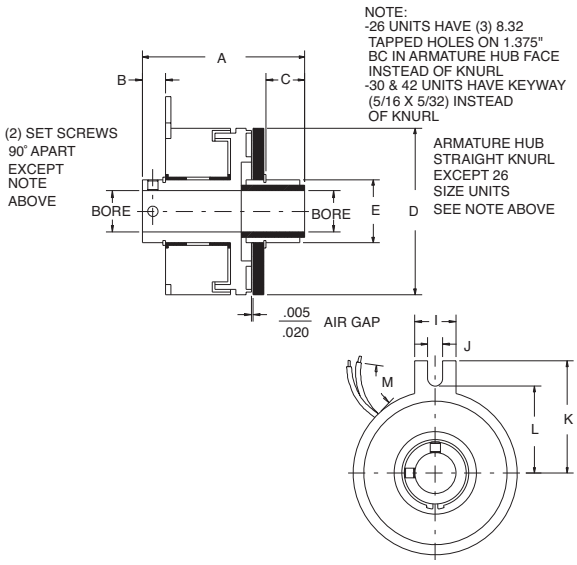
★ Chart intended as a guide. For other speeds and inertias, consult DODGE.

FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION/DIMENSIONS PAGE PT2-30	ENGINEERING/TECHNICAL PAGE PT2-38

SELECTION/DIMENSIONS



SL Series



The Shaft Mounted SL SERIES clutches are engineered for easy installation. Nine sizes are available for shaft diameters from 3/16" to 3/4".The SL Armature Hub will accept sheaves, sprockets, gears or other typical power transmission drive components. SL Clutches are plated for protection from the environment. The SL units have a zero backlash armature hub assembly.

SL Series Dimensions

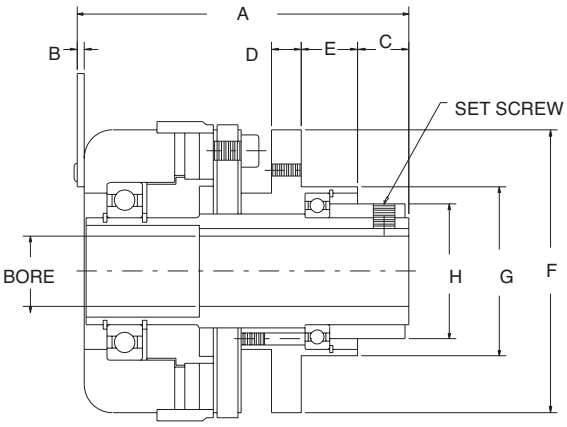
Size	Part No.	Volts DC	Bore In. ★	Rotor Keyway	Static Torque (Lb.-In.)	A Max	B Nom	C Max	D Max	E ±.002	I Max	J Min	K Nom	L Nom	M ±.500
SL-08	**024000**	90	3/16	set screws	2.5	1.370	.191	.410	.903	.507	.305	.094	0.625	.445	12.00
	024001		1/4												
	024002	24	3/16												
	024003		1/4												
SL-11	**024100**	90	1/4	set screws	6	1.409	.147	.396	1.160	.506	.380	.122	0.875	.585	12.00
	024101		5/16												
	024102	24	1/4												
	024103		5/16												
SL-15	**024200**	90	5/16	set screws	10	1.695	.275	.303	1.500	.630	.520	.180	1.120	.750	12.00
	024201		3/8												
	024202	24	5/16												
	024203		3/8												
SL-17	**024300**	90	5/16	set screws	15	1.823	.279	.380	1.780	.630	.505	.184	1.325	.975	12.00
	024301		3/8												
	024302	24	5/16												
	024303		3/8												
SL-19	**024400**	90	3/8	3/32x3/64 set screws	25	1.948	.279	.465	2.000	.756	.505	.184	1.325	.975	12.00
	024401		1/2												
	024402	24	3/8	3/32x3/64 set screws											
	024403		1/2												
SL-22	**024500**	90	3/8	3/32x3/64	50	2.160	.281	.432	2.260	.756	.442	.170	1.515	1.160	18.00
	024501		1/2	1/8x1/16											
	024502	24	3/8	3/32x3/64											
	024503		1/2	1/8x1/16											
SL-26	**024600**	90	1/2	1/8x1/16	80	2.464	.277	.472	2.645	.999	.510	.190	1.750	1.465	18.00
	024602	24	1/2	1/8x1/16											
SL-30	**024700**	90	1/2	1/8x1/16	125	2.800	.250	.830	3.268	1.374	.442	.170	2.050	1.695	terminals
	024701		5/8	3/16x3/32											
	024702	24	1/2	1/8x1/16											
	024703		5/8	3/16x3/32											
SL-42	**024800**	90	1/2	1/8x1/16	250	3.820	.320	1.560	4.270	1.374	.645	.190	2.500	2.312	terminals
	024801		5/8	3/16x3/32											
	024802		3/4	3/16x3/32											
	024803	24	1/2	1/8x1/16											
	024804		5/8	3/16x3/32											
	024805		3/4	3/16x3/32											

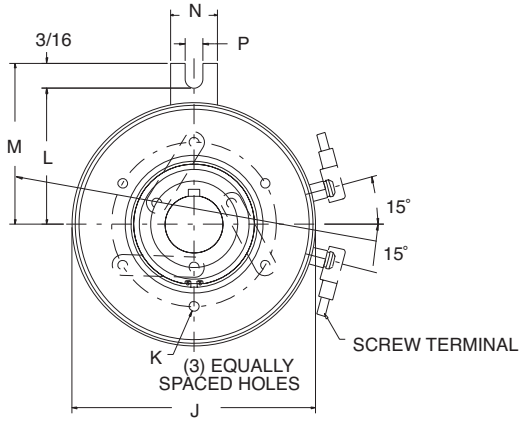
★ Consult DODGE for other bore sizes

SELECTION/DIMENSIONS

BSL Series

The Shaft Mounted BSL SERIES clutches are engineered for easy installation. Two sizes are available for shaft diameters from 1/2" to 1". The BSL Armature Hub will accept sheaves, sprockets, gears or other typical power transmission drive components. BSL Clutches are plated for protection from the nvironment. The BSL units have a zero backlash armature hub assembly.





BSL Series Dimensions

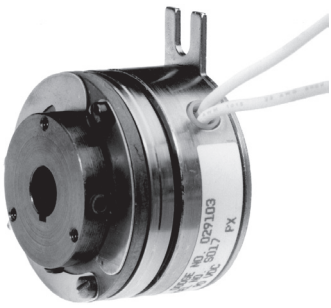
Size	Part No.	Volts	★ Bore	Rotor Keyway	Set Screw	Static Torque (Lb-In.)	A Max	B Nom	C Max	D Max
BSL-26	**024900**	90	1/2	1/8x1/16	#10-32	80	2.93	.06	.45	.265
	024901	90	5/8	3/16x3/32						
	024902	24	1/2	1/8x1/16						
	024903	24	5/8	3/16x3/32						
BSL-42	**025100**	90	7/8	3/16x3/32	1/4-28	250	3.35	.06	.41	.282
	025101	90	1	1/4x1/8						
	025102	24	7/8	3/16x3/32						
	025103	24	1	1/4x1/8						

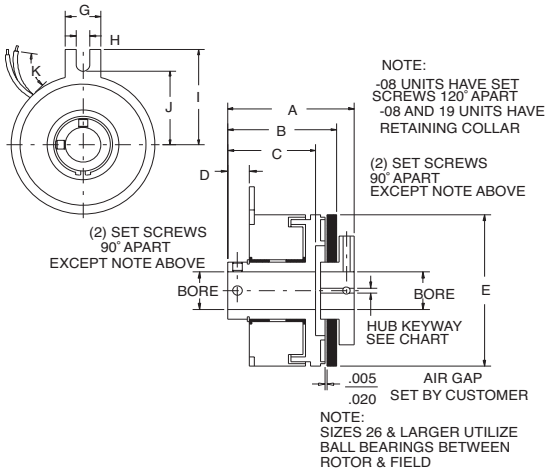
Size	E ±.005	F Max	G Pilot Dia.	H Max	J Max	K	L Max	M ±.015	N Max	P Min.
BSL-26	.50	2.505	1.499 1.497	1.195	2.65	(3) 6-32 on 1.790 B.C.	1.482	1.750	.510	.190
BSL-42	.673	4.015	3.000 2.998	1.82	4.27	(3) 1/4-20 on 3.500 B.C.	2.223	2.500	.545	.190

★ Consult DODGE for other bore sizes

FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION PAGE PT2-26	ENGINEERING/TECHNICAL PAGE PT2-38

SELECTION/DIMENSIONS





SO Series

The Shaft Mounted SO SERIES Clutches are engineered for easy installation. Nine sizes are available for shaft diameters from 3/16" to 1". SO Clutches are plated for protection from the environment and have a zero backlash armature hub assembly.

SO Series Dimensions

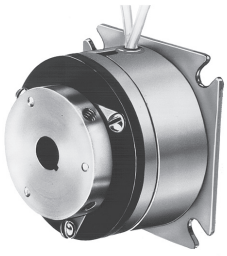
Size	Part No.	● Volts DC	Bore In. ★	Rotor Keyway	Static Torque (Lb.-In.)	A Max	B Max	C Max	D Max	E Max	G Max	H Min	I Nom	J Nom	K ±.500
SO-08	**029000**	90	3/16	set screws	2.5	1.059	.875	.763	.200	.903	.305	.094	.625	.445	12.0
	029001		1/4												
	029002	24	3/16												
	029003		1/4												
SO-11	**029004**	90	1/4	set screws	6	1.168	.933	.777	.164	1.160	.380	.122	.875	.585	12.0
	029005		5/16												
	029006	24	1/4												
	029007		5/16												
SO-15	**029008**	90	5/16	set screws	10	1.575	1.255	1.075	.295	1.500	.520	.180	1.120	.750	12.0
	029009		3/8												
	029010	24	5/16												
	029011		3/8												
SO-17	**029012**	90	5/16	1/16x1/32	15	1.605	1.311	1.060	.301	1.780	.505	.184	1.325	.975	12.0
	029013		3/8	3/32x3/64											
	029014	24	5/16	1/16x1/32											
	029015		3/8	3/32x3/64											
SO-19	**029016**	90	3/8	3/32x3/64	25	1.609	1.314	1.060	.301	2.000	.505	.184	1.325	.975	12.0
	029017		1/2	1/8x1/16											
	029018	24	3/8	3/32x3/64											
	029019		1/2	1/8x1/16											
SO-22	**029020**	90	3/8	3/32x3/64	50	1.989	1.578	1.273	.316	2.260	.442	.170	1.515	1.160	18.0
	029021		1/2	1/8x1/16											
	029022	24	3/8	3/32x3/64											
	029023		1/2	1/8x1/16											
SO-26	**029024**	90	1/2	1/8x1/16	80	2.115	1.754	1.444	.302	2.645	.510	.190	1.750	1.465	18.0
	029025		5/8	3/16x3/32											
	029026	24	1/2	1/8x1/16											
	029027		5/8	3/16x3/32											
SO-30	**029028**	90	1/2	1/8x1/16	125	2.130	1.795	1.390	.270	3.268	.442	.170	2.050	1.695	screw terminals
	029029		5/8	3/16x3/32											
	029031	24	1/2	1/8x1/16											
	029032		5/8	3/16x3/32											
SO-42	**029034**	90	1/2	1/8x1/16	250	2.570	2.050	1.625	.340	4.270	.645	.190	2.500	2.312	screw terminals
	029035		5/8	3/16x3/32											
	029036		3/4	3/16x3/32											
	029037		7/8	3/16x3/32											
	029038		1	1/4x1/8											
	029039	24	1/2	1/8x1/16											
	029040		5/8	3/16x3/32											
	029041		3/4	3/16x3/32											
	029042		7/8	3/16x3/32											
	029043		1	1/4x1/8											

● Other voltages available on request

★ Consult DODGE for other bore sizes

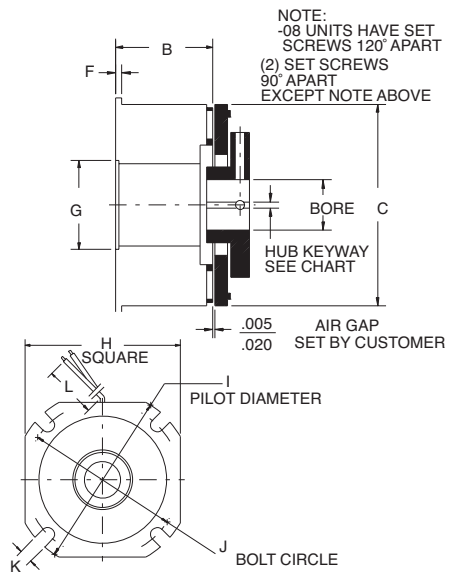
FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION PAGE PT2-26	ENGINEERING/TECHNICAL PAGE PT2-38

SELECTION/DIMENSIONS



FB Series

The FB Flange Mounted Electric Brakes are designed for easy installation. These power on brakes engage when voltage is applied and release when the voltageis turned off. FB Brakes are available in nine sizes in shaft diameters from 3/16” to 1”. These brakes can be used to accurately and repetitively decelerate inertial loads or to control web tension. (Contact application engineering for application assistance.) They incorporate zero backlash style armature assembly.



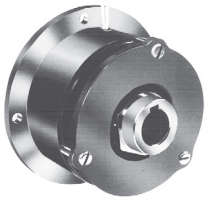
FB Series Dimensions

Size	Part No.	Volts DC	Bore In. ★	Nominal Keyway	Static Torque (Lb.-In.)	A Max	B Nom	C Max	F Max	G ±.001	H Max	I ±.001	J Nom	K Min	L ±.500
FB-08	**025200**	90	3/16	set screws	2.5	.885	.634	.905	.034	N.A.	.980	1.1995	1.030	.094	12.00
	025201		1/4												
	025202	24	3/16												
	025203		1/4												
FB-11	**025300**	90	1/4	set screws	6	.974	.650	1.160	.052	N.A	1.230	1.498	1.312	.123	12.00
	025301		5/16												
	025302	24	1/4												
	025303		5/16												
FB-15	**025400**	90	5/16	set screws	10	1.304	.867	1.500	.063	N.A.	1.567	1.999	1.750	.156	12.00
	025401		3/8												
	025402	24	5/16												
	025403		3/8												
FB-17	**025500**	90	5/16	1/16x1/32	15	1.269	.848	1.780	.064	0.751	1.943	2.436	2.125	.186	12.00
	025501		3/8	3/32x3/64											
	025502	24	5/16	1/16x1/32											
	025503		3/8	3/32x3/64											
FB-19	**025600**	90	3/8	3/32x3/64	25	1.33	.901	2.00	.062	0.751	1.943	2.436	2.125	0.186	12.00
	025601		1/2	1/8x1/16											
	025602	24	3/8	3/32x3/64											
	025603		1/2	1/8x1/16											
FB-22	**025700**	90	3/8	3/32x3/64	50	1.757	1.173	2.260	.096	1.001	2.322	2.873	2.500	0.160	18.00
	025701		1/2	1/8x1/16											
	025702	24	3/8	3/32x3/64											
	025703		1/2	1/8x1/16											
FB-26	**025800**	90	1/2	1/8x1/16	80	1.815	1.300	2.645	.064	1.062	2.630	3.499	3.125	0.182	18.00
	025801		5/8	3/16x3/32											
	025802	24	1/2	1/8x1/16											
	025803		5/8	3/16x3/32											
FB-30	**025900**	90	5/8	3/16x3/32	125	1.9	1.310	3.268	.097	1.751	3.200	4.186	3.750	0.182	terminals
	025901		3/4												
	025902	24	5/8												
	025903		3/4												
FB-42	**026000**	90	5/8	3/16x3/32	250	2.28	1.490	4.270	.097	1.875	4.255	5.624	5.000	0.276	terminals
	026001		3/4	3/16x3/32											
	026004		7/8	3/16x3/32											
	026005		1	1/4x1/8											
	026002	24	5/8	3/16x3/32											
	026003		3/4	3/16x3/32											
	026006		7/8	3/16x3/32											
	026007		1	1/4x1/8											

★ Consult DODGE for other bore sizes

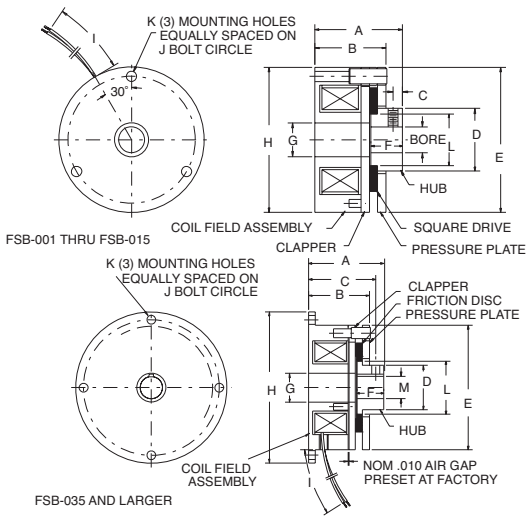
FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION PAGE PT2-26	ENGINEERING/TECHNICAL PAGE PT2-38

SELECTION/DIMENSIONS



FSB Series

FSB SERIES Power Off Brakes are designed to decelerate or park inertial loads when the voltage is turned off, either intentionally or accidentally (as in the case of a power failure). These units can be bulkhead or motor mounted and are available in seven torque ranges and shaft sizes 3/16" to 3/4". These units employ unique friction material for long life and quiet operation.

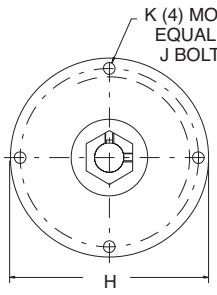


FSB Series Dimensions

Size	Part No.	Volts	Bore In.★	Nominal Keyway	Static Torque (Lb.-In.)	A Max	B Nom	C Nom	D Max	E Max	F Min	G Nom	H Max	I ±.500	J Nom	K Min
FSB-001	**026100**	90 DC	3/16	set screws	1	0.890	.710	.072	.510	1.485	.320	.280	1.375	12.0	1.180	.124
	026101	90 DC	1/4													
	026102	24 DC	3/16													
	026103	24 DC	1/4													
	026104	120 AC	3/16													
	026105	120 AC	1/4													
FSB-003	**026200**	90 DC	1/4	set screws	3	1.060	.870	.115	0.755	1.910	.380	.410	1.752	12.0	1.545	.124
	026201	90 DC	5/16													
	026202	24 DC	1/4													
	026203	24 DC	5/16													
	026204	120 AC	1/4													
	026205	120 AC	5/16													
FSB-007	**026300**	90 DC	5/16	1/16x1/32	7	1.400	1.200	1.255	0.722	2.465	.605	.781	2.436	12.0	2.125	.172
	026301	90 DC	3/8	3/32x3/64												
	026302	24 DC	5/16	1/16x1/32												
	026303	24 DC	3/8	3/32x3/64												
	026304	120 AC	5/16	1/16x1/32												
	026305	120 AC	3/8	3/32x3/64												
FSB-015	**026400**	90 DC	5/16	1/16x1/32	15	1.400	1.200	1.255	0.722	2.465	.605	.781	2.436	12.0	2.125	0.172
	026401	90 DC	3/8	3/32x3/64												
	026402	24 DC	5/16	1/16x1/32												
	026403	24 DC	3/8	3/32x3/64												
	026404	120 AC	5/16	1/16x1/32												
	026405	120 AC	3/8	3/32x3/64												
FSB-035	**026500**	90 DC	1/2	1/8x1/16	35	2.090	1.920	1.960	1.000	3.010	.580	.891	3.500	18.0	3.125	0.200
	026501	90 DC	5/8	3/16x3/32												
	026502	24 DC	1/2	1/8x1/16												
	026503	24 DC	5/8	3/16x3/32												
	026504	120 AC	1/2	1/8x1/16												
	026505	120 AC	5/8	3/16x3/32												
FSB-050	**026600**	90 DC	1/2	1/8x1/16	50	2.090	1.920	1.960	1.000	3.010	.580	.891	3.500	18.0	3.125	0.200
	026601	90 DC	5/8	3/16x3/32												
	026602	24 DC	1/2	1/8x1/16												
	026603	24 DC	5/8	3/16x3/32												
	026604	120 AC	1/2	1/8x1/16												
	026605	120 AC	5/8	3/16x3/32												
FSB-100	**026800**	90 DC	5/8	3/16x3/32	100	2.320	2.080	2.100	.975	4.000	.555	1.188	5.250	18.0	4.750	0.216
	026801	90 DC	3/4													
	026802	24 DC	5/8													
	026803	24 DC	3/4													
	026804	120 AC	5/8													
	026805	120 AC	3/4													

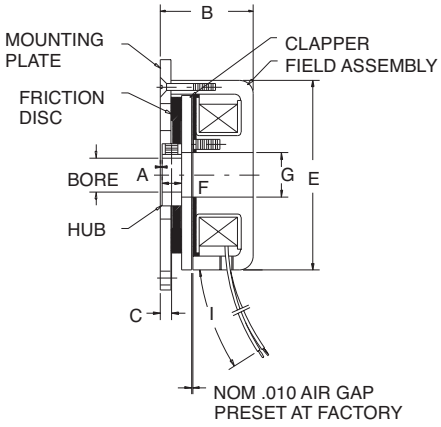
★ Consult DODGE for other bore sizes

FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION PAGE PT2-26	ENGINEERING/TECHNICAL PAGE PT2-38



FSBR Series

FSBR SERIES Power Off Brakes are designed for applications requiring minimum space or on motors with short shaft extensions. When mounted, the armature hub on these units is not exposed like the FSB series. These units are available in five torque ranges and shaft sizes from 5/16" thru 3/4". Unique friction material is employed for long wear life and quiet operation.



FSBR SERIES

FSBR Series Dimensions

Size	Part No.	Volts	Bore In. ★	Nominal Keyway	Static Torque (Lb.-In.)	A ● Max	B Nom	C Nom	E Max	F Min	G Nom	H Max	I .500	J Nom	K Min
FSBR-007	**026900**	90 DC	5/16	1/16x1/32	7	.062	.960	.115	2.260	.605	.781	3.235	12.0	2.844	.172
	026901	90 DC	3/8	3/32x3/64											
	026902	24 DC	5/16	1/16x1/32											
	026903	24 DC	3/8	3/32x3/64											
	026904	120 AC	5/16	1/16x1/32											
	026905	120 AC	3/8	3/32x3/64											
FSBR-015	**027000**	90 DC	5/16	1/16x1/32	15	.062	1.200	.115	2.400	.605	.945	3.235	12.0	2.844	.172
	027001	90 DC	3/8	3/32x3/64											
	027002	24 DC	5/16	1/16x1/32											
	027003	24 DC	3/8	3/32x3/64											
	027004	120 AC	5/16	1/16x1/32											
	027005	120 AC	3/8	3/16x3/32											
FSBR-035	**027100**	90 DC	1/2	1/8x1/16	35	.094	1.905	.239	2.810	.280	.891	3.500	18.0	3.125	.200
	027101	90 DC	5/8	3/16x3/32											
	027102	24 DC	1/2	1/8x1/16											
	027103	24 DC	5/8	3/16x3/32											
	027104	120 AC	1/2	1/8x1/16											
	027105	120 AC	5/8	3/16x3/32											
FSBR-050	**027200**	90 DC	1/2	1/8x1/16	50	.094	1.905	.239	2.810	.280	.891	3.500	18.0	3.125	.200
	027201	90 DC	5/8	3/16x3/32											
	027202	24 DC	1/2	1/8x1/16											
	027203	24 DC	5/8	3/16x3/32											
	027204	120 AC	1/2	1/8x1/16											
	027205	120 AC	5/8	3/16x3/32											
FSBR-100	**027400**	90 DC	5/8	3/16x3/32	100	.140	1.870	.610	4.000	.575	1.188	5.250	18.0	4.750	.216
	027401	90 DC	3/4												
	027402	24 DC	5/8												
	027403	24 DC	3/4												
	027404	120 AC	5/8												
	027405	120 AC	3/4												

● Required distance between Hub & Mounting surface

★ Consult DODGE for other bore sizes

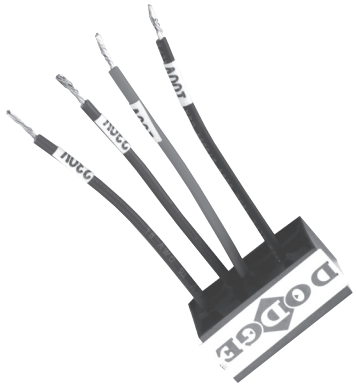
FEATURES/BENEFITS PAGE PT2-24	SPECIFICATION PAGE PT2-25	SELECTION PAGE PT2-26	ENGINEERING/TECHNICAL PAGE PT2-38

MODIFICATIONS/ ACCESSORIES

Power Supplies

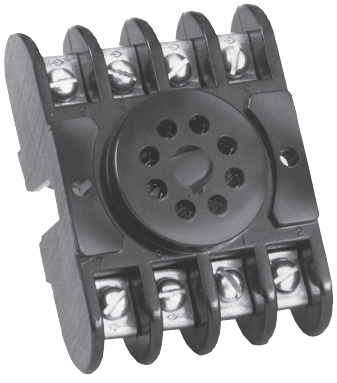
Model 50 - Conduit box Supply

- Controls one Brake or Clutch
- Input: 120 VAC; 50/60 Hz
- Output: 90 VDC
- Rating: 0.8 amps
- Full wave rectifier
- Dimensions: 5/8” H, 2” W, 1-3/8” D
- Part Number **032408**



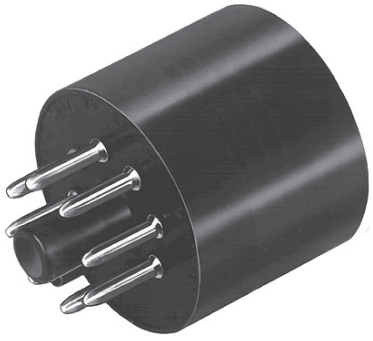
Model 75 - Conduit Box Supply

- Controls one Brake or Clutch
- Input: 230 VAC; 50/60 Hz, 1 Phase
- Output: 90 VDC Nominal
- Rating: 0.4 amp Maximum
- Dimensions: 0.62” H, 1.40” W, 0.90” D
- Part Number: **030336**



Octal Socket

- Socket used with Model 100, 200 and 250 power supplies
- Prewired
- U. L. approved
- Industry Standard design
- Dimensions: 3/4” H, 2 1/2” W, 2” D
- Part Number: **032401**



Model 100-Octal Base Mount

- Controls one brake or clutch
- Used with octal socket
- Full wave rectifier
- Input: 120 VAC; 50/60 Hz
- Output: 90 VDC
- Rating: 1.5 amps
- Dimensions: 2” H, 2” W, 2” D
- Part Number: **032400**

Power Supplies

Model 200-Octal Base Mount w/Fuse

- Controls one brake and clutch, or two clutches or two brakes
- Input: 120 VAC; 50/60 Hz fused
- Output: 90 VDC
- Used with octal socket
- Full wave rectifier
- Rating: 1.5 amps
- Fused for overload protection
- Dimensions: 2 1/2, H, 2, W, 2, D
- Part Number: **032402**

Model 250 - Octal Base Mount

- Controls one Brake and Clutch; or two Clutches or two Brakes
- Used with Octal Socket
- Input: 115 VAC; 50/60 Hz
- Output: 15-90 VDC Nominal one unit, 90 VDC for the other unit
- Rating: 0.5 amp Maximum
- Dimensions: 2.88” H, 2.38” W, 1.75” D
- Part Number: **030337**

ENGINEERING/ TECHNICAL

Motor Brakes

Motor Brake Coil Data

DODGE D-Series motor brakes are equipped with DC voltage coils which are capable of a variety of nameplate voltage possibilities. Please consult Voltage Notes below the chart for these capabilities.

Coil Voltage	3 and 6 Ft.-Lb		10 thru 50 Ft.-Lb	
	Current Draw (Amps)	Resistance (Ohms)	Current Draw (Amps)	Resistance (Ohms)
115/230 VAC 60 Hz (1)	0.19	562	0.28	387
230/460 VAC 60 Hz (2)	0.10	2078	0.14	1550
287/575 VAC 60 Hz (3)	0.09	2987	0.12	2245
104/208 VAC 60 Hz (4)	0.24	384	0.31	290
190/380 VAC 50 Hz (5)	0.13	1341	0.19	923
250/500 VAC 50 Hz	0.10	2336	0.13	1793
48 VDC	0.48	100	0.58	82
24 VDC	0.97	24.70	1.14	21.70
12 VDC	1.95	6.16	2.24	5.40

Voltage News:

(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
(4) 104/208 VAC 50 or 60 Hz, 100/200 VAC 60 Hz 90-95 VDC
(5) 190/380 VAC 50 Hz, 260/400 VAC 60 Hz, 208/416 VAC 50 Hz

General Notes:

(1) Current and Resistance values are approximate only.
(2) Current and Resistance for other nameplate voltages may vary slightly. Consult DODGE Engineering for actual values
(3) Coil Resistance is measured between leads B4 and B5.

ELECTRICAL CONNECTIONS

Standard DODGE D-Series motor brakes operate on single phase, dual voltage AC.

Connections should be made per Chart 1 (similar chart is also included in a label on the brake). To change the operating voltage, simply change the wiring connections per Chart 1.

When changing brake wiring connections for operation at another voltage, be sure to verify the brake's compatibility with the voltage desired.

Consult Instruction Manual #499765 for complete details on Electrical Connections of DODGE D-Series motor brakes.

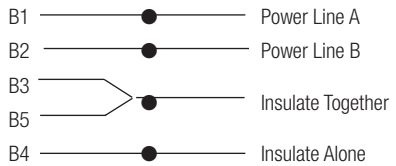
Chart 1

Voltage	Power Line A	Power Line B	Insulate Together	Insulate Alone
AC Voltage-Low (1)	B1	B2	B3 & B5	B4
AC Voltage-High (1)	B1 B5	B2	-	B3 B4
DC Voltage-Low	B1	B2	B3 & B5	B4

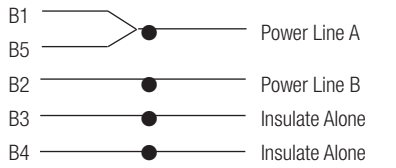
Notes:

(1) Unless specified, all brakes have dual voltage coils. For example, with a 230/460 VAC brake, low voltage = 230 VAC and high voltage = 460 VAC.

AC Voltage - Low and DC Voltage



AC Voltage - High



Clutch/Brake Modules

Technical Data

Module Size	Static Torque (Lb-Ft.)	Inertia (Lb-Ft.(2))		Unit Weight (Lbs.)	90 VDC				24 VDC				6 VDC			
					Clutch		Brake		Clutch		Brake		Clutch		Brake	
		Rotor & Hub	Armature & Shaft		Amps	Ohms	Amps	Ohms	Amps	Ohms	Amps	Ohms	Amps	Ohms	Amps	Ohms
DMCCB-50	22	.022	.017	11.8	.207	434	.196	460	.797	30.1	.800	30	3.23	.186	3.05	1.97
DMCCO-50		.022	.010	9.9	.207	434	---	---	.797	30.1	---	---	3.23	---	---	---
DMCBO-50		---	.009	6.1	---	---	.196	460	---	---	.800	30	---	---	3.05	1.97
DMCBX-50		---	.009	6.1	---	---	.196	460	---	---	.800	30	---	---	3.05	1.97
DMSCB-50		.023	.017	16.2	.207	434	.196	460	.797	30.1	.800	30	3.23	.186	3.05	1.97
DMSCO-50		.023	.010	14.3	.207	434	---	---	.797	30.1	---	---	3.23	.186	---	---
DMCCB-100	34	.050	.049	11.9	.208	432	.189	476	.805	29.8	.743	32.3	3.23	.186	2.91	2.06
DMCCO-100		.050	.027	10	.208	432	---	---	.805	29.8	---	---	3.23	.186	---	---
DMCBO-100		---	.026	6.2	---	---	.189	476	---	---	.743	32.3	---	---	2.91	2.06
DMCBX-100		---	.026	6.2	---	---	.189	476	---	---	.743	32.3	---	---	2.91	2.06
DMCCB-180	34	.051	.050	15.9	.208	432	.189	476	.805	29.8	.743	32.3	3.23	.186	2.91	2.06
DMCCO-180		.051	.028	12.5	.208	432	---	---	.805	29.8	---	---	3.23	.186	---	---
DMCBO-180		---	.027	7.2	---	---	.189	476	---	---	.743	32.3	---	---	2.91	2.06
DMCBX-180		---	.027	7.2	---	---	.189	476	---	---	.743	32.3	---	---	2.91	2.06
DMSCB-180		.049	.050	19.6	.208	432	.189	476	.805	29.8	.743	32.3	3.23	.186	2.91	2.06
DMSCO-180		.049	.028	16.2	.208	432	---	---	.805	29.8	---	---	3.23	.186	---	---
DMCCB-210	100	.233	.196	44.2	.390	231	.360	250	1.61	14.9	1.480	16.2	6.67	.900	6.59	0.91
DMCCO-210		.233	.113	38.2	.390	231	---	---	1.61	14.9	---	16.2	6.67	.900	---	---
DMCBO-210		---	.100	28	---	---	.360	250	---	---	1.480	---	---	---	6.59	0.91
DMCBX-210		---	.100	28	---	---	.360	250	---	---	1.480	---	---	---	6.59	0.91
DMSCB-210		.240	.190	59.5	.390	231	.360	250	1.61	14.9	1.480	16.2	6.67	.900	6.59	0.91
DMSCO-210		.240	.190	53.5	.390	231	---	---	1.61	14.9	---	16.2	6.67	.900	---	---
DMCCB-256	100	.230	.200	44.4	.390	231	.360	250	1.61	14.9	1.480	16.2	6.67	.900	6.59	0.91
DMCCO-256		.230	.110	38.4	.390	231	---	---	1.61	14.9	---	---	6.67	.900	---	---
DMCBO-256		---	.110	28.2	---	---	.360	250	---	---	1.480	16.2	---	---	6.59	0.91
DMCBX-256		---	.110	28.2	---	---	.360	250	---	---	1.480	16.2	---	---	6.59	0.91

Consult DODGE for other voltages

ENGINEERING/ TECHNICAL

DODGE®

Shaft Mounted Clutches & Brakes

IEC Series Shaft Mounted Clutches

Unit Size	Static Torque (Lb-Ft.)	Max RPM	Inertia (Lb-Ft.2)		90 VDC		24 VDC		6 VDC		Wt.(Lbs.)
			Rotor & Sleeve	Armature & Sleeve	Amps	Ohms	Amps	Ohms	Amps	Ohms	
IEC-375	22	5000	0.022	0.01	0.207	434	0.797	30.1	3.23	1.86	5.5
IEC-475	34	4500	0.052	0.027	0.208	432	0.805	29.8	3.23	1.86	9
IEC-650	100	3600	0.214	0.107	0.39	231	1.61	14.9	6.67	0.9	19.5
IEC-825	175	3600	0.417	0.268	0.405	222	1.66	14.5	5.41	1.11	29

Consult DODGE for other voltages.

IEB Series Shaft Mounted Brakes/IPB Series Flange Mounted Brakes

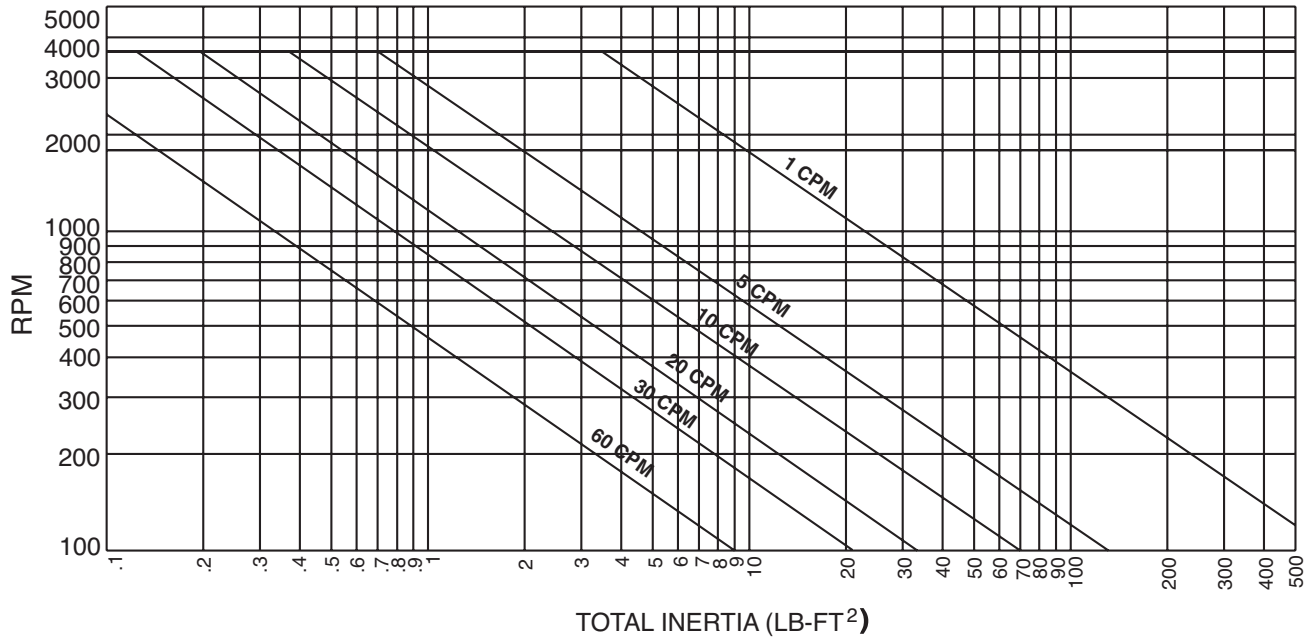
Unit Size	Static Torque (Lb-Ft.)	Max Speed RPM	Inertia (Lb-Ft2) Armature & Hub	90 VDC		24 VDC		6 VDC		Brake Wt. (Lbs.)	Bore Range (In.)	DODGE TAPER LOCK Bushing
				Amps	Ohms	Amps	Ohms	Amps	Ohms			
IEB/IPB-375	22	5000	.010	.196	460	.800	30.00	3.05	1.97	4	1/2" & 5/8"	N/A
IEB/IPB-475	34	4500	.029	.189	476	.743	32.30	2.91	2.06	6	1/2" to 1"	1008
IEB/IPB-650	100	3600	0.11	.360	250	1.48	16.20	6.59	0.91	11	1/2" to 1-7/16"	1310
IEB-825	175	3600	0.33	.405	222	1.66	14.50	5.41	1.11	19	1/2" to 1-11/16"	1615

Consult DODGE for other voltages.

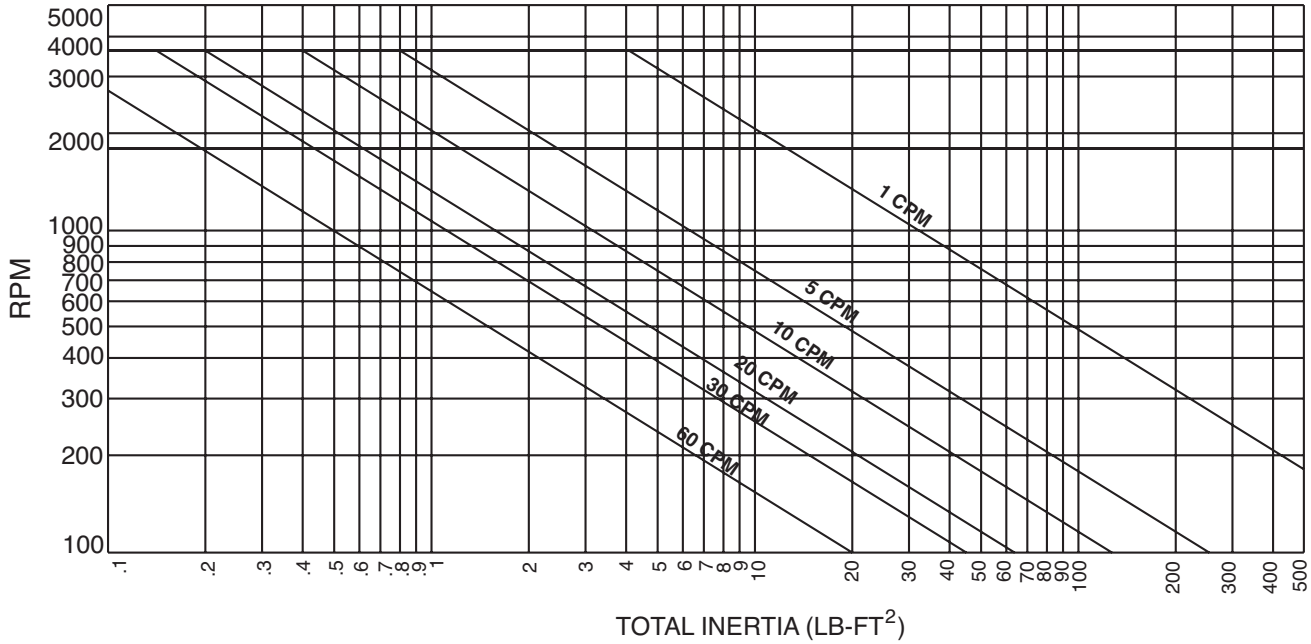
* See page CB-53 (1-1R)

Clutch/Brake Modules
ALLOWABLE CYCLE RATES

DMCCB-50



DMCCB-100



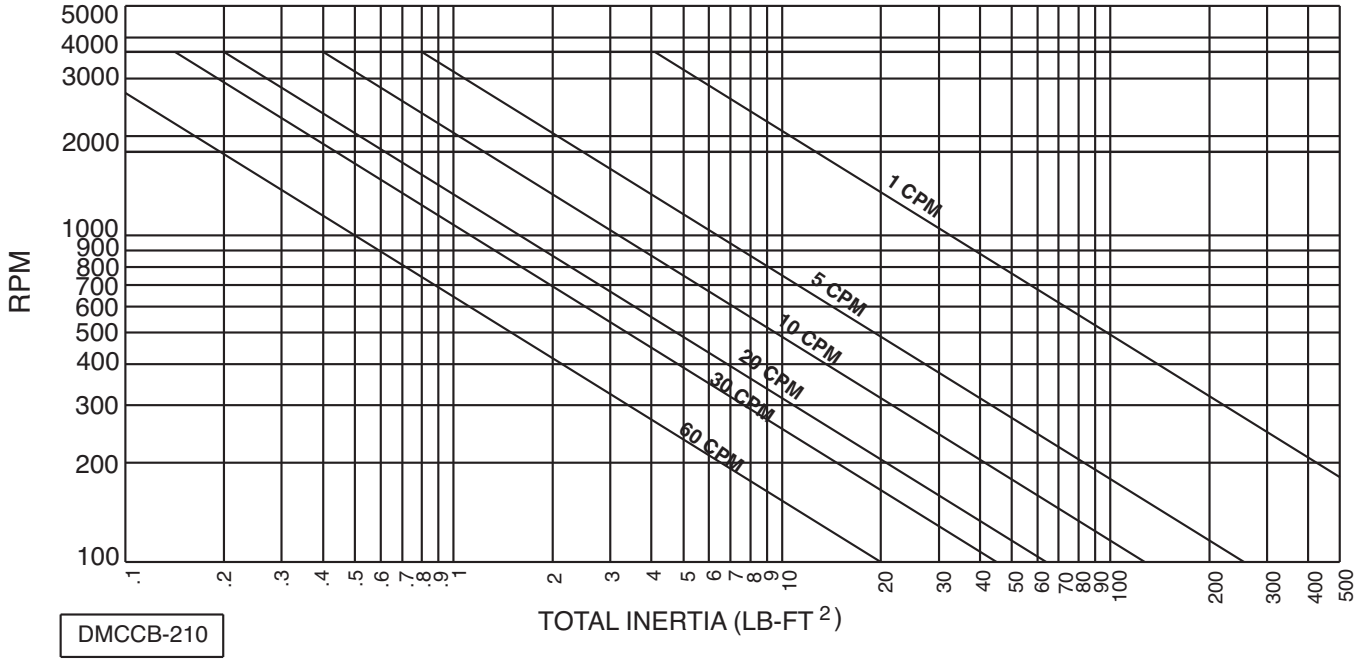
NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

ENGINEERING/ TECHNICAL

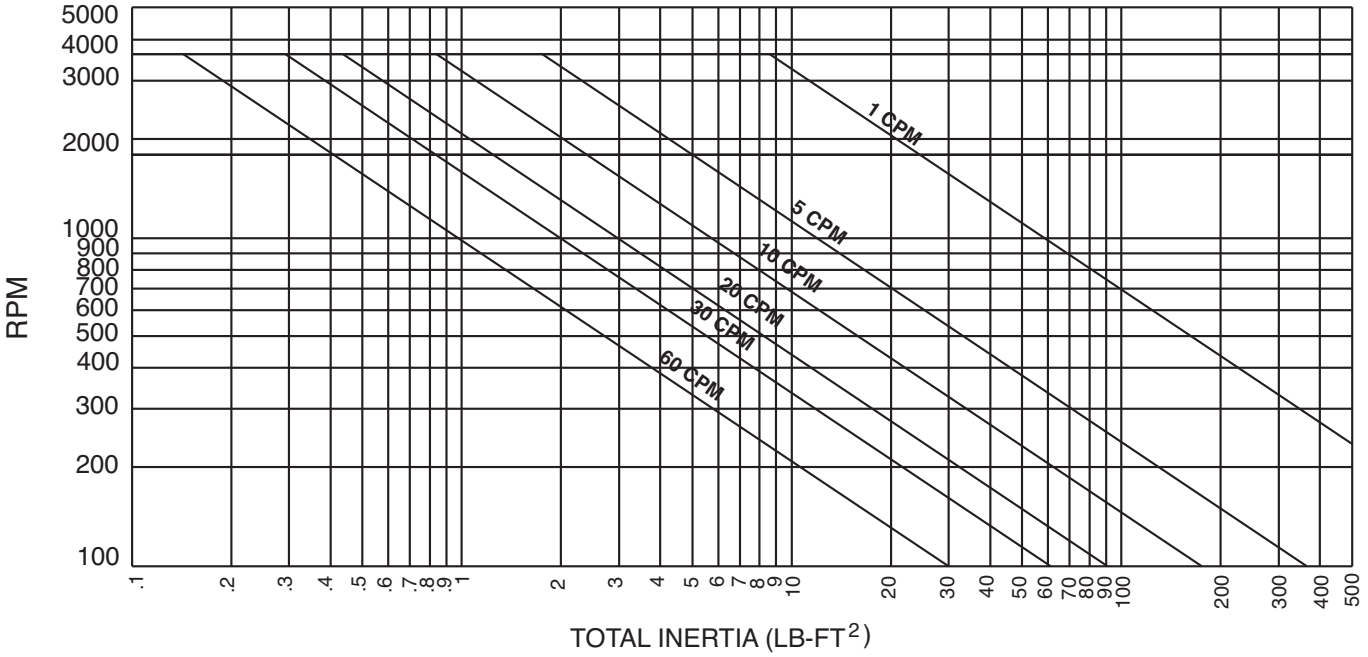
Clutch/Brake Modules

ALLOWABLE CYCLE RATES

DMCCB-180



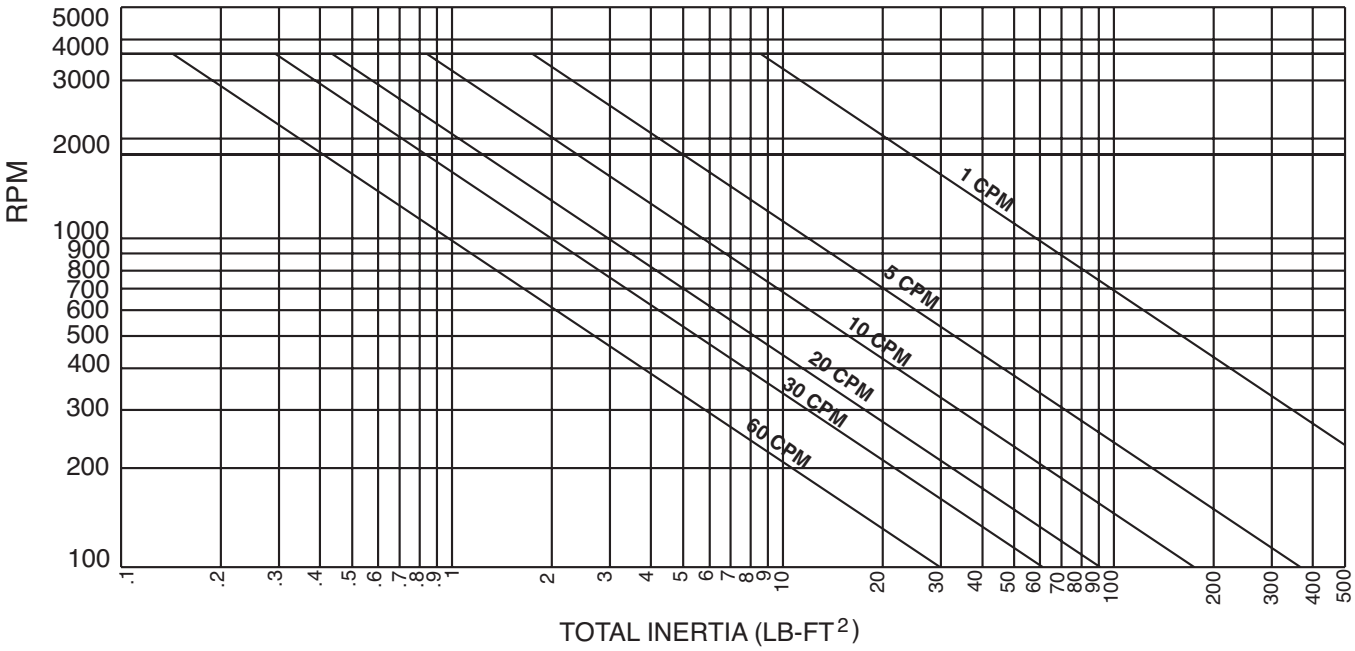
DMCCB-210



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

Clutch/Brake Modules
ALLOWABLE CYCLE RATES

DMCCB-256



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

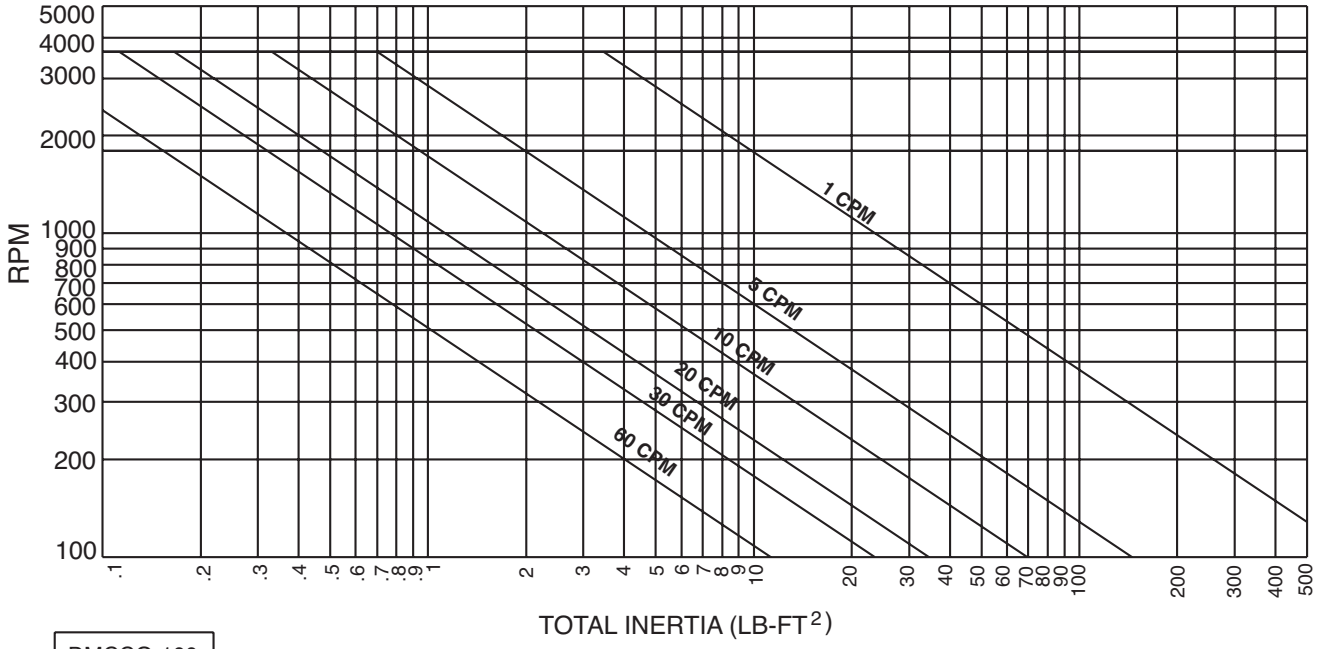
ENGINEERING/ TECHNICAL

DODGE®

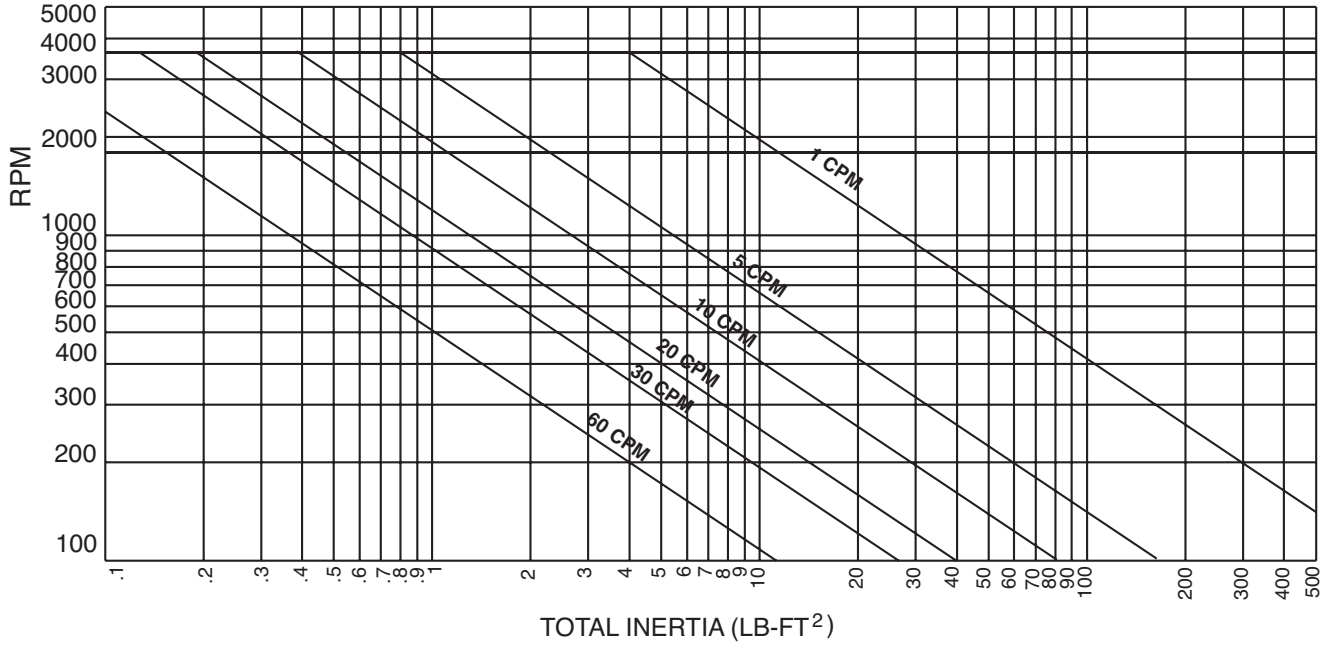
Clutch/Brake Modules

ALLOWABLE CYCLE RATES

DMCCO-50



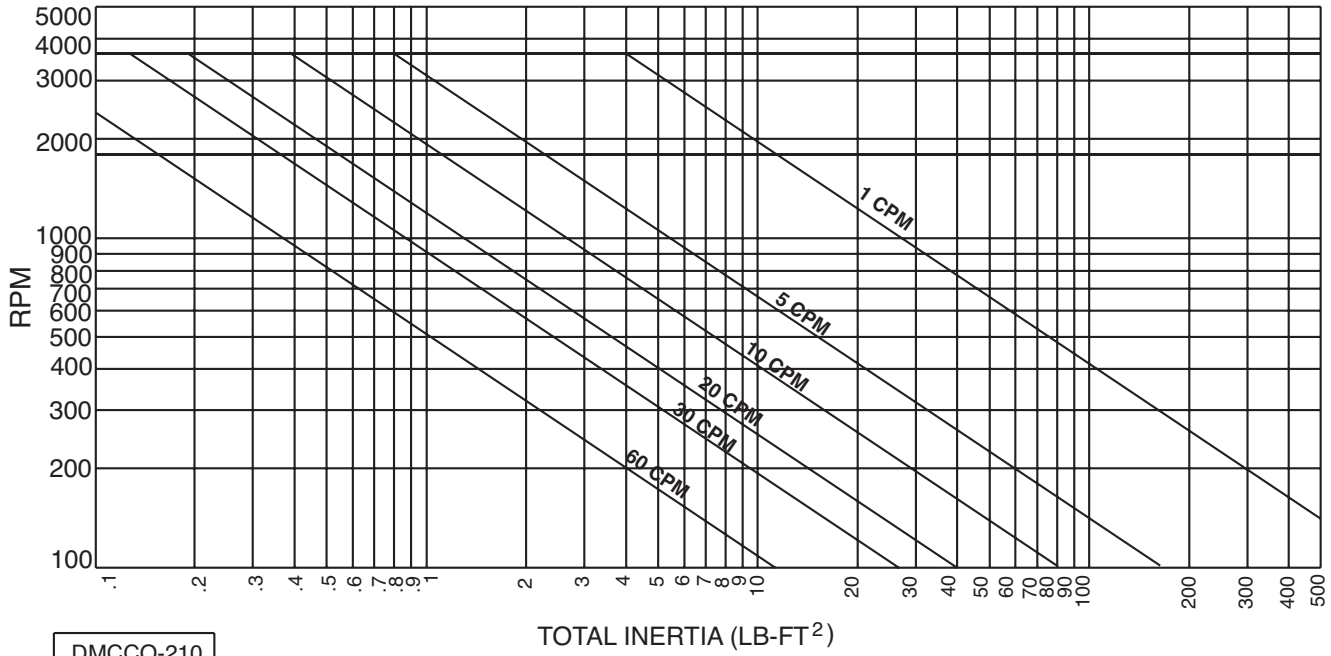
DMCCO-100



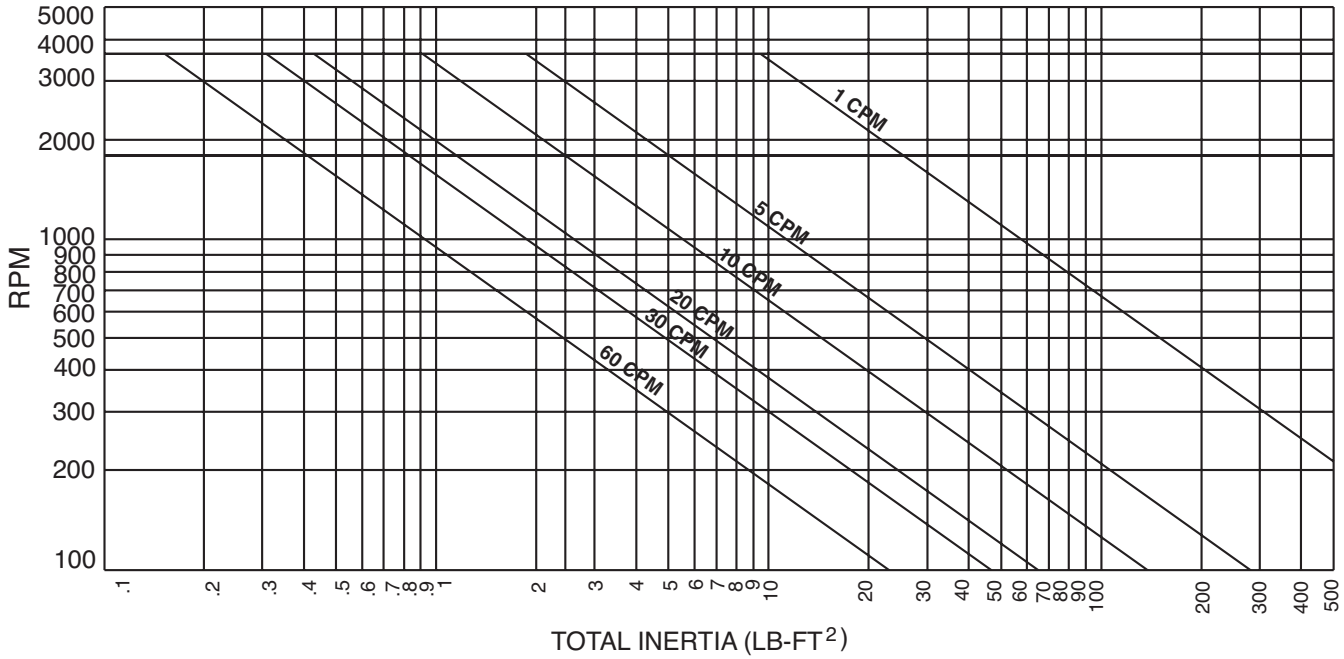
NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

Clutch/Brake Modules
ALLOWABLE CYCLE RATES

DMCCO-180



DMCCO-210



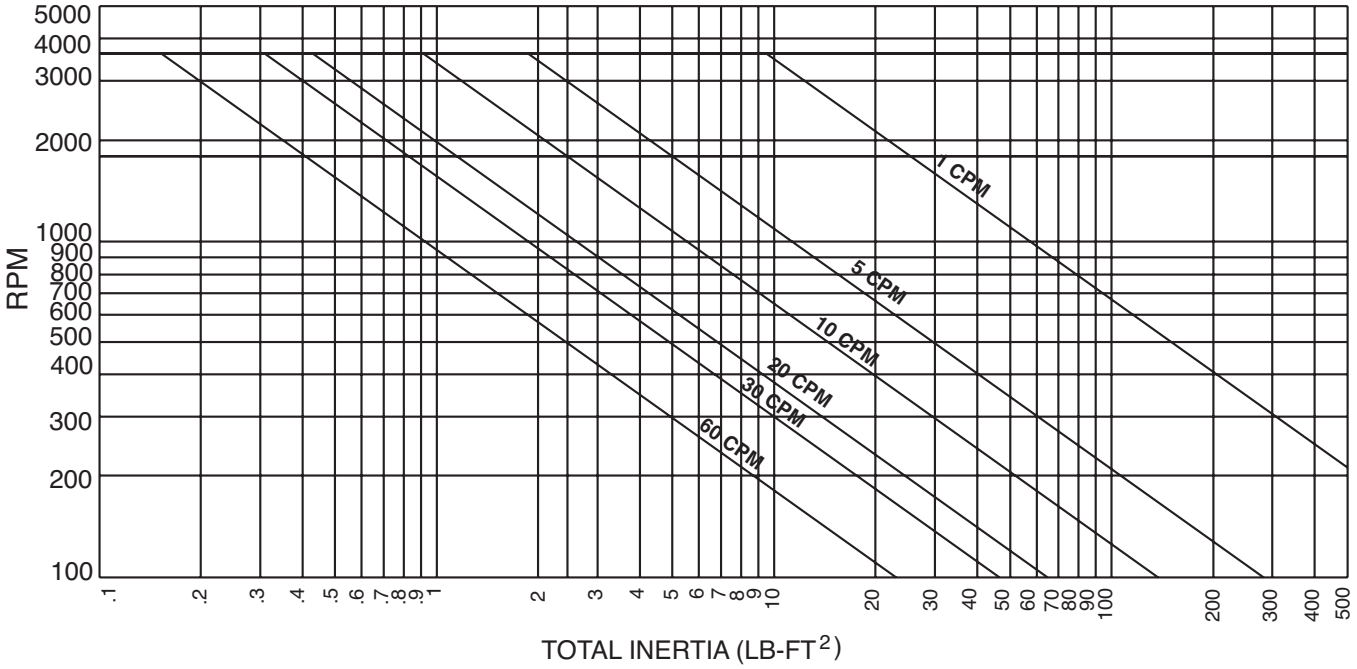
NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

ENGINEERING/ TECHNICAL

Clutch/Brake Modules

ALLOWABLE CYCLE RATES

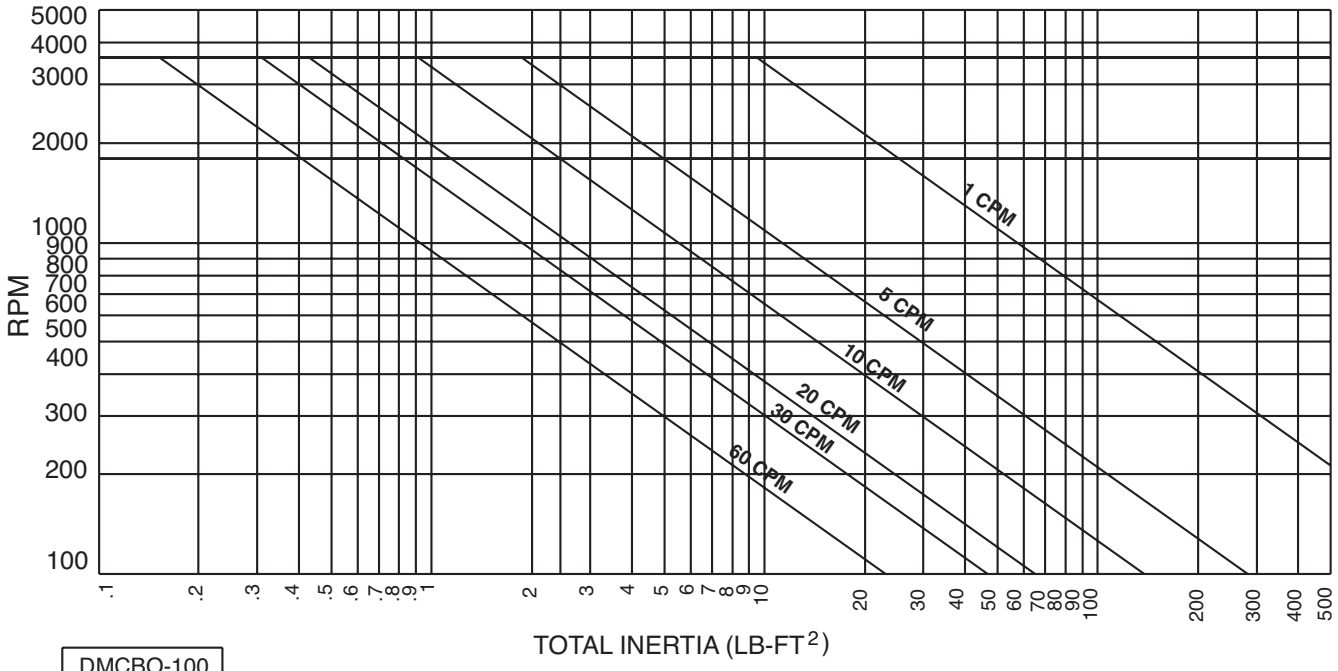
DMCCO-256



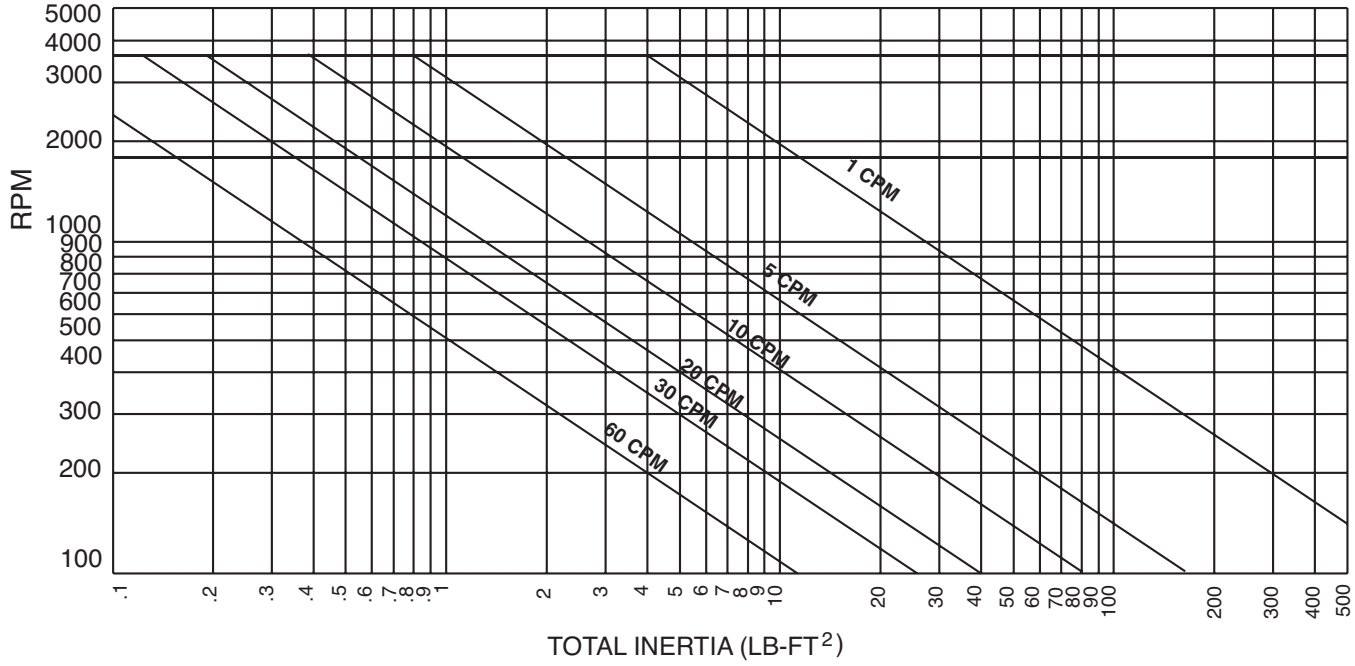
NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

Clutch/Brake Modules
ALLOWABLE CYCLE RATES

DMCBO-50



DMCBO-100



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

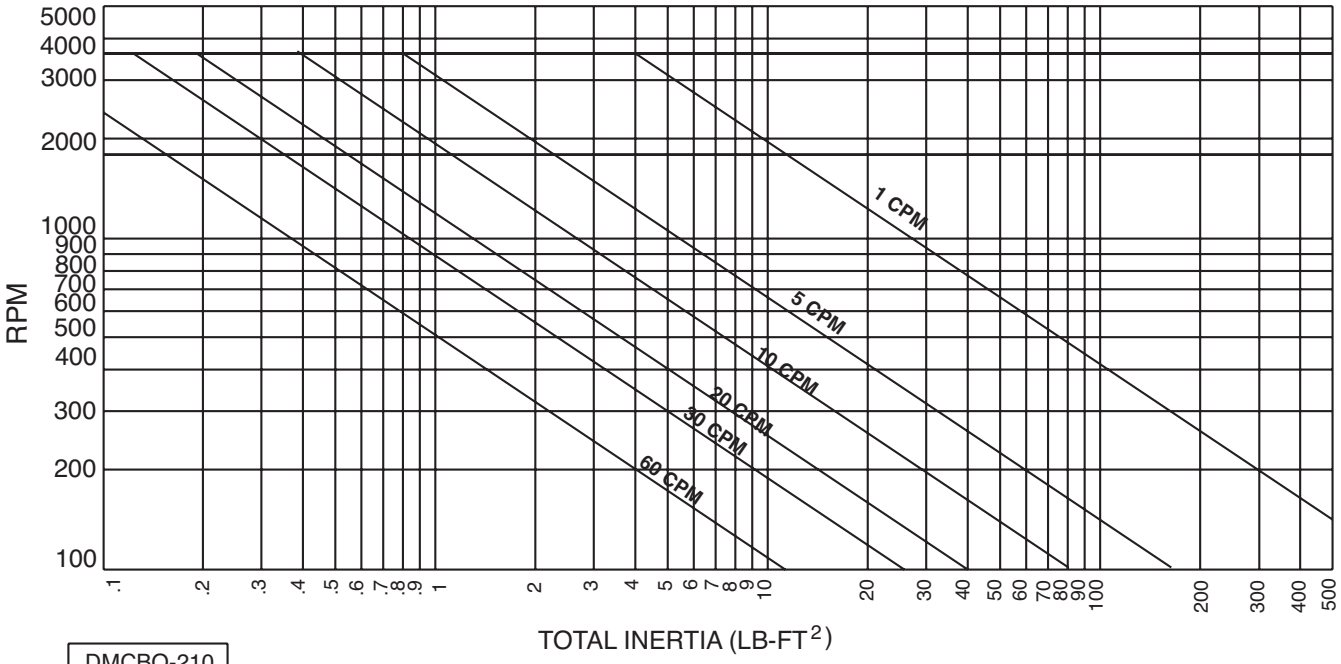
ENGINEERING/ TECHNICAL

DODGE®

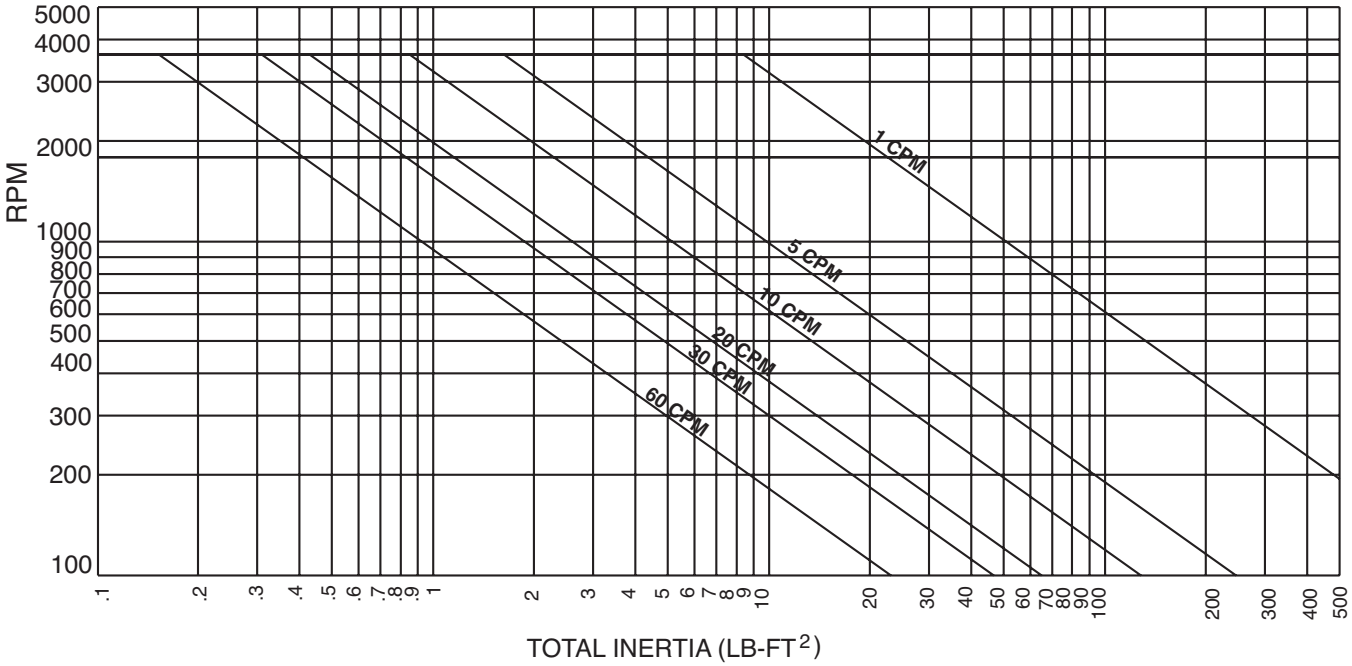
Clutch/Brake Modules

ALLOWABLE CYCLE RATES

DMCBO-180



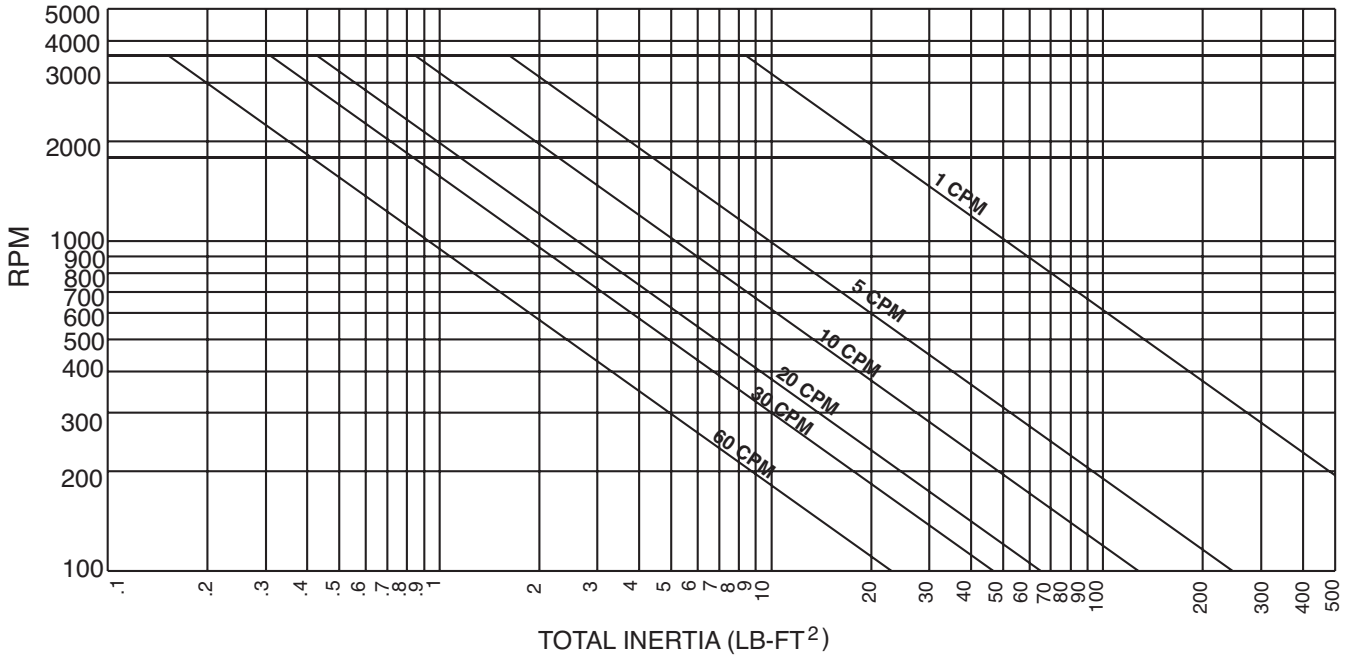
DMCBO-210



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

Clutch/Brake Modules
ALLOWABLE CYCLE RATES

DMCBO-256



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

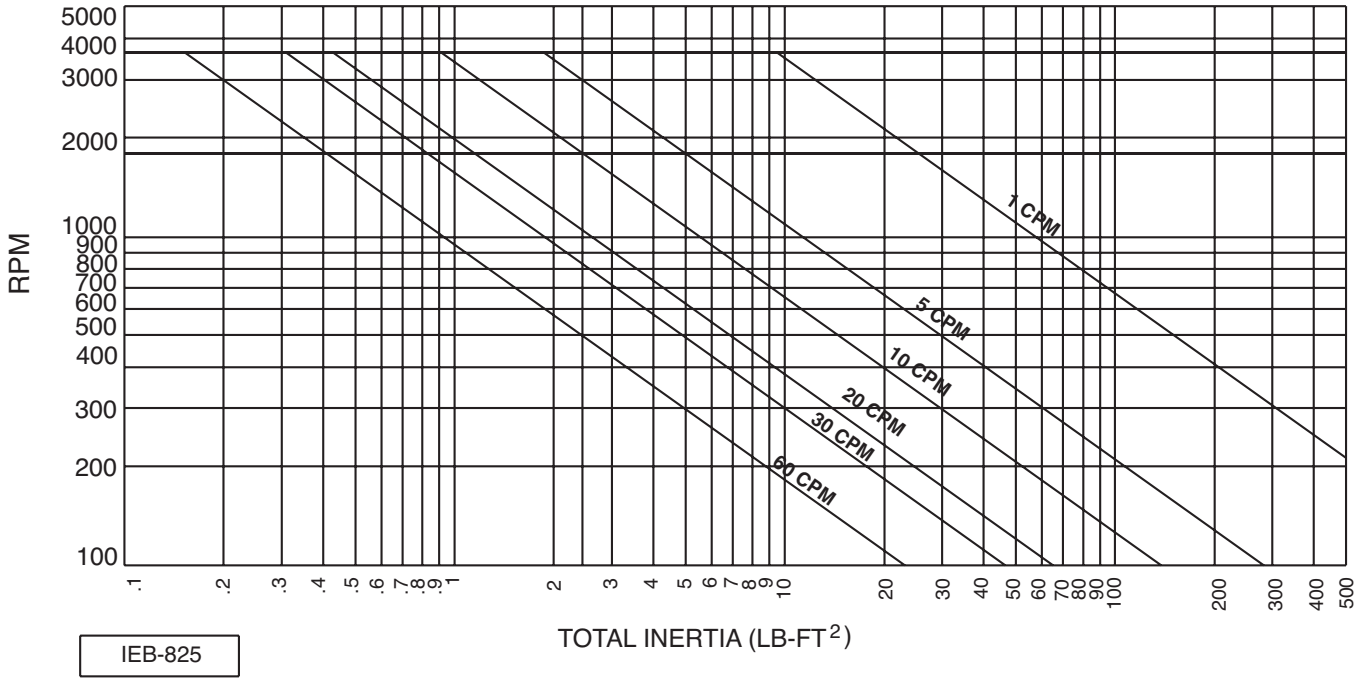
ENGINEERING/ TECHNICAL

DODGE®

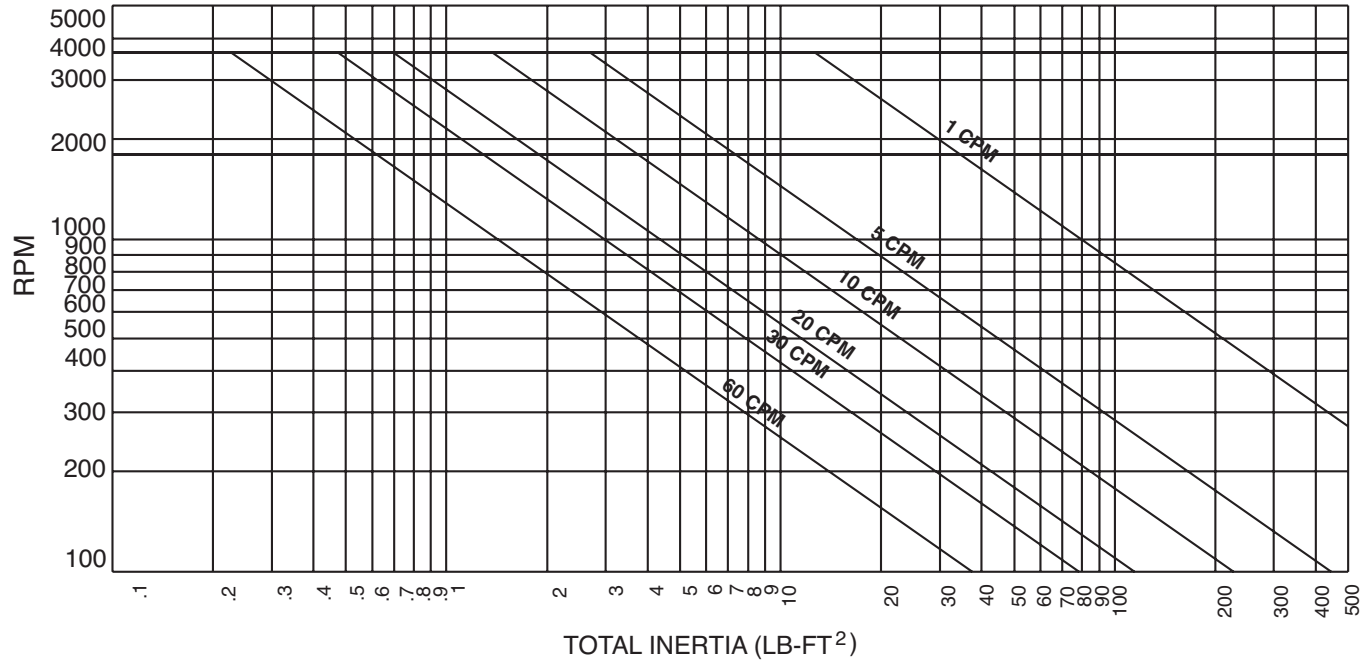
Clutch/Brake Modules

ALLOWABLE CYCLE RATES

IEC-825



IEB-825



NOTES:
1. Consult DODGE for cycle rates that exceed chart.
2. Max. coil temperature 250°F
3. Motor fan cooled
4. 100% current

CLUTCHES

SL Series Technical Data

Unit Size	Static Torque Lb-In.	Inertia Lb.-In.²		Wgt. Oz.	90 v DC		24 v DC	
		Rotor	Arm & Hub		Amps	Ohms	Amps	Ohms
SL-08	2.5	.002	.0015	2	.046	1977	.117	205
SL-11	6	.0058	.0029	3.2	.047	1930	.198	121
SL-15	10	.060	.0031	3.8	.042	2150	.183	132
SL-17	15	.061	.036	11	.066	1369	.289	83
SL-19	25	.082	.047	12	.074	1213	.294	81.6
SL-22	50	.215	.079	20	.079	1140	.322	74.6
SL-26	80	.362	.292	28	.088	1024	.358	67.1
SL-30	125	.610	.561	50	.091	988	.378	65.3
SL-42	250	2.50	2.30	85	.124	722	.468	51.2

BSL Series Technical Data

Unit Size	Static Torque Lb-In.	Inertia Lb.-In.²		Wgt. Oz.	90 v DC		24 v DC	
		Rotor	Arm & Hub		Amps	Ohms	Amps	Ohms
BSL-26	80	.29	.53	38	.088	1024	.358	67.1
BSL-42	250	2.25	4.99	94	.124	722	.468	51.2

SO Series Technical Data

Unit Size	Static Torque Lb-In.	Inertia Lb.-In.²		Wgt. Oz.	90 v DC		24 v DC	
		Rotor	Arm & Hub		Amps	Ohms	Amps	Ohms
SO-08	2.5	.002	.0011	2	.046	1977	.117	205
SO-11	6	.0058	.0024	3.2	.047	1930	.198	121
SO-15	10	.06	.026	3.8	.042	2150	.183	132
SO-17	15	.061	.031	11	.066	1369	.289	83
SO-19	25	.082	.042	12	.074	1213	.294	81.3
SO-22	50	.215	.070	20	.079	1140	.322	74.6
SO-26	80	.362	.320	28	.088	1024	.358	67.1
SO-30	125	.61	.561	45	.091	988	.378	65.3
SO-42	250	2.50	2.30	80	.124	722	.468	51.2

ENGINEERING/ TECHNICAL

Fractional HP

BRAKES

FB Series Technical Data

Unit Size	Static Torque Lb-In.	Inertia Lb.-In.² Arm & Hub	Wgt. Oz.	90 v DC		24 v DC	
				Amps	Ohms	Amps	Ohms
FB-08	2.5	.0011	2	.046	1977	.117	205
FB-11	6	.0024	3.2	.047	1930	.198	121
FB-15	10	.026	3.8	.042	2150	.183	132
FB-17	15	.031	11	.066	1369	.289	83
FB-19	25	.042	12	.074	1213	.294	81.6
FB-22	50	.070	20	.079	1140	.322	74.6
FB-26	10	.320	26	.088	1024	.358	67.1
FB-30	125	.561	35	.091	988	.378	65.3
FB-42	250	2.30	60	.124	722	.468	51.2

FSB Series Technical Data

Unit Size	Static Torque Lb-In.	Inertia Lb.-In.² Arm & Hub	Wgt. Oz.	90 v DC		24 v DC		120 v AC	
				Amps	Ohms	Amps	Ohms	Amps	Ohms
FSB-001	1	.0004	2	.051	1880	.220	117	.041	N.A.
FSB-002	3	.0017	3	.064	2177	.190	132	.050	N.A.
FSB-007	7	.0133	15	.059	1520	.247	97.3	.045	N.A.
FSB-015	15	.0133	16	.098	922	.369	65.1	.077	N.A.
FSB-035	35	.084	33	.093	964	.394	61	.073	N.A.
FSB-050	50	.084	36	.194	465	.717	35.5	.140	N.A.
FSB-100	100	.205	64	.180	501	.707	34	.142	N.A.

FSBR Series Technical Data

UNIT SIZE	Static Torque Lb-In.	Inertia Lb.-In.² Arm & Hub	Wgt Oz.	90 v DC		24 v DC		120 v AC	
				Amps	Ohms	Amps	Ohms	Amps	Ohms
FSB-001	7	.0133	11	.059	1520	.247	97.3	.045	N.A.
FSB-002	15	.0133	12	.098	922	.369	65.1	.077	N.A.
FSB-007	35	.084	24	.093	964	.394	61	.073	N.A.
FSB-015	50	.084	27	.194	465	.717	35.5	.140	N.A.
FSB-035	100	.205	56	.180	501	.707	34	.142	N.A.

Consult DODGE for other voltages.