



## Fractional Hp Clutches & Brakes

### Power-On Clutch & Brake Selection

- 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.
- Using the Selection Chart, identify the proper clutch size-where the shaft speed intersects the HP (or torque) required.
- Where rapid cycling occurs, check the Allowable Cycles Chart below. If the allowable cycle rate is exceeded, consult DODGE Engineering.
- Specify the voltage and shaft size when ordering.
- For optimum performance, use a properly sized control.

### Allowable Cycles/Minute\*

UNIT SIZE	RPM	INERTIA (Lb-In <sup>2</sup> )				UNIT SIZE	RPM	INERTIA (Lb-In <sup>2</sup> )			
		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 E 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																				



## Fractional Hp Clutches & Brakes

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

**FSB Allowable Cycles/Minutes\***

UNIT SIZE	RPM	INERTIA (Lb-In <sup>2</sup> )				UNIT SIZE	RPM	INERTIA (Lb-In <sup>2</sup> )			
		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												50								
3/4													50							
1														100						
1-1/2															100					
2																				
3																				
5																				
7-1/2																				
10																				



# SELECTION



## 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. <sup>2</sup> )			
		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.