

Super CB Series Longer Life Clutch/Brake Packages

Super CB Series combination clutches and brakes accurately start and stop loads that are driven by a continuously rotating source. These units actuate from a single AC or DC pulse, stopping the load within $\pm 1/2^\circ$ noncumulative at speeds up to 750 RPM, depending upon the size of the unit.

Super CB clutches/brakes provide 3 to 5 times the life as compared with a standard CB clutch/brake. The units can be dropped in to replace existing standard clutch/brake packages.

Features:

- Available in 4 sizes, (5, 6, 7, and 8)
- Cost-effective design
- 3-5 times longer life than Standard CB
- Adjustable control collars for easy and accurate output stop position
- ROHS compliant

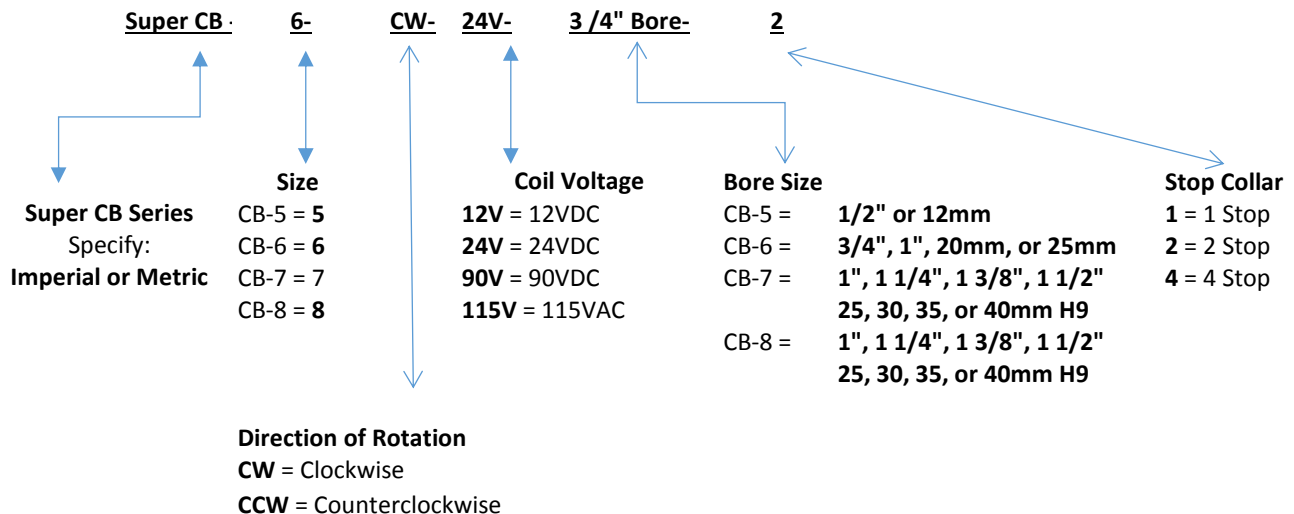
- Load over-travel or back-up is eliminated, units lock the load in both directions when solenoid is off
- Anti-overrun feature prevents the output from running faster than the input
- Roller bearings never need adjustment for wear
- Brings loads up to speed in 3 milliseconds and stops within 1.5 milliseconds
- AC or DC operated
- Direct retrofit for Standard CB-5, CB-6, CB-7, and CB-8
- Permanently lubricated
- Steel inserts in 1-, 2-, and 4-stop collars
- Heavy-duty industrial grade coils
- High cycle rate capability
- High torque to size ratio
- Repeatable positioning within $\pm 1/2^\circ$



Typical Applications:

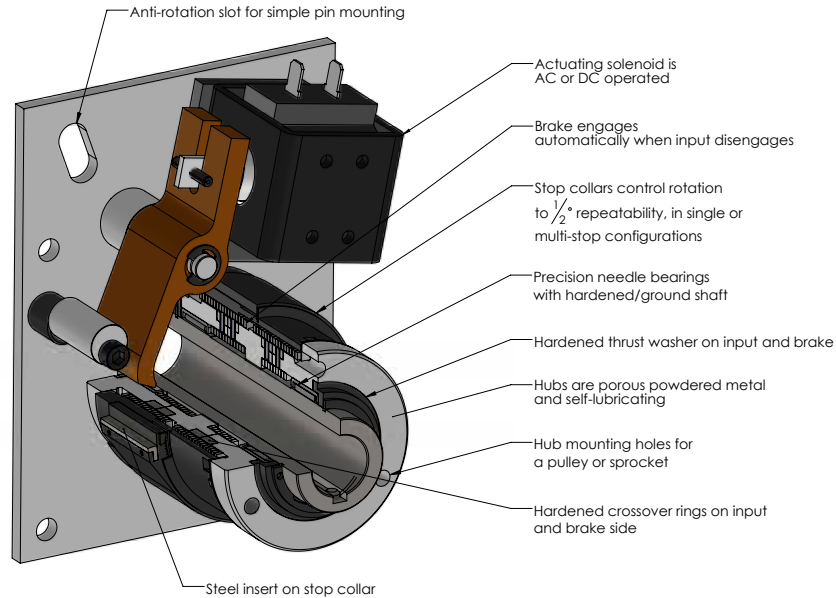
- Riveters
- Punch presses
- Packaging equipment
- Conveyor drives
- Heavy duty machinery
- Rapid cycling equipment

How to order:



Super CB Series

Solenoid Operated Combination Clutch/Brake

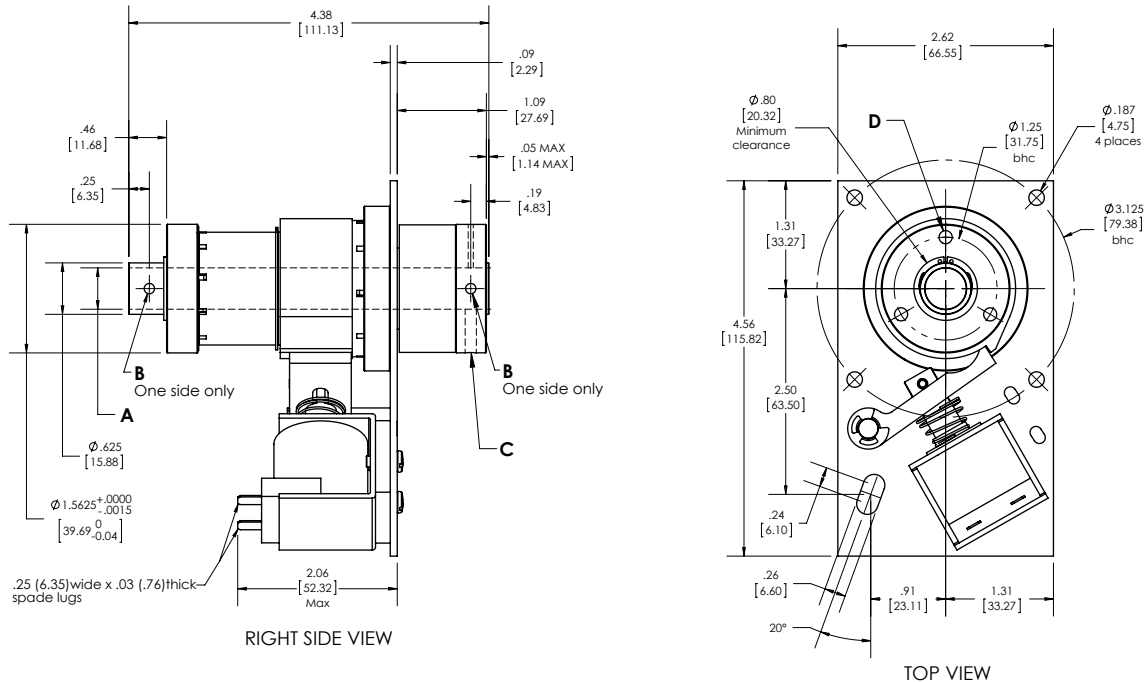


SUPER CB PERFORMANCE				
	Super CB-5	Super CB-6	Super CB-7	Super CB-8
Static Torque	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)	1,500 lb-in (169.5Nm)	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Maxium anti-back holding capability	160 lb-in (18.08Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Inertia, rotating parts	0.195 lb-in ²	1.718 lb-in ²	6.75 lb-in ²	12.84 lb-in ²
Maxium radial bearing load at maxium speed	32 lbs.	63 lbs.	300 lbs.	300 lbs.
Maxium operating speed	750 RPM	500 RPM	400 RPM	300 RPM
Response time, voltage on at full speed	27 ms	45 ms	50 ms	50 ms
Weight	3 lbs.	7 lbs.	12 lbs.	15 lbs.

RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
Super CB-5	750	1/2" (12.7mm)	12 mm (0.427")
Super CB-6	500	3/4" (19.05mm) 1" (25.4mm)	20mm (.787") 25mm (.984")
Super CB-7	400	3/4" (19.05mm) 1" (25.4mm) 1 1/4" (31.75mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")
Super CB-8	300	1" (25.4mm) 1 1/4" (31.75mm) 1 3/8 (34.9mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")

Super CB-5 Clutch/Brake

Dimensions and Specifications



Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)
Maxium anti-back holding capability	160 lb-in (18.08Nm)
Inertia, rotating parts	0.195 lb-in ²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	27 ms
Weight	3 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

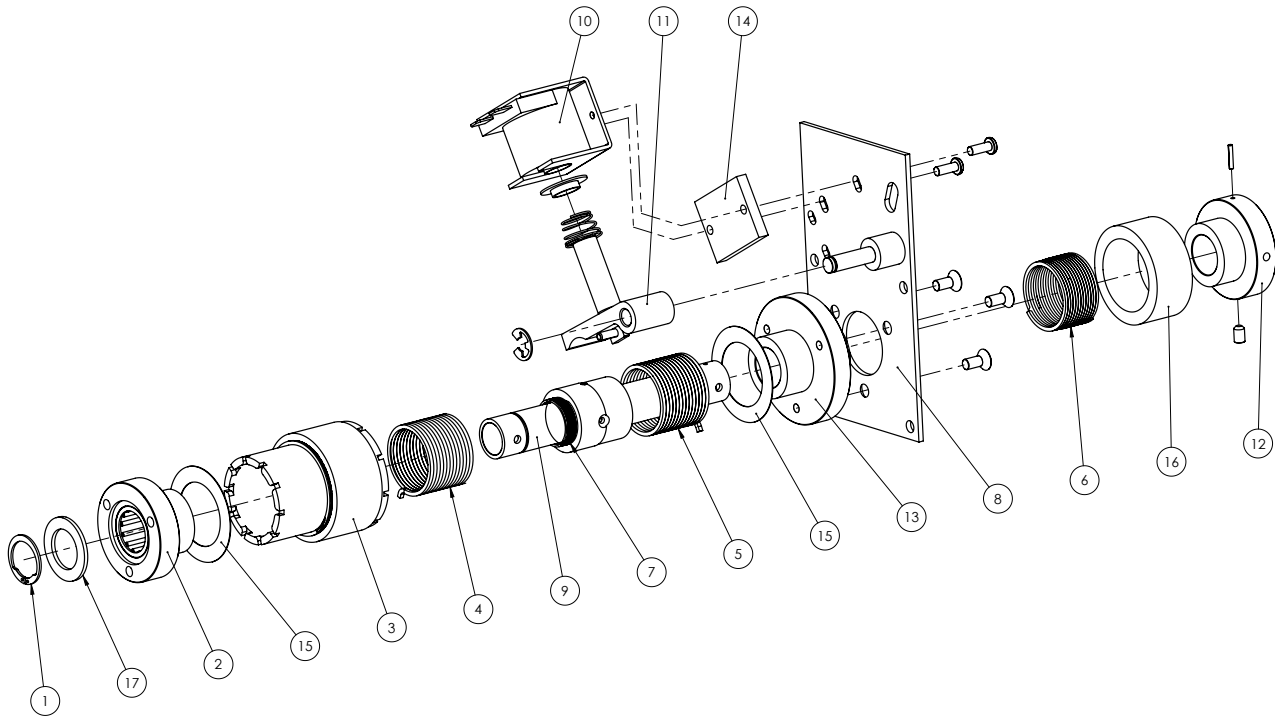
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B	Set Screws C	Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)	#8-32 x 0.25 hex set screw	3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)	M4 x 0.7 x 6.0 hex set screw	3x M5 x 0.8 on 31.75 bc

Super CB-5 Clutch/Brake

Component Parts

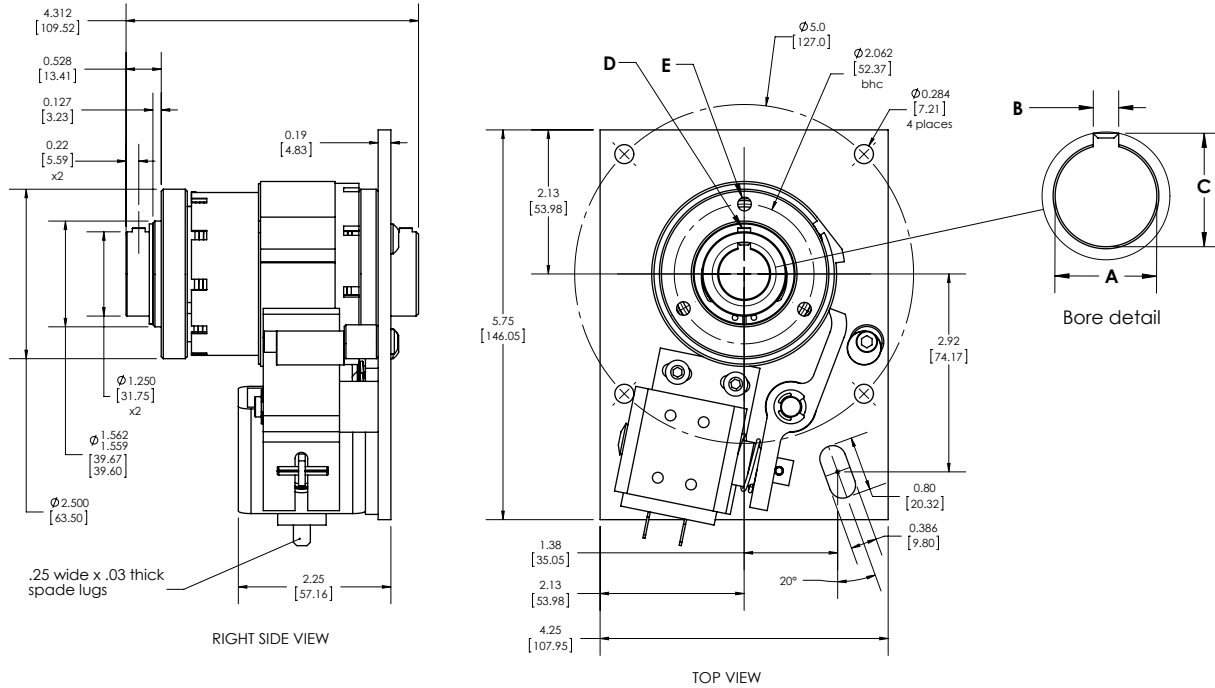


Super CB-5 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub		04050-21000
	Input Hub Metric		14050-21000
3	Control Collar Assy 1-stop (specify stops last digit)	CW CCW	03051-06061 03052-06061
4	Drive Spring	CW CCW	03051-31000 03052-31000
5	Brake spring	CW CCW	03051-32000 03052-32000
6	Anti-back Spring	CW CCW	03051-33000 03052-33000
7	Anti-overrun Spring	CW CCW	03051-34000 03052-34000
8	Mounting Plate Assy	CW CCW	03051-03000 03052-03000
9	Output Shaft Assy		
	1/2" bore		04050-04205
	12.0 H9 bore		14050-04242

Super CB-5 Component Parts			
Item	Description	Rotation	Part Number
	Coil only		
10	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		04050-12000
12	Anti-back Hub		03050-28000
	Anti-back Hub Metric		13050-28000
13	Brake Hub		04050-22000
14	Coil mount plate		03050-97000
15	Sleeve shim set (2)		03050-66000
16	Dust Cover (AB spring)		03050-29000
17	Thrust Washer		04050-17081

Super CB-6 Clutch/Brake

Dimensions and Specifications



Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	500 lb-in (56.5Nm)
Maxium anti-overrun holding capability	300 lb-in (33.9Nm)
Maxium anti-back holding capability	300 lb-in (33.9Nm)
Inertia, rotating parts	1.718 lb-in ²
Maxium radial bearing load at max speed	63 lbs.
Maxium operating speed	500 RPM
Response time, voltage on at full speed	45 ms
Weight	7 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

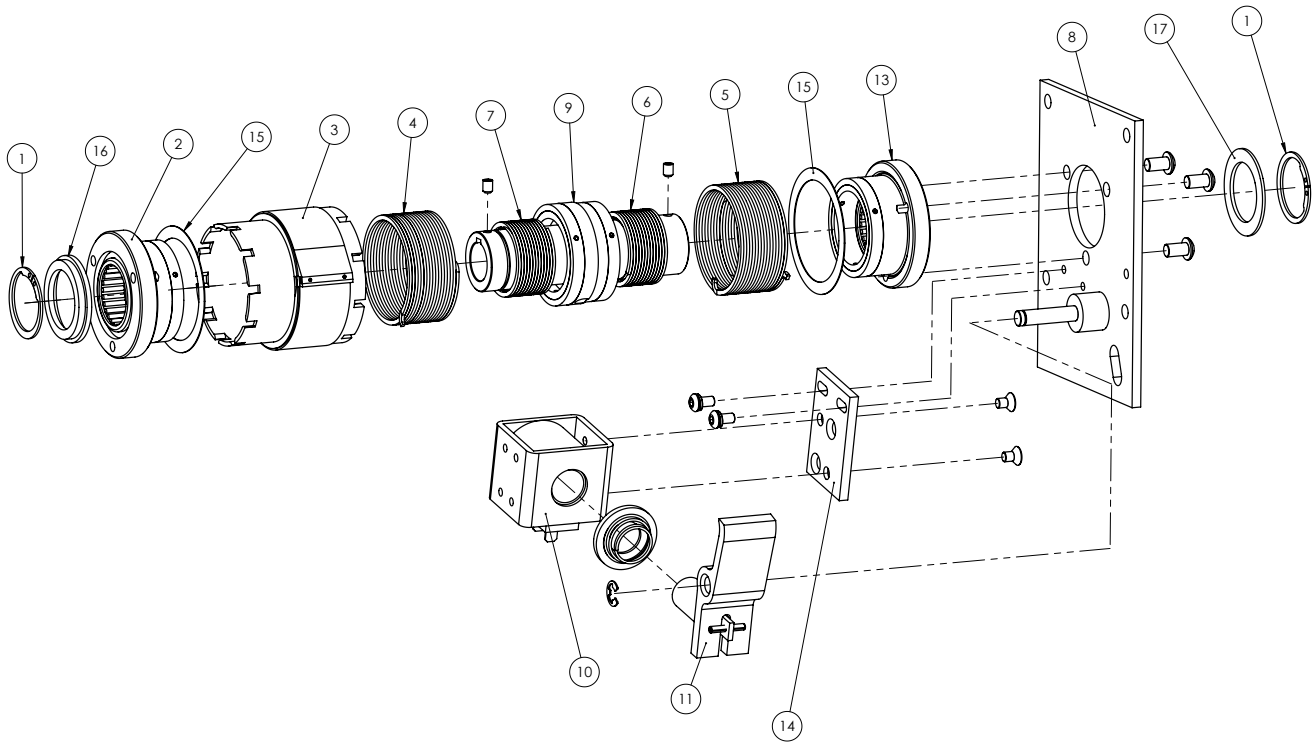
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set and Pin D	Mounting Holes E
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	2 x #10-32 UNC-2B x .19 hex set screw	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			2x 0.187-0.192 hole (4.74-4.88)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	2x M5 x 0.8 x 5.0 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			2x 4.87-5.14 hole (0.191-0.203)	3 x M6 x 1.0 on 52.38 bc

Super CB-6 Clutch/Brake

Component Parts

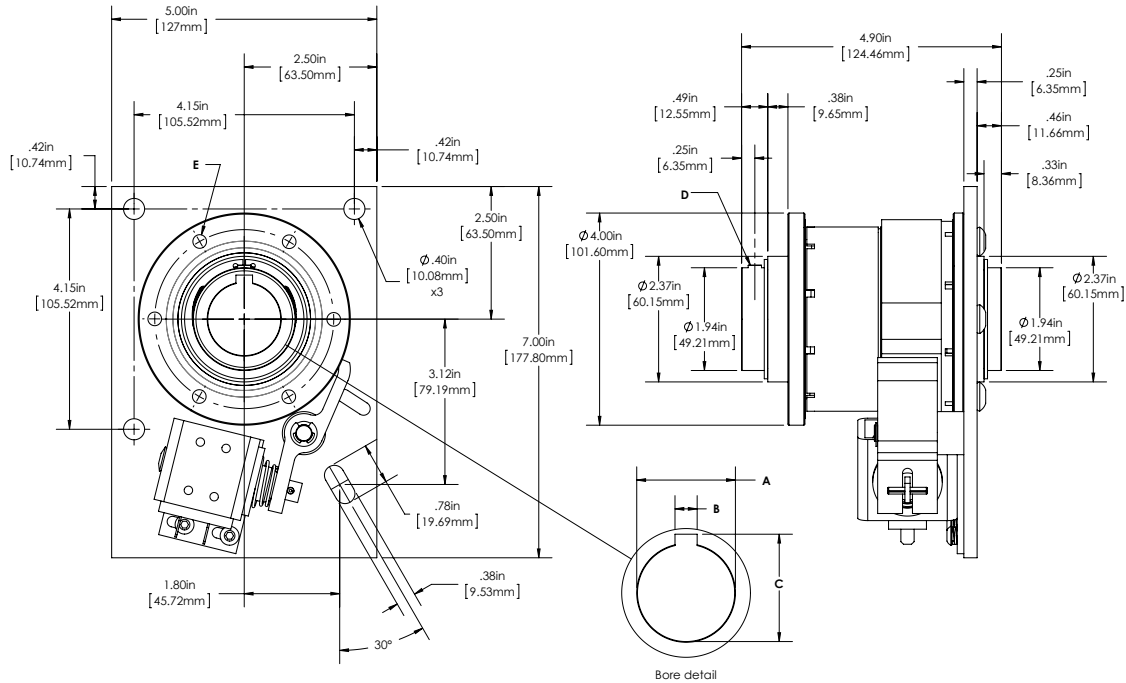


Super CB-6 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03060-65000
2	Input Hub w/ bearing		04060-21000
	Input Hub Metric		14060-21000
3	Control Collar Assy 1-stop	CW	04061-06061
	(specify stops last digit)	CCW	04062-06061
4	Drive Spring	CW	03061-31000
		CCW	03062-31000
5	Brake spring	CW	03061-32000
		CCW	03062-32000
6	Anti-back Spring	CW	03061-33000
		CCW	03062-33000
7	Anti-overflow Spring	CW	03061-34000
		CCW	03062-34000
8	Mounting Plate Assy	CW	03061-03000
		CCW	03062-03000
9	Output Shaft Assy		
	3/4" bore		04060-04209
	1" bore		04060-04213
	20.0 H9 bore		14060-04245
	25.0 H9 bore		14060-04247

Super CB-6 Component Parts			
Item	Description	Rotation	Part Number
	Coil only		
10	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub w/ bearing		03060-22000
14	Coil mount plate		03060-97000
15	Sleeve shim set (2)		03060-66000
16	Input Thrust Washer		04060-17081
17	Brake Thrust Washer		04060-17080

Super CB-7 Clutch/Brake

Dimensions and Specifications



PERFORMANCE	
Static Torque	1500 lb-in (169.5Nm)
Maximum anti-overnun holding capability	600 lb-in (67.8Nm)
Maximum anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	6.75 lb-in ²
Maximum radial bearing load at max speed	300 lbs.
Maximum operating speed	400 RPM
Response time, voltage on at full speed	50 ms
Weight	12 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

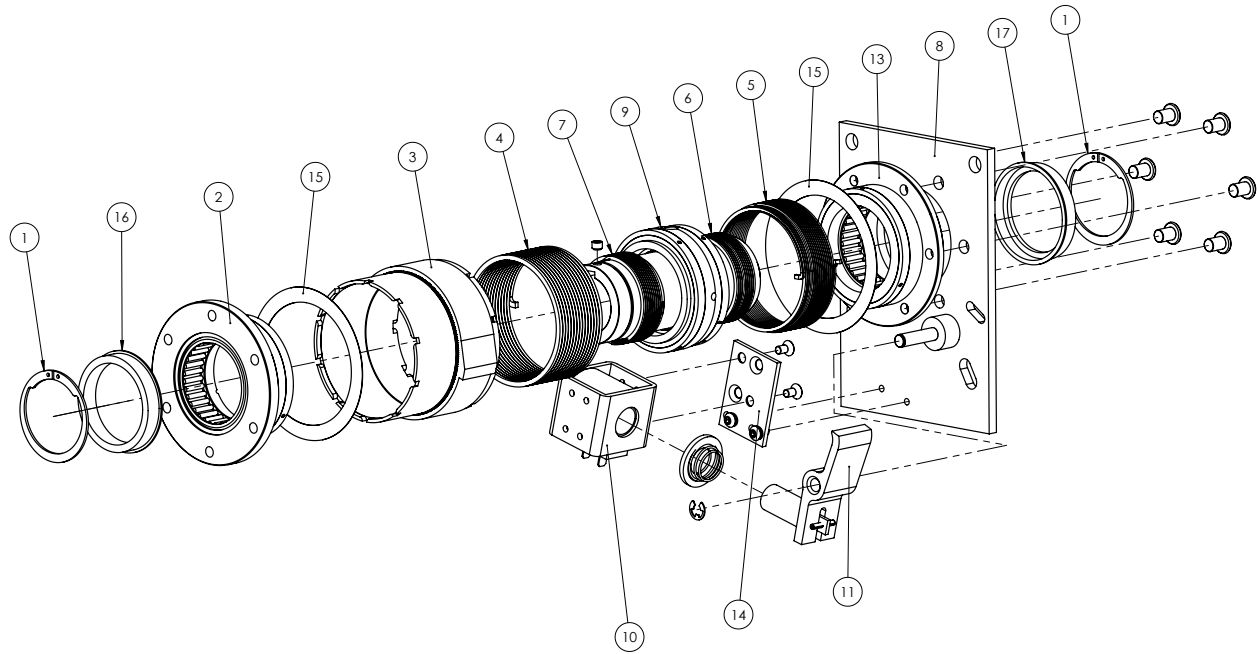
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Screws D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814)	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
25.0 H9 (0.9843-0.9863)	7.983-8.017 (0.3143-0.3156)	28.300-28.552 (1.1142-1.1241)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
30.0 H9 (1.1811-1.1831)	7.983-8.017 (0.3143-0.3156)	33.299-33.551 (1.3110-1.3209)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Super CB-7 Clutch/Brake

Component Parts

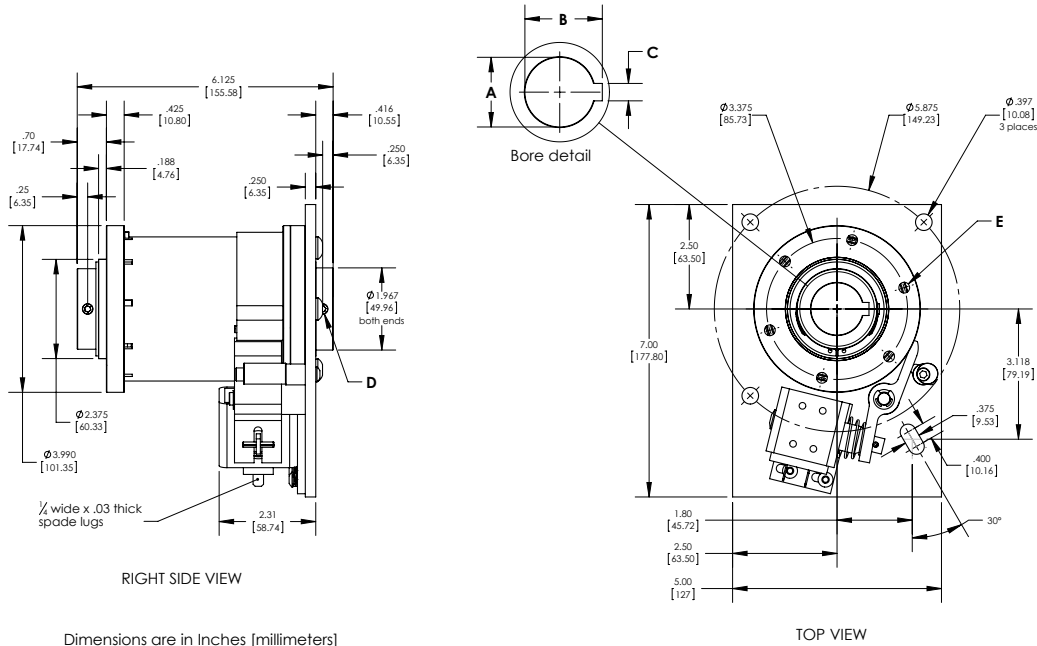


Super CB-7 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		04080-65000
2	Input Hub w/ bearing		25080-21000
			27080-21000
3	Control Collar Assy 1-stop (specify stops last digit)	CW	25071-06061
		CCW	25072-06061
4	Drive Spring	CW	06081-31000
		CCW	06082-31000
5	Brake spring	CW	06081-32000
		CCW	06082-32000
6	Anti-back Spring	CW	06081-33000
		CCW	06082-33000
7	Anti-overnun Spring	CW	06081-34000
		CCW	06082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Output Shaft Assy	1" bore	04070-04213
		1 1/4" bore	04070-04217
		25.0 H9 bore	14070-04247
		35.0 H9 bore	14070-04249

Super CB-7 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
		115V AC cont	03060-94101
		24V DC cont	03060-94102
		12V DC cont	03060-94103
11	Actuator lever w/ plunger		03060-94104
			03060-12000
13	Brake Hub w/ bearing		25080-22000
14	Coil mount plate		03070-97000
15	Sleeve Shim set (2)		03080-66000

Super CB-8 Clutch/Brake

Dimensions and Specifications



PERFORMANCE	
Static Torque	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	12.84 lb-in ²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	300 RPM
Response time, voltage on at full speed	50 ms
Weight	15 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.94	25.4
12 DC	1.86	6.4
90 DC	0.24	378.6

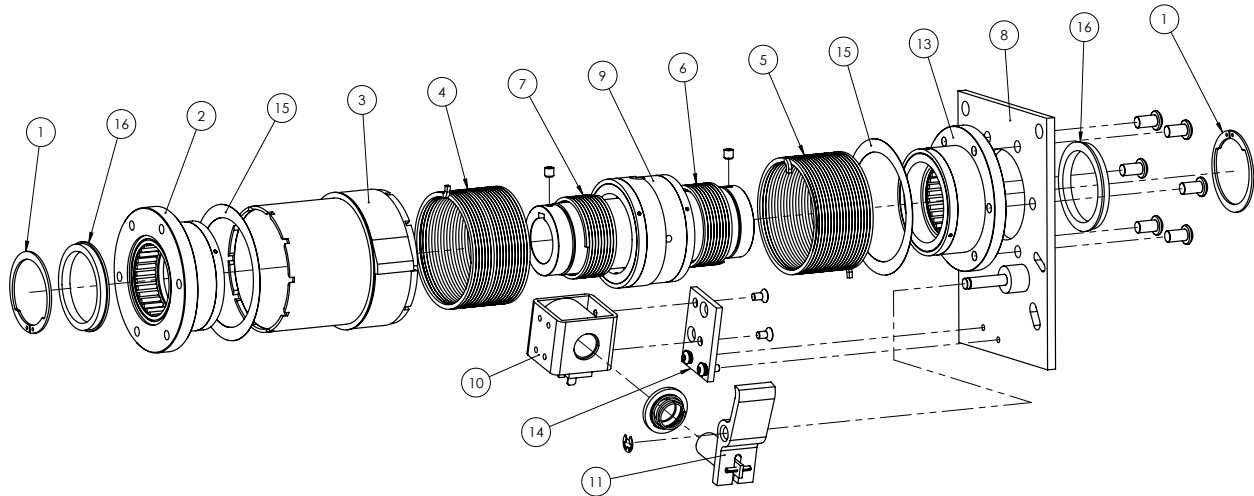
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Screws D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814)	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
40.0 H9 (1.5784-1.5772)			2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Super CB-8 Clutch/Brake

Component Parts



Super CB-8 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		04080-65000
2	Input Hub		04080-21000
	Input Hub Metric		14080-21000
3	Control Collar Assy 1-stop (specify stops last digit)	CW	04081-06061
		CCW	04082-06061
4	Drive Spring	CW	03081-31000
		CCW	03082-31000
5	Brake spring	CW	03081-32000
		CCW	03082-32000
6	Anti-back Spring	CW	03081-33000
		CCW	03082-33000
7	Anti-overflow Spring	CW	03081-34000
		CCW	03082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Output Shaft Assy 1" bore		04080-04213
	1 1/4" bore		04080-04217
	25.0 H9 bore		14080-04247
	35.0 H9 bore		14080-04249

Super CB-8 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
11	Actuator lever w/ plunger		03060-94104
			03060-12000
13	Brake Hub		04080-22000
14	Coil mount plate		03060-97000
15	Sleeve Shim set (2)		03080-66000
16	Input Thrust Washer		04080-17081
17	Brake Thrust Washer		04080-17080