



FC-305054 Brake – Flange Mounted – Spline Drive, Inside Mounted 5 Inch Diameter

FC-305055 Brake – Flange Mounted – Spline Drive, Outside Mounted 5 Inch Diameter

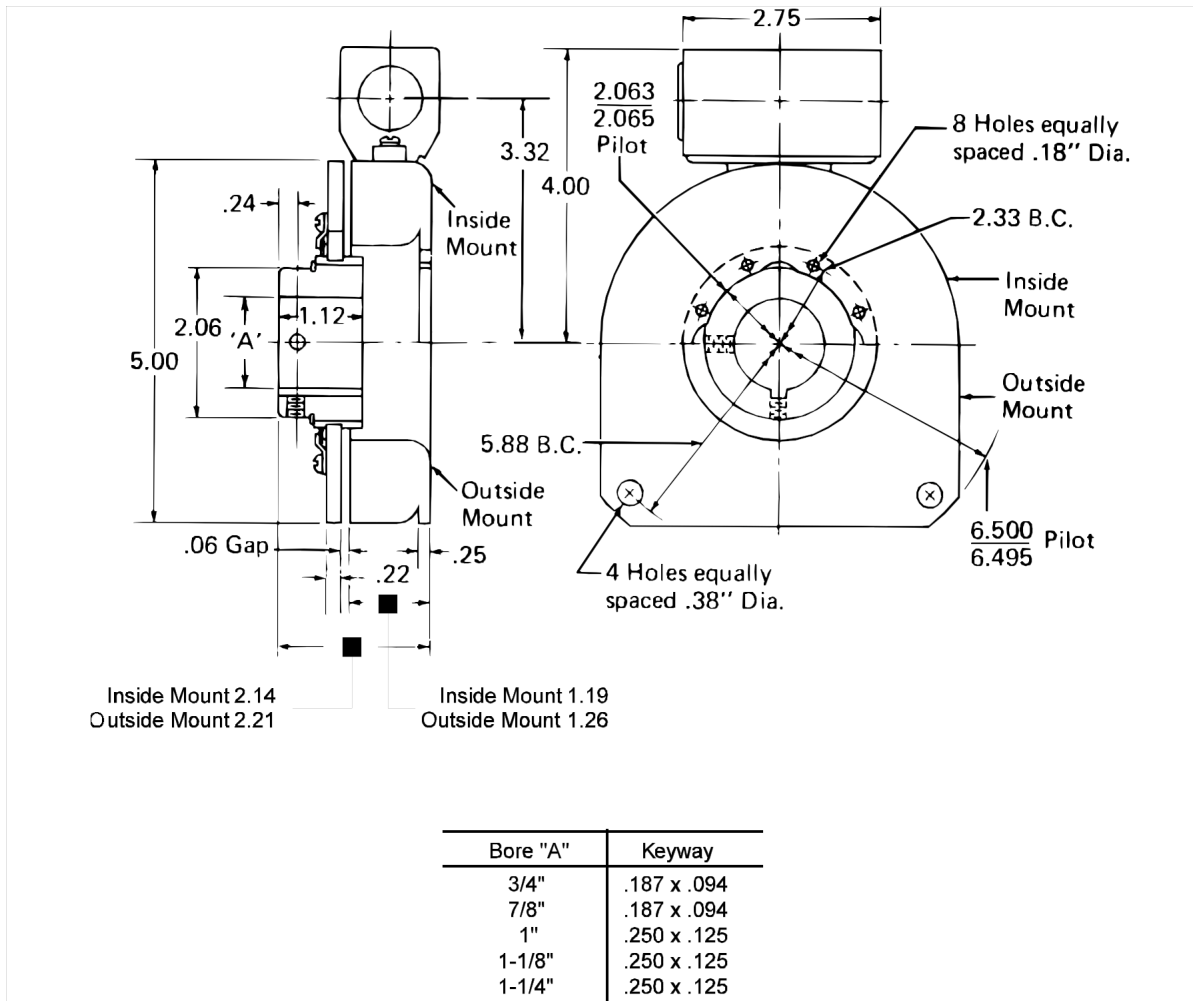
Product Function

Stop, Power Applied Product: Output shaft Stops when DC power is applied to Brake magnet.

Self adjusting power applied stopping brake.

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Model 305



Technical Data and Torque (In. Lb.)

Model No.	Wt. Lbs.	Static Torque in. lb.	Max. Speed RPM	Coil Voltage VDC	* Rated Current amps	RPM									
						0	300	600	900	1200	1500	1800	2400	3000	3600
305	5.1	684	3600	90	.41	684	624	564	516	468	420	384	324	288	252

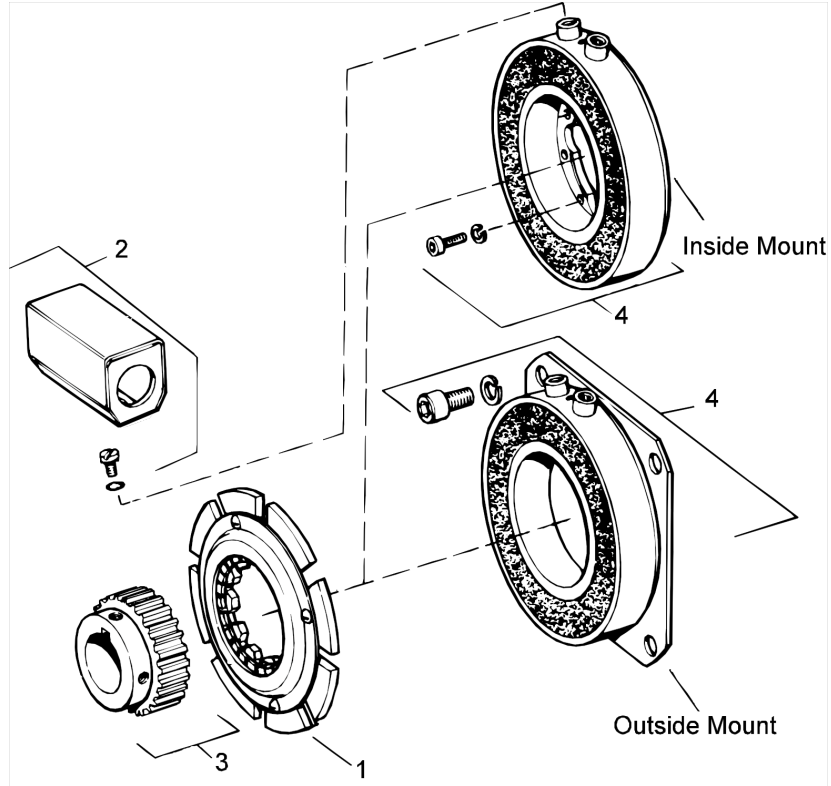
* Rated current at 90VDC and 1.65 amps at 24VDC.

Customer must maintain:

1. Concentricity between mounting flange and shaft within .010.
2. Perpendicularity between mounting surface and shaft within .010.

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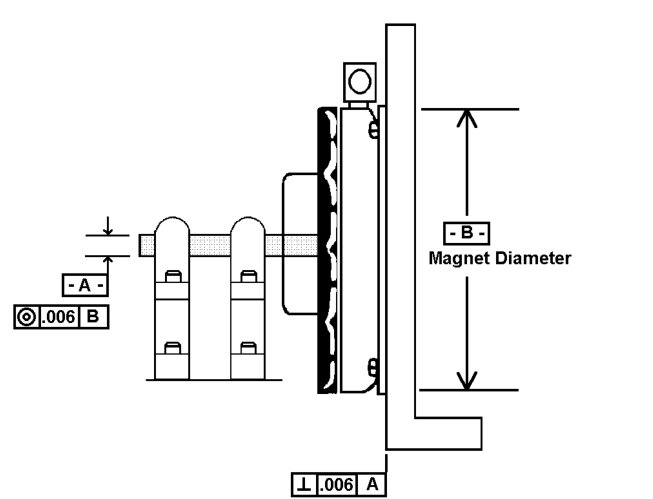
Parts



Item	Qty	Inside Mount Parts	Outside Mount Parts	Description
1	1	305396-1	305396-1	Armature Plate
2	1	326143	326143	Conduit Box
3	1			Armature Hub Splined
		305453-1	305453-1	3/4 Bore
		305453-2	305453-2	7/8 Bore
		305453-3	305453-3	1 Bore
		305453-4	305453-4	1-1/8 Bore
		305453-5	305453-5	1-1/4 Bore
4	1			Flange Mounted Magnet
		305343	305353	24VDC (14.5 Ohms, 1.65 Amps)
			305357-5	45VDC (58.9 Ohms, .75 Amps)
		305344	305354	90VDC (219 Ohms, .41 Amps)

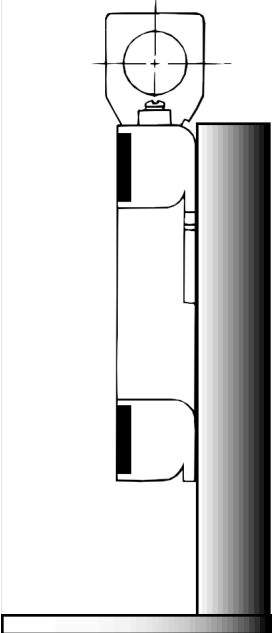
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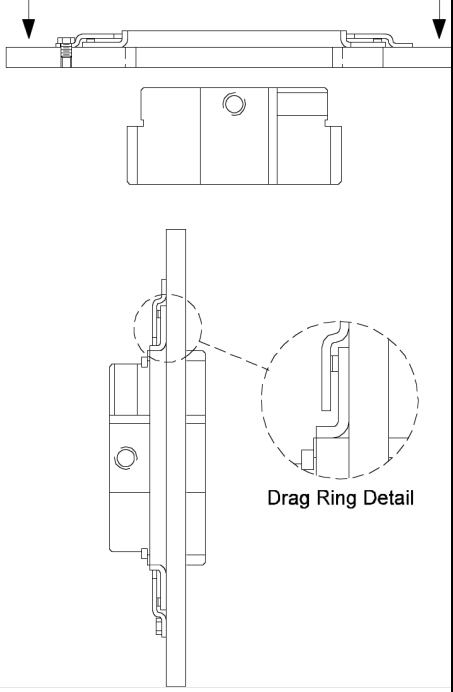
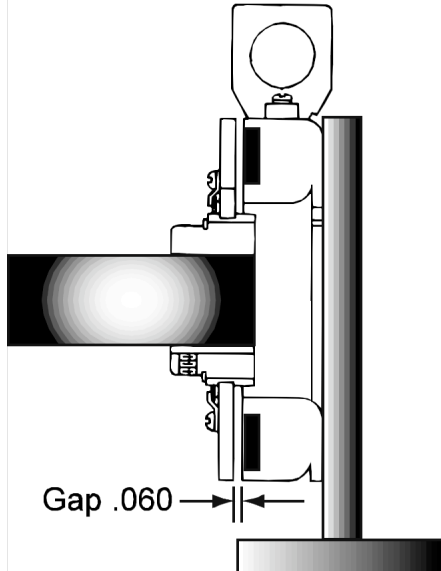
Alignment



Alignment must be followed or unit's life will be shortened.

Assembly

Step	Description	
1	<p>Brake Magnet Item: 4 Inside or Outside Mount Style</p> <p>Assemble Brake Magnet to your machine's frame.</p> <p>Note alignment specifications: .006 Concentricity and .006 Perpendicularity of Brake Magnet and Shaft.</p>	

<p>2</p>	<p>Armature Plate and Splined Hub Sub-Assembly</p> <p>Items: 1 and A</p> <p>Remove retaining ring from hub. Press armature plate onto hub, drag ring is interference fit to hub OD. This operation may require an arbor press. Use caution - armature is ground flat and should not be bent or distorted.</p> <hr/> <p>Replace hub retaining ring.</p> <p>Drag ring must be on OD of spline. - See detail</p> <p>The armature should be as far back on the hub as possible to allow for travel when it self adjusts to compensate for wear. The drag ring position is critical to the operation of the self-adjusting mechanism; it also gives a positive release when the clutch and or brake is "OFF"</p>	
<p>3</p>	<p>Final Assembly Spline Drive Armature and Hub Assembly to Shaft</p> <p>Assemble Armature/Hub set by positioning hub to allow a .060 gap between the Brake Magnet friction surface and Armature Plate.</p> <p>Tighten screws of Splined Hub</p> <p>Assemble Conduit box to Brake Magnet.</p> <p>Note alignment specifications: .006 Concentricity and .006 Perpendicularity of Brake Magnet and Shaft.</p>	
<p>4</p>	<p>Wiring</p> <p>This is a Power Applied Product. When Power is Applied to Brake load stops.</p> <p>Wire with instructions included with your Clutch-Brake Power supply.</p>	

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Run-In or Burnishing –

Our Friction products transmit torque by clamping two objects together electromagnetically. This clamping force requires a metal-to-metal contact between the magnetic poles and armature plate. The same as a horseshoe permanent magnet and a bar of steel. The strongest clamping action occurs when they are in contact.

Clutches and brakes are manufactured with the friction material slightly undercut below the magnet poles. This is done to ensure full pole contact when first operated. If the application requires full rated torque, it will be necessary to wear-in the surfaces of the armature and mating magnetic pole surfaces. This wear-in of the friction surfaces is called burnishing. Many applications do not require the full rated torque of the unit and do not require burnishing.

If burnishing is required it is best when performed on the actual machine to maintain alignment of the grooves created during this process. Burnish time is dependent upon speed, load, and duty cycle.

Burnishing can be accomplished by reducing the voltage to 30 or 40% of the rated voltage and cycling the unit on and off in the application. At the reduced voltage, the unit will slip under load and wear it self in. The unit should be cycled "on" 2 seconds and "off" 10 seconds to prevent the friction surfaces from overheating.

