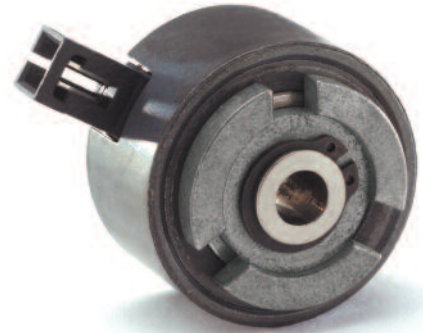




## EC30LL Clutch

The model EC30 Long-Life (EC30LL) design is optimized for applications which have higher hour and/or input revolution requirements up to 80 million bearing revolutions. Slip during engagement is virtually eliminated and disengagement response is instant. The EC30LL offers high quality performance and increased torque capability at a competitive price.



### Design Characteristics

#### Technology

Electromechanical wrap spring clutch.

#### Low Wattage

The EC30LL requires only 3.5 watts of power for engagement.

#### High Torque, Small Package Size

The EC30LL provides 30 lb-in (3.39 N-m) of total load over a life of 1 million actuations with an outside diameter of about 1.3 inches (33mm), and a shaft length of about 1 inch (27mm). It also provides approximately 80 million bearing revolutions for typical applications – 2 to 10 times the bearing life of standard EC30's.

#### Rapid Acceleration

After spring wrap-down, the EC30LL will accelerate loads from zero to full speed in less than 3 milliseconds.

#### Consistent Performance

Engagement is made with virtually no slippage and disengagement is almost instantaneous.

#### Power Source

All Reell clutches operate on either filtered or unfiltered dc power. The use of filtered power is recommended for better life at high speed.

### Application Considerations

#### Single Direction

Wrap spring clutches provide torque only in the direction in which they wrap down. This allows for overrunning.

#### Relative High Shock

Due to the EC30LL's rapid acceleration, system inertia effects can be significant. In some applications an in-line slip device may be used for shock absorption.

#### Engagement Relative to Speed

The EC30LL relies on relative motion between the input and output for engagement. Thus, the slower the speed, the longer the time until engagement.

#### Operating Parameters

EC30LL performance is best within the following conditions:

- 0°- 60° C (32°-140° F)
- 100-800 rpm typical, 1400 rpm max.
- Minimum load friction torque 6 oz-in (0.05 N-m) plus customer input bearing torque.

# EC30LL Clutch

## Available Options *(select one of each)*

### Direction

CW, CCW

### Bore

1/4 inch, 5/16 inch, 6mm, 8mm

### Shaft

Cross Pin Only

### Voltage

12 VDC, 24 VDC

### Electrical Connection

Molded Connector Only

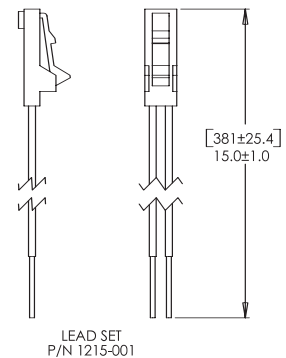
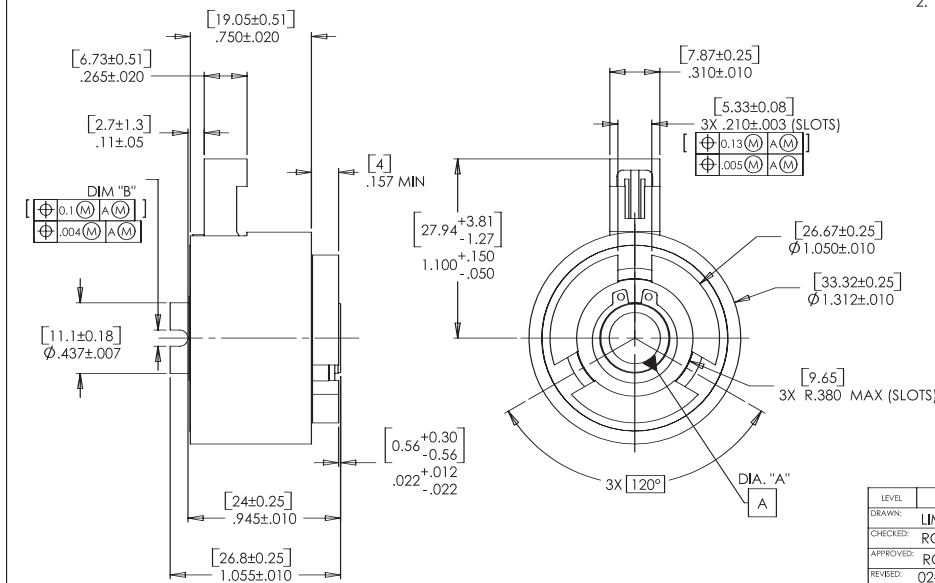
## Applications

- Paper Feed Systems
- Copiers/Printers
- Finishing Equipment
- Collators/Sorters
- Mailing Equipment
- Ticket and Receipt Dispensers
- Revolving Media Displays
- Packaging Equipment

REELL RADIAL ELECTRIC CLUTCH				
SHAFT NOM.	DIA. "A"	DIM. "B"	CROSS PIN SIZE	ONE MILLION CYCLE TORQUE RATING: [3.45 Nm] 30 Lb-in TOTAL LOAD.
1/4	.2505/.2530	.099/.108	3/32	8mm BORE SHOWN CROSS PIN SHAFT THREE DOG DRIVE HUB MOLDED COIL CONNECTOR
5/16	.3130/.3185	.099/.108	3/32	
6mm	[4.01/4.09]	[2.53/2.75]	[2.5]	
8mm	[8.01/8.09]	[2.53/2.75]	[2.5]	

### NOTES:

- CONNECTOR PINS ARE [0.64 x 0.64] .025 x .025 SQUARE. THE FOLLOWING MATING CONNECTORS CAN BE USED.  
TERMINAL: POLARIZED LATCHING CONNECTOR, INSULATION DISPLACEMENT CONTACTS  
AMP NO. 5-103956-1  
ALTERNATE TERMINAL:  
MOLEX NO. 14-60-0022
- RESISTANCE: 12 VOLTS 44 OHMS ± 10% AT [20°C] 68°F.  
24 VOLTS 175 OHMS ± 10% AT [20°C] 68°F.



LEVEL	DESCRIPTION	DRAWN	DATE	APPROVED
DRAWN: LIM	DATE: 02-05-01	PART NO: 17-XXX		
CHECKED: RGW	DATE: 03-30-01	TITLE: LONG LIFE HIGH TORQUE CLUTCH ASSEMBLY		
APPROVED: RGW	DATE: 03-30-01	DESCRIPTION: EC30LL		
REVISED: 02-07-06	UNITS: [mm]IN	REV: D		

CONSISTENT WITH  
ASME Y14.5M-1994  
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SAINT PAUL, MINNESOTA, 55110-1003, USA

SCALE: 2:1 DO NOT SCALE DRAWING SHEET 1 OF 1

SPECIFICATIONS SUBJECT TO CHANGE

EC30LL 02.06



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