

C-face Clutches and Clutch/Brake Assemblies

Electro Module

Individual Clutch and Brake Modules



EM Series

Page 6

Modular Components that are Easily Combined

- ❑ 5 sizes
- ❑ 16 clutch and brake modules
- ❑ 16 to 95 lb. ft. torque range

Individual modules may be used in combination to form clutches, brakes or clutch/brake packages.

Electro Modules can be bolted directly to NEMA C-face motors or reducers, or base mounted for stand alone operation. They offer clutch/brake convenience in an easy-to-install package requiring no lubrication or maintenance for life.

UniModule®

One Piece Preassembled Clutches and Clutch/Brakes



UM Series

Page 18

C-face or Base Mounted Units

- ❑ 5 sizes
- ❑ 20 combinations
- ❑ 16 to 95 lb. ft. torque range

UniModule clutches and clutch/brake packages offer the ultimate in installation convenience.

Can be motor or reducer mounted, or used as a separate drive unit powered from a prime mover.

UM-C Series

Page 26

High Performance Version for High Cycle Rate Applications

- ❑ 3 sizes
- ❑ 6 combinations
- ❑ 16 to 95 lb. ft torque range

The UM-C units are UniModules with ceramic faced components, specifically designed for long life, high energy, and high cycle rate applications.

Enclosed UniModule®

Preassembled Units Offer Clean, Quiet Operation



EUM Series

Page 32

Totally Enclosed Clutch and Brake Packages

- ❑ 5 sizes
- ❑ 3 combinations
- ❑ 16 to 95 lb. ft. torque range

Totally enclosed, rugged enclosure keeps wear particles in and contaminants out. Finned for rapid heat dissipation and long life.

EUM-W Series

Page 32

Washdown Version

- ❑ 5 sizes
- ❑ 8 combinations
- ❑ 16 to 95 lb. ft. torque range

The washdown version of the EUM uses stainless steel shafting, USDA approved coating, corrosion resistant fasteners and special seals, and is BISSC certified.

**Electro Clutches
 Electro Brakes**

**Shaft Mounted
 Units**



EC Series Clutches Page 43

Pre-Packaged Convenience

- 6 sizes
- 16 to 465 lb. ft. torque range

All the features of an electric clutch in a convenient, pre-packaged assembly. Mounts on any through shaft or extended motor shaft. Easy-to-assemble with standard sheaves, pulleys, gears and sprockets. Packaged design. No assembly required. Long life. No maintenance.

EB Series Brakes Page 50

Torque Arm Mounting

- 6 sizes
- 16 to 465 lb. ft. torque range

Torque arm feature makes Electro Brakes easy to mount on any motor or through shaft. Packaged design. No assembly required. Long life. No maintenance.

**Advanced Technology
 Clutches and Brakes**

**Extra Rugged
 Design**



ATC Series Clutches Page 60

ATB Series Brakes Page 64

Replaceable Friction Faces

- 3 sizes
- 25 to 115 lb. ft. torque range

Rugged, heavy duty units designed for extra long life and efficient operation. Cast components for durability. Finned armatures for high heat dissipation.

Friction faces are designed to allow for replacement without replacing valuable, non-wear components. Provides superior wear life with reduced engagement noise.

SFP Series Clutches Page 66

- Pre-assembled SF – No assembly required
- Ball bearing mounted field and armature
- 70 inch pound and 270 inch pound sizes
- Bore sizes from 3/8" to 1/2" and 1/2" to 1"

SFP clutches provide the simplicity and cost efficiency of the Basic SF design, but with a ball bearing mounted armature hub.

**Electro Pack
 Clutch/Brakes**

**Foot Mounted
 Units**



EP Series

Page 68

Totally Enclosed Units

- 8 sizes
- 15 lb. to 1350 lb. ft. torque range

Electro Packs are rugged, pre-assembled clutch and brake combinations in enclosed, foot mounted housings.

EP-C Series

Page 74

High Performance Version

- 2 sizes
- 15 and 70 lb. in. torque

Ceramic faced wear components provide long life for high cycle rate use. Consistent torque and cycle repeatability with smooth start/stop control.

Electrically Released Brakes

Spring-Set Brakes

For Power-Off Static Holding and
Emergency Stopping Applications



ERS Series

Page 78

Static Engaged

- ❑ 5 sizes
- ❑ 1.5 to 100 lb. ft. holding torque

Designed for static holding. ERS models feature multiple coil springs that force armature and friction faces together to generate braking torque when power is off. The Electromagnet counters the spring force to disengage the brake when power is applied.

Although this brake should be engaged only when the shaft is at rest, it can occasionally act as a dynamic braking device to stop a rotating load in an emergency situation.



ERD Series

Page 88

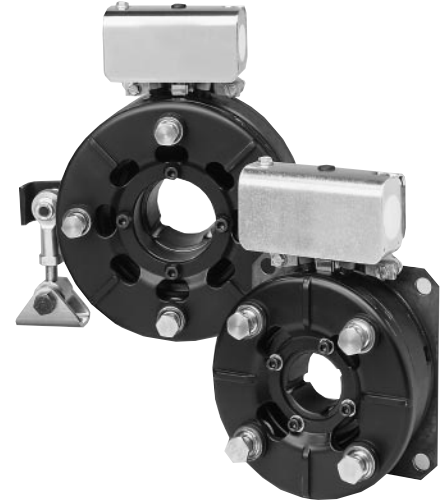
Dynamic Braking

- ❑ 8 sizes
- ❑ 4 to 221 lb. ft. holding torque

ERD units are electrically released, static and dynamic engaged, spring-set brakes for power-off load holding applications. These spring-set brakes automatically stop and hold a load in the event of a power failure or other emergency stop situations. Fully dynamic friction material allows for repeated braking cycles from full motor speed with no torque fade. An optional manual release allows the brake to be released by hand.

Permanent Magnet Brakes

For Power-Off Dynamic Stopping
and Cycling Applications



FB Series

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Shaft Mounted, Dynamic Braking

- ❑ 3 models
- ❑ 10.5 to 56 lb. ft. static torque

Permanent magnet brakes are designed to dynamically stop and hold a moving load and also for high cycle rate stopping. Electric power to the coil nullifies the attraction of the permanent magnet, releasing the brake.

FB models are pre-assembled and feature a torque arm for convenient shaft mounting.

ER Series

Page 98

Flange Mounted, Dynamic Braking

- ❑ 5 models
- ❑ 10.5 to 400 lb. ft. static torque

The ER style brake offers a bulk head flange mounting system, the highest torque rating offered by Warner Electric in the power released series, high cycle rate capability, and excellent life. They require some assembly.

**Permanent Magnet,
 Power-Off Brakes**

C-face Brake Modules



Electro Module Page 102

**Individual Module Components
 EM-FBC (Clutch/Brakes)**

- 3 sizes
- 10.5 to 56 lb. ft. torque range

Used in combination with an Electro Module motor or input clutch module for clutch/brake applications. Electrical power applied to the brake coil nullifies the permanent magnets' force and the brake releases. No springs to limit cycle rates.

EM-FBB (Brake Modules)

- 5 sizes
- 10.5 to 56 lb. ft. torque range

Use for brake alone applications. Mounts between a C-face motor and reducer. Recommended for dynamic cycling operations only.

EM-MBFB (Motor Brakes)

- 4 sizes
- 56C to 215C frame motors

Mounts to the back of a double shafted C-face motor. Never needs adjustment or lubrication.

UniModule Page 105

**One Piece Packages
 UM-FBC (Clutch/Brakes)**

- 4 sizes
- 7 combinations
- 10.5 to 56 lb. ft. static brake torque

UniModule pre-assembled clutch and electrically released brake packages are available in both C-face and base mounted versions.

Unique design employs powerful permanent magnets for maximum torque when power is removed from the brake coil. A small amount of electrical power applied to the brake coil nullifies the permanent magnets and the brake releases. No springs to limit cycle rates. Never any adjustment. No lubrication. These brakes are recommended for dynamic cycling operations only.

Enclosed UniModule Page 108

**Totally Enclosed
 EUM-FBB (Brake Modules)**

- 4 sizes
- 6 to 32 lb. ft. static torque

Totally enclosed UniModule electrically released brake packages keep contaminants out and wear particles in for clean, quiet operation. Assembly, alignment, and preburnishing have been done at the factory. Use for brake alone applications, mountings between a motor and a gear reducer. Select the torque required for the application. Higher torque brakes stop loads faster. Lower torque models provide softer stopping to prevent boxes on conveyors from tipping or skidding.

EUM-MBFB (Motor Brakes)

- 4 sizes
- 56C to 215C frame motors

UniModule motor brakes are used for dynamic stopping and holding of loads when power is removed from the motor. Typical applications include conveyors, process equipment, and lifting devices. Mounts to a double shafted C-face motor.