

Selection Guide Electrically Released Brakes

Electrically Released brakes fall within two categories: **Static Engage** and **Dynamic Stopping**. Static engage brakes are similar in function to an automotive parking brake: while they can be used to stop in an emergency, they are primarily to hold a load stationary after the load is already stopped. A static engage brake that is used as an active stopping brake at high cycle rate will wear out quickly.

Common industrial static applications are vertical or incline conveyors. The drive and motor may decelerate the conveyor to a stop and then engage the brake to hold the load in position. A second common application is where a servo or step motor will accelerate and decelerate the load and the brake holds the load in proper position.

Dynamic engage brakes are those designed to actively stop and hold the load. In these applications the brake is the force that stops the load as well as hold it. Dynamic engagement brakes are designed to provide appropriate life in applications where they experience frequent cycles per minute.











All electrically released brakes will engage when power is turned off and as such will provide emergency stop braking.

Static Engage Brakes

- ERS
- ERD
- EM/ERS

Dynamic Engage Brakes

- FB
- ER
- EM-FBB, FBC, MBFB
- UM-FBC and MBFB
- Unibrake

	Model	Description / Application
Static Engage	ERS 	The ERS family of brakes is a spring set/ electrically released design. Excellent for use in holding applications. Torque ranges from 1.5 to 100 foot pounds.
	ERD 	The ERD family of brakes is a spring set/ electrically released design similar in concept to the ERS designs. The ERD family extends the torque ratings from 3 to 220 foot pounds. The ERD family also includes an adjustable torque option and manual release option.
	EM/ERS 	For C-face mounted applications the EM/ERS provides the ERS design with the easy to mount C-face mounting.
Dynamic Engage	ER 	ER brakes provide a permanent magnet engage/electrically released design. The customer assembled design of the ER family allows for ease of installation into unique customer applications requiring torque ranges from 10 to 400 foot pounds.
	FB 	The bearing mounted FB products are a permanent magnet engage/electrically released design. The bearing mounted design allows for simple mounting using just a torque arm for applications where a pre-assembled unit is desired and no mounting flange is available. Torque ranges from 10 to 56 foot pounds.
	FBB 	The C-face mount FBB units are designed to mount on the output side of a C-face motor where a brake only configuration is appropriate.
	MBFB 	The MBFB designs are the same as the FBB, except they are for the back of motor mounting for double C-face motors.
	FBC 	The C-face mount FBC units are designed to work with the clutch design for applications needing an electrically engaged clutch and electrically released brake.
	Unibrake 	The Unibrake designs are a spring set/ solenoid release brake for mounting to the back of the motor. This is a lower cost, lower cycle rate design compared to the MBFB. Adjustable torque and manual release are standard features.
	Unibrake Coupler 	The coupler design of the Unibrake family is designed for mounting on the output side of a motor where a spring set/solenoid release brake is desired. Adjustable torque and manual release are standard features.

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Load Holding	Manual Release	Bearing Mount	Flange Mount	C-Face Mtg Front of Motor	C-Face Mtg Back of Motor	Back of Motor Mount	Back of Motor Enclosure	Coil Voltage	Adjustable Torque
yes	no	-	-	no	-	yes	no	DC	no
yes	yes	-	-	no	-	yes	no	DC	yes
yes	no	-	-	yes	-	no	no	DC	no
yes	no	no	yes	no	no	-	-	DC	yes
yes	no	yes	no	no	no	-	-	DC	yes
yes	no	no		brake only	no	-	-	DC	yes
yes	no	no		no	yes	-	-	DC	yes
yes	no	no		with clutch	no	-	-	DC	yes
yes	yes	no		no	yes	-	-	AC	yes
yes	yes	no		yes	no	-	-	DC or AC	yes