

Permanent Magnet Failsafe Clutch & Brakes



Valcor Engineering Corporation

DESCRIPTION

The PMFS-series electrically off clutches and brakes are designed to control the motion of a rotating motor shaft. The clutch engages the motor shaft and provides power to the drive train. The clutch is activated electrically; when power is turned off or interrupted, a powerful permanent magnet disengages the clutch from the rotating shaft. The brake stops a rotating shaft. The brake is held off electrically, a field coil creating the magnetic holding force. When power is shut off or interrupted, a powerful permanent magnet causes the brake to activate, stopping the shaft rotation. Permanent magnet clutches and brakes have a larger torque to weight ratio than comparable spring-set devices.

APPLICATION

Rotating shaft clutches and brakes provide rotary motion control on a space craft, launch vehicle, aircraft, land-based vehicle or commercial and industrial equipment.

- Factory Automation
- Spacecraft and Aircraft Systems
- Business Machines
- Printing equipment including 3D printer, copiers, and printing presses
- Packaging equipment
- Conveyor Systems

FEATURES

- Self-adjusting; no need for readjustments
- 24 VDC standard; other voltages available
- Reliable performance over wide temperature range -65° to 350° F
- Mil spec models available
- Stationary field coil – no slip rings or brushes
- Vibration-Proof epoxy resin encapsulated field coil
- 30% faster response compared to spring-set models
- Fully customizable for your application



Contact us today to see how we can help on your next project.

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Valcor specializes in custom designs. Below are just a few examples of styles we have created in the past for our customers.

AVAILABLE STYLES

Series	Style
REPM	Rare earth permanent magnet brakes and clutches
CPMFSM	Ceramic permanent magnet brakes