

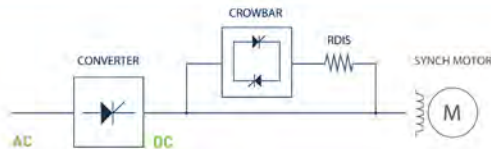
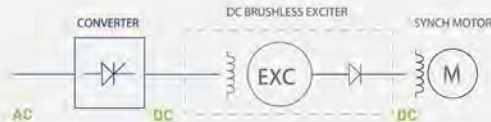
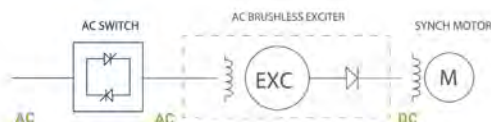
DigiFEX® Family

Digital Field Exciters for Synchronous Motors

AMI Automation is a global leader in automation and control solutions. We specialize in designing, manufacturing, and implementing innovative technologies to enhance process efficiency across industries such as steel, mining, cement, pulp & paper, and power generation.

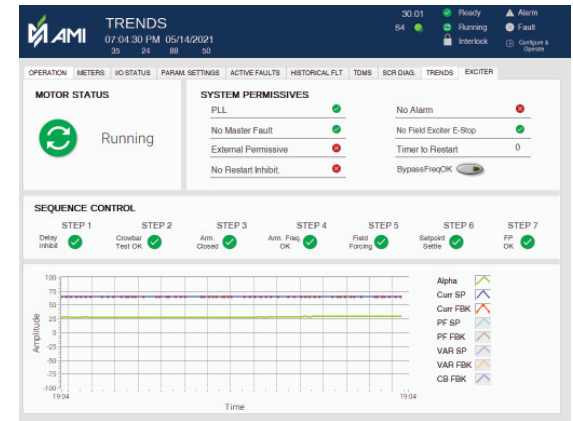
DigiFEX®

The **DigiFEX® family** includes high-performance digital field excitation systems for synchronous motors. It is composed of three main variants, each adapted to specific excitation needs:

Product	Description	Diagram
	Collector Ring Synchronous Motors	
	Brushless Synchronous Motors	
	AC Brushless Synchronous Motors	

 DigiFEX included equipment
 New or existent motor

DigiFEX® is designed to manage the starting sequence of synchronous motors and provide real-time monitoring of key parameters. It displays the status and dynamic behavior of critical signals such as armature and field current, providing precise and stable excitation control during motor operation.



SMARTVIEW DISPLAY® - TRENDS SCREEN

By accurately measuring motor speed* and rotor angle, DigiFEX® ensures that field current is applied at the optimal moment, minimizing electrical disturbances and improving startup performance.

This versatile system supports multiple starting methods, including Reactor, Capacitor, and Autotransformer, and can also be configured for advanced or customized starting and stopping sequences as required.



SMARTVIEW DISPLAY® - OPERATION SCREEN

All variants share SmartView Display® technology, modular architecture, and industrial-grade reliability.

Key Features:

- ▶ Real-time monitoring and diagnostics through SmartView Display® with multilingual interface (EN/ES), event log, I/O status, and startup permissives.
- ▶ Configurable analog/digital I/O
- ▶ High-speed and on-screen trending (278 μ s and 500 ms samples)
- ▶ Wi-Fi Direct® wireless access
- ▶ SSD for field upgrades
- ▶ Quad-core embedded control system
- ▶ Regulation Modes:
 - Excitation current (A).
 - Reactive Power (kVARs).
 - Power Factor (P.F.).
- ▶ Speed sensor
- ▶ Configurable communication protocols (TCNet, Ethernet TCP/IP, and Profibus among others).
- ▶ Full compatibility with new or existing motors

Integrated Protections:

- ▶ Pull-out (slip-guard) protection
- ▶ Field current tracking
- ▶ Crowbar test on starting resistor
- ▶ Restart blocking
- ▶ Field winding overheat protection
- ▶ Over/under field current
- ▶ Motor stall*
- ▶ Optional RTD support
- ▶ On Screen Ready/Run Permissives.
- ▶ Self-test diagnostics

*Additional speed sensor required.

Model Variants

DigiFEX B®

Optimized for brushless synchronous motors, DigiFEX B® retains all the standard features and protections of the DigiFEX® system while introducing specific capabilities for brushless excitation applications. It is ideal for systems that require low maintenance and high operational reliability.

Additional features in DigiFEX B® include:

- ▶ Rotating diode failure detection
- ▶ Speed and rotor angle sensing for precise excitation timing
- ▶ Suitable for both new installations and retrofits

DigiFEX® BA

Designed for AC brushless synchronous motors, integrating an AC-based excitation system that offers high efficiency and minimal operational intervention. This model combines digital precision with robust industrial communication features.

Additional features in DigiFEX® BA include:

- ▶ Rotating diode failure detection
- ▶ Speed and rotor angle sensing for precise excitation timing
- ▶ Suitable for both new installations and retrofits
- ▶ Advanced protections including over/under field current, field winding overheat, restart blocking, and more.
- ▶ Suitable to work with VFD's and LCI's



DIGIFEX® INTERNAL VIEW

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