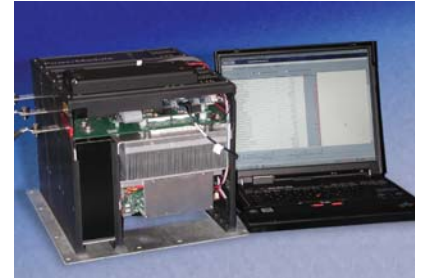


PowerModule™ PM1000 Product Developer Kit

The New Standard in Power Conversion Technology

What is the PM1000 Developer Kit?

The PowerModule™ PM1000 Product Developer Kit (PDK) allows original equipment manufacturers, value added resellers, system integrators and end-users to quickly develop hundreds of custom applications. The PDK allows you to modify parameters of the four standard software applications loaded in the PM1000 converter through a graphical user interface (GUI).



The PDK combines a PowerModule PM1000 power converter with application software and a graphical user interface for rapid development of power conversion systems.

As a result, PM1000 converters can be quickly and easily configured to address a wide range of applications and provide a platform for rapid development of high power converters and systems giving you the ability to rapidly develop new products of your own.

Operational Description

The three-phase PM1000 converter can be configured to support any of the following power conversion types: AC-DC, DC-DC or DC-AC. The PM1000 is loaded with one of four standard software applications (Active Rectifier, DC-DC, AC Voltage Source or Motor Control).

The GUI software provides a human machine interface on a developer's computer for setting up the PM1000 parameters, passing parameters back to the user interface for display and/or calculations and control of the system by the operator.

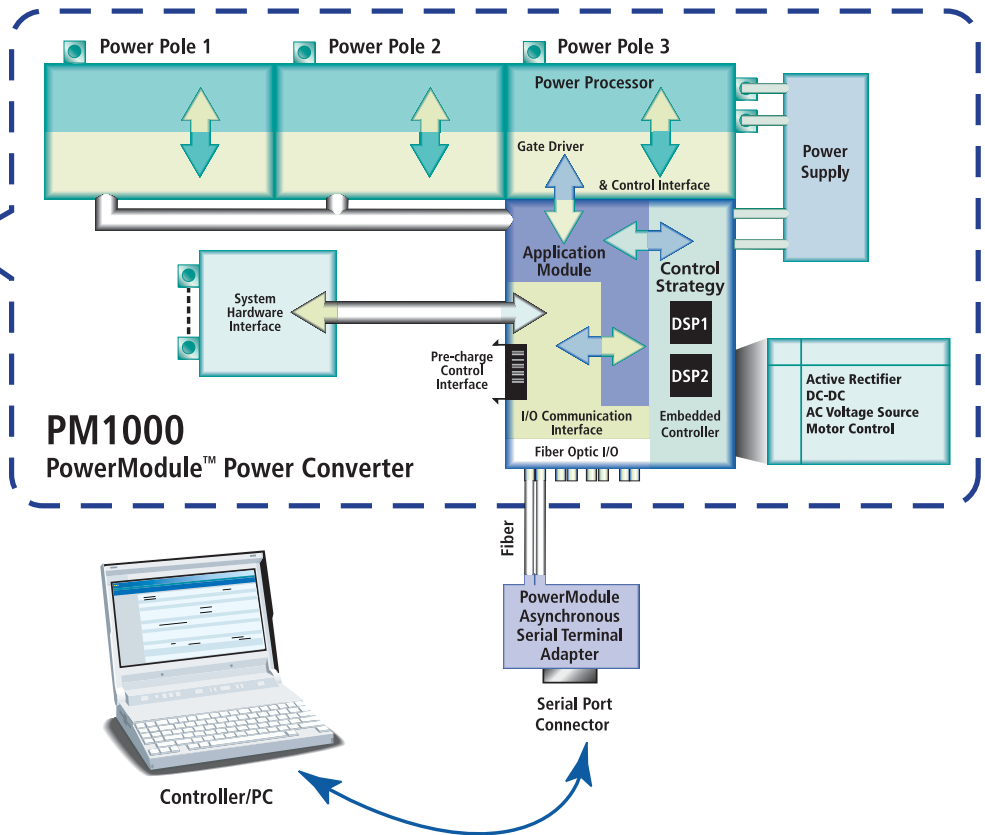
Communications between the PM1000 and GUI are handled through a fiber optic link that provides high noise immunity. A PowerModule asynchronous serial terminal adapter (PASTA) provides the hardware interface to convert the fiber optic signals to serial format.

Setpoints can be input by key board and selected for modification by a mouse. These user settable parameters allow quick customization of performance parameters and can be changed in real time. Metered parameters can be viewed in real time on the parameters list screen.

Software and hardware warnings are provided in real time to the user through the GUI. A fault log screen provides a detailed fault history with each recorded fault time stamped.

Benefits

- **High power density**
 - Up to 130 W/in.³
- **Rapid product development**
 - AC-DC, DC-DC or DC-AC
 - Bi-directional functionality
 - Current or voltage source
- **Scalable design**
 - Series and/or parallel operation
 - Fiber optic communication
 - Standard building blocks
- **Flexible architecture**
 - Rapid software and parameter configuration
 - Serial and CAN protocols
 - Expandable
- **Programmable**
 - Software application modules
 - One unit does multi-functions
 - Remote programmability
- **Self-supportive**
 - Powered from DC bus
 - Integrated protection
 - Fault annunciation
- **Grid interconnectivity**
 - 50/60 Hz
 - Grid disturbances ride-through
- **Easy to use**
 - Graphical User Interface (GUI)
 - Remote communication
 - Self-protected
 - Connect-and-Go



Each PowerModule PM1000 Converter Developer Kit includes the following:

- 3-pole, 175 kVA PM1000, air or liquid cooled
- Application software as ordered
(Active Rectifier, DC-DC, AC Voltage Source or Motor Control)
- Integrated pre-charge control interface (pilot relay with 24 VDC supply)
- Graphical user interface software (GUI)
- Serial-to-fiber adapter —PASTA
- PM1000 user manual



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