

Powermonitor 3000™ M4



Product Profile

The Allen-Bradley Powermonitor 3000 is the latest in a series of power meters from Rockwell Automation developed to meet the ever-changing demands for power automation and metering in a global marketplace.

A Compact Unit with Enhanced Communications

Many features set the Powermonitor 3000 apart from other power meters. Two of the most important are its compact size and its dual onboard communications capability:

- **Compact Size:** the master module is easily mounted in a standard 1 space factor motor control center (MCC). The display also fits into existing 4" ANSI cutouts. The result — lower installation costs for both new and retrofitted applications.
- **Communications:** every Powermonitor 3000 comes standard with a native RS-485 communication port which supports the DF-1 half duplex slave protocol. This provides a cost-effective method to gather information without having to purchase a separate module. DeviceNet™, Remote I/O, RS-232 and Ethernet options likewise allow information access over a variety of networks, "from the shop floor to the top floor." The Ethernet communication card also includes a built-in HTML web page for Internet read access of all critical power and energy data.

The Complete Power Metering Solution

Perhaps the most important feature of the Powermonitor 3000 is its role in Rockwell Automation Power and Energy Management Solutions. These systems combine 1) Allen-Bradley power metering hardware, 2) Rockwell Software power management software, 3) a variety of communication protocols, such as Ethernet and DeviceNet, and 4) value-added system integration services. The net result — a complete energy management and automation solution backed by the strength and experience of Rockwell Automation.



Other Valuable Features:

- Power monitoring with 50 ms update rates
- Configurable snapshot data logs that store the exact information required for the application (up to 45,867 data points)
- Event logs that are 50 records deep
- Min-Max logs
- 10 configurable setpoints
- 10 power timers
- Total harmonic distortion
- Projected demand
- ANSI C12.16 revenue accuracy
- ANSI C37.90 — 1989 breaker trip ratings
- ANSI C37.90 — transient and oscillatory
- Designed to mount inside switchgear or MCCs

AB PLCs



Bringing Together Leading Brands in Industrial Automation

Measurement Accuracy, Resolution and Range

Parameter	Accuracy In Percent of Full Scale @ 25°C 50/60 Hz (1404-M4)	Nominal/Range
Volts: V1, V2, V3	±0.2%	0-347/0-399 V L-N RMS 0-600/0-691 V L-L RMS
Current I1, I2, I3, I4	±0.2%	5A/0-10.6A RMS
Frequency	±0.05 Hz	20 – 120 Hz
Power Functions: kW, kVA, kVAR, Demand Functions: kW, kVA Energy Functions: kWh, kVAh	±0.4%	
Power Factor	±0.4%	0-100

General Input, Output and Environmental Ratings

Input and Output Ratings			General Specifications	
Control Power	1404-M4	120V/240V AC 50/60Hz or 125V/250V DC (0.2 Amp maximum loading)	Operating Temperature Native Comms RIO, DNET, RS232	-20° C to 60° C (-40° F to 140° F) Cat. No. 1404-M4 0° C to 55° C
Voltage Inputs	Input Impedance: 1 Meg-Ohm minimum		Storage Temperature	-40° C to 85° C (-40° F to 185° F)
Current Inputs	Overload Withstand: 15 Amps Continuous, 200 Amps for one second Burden: 0.05 VA Impedance: 0.002 Ohms Max Crest Factor @ $I_{RMS} = 5A \rightarrow 3$		Humidity	5% to 95%, Noncondensing
Status Input	Contact Closure (Internal 24V DC) (2)		Vibration	10 to 500Hz: 2G Operational (±0.012in.)
Control Relay KYZ Output	(1) ANSI C 37.90-1989 (1) Solid State KYZ		Shock	1/2 Sine Pulse, 11ms duration: 30G Operational and Nonoperational

Powermonitor 3000 is a trademark of Rockwell Automation. ControlNet is a trademark of ControlNet International Ltd.
DeviceNet is a trademark of ODVA. Ethernet is a registered trademark of Xerox Corporation.

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