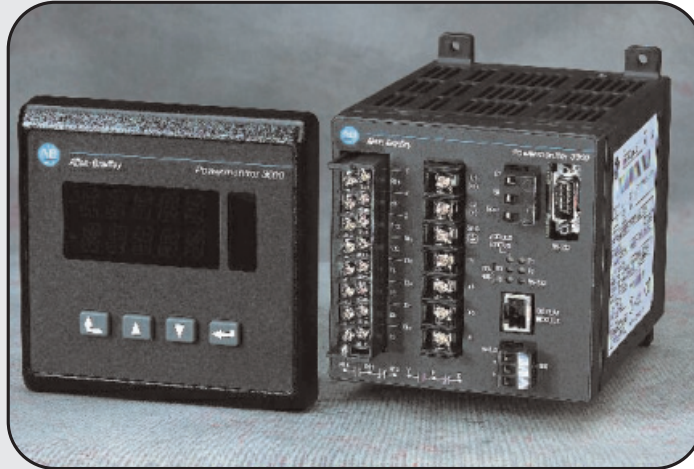


# Powermonitor 3000™ M6

The Allen-Bradley Powermonitor 3000 M6 is a high-functionality power quality meter that is used by energy consumers in critical power and energy management applications. The Powermonitor 3000 M6 meter deploys state-of-the-art dual-port technology, helping customers leverage the high-performance newer networks without the need for cumbersome serial interface bridges. The Powermonitor 3000 M6 has many sophisticated features that set it apart from other power quality meters such as:



## Benefits

- **High speed Oscillography:** The Powermonitor 3000 M6 meter provides simultaneous captures of all 7 channels in non-volatile memory with up to 408 cycles per capture at 60 Hz. Stores up to 8 captures.
- **Harmonic Analysis:** The Powermonitor 3000 M6 meter measures percent distortion and magnitude up to the 41st harmonic. It performs harmonic calculations, such as TIF, %THD, K-factor, Crest factor and compliance check to IEEE-519.
- **Communications:** Every Powermonitor 3000 M6 comes with a standard native RS-485 communication port that supports the DF1™ half-duplex slave protocol. The M6 is also available with factory-installed communication options such as DeviceNet™, Ethernet®, Remote I/O and DF1 via RS232. The Ethernet communication card includes a built-in HTML web page for Internet read access of all critical power and energy data.
- **Compact Size:** The Powermonitor 3000 M6 meter consists of a master module and an optional display module. The master module mounts easily into existing switchgear or Motor Control Centers (MCCs), eliminating the need for an external enclosure. The display also fits into existing 4-inch ANSI cutouts, which lowers installation costs for both new and retrofitted applications.

## The Complete Power Metering Solution

Perhaps the most important feature of the Powermonitor 3000 M6 is its role as a high-end power quality meter in Rockwell Automation's Power and Energy Management Solutions. These systems combine 1) Allen-Bradley power metering hardware, 2) Rockwell Software power management software, 3) a variety of communications 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.

## Additional Valuable Features

- Sag and Swell detection
- Load Factor calculation
- Real time power monitoring with 40-75 ms selectable update rate
- Configurable data logs, up to 45,867 records deep
- Event logs that are 100 records deep
- Min-Max logs values for 74 different parameters.
- Time stamped data logging to nearest 0.01 second
- All logs stored internally in a non-volatile memory
- 20 configurable setpoints
- Projected demand
- Electronic KYZ pulse output
- Ability to do external demand interval sync via external contact closure or communications
- Support for addressing onboard I/O using RIO discrete data reads
- IEEE 519 power quality pass/fail test
- Revenue metering compliance to ANSI C12.20 and EN 60687 Class 0.5 and Canadian Revenue specification accuracy. (Class 0.2 revenue accuracy is also available)
- ANSI C37.90-1989 breaker trip ratings, transient and oscillatory
- UL, CUL, CE certified
- Field Upgradable to a Powermonitor 3000 M8
- PLC-5, SLC 500, ControlLogix, RSLinx, RSPower32, RSEnergyMetrix and RSVIEW32 compatibility

## Measurement Accuracy and Range

Parameters	Accuracy <sup>1</sup>	Nominal	Range
Volts	±0.05 %	347V 600V	15...399V $L-N$ RMS 26...691V $L-L$ RMS
Current	±0.05 %	5 A	50 mA...10.6 A RMS
Frequency	±0.05 Hz	50, 60 Hz	40...75 Hz
Power	±0.1 %		
Energy, kVH, kVAH	ANSI C12.20 and EN 60687 Class 0.5 Accuracy (Class 0.2 is also available)		

<sup>1</sup> In Percent of Full Scale @ 25 °C 50/60 Hz, unity power factor.

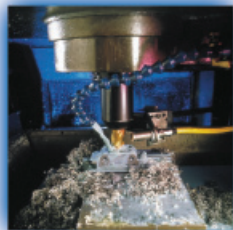
## Input Output Ratings

Control Power Input	120V...240V ac 50...60 Hz or 125V...250V dc (0.2 A maximum loading)		
Voltage Input Impedance	1 M $\Omega$ minimum, 399V ac maximum; V1, V2 and V3 to N		
Current Inputs	Overload Withstand	15 A continuous, 200 A for one second	
	Burden	0.05 VA	
	Impedance	0.002 $\Omega$	
	Maximum Crest Factor	3 @ 5 A	
Status Input	Contact Closure (Internal 24V dc)		
Control Relay Output	ANSI C37.90-1989		
KYZ Output	Solid State KYZ — 80 mA at 240V dc — 300V dc		

Powermonitor 3000 and DF1 are trademarks of Rockwell Automation. ControlNet is a trademark of ControlNet International, Ltd. DeviceNet is a trademark of the Open DeviceNet Vendor Association.

## Environmental Ratings

Operating Temp., Ambient	1404-M605X-000, DNT, 1404-DM 1404-M605X-RIO, RS232, ENT	-20...+60 °C (-4...+140 °F) +0...+55 °C (+32...+132 °F)
Storage Temperature		-40...+85 °C (-40...+185 °F)
Humidity		5...95%, Noncondensing
Vibration		10...500 Hz: 2G Operational (±0.012 in) 2.5G Non-operational (±0.015 in)
Shock		1/2 Sine Pulse, 11 ms duration: 30G Operational and 30G Non-operational



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