

Bulletin 1426 PowerMonitor™ 5000



Enhanced Technology Captures Comprehensive Energy Information

The Allen-Bradley PowerMonitor 5000 leverages new technology and capabilities to capture comprehensive power quality data about your energy network.

Benefits

- Revenue-accurate meter to 0.2% can help you better understand the cost of energy
- Capable of monitoring power quality to help you determine where and how it impacts your facility

Features

- Scalable Power Quality platform product monitors four voltage and four current channels for each electrical cycle
- Provides 1024 samples across eight channels every cycle
- Measures up to the 127th harmonic
- Internal web page for the meter simplifies configuration and allows you to view real-time data
- Virtual wiring correction capability can correct miswiring during commissioning, reducing the need to power down for correction
- Configurable alarms for up to 20 events can help prevent issues or equipment damage
- Four inputs for WAGES (water, air, gas, electricity, steam) data collection
- Four outputs for connection to SCADA or control systems
- Native EtherNet/IP™ communication port included
- DeviceNet™ communications option
- ControlNet™ communications option



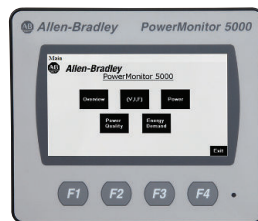
Allen-Bradley PowerMonitor 5000

Overview

The Allen-Bradley® PowerMonitor 5000 is the premier power quality meter from Rockwell Automation. Building on core power and energy metering capabilities, the PowerMonitor 5000 takes energy monitoring to the next level with additional features including:

- virtual wiring correction capability
- sag/swell detection alert
- up to 20 setpoints with conditional, logical and relational programming
- single cycle metering

This power meter is a scalable solution which can be fully integrated into a plant-wide network. When connected with other PowerMonitor 5000 meters, the patent-pending system event snapshot tool feature offers a system-wide event picture, allowing you to view the process upstream and downstream and gain a better understanding of your energy structure and potential impact to your equipment.



Separately mounted display for power and energy data for up to three PowerMonitor 5000 units.

This cutting edge meter provides detailed power quality data that, when used with FactoryTalk™ EnergyMetrix software, can offer you a powerful set of data analytics to understand and take action on power quality issues and energy management activities.

LISTEN.
THINK.
SOLVE.

Technical Specifications

Parameter	Accuracy in % of Reading at 25 °C 50/60 Hz Unity Power Factor	Nominal/Range
Voltage sense inputs: V1, V2, V3, VN	±0.1%	Line-neutral rms: 398V nominal, 15...660V Line-line rms: 690V nominal, 26...1144V
VG		Connect to power system earth ground only.
Current sense input: I1, I2, I3, I4	±0.1%	5A nominal, 0.05...15.6 A rms
Frequency	±0.05 Hz	50 or 60 Hz nominal 40...75 Hz
Power functions: kW, kVA, kVAR Demand functions: kW, kVA Energy functions: kWh, kVAh	ANSI C12.20 -2010 Class 0.2 EN 62053-22 -2003 Class 0.2 Accuracy	
Metering update rates	Every line cycle	

Input and Output Ratings

Parameter	Rating
Control power (AC)	85...264V AC, 47...63 Hz (38VA) or 106...275V DC (26VA)
Control power (DC)	22.8V DC...25.2V DC (12VA)
Voltage sense inputs: V1, V2, V3, VN	Input Impedance: 5 MΩ minimum Input current: 2 mA maximum
Current sense inputs: I1, I2, I3, I4	Overload withstand: 22 A continuous, 200 A for one second Burden: Negligible Impedance: Negligible Maximum Crest Factor at 5 A is 4.0 Starting Current: 5 mA
Status Inputs	Contact closure (internal 24V DC)
KYZ output	Solid state KYZ: 80 mA at 240V AC / V DC
Control Relay	ANSI C37.90 trip duty: 2005

General Specifications

Parameter	Rating
Terminal blocks	14AWG
Dielectric Withstand	UL 61010 and EN 61010
Agency Approvals	UL, CE

Mechanical Dimensions

Parameter	Rating
Width x Height x Depth mm (in)	185 (7.29) x 132 (5.2) x 178 (7.0)

Control Relay

Rating	50/60 Hz AC RMS	DC
Max resistive load switching	10 A at 250V (2500VA)	10 A at 30V and 0.25 A at 250V
Min load switching	10 mA at 24V	10 mA at 24V
UL 508, CSA 22.2, IC Rating Class	B300	Q300
Max make values (inductive load)	30 A at 120V 15 A at 240V (3600VA)	0.55 A at 125V 0.27 A at 240V (69VA)
Max break values (inductive load)	3 A at 120V 1.5 A at 240V (360VA)	0.55 A at 125V 0.27 A at 240V (69VA)
Max motor load switching	1/3 HP at 125V 1/2 HP at 250V	

Environmental Ratings

Parameter	Rating
Operating Temperature	-20°C...+70°C (+4°F...+158°F)
Storage Temperature	-40°C...+85°C (-40°F...+185°F)
Humidity - non-condensing	5-95%
Shock - operating	30G
Shock - non-operating	50G

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