

PowerMonitor 5000 Unit and Optional Communication Module

**ATTENTION:**

- Before installing, configuring, operating, or maintaining this product, read this document and the documents listed in the Additional Resources section for installing, configuring, or operating equipment. Users should familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.
- Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance shall be carried out by suitably trained personnel in accordance with applicable code of practice.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- Solid state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls, publication SGI-1.1, available from your local Rockwell Automation® sales office or online at <http://www.rockwellautomation.com/literature/> describes some important differences between solid state equipment and hard-wired electromechanical devices.



ATTENTION: Do not install, configure, operate, or maintain this product until you have read the product documentation and the documents in the Additional Resources section for installing, configuring, operating or maintaining equipment. To get the product documentation go to <http://www.rockwellautomation.com/literature/> or contact your local sales office or Rockwell Automation representative.

ATTENTION: Ne pas installer, configurer, exploiter ou maintenir ce produit tant que vous n'avez pas lu sa documentation et les documents de la rubrique Documents connexes pour l'installation, la configuration, l'exploitation et la maintenance de l'équipement. Pour obtenir de la documentation, rendez-vous sur le site <http://www.rockwellautomation.com/literature/> ou contactez votre agence commerciale Rockwell Automation locale ou son représentant.

ACHTUNG: Für die Installation, Konfiguration, den Betrieb und die Wartung dieses Produkt lesen Sie sich bitte zunächst die Produktdokumentation sowie die Dokumente im Abschnitt „Weitere Informationen“ durch. Die entsprechende Produktdokumentation finden Sie unter <http://www.rockwellautomation.com/literature/> oder kontaktieren Sie Ihr lokales Vertriebsbüro bzw. einen Rockwell Automation-Mitarbeiter.

ATENCIÓN: No instale, configure, opere ni mantenga este producto hasta que haya leído la documentación del producto y los documentos en la sección Recursos adicionales para la instalación, configuración, operación o mantenimiento de equipo. Para conseguir la documentación, dirijase a <http://www.rockwellautomation.com/literature/> o póngase en contacto con su oficina regional de ventas o representante de Rockwell Automation.

ATENÇÃO: Não instale, configure, opere ou mantenha este produto até que você leia a documentação do produto e os documentos na seção Recursos adicionais para a instalação, configuração, operação ou manutenção do equipamento. Para conseguir a documentação, visite <http://www.rockwellautomation.com/literature/> ou entre em contato com seu escritório de vendas regional ou representante da Rockwell Automation.

ATTENZIONE: Non installare, configurare, attivare o riparare questo prodotto senza avere prima letto la relativa documentazione nonché i documenti indicati nella sezione Ulteriori Risorse riguardanti l'installazione, la configurazione, l'attivazione o la riparazione dell'apparecchiatura. Per la documentazione sul prodotto visitare il sito <http://www.rockwellautomation.com/literature/> o contattare l'ufficio vendite o il rappresentante Rockwell Automation di zona.

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注意: 若未阅读产品文档以及“其它资源”小节中提及的有关安装、配置、运行或维护设备的相关文档，请勿安装、配置、运行或维护本产品。请访问 <http://www.rockwellautomation.com/literature/> 或联系您当地的销售办事处或罗克韦尔自动化代表，以获取产品文档。

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ВНИМАНИЕ: Не устанавливайте, не конфигурируйте, не запускайте в эксплуатацию и не поддерживайте работу продукта до прочтения технической документации по продукту и документации в разделе Дополнительные материалы для инсталлирования, конфигурирования, запуска в эксплуатацию и поддержки работы продукта. Чтобы ознакомиться с документацией по продукту, перейдите по ссылке <http://www.rockwellautomation.com/literature/> или свяжитесь с локальным офисом продаж или представителем Rockwell Automation.

UWAGA: Nie instaluj i nie uruchamiaj tego urządzenia dopóki nie zapoznasz się z instrukcją użytkownika produktu. Aby uzyskać dokumentację produktu przejdź do strony internetowej <http://www.rockwellautomation.com/literature/> lub skontaktuj się z lokalnym biurem sprzedaży lub przedstawicielem firmy Rockwell Automation.

UPOZORNĚNÍ: Neprovádějte instalaci, konfiguraci, provoz ani údržbu, pokud jste dosud nepřečetli dokumentaci k produktu a dokumenty obsažené v sekci Doplňující informace pro instalaci, konfiguraci, provoz a údržbu. Tuto dokumentaci můžete získat na <http://www.rockwellautomation.com/literature/> nebo od obchodního zástupce společnosti Rockwell Automation.

WAARSCHUWING: Installeer, configureer of onderhoud dit product niet vooraleer u de productdocumentatie en de documenten in de documenten in de aanvullende informatiesectie voor installatie, werking en onderhoud gelezen hebt. Voor de productinformatie, ga naar <http://www.rockwellautomation.com/literature/> of contacteer uw lokaal Rockwell Automation-kantoor.

Product Description

The PowerMonitor™ 5000 unit is a compact, cost-effective, electric power and energy metering device. It measures voltage and current in an electrical circuit, meeting revenue accuracy standards. It communicates power and energy parameters to applications, such as FactoryTalk® EnergyMetrix, and web browser over Ethernet networks. The PowerMonitor 5000 unit works with these software applications to address key customer applications including:

- Load profiling - log power parameters, such as real power, apparent power, and demand, for analysis of power usage by loads over time
- Cost allocation - report actual energy cost by department or process to integrate energy information into management decisions
- Billing and sub-billing - charge users of energy the actual usage cost rather than allocating by square footage or other arbitrary methods
- Power system monitoring and control - display and control power flow and energy utilization

Load the USB Device Driver First

The PowerMonitor 5000 unit has a USB device port that requires a USB A to USB mini-B cable for initial configuration. This is a standard cable that can be found at most electronic stores. For your convenience, Rockwell Automation also offers this cable as catalog number 2711C-CBL-UU02.

Prior to configuring your PowerMonitor 5000 unit, a USB device driver must be loaded onto your personal computer. The driver and installation instructions can be found at: <http://www.rockwellautomation.com/compatibility/#/downloads>

1. Click Find Product Downloads.
2. Search for Energy Monitoring in the product search field.
3. Select 1426-MxE-xxx, PowerMonitor 5000 USB Driver and Installation Instructions.



ATTENTION: In case of malfunction or damage, no attempts at repair should be made. The module should be returned to the manufacturer for repair. Do not dismantle the module.



ATTENTION: Electrostatic discharge can damage integrated circuits or semiconductors. Follow these guidelines when you handle the module:

- Touch a grounded object to discharge static potential.
- Wear an approved wrist strap-grounding device.
- Do not open the module or attempt to service internal components.
- Use a static safe workstation, if available.
- Keep the module in its static shield bag when not in use.

IMPORTANT Any illustrations, charts, sample programs, and layout examples shown in this publication are intended solely for the purposes of example. Since there are many variables and requirements associated with any particular installation, Rockwell Automation does not assume responsibility or liability for actual use based upon the examples shown in this publication.



ATTENTION: Only qualified personnel, following accepted safety procedures, should install, wire, and service the PowerMonitor 5000 unit and its associated components. Before beginning any work, disconnect all sources of power and verify that they are de-energized and locked out. Failure to follow these instructions may result in personal injury or death, property damage, or economic loss.



ATTENTION: Never open a current transformer (CT) secondary circuit with primary current applied. Wiring between the CTs and the PowerMonitor 5000 unit should include a shorting terminal block in the CT secondary circuit. Shorting the secondary with primary current present allows other connections to be removed if needed. An open CT secondary with primary current applied produces a hazardous voltage, which can lead to personal injury, death, property damage, or economic loss.

IMPORTANT The PowerMonitor 5000 unit is not designed for, nor intended for, use as a circuit protective device. Do not use this equipment in place of a motor overload relay or circuit protective relay.

The relay output contacts and solid-state KYZ output contacts on the PowerMonitor 5000 unit may be used to control other devices through setpoint control or communication. You configure the response of these outputs to a communication failure. Be sure to evaluate the safety impact of the output configuration on your plant or process.

If this equipment is used in a manner not specified by Rockwell Automation, the protection provided by the equipment may be impaired. Refer to the PowerMonitor 5000 unit user manual, publication 1426-UM001, for complete product installation and operation instructions.

Input and Output Ratings

Attribute	Value
Control power, main input	120/240V AC, 50/60 Hz (38 VA), or 120/240V DC (26 VA)
Control power, external input	24V DC (12 VA)
Input/Output (I/O), status input	Contact closure (internal 24V DC)
Input/Output (I/O), control relay KYZ output	ANSI C37.90-2005 trip duty Solid state KYZ 80 mA max at 240V AC/DC
Voltage Sensing	398 line-neutral/690V line-line CAT III
Current sensing	5 A rms

Wire Requirements

Wiring Category	Wire Type	Wire Size Range	Wires per Terminal	Recommended Torque
Control Power	CU - 75 °C (167 °F)	0.25...2.5 mm ² (22...14 AWG)	2 max	1.27 N·m (11.24 lb·in)
Input/Output (I/O)		0.5...2.5 mm ² (20...14 AWG)		0.68 N·m (6 lb·in)
Voltage Sensing		0.75...2.5 mm ² (18...14 AWG)		1.50 N·m (13.3 lb·in)
Current Sensing		4 mm ² max (12 AWG max)	1 max	N/A

Optional Communication Modules

For installation instructions, refer to the PowerMonitor 5000 Optional Communication Modules installation instructions, publication [1426-IN002](#).

IMPORTANT A Torx8 driver is required to fasten the communication module to the PowerMonitor 5000 unit.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
PowerMonitor 5000 Unit User Manual, publication 1426-UM001	Provides installation instructions, wiring diagrams, configuration, and specifications for PowerMonitor 5000 units.
PowerMonitor 5000 Optional Communication Modules Installation Instructions, publication 1426-IN002	Provides instructions for installing and removing optional communication modules.
FactoryTalk EnergyMatrix Software, publication F1ALK-UM101	Provides information on software for PowerMonitor units.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.rockwellautomation.com/products/certification	Provides declarations of conformity, certificates, and other certification details.

To view or download product publications, go to <http://www.rockwellautomation.com/literature>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

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