

Product Information

Original Instructions



Allen-Bradley

by ROCKWELL AUTOMATION

PowerMonitor 5000 Unit and Optional Communication Module

Catalog Numbers 1426-M5E, 1426-M5E-DNT, 1426-M5E-CNT, 1426-COMM-DNT, 1426-COMM-CNT, 1426-M6E, 1426-M6E-DNT, 1426-M6E-CNT, 1426-M8E, 1426-M8E-DNT, 1426-M8E-CNT



ATTENTION: Read this document and the documents listed in the Additional Resources section about installation, configuration and operation of this equipment before you install, configure, operate or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to 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.

注意：在安装、配置、操作和维护本产品前，请阅读本文档以及“其他资源”部分列出的有关设备安装、配置和操作的相应文档。除了所有适用规范、法律和标准的相关要求之外，用户还必须熟悉安装和接线说明。

安装、调整、投运、使用、组裝、拆卸和维护等各项操作必须由经过适当训练的专业人员按照适用的操作规范实施。

如果未按照制造商指定的方式使用该设备，则可能会损害设备提供的保护。

ATENCIÓN: Antes de instalar, configurar, poner en funcionamiento o realizar el mantenimiento de este producto, lea este documento y los documentos listados en la sección Recursos adicionales acerca de la instalación, configuración y operación de este equipo. Los usuarios deben familiarizarse con las instrucciones de instalación y cableado y con los requisitos de todos los códigos, leyes y estándares vigentes.

El personal debidamente capacitado debe realizar las actividades relacionadas a la instalación, ajustes, puesta en servicio, uso, ensamblaje, desensamblaje y mantenimiento de conformidad con el código de práctica aplicable. Si este equipo se usa de una manera no especificada por el fabricante, la protección provista por el equipo puede resultar afectada.

ATENÇÃO: Leia este e os demais documentos sobre Instalação, configuração e operação do equipamento que estão na seção Recursos adicionais antes de instalar, configurar, operar ou manter este produto. Os usuários devem se familiarizar com as instruções de instalação e fiação além das especificações para todos os códigos, leis e normas aplicáveis.

É necessário que as atividades, incluindo instalação, ajustes, colocação em serviço, utilização, montagem, desmontagem e manutenção sejam realizadas por pessoal qualificado e especializado, de acordo com o código de prática aplicável.

Caso este equipamento seja utilizado de maneira não estabelecida pelo fabricante, a proteção fornecida pelo equipamento pode ficar prejudicada.

ВНИМАНИЕ: Перед тем как устанавливать, настраивать, эксплуатировать или обслуживать данное оборудование, прочитайте этот документ и документы, перечисленные в разделе «Дополнительные ресурсы». В этих документах изложены сведения об установке, настройке и эксплуатации данного оборудования. Пользователи обязаны ознакомиться с инструкциями по установке и прокладке соединений, а также с требованиями всех применяемых норм, законов и стандартов.

Все действия, включая установку, наладку, ввод в эксплуатацию, использование, сборку, разборку и техническое обслуживание, должны выполняться обученным персоналом в соответствии с применяемыми нормами и правилами.

Если оборудование используется не предусмотренным производителем образом, защита оборудования может быть нарушена.

注意：本製品を設置、構成、稼動または保守する前に、本書および本機器の設置、設定、操作についての参考資料の該当箇所に記載されている文書に目を通してください。ユーザは、すべての該当する条例、法律、規格の要件に加えて、設置および配線の手順に習熟している必要があります。

設置調整・運転の開始、使用、組立て、解体、保守を含む諸作業は、該当する実施規則に従って訓練を受けた適切な作業員が実行する必要があります。

本機器が製造メーカーにより指定されていない方法で使用されている場合、機器により提供されている保護が損なわれる恐れがあります。

ACHTUNG: Lesen Sie dieses Dokument und die im Abschnitt „Weitere Informationen“ aufgeführten Dokumente, die Informationen zu Installation, Konfiguration und Bedienung dieses Produkts enthalten, bevor Sie dieses Produkt installieren, konfigurieren, bedienen oder warten. Anwender müssen sich neben den Bestimmungen aller anwendbaren Vorschriften, Gesetze und Normen zusätzlich mit den Installations- und Verdriftungsanweisungen vertraut machen.

Arbeiten im Rahmen der Installation, Anpassung, Inbetriebnahme, Verwendung, Montage, Demontage oder Instandhaltung dürfen nur durch ausreichend geschulte Mitarbeiter und in Übereinstimmung mit den anwendbaren Ausführungsvorschriften vorgenommen werden.

Wenn das Gerät in einer Weise verwendet wird, die vom Hersteller nicht vorgesehen ist, kann die Schutzfunktion beeinträchtigt sein.

ATTENTION : Lisez ce document et les documents listés dans la section Ressources complémentaires relatifs à l'installation, la configuration et le fonctionnement de cet équipement avant d'installer, configurer, utiliser ou entretenir ce produit. Les utilisateurs doivent se familiariser avec les instructions d'installation et de câblage en plus des exigences relatives aux codes, lois et normes en vigueur. Les activités relatives à l'installation, le réglage, la mise en service, l'utilisation, l'assemblage, le démontage et l'entretien doivent être réalisées par des personnes formées selon le code de pratique en vigueur.

Si cet équipement est utilisé d'une façon qui n'a pas été définie par le fabricant, la protection fournie par l'équipement peut être compromise.

주의：본 제품 설치, 설정, 작동 또는 유지 보수하기 전에 본 문서를 포함하여 설치, 설정 및 작동에 관한 참고 자료 색션의 문서들을 반드시 읽고 숙지하십시오. 사용자는 모든 관련 규정, 법규 및 표준에서 요구하는 사항에 대해 반드시 설치 및 배선 지침을 숙지해야 합니다.

설치, 조정, 가동, 사용, 조립, 분해, 유지보수 등 모든 작업은 관련 규정에 따라 적절한 교육을 받은 사용자를 통해서만 수행해야 합니다.

본 장비를 제조사가 명시하지 않은 방법으로 사용하면 장비의 보호 기능이 손상될 수 있습니다.

ATTENZIONE Prima di installare, configurare ed utilizzare il prodotto, o effettuare interventi di manutenzione su di esso, leggere il presente documento ed i documenti elencati nella sezione "Altre risorse", riguardanti l'installazione, la configurazione ed il funzionamento dell'apparecchiatura. Gli utenti devono leggere e comprendere le istruzioni di installazione e cablaggio, oltre ai requisiti previsti dalle leggi, codici e standard applicabili.

Le attività come installazione, regolazioni, utilizzo, assemblaggio, disassemblaggio e manutenzione devono essere svolte da personale adeguatamente addestrato, nel rispetto delle procedure previste.

Qualora l'apparecchio venga utilizzato con modalità diverse da quanto previsto dal produttore, la sua funzione di protezione potrebbe venire compromessa.

DİKKAT: Bu ürünün kurulumu, yapılandırılması, işletilmesi veya bakımı öncesi bu dokümanı ve bu ekipmanın kurulumu, yapılandırılması ve işletimi ile ilgili İtave Kaynaklar bölümünde yer listelenmiş dokümanları okuyun. Kullanıcılar yürürlükteki tüm yönetmelikler, yasalar ve standartların gerekliliklerine ek olarak kurulum ve kablolama tahlilatlarını da öğrenmek zorundadır.

Kurulum, ayarlama, hizmete alma, kullanma, parçaları birleştirme, parçaları sökme ve bakım gibi aktiviteler sadece uygun eğitimliler almış kişiler tarafından yürürlükteki uygulama yonetmeliklerine uygun şekilde yapılabilir.

Bu ekipman üretici tarafından belirlenmiş amacın dışında kullanılırsa, ekipman tarafından sağlanan koruma bozulabilir.

注意事項：在安裝、設定、操作或維護本產品前，請先閱讀此文件以及列於「其他資源」章節中有關安裝、設定與操作此設備的文件。使用者必須熟悉安裝和配線指示，並符合所有法規、法律和標準要求。

包括安裝、調整、交付使用、使用、組裝、拆卸和維護等動作都必須交由已經經過適當訓練的人員進行，以符合適用的實作法規。

如果將設備用於非製造商指定的用途時，可能會造成設備所提供的保護功能受損。

PÓZOR: Než začnete instalovat, konfigurovat či provozovat tento výrobek nebo provádět jeho údržbu, přečtěte si tento dokument a dokumenty uvedené v části Dodatečné zdroje ohledně instalace, konfigurace a provozu tohoto zařízení. Uživatelé se musejí vedle požadavků všech relevantních vyhlášek, zákonů a norem nutně seznámit také s pokyny pro instalaci a elektrické zapojení.

Činnosti zahrnující instalaci, nastavení, uvedení do provozu, užívání, montáž, demontáž a údržbu musí vykonávat vhodně proškoleny personál v souladu s příslušnými prováděcími předpisy.

Pokud se toto zařízení používá způsobem neodpovídajícím specifikaci výrobce, může být narušena ochrana, kterou toto zařízení poskytuje.

UWAGA: Przed instalacją, konfiguracją, użytkowaniem lub konserwacją tego produktu należy przeczytać niniejszy dokument oraz wszystkie dokumenty wymienione w sekcji Dodatkowe źródła omawiające instalację, konfigurację i procedury użytkowania tego urządzenia. Użytkownicy mają obowiązek zapoznać się z instrukcjami dotyczącymi instalacji oraz oprzewodowania, jak również z obowiązującymi kodeksami, prawem i normami.

Działania obejmujące instalację, regulację, przekazanie do użytkowania, użytkowanie, montaż, demontaż oraz konserwację muszą być wykonywane przez odpowiednio przeszkolony personel zgodnie z obowiązującym kodeksem postępowania.

Jestli urządzenie jest użytkowane w sposób inny niż określony przez producenta, zabezpieczenie zapewniane przez urządzenie może zostać ograniczone.

OBIS: Läs detta dokument samt dokumentet, som står listat i avsnittet Övriga resurser, om installation, konfigurerering och drift av denna utrustning innan du installerar, konfigurerar eller börjar använda eller utföra underhållsarbete på produkten. Användandet måste bekanta sig med instruktioner för installation och kabeldragning, förutom krav enligt gällande koder, lagar och standarder.

Ätgärder som installation, justering, service, användning, montering, demontering och underhållsarbete måste utföras av personal med lämplig utbildning enligt lämpligt bruk.

Om denna utrustning används på ett sätt som inte anges av tillverkaren kan det hända att utrustningens skyddsanordningar försätts ur funktion.

LET OP: Lees dit document en de documenten die genoemd worden in de paragraaf Aanvullende informatie over de installatie, configuratie en bediening van deze apparatuur voordat u dit product installeert, configueert, bedient of onderhoudt. Gebruikers moeten zich vertrouwd maken met de installatie en de bedrading instructies, naast de vereisten van alle toepasselijke regels, wetten en normen.

Activiteiten zoals het installeren, afdelen, in gebruik stellen, gebruiken, monteren, demonteren en het uitvoeren van onderhoud mogen uitsluitend worden uitgevoerd door hiervoor opgeleid personeel en in overeenstemming met de geldende praktijkregels.

Indien de apparatuur wordt gebruikt op een wijze die niet is gespecificeerd door de fabrikant, dan bestaat het gevaar dat de beveiliging van de apparatuur niet goed werkt.

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated to include product environmental information.	4

ATTENTION:

- Before installing, configuring, operating, or maintaining this product, read this document and the documents that are listed in the Additional Resources section for installing, configuring, or operating equipment. Familiarize yourself with installation, wiring instructions, and the 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 the applicable code of practice.
- If this equipment is used in a manner that is not specified by the manufacturer, the protection that is provided by the equipment can be impaired.
- Solid-state equipment has operational characteristics that differ from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid-State Controls, publication SGI-I-1, available from your local Rockwell Automation sales office or online at [rok.auto/literature](#), describes some important differences between solid-state equipment and hard-wired electromechanical devices.

Product Description

The PowerMonitor™ 5000 unit is a compact, cost-effective, electric power and energy metering device. The unit measures the 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 subbilling - 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 standard cable can be found at most electronic stores. For your convenience, Rockwell Automation also offers this cable as catalog number 2711C-CBL-UU02.

Before you configure the PowerMonitor 5000 unit, a USB device driver must be loaded onto your personal computer. The driver and installation instructions can be found at: [rok.auto/pcdc](#).

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: If there is a malfunction or damage, make no attempts at repair. Return the module 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 that are shown in this publication are intended solely for the purposes of example. Because there are many variables and requirements that are associated with any particular installation, Rockwell Automation does not assume responsibility or liability for actual use that is based on the examples that are shown in this publication.

ATTENTION: Only qualified personnel, following accepted safety procedures, can 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 can 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 can 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 that is not specified by Rockwell Automation, the protection that is provided by the equipment can 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 (38VA), or 120/240V DC (26VA)
Control power, external input	24V DC (12VA)
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	—

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. You can view or download publications at [rok.auto/literature](#).

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 EnergyMetrix Software, publication FTEM-UM003	Provides information on software for PowerMonitor units.
Industrial Automation Wiring and Grounding Guidelines, publication I770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications .	Provides declarations of conformity, certificates, and other certification details.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

Documentation Feedback

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

Rockwell Otomasyon Ticaret A.Ş. Kar Plaza İş Merkezi E Blok Kat:6 34752, İçerenköy, İstanbul, Tel: +90 (216) 5698400 EEE Yönetmeliğine Uygundur

Connect with us.

rockwellautomation.com

expanding human possibility®

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

UNITED KINGDOM: Rockwell Automation Ltd. Pitfield, Kiln Farm Milton Keynes, MK11 3DR, United Kingdom, Tel: (44)(1908) 838-800, Fax: (44)(1908) 261-917

Allen-Bradley, expanding human possibility, FactoryTalk EnergyMetix, PowerMonitor, and Rockwell Automation are trademarks of Rockwell Automation, Inc.
Trademarks not belonging to Rockwell Automation are property of their respective companies.

Publication 1426-PC001E-EN-P - April 2023 | Supersedes Publication 1426-PC001D-EN-P - April 2013
Copyright © 2023 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.

PN-198795
DIR 10000327606 (Version 04)