Smart Detection of
AC Power Anomalies

Power Monitor prevents malfunctions of critical devices in control panels and machine lines

Permanent power measurement provides key benefits:

- Detect unexpected machine performance deviations early and take corrective action (e.g., rising power consumption may indicate bearing wear).
- Improve transparency in energy management for machines and buildings, enabling analysis as systems evolve over time.
- Measure, visualize, and optimize energy usage to reduce costs and enhance competitiveness.

Three-Level AC Power Monitoring Solution

Multi-Circuit Monitoring: KM-PM measures up to 4 circuits simultaneously. Its compact 38 mm width fits even in tight panel spaces. Built-in Ethernet reduces wiring—no extra converter needed.
Timely Alerts: Detect abnormal power consumption and receive instant notifications via email, SMS, or platforms like Telegram for quick corrective action.
Remote Insights: Access detailed data including voltage, current, power factor, active/reactive energy (import/export), and warnings (open phase, phase sequence, etc.).

Would you like to know more?
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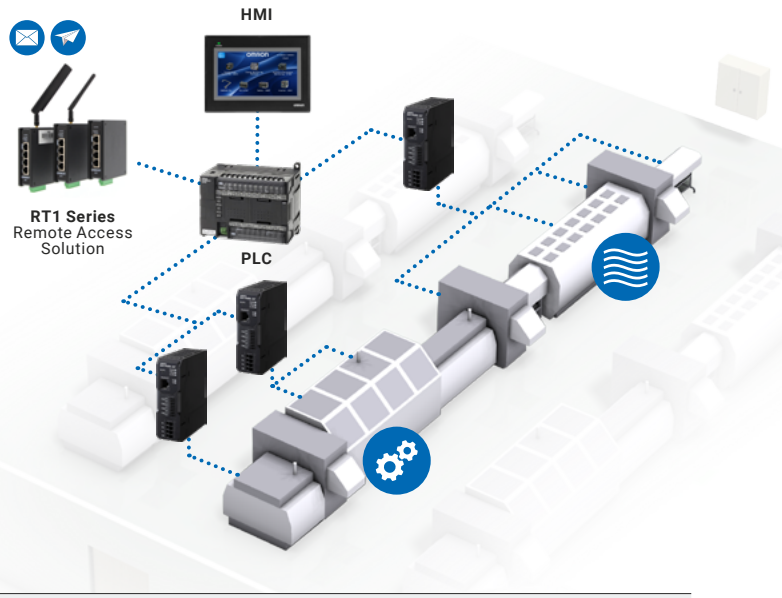
OMRON approach for Energy management

Energy awareness is the starting point. Combining hardware and software features ensures effective energy management without compromising production or quality. The KM-PM power monitor measures consumption from single devices to entire machine lines or multiple circuits within a distribution board. It supports a wide voltage range—from single-phase 100 VAC to three-phase 480 VAC. When abnormal power usage is detected, the NX1P2 PLC triggers instant alerts via the RT1 remote access solution, which also provides continuous connectivity for a comprehensive view of total power usage.



OMRON products	Items references
NX1P2- **Compact controller**	NX1P29024DT1: 24 Digital Transistor I/O (PNP), EtherCAT (4 PTP axes, 16 EtherCAT nodes), EtherNet/IP and 1 serial option port.
RT100 **Remote Access Solution**	RT100-EMM3010: SiteManager LAN, 10 Device Agents, 3x Ethernet Ports, 1x Micro SD slot, 1x USB port.
KM-PM **Power monitor**	KM-PMBN-EIP: Multi-circuit compact power monitor device for DIN rail mounting, EtherNet/IP
KM20-CTF **Current transformer**	KM-PMBN-EIP: Current transformer, field installation, from 5A up to 400A depends on the models

Complete your equipment with:

M1 Series Inverter: The Integrated AC Drivers Solution

Control your motor with M1 Inverter, designed for 10 years maintenance free use. Working operation up to 50ºC w/o derating. Coated PCB's for dust and moisture resistance (IEC 60721-3-3, class 3C2).

Electronic Circuit Breaker S8VP-CP series

Start the outputs sequentially and load-dependent to prevent high inrush current. Enable rapid short-circuit shutdown without impacting other channels. Easily identify faulty devices.

HMI terminal NB series

Getting started Project for KM-N2 and KM-N3 series reducing development time to start working with OMRON NB series HMI.

For more information visit
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