

## SMP DA-3050 automation platform

# A scalable compact grid edge automation platform



Eaton's SMP™ DA-3050 is a powerful automation platform that combines multiple functions into one rugged product, providing secure and reliable data acquisition and management. Its compact and versatile design makes it an ideal edge intelligence node for distribution utilities.

The SMP DA-3050 is an enabler for grid edge situational awareness, feeding ADMS/SCADA systems with quality data.

It also improves reliability with rapid decentralized decision-making, removing the burden on centralized systems.

The Linux-based SMP DA-3050 automation platform is robust and developed for harsh operating environment.

It comes in four models, creating a homogeneous system with a single point of access for all data.

### Key benefits

- Enables grid edge situational awareness, providing quality data to enterprise applications
- Facilitates Distributed Energy Resources (DER) integration with local automation at the edge of the network
- Improves utilization of existing assets and extend their lifetime (vendor agnostic)
- Improves grid resiliency with its advanced cybersecurity features
- Reduces deployment costs and optimizes device life cycle using centralized management with Eaton's IED Manager Suite
- Ensures compliance with future requirements with its evolutive platform
- Improves reliability with rapid decision making at the edge of the network
- Facilitates commissioning and troubleshooting with its SMP Tools and HMI interface

### Use cases and applications

#### • Real-time monitoring for improved grid resilience and power quality:

Our automation platform empowers distribution automation applications by delivering high-quality, real-time edge data. This enables rapid fault detection, precise location identification, effective isolation, and swift service restoration—significantly reducing outage durations and boosting customer satisfaction. With immediate gains in observability, distribution operators can maintain optimal voltage levels, minimizing equipment wear and further enhancing the customer experience. The ROI is clear: reduced downtime, lower operational costs, improved service reliability, elevated customer satisfaction, and extended equipment lifespan.

#### • Interoperability with legacy equipment integration:

Our automation platform extends the life of legacy equipment by serving as a security gateway. It replaces outdated RTUs/PLCs and efficiently manages large volumes of data from older IEDs, leveraging its extensive communication capabilities and hardwired I/O connectivity. This results in a significant ROI through prolonged equipment life, enhanced cybersecurity, and cost savings from utilizing a multifunctional platform.

#### • File and data processing for data-driven decision-making:

Our automation platform collects and processes grid edge data, transforming it into actionable insights through reliable analytics. These insights support informed grid planning and operational decision-making, enabling optimal resource allocation and smarter capital investments. The ROI is apparent: optimized infrastructure spending, improved grid efficiency, and stronger long-term performance.

• **Remote operation and control:** Our automation platform includes remote control mechanisms to minimize manual interventions, leading to significant operational cost savings and faster response times. The ROI is evident through reduced labor costs and improved asset management.

• **Efficient DER integration:** Our automation platform enhances grid stability and reliability by monitoring the edge, addressing the impacts of DERs and EV integration. By feeding quality data to ADMS/SCADA systems, it raises situational awareness and supports operators in maintaining voltage stability and addressing reverse power flow issues. The platform optimizes the use of distributed energy resources (DER) through edge control logic, reducing the burden on centralized systems. Additionally, it provides equipment health data to optimize maintenance schedules and reduce unplanned outages. The ROI is evident through enhanced service reliability, increased revenue generation, efficient resource usage, decreased downtime, and extended equipment lifespan.

### Security

- Cybersecure device with IEC 62443 (undergoing certification), IEEE 1686, and IEC 62351 compliance.
- Provides secure remote access to any device (authentication and authorization).
- Certificate management for maintenance and web services, as well as for protocol communications.
- Single sign-on support with IED Manager Suite (IMS).
- Shares several security features of the SMP Substation automation platforms, including complex passwords, security event logging and monitoring, TLS encryption, X.509, malware protection and built-in firewall.

# EATON

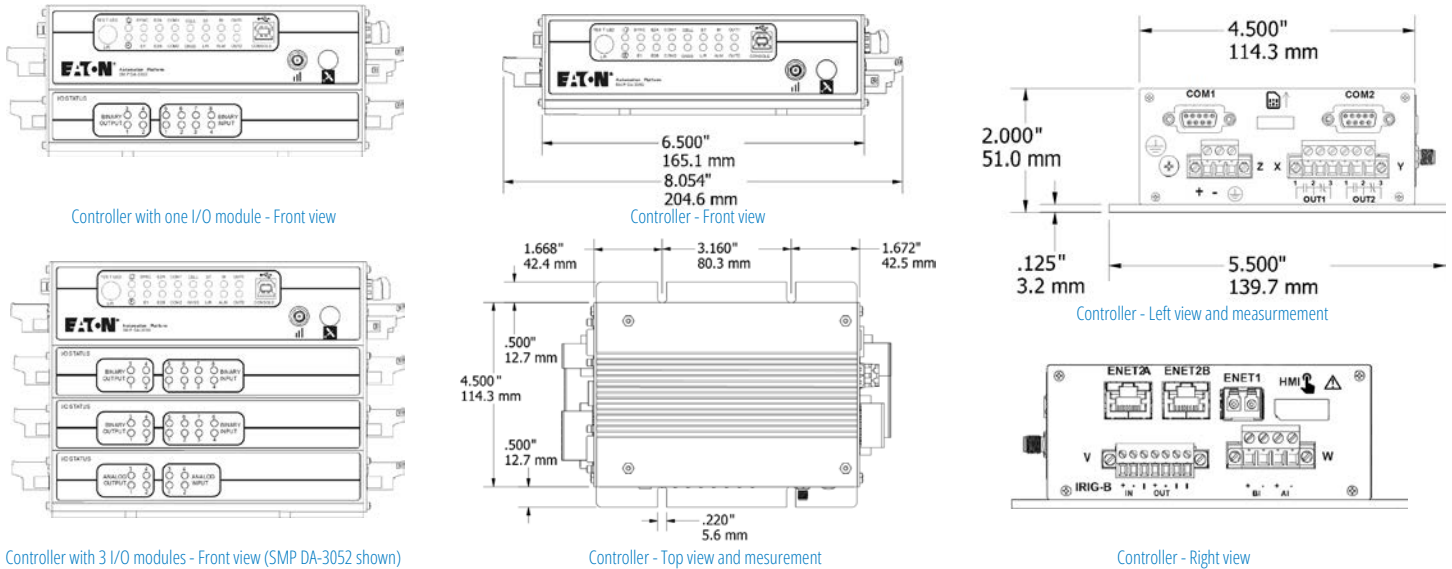
Powering Business Worldwide

**Simplified specifications** (complete specifications are available in the SMP DA-3050 Catalog, CA912016EN)

General features	Security features	Communications	Electrical
Full SMP Tools integration	Built-in firewall/malware protection	Serial: Two 2-wire RS-232/485 with multidrop support (up to 16 devices) One USB 2.0 Type B console port	Internal power supply supports: 24, 48 Vdc nominal External power supply options to convert to 24 Vdc (DIN rail-mount): 85—264 Vac, 90—350 Vdc, 3.5 A 9—36 Vdc, 2.5 A
Fully supported by IED Manager Suite*	Local/Global (IMS) security*	Ethernet: 2 x 10/100BASE-T 1 x SFP-based for 1000B-LX/SX, 100B-FX, up to 2 km (LC) or 10/100/1000B-T RJ45	10 W consumption (controller only) Lifetime built-in battery
Linux-based OS	Certificate management (CSR, PKCS#12, Certificate Revocation List)	<b>Time synchronization/distribution</b>	<b>Installation/Dimensions</b>
Advanced software tools: • Enable containerized customer applications*	Certificate-based user authentication and authorization	Server: SNTP*, DNP3, IEC-60870-5-104 protocols Client: SNTP, DNP3 protocols IRIG-B: Unmodulated input*	DIN rail, rack or wall-mount installation
NERC CIP-compliant electronic perimeter	User account management: • Strong passwords • User accounts and user groups • Detailed group permissions	<b>Environmental conditions</b>	Basic unit only (SMP DA-3050 model): 49.2 mm H x 114.3 mm W x 165.1 mm L 1.94 in. H x 4.5 in. W x 6.5 in. L
Built-in web server	Security event logging and monitoring	Operating (at CPU 100% usage): -40 °C to +75 °C (-40 °F to +167 °F) Storage: -40 °C to +85 °C (-40 °F to +185 °F)	With I/O modules (Height): with 1 I/O module (SMP DA-3051 model): 75.4 mm (2.97 in.) with 3 I/O modules (SMP DA-3052 and SMP DA-3053 models): 130 mm (5.12 in.)
Automation Functions	Account lockout	Humidity: 5 to 95%, non-condensing	Controller (basic unit): 454 g/1 lb each I/O module: 454 g/1 lb
IEC 61131-3 compatible SoftPLC (CODESYS)*	Retrievable access logs for auditing	Maximum altitude: Up to 2000 m (6561.7 feet)	<b>I/Os on the Basic unit (controller)</b>
Transparent connections (passthrough)	All system components digitally signed	<b>Local display for HMI* (option)</b>	1 x 24 — 48 Vdc DI 2 x alarm contact DO (Form C) 1 x 48 Vdc AI
Protocol translation and data concentration	Digital signature is validated before using the system	Capacitive touch TFT LCD display	<b>Digital I/O module (AC or DC)</b>
Built-in self-diagnostics	<b>Processor</b>	Display resolution: 1024 x 600 @60 Hz	8 x DI: software selectable ± 24—48 V, ± 125 V
Real-time clock with battery backup	ARM processor	Dimension: 177.8 mm (7 inches)	4 x DO: Form C relays (all DO # odd) Form A relays (all DO # even)
Built-in watchdog timer	Secure boot	<b>Warranty</b>	<b>Analog I/O module</b>
Power supply monitoring	<b>Memory</b>	10-year limited warranty	4 x AI: software selectable ± 10 V, ± 20 mA, ± 2 mA, ± 1 mA, 16-bits +sign resolution
Flexible licensing	Flash: 8 Gigabits NAND Flash		4 x AO: software selectable ± 10 V, ± 20 mA, 12-bits resolution
HMI with remote display for real-time values and alarms through web browser and optional local display* for local control and status monitoring.	RAM: 1 Gigabit LP-DDR4 or 4 Gigabits		
Syslog support	<b>Connectivity</b>		
SNMP*	Up to 64 device connections (basic is 8)		
Remote management via REST API	Up to 8 control center connections (basic is one)		
	Up to 20,000 data points (basic is 5,000)		
	DNP3 secure authentication V2 and V5		

\*: Features are coming soon

**Dimension drawings**



**Eaton**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
Eaton.com

**Eaton's Power Systems Division**  
2300 Badger Drive  
Waukesha, WI 53188  
Eaton.com/SMPDistribution

© 2026 Eaton  
All Rights Reserved  
Printed in USA  
Publication No. PA912013EN  
January 2026

For Eaton's product information, call **1-877-834-0009**  
or visit: **Eaton.com/smartgrid**

Eaton is a registered trademark.  
All other trademarks are property of their respective owners.

Follow us on social media to get the latest product and support information.

