PRIZMA EDGE

IMPLEMENT THE FUTURE TODAY

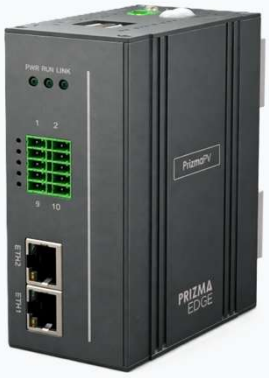
MODEL	REV	CLASS
PrizmaPV	1.0	Industrial

Prizma PV Controller

Industrial Grade PV Energy Management System

PRODUCT OVERVIEW

Intelligent PV Controller



Prizma PV — Compact DIN-Rail Mountable Design

The **Prizma PV Controller** is a cutting-edge, Linux-based energy management solution engineered for the demands of modern power systems. With robust industrial hardware, the Prizma PV elevates control and monitoring with a user-centric dashboard, providing unparalleled insights into your energy ecosystem — real-time data, optimised power flows, and seamless integration with a wide array of devices, all within a compact DIN-rail form factor.

PROCESSOR **Dual-Core ARM**	MEMORY **1 GB RAM / 8 GB**
CONNECTIVITY **2× ETH + 2× RS485**	POWER INPUT **9–36 V DC**
OPER. TEMP **–20°C to +70°C**	MOUNTING **DIN-Rail**

CAPABILITIES

Key Features

High-Performance Compute
Dual-core ARM processor delivering exceptional computational power for real-time industrial control and monitoring applications.

Rich Connectivity
2× Ethernet, 2× RS485, and 2× RS232 ports for seamless integration with industrial devices and communication protocols.

Industrial Grade Ruggedness
Operates across –20°C to +70°C with a wide 9–36 V DC input range, built to withstand demands of harsh industrial environments.

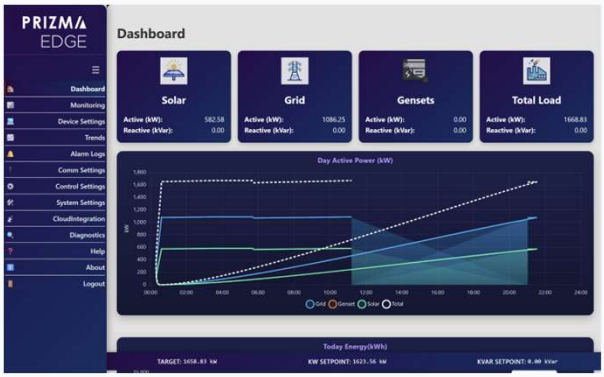
Ample On-Board Storage
8 GB eMMC flash for extensive data logging and application storage, expandable via SD card slot up to 128 GB.

Intuitive Web Dashboard
Clear visualisations of power flows, source contribution, generation data, and historical trends in a beautifully designed UI.

Universal Device Compatibility
Compatible with meters, inverters, and sync controllers via Modbus TCP, Modbus RTU, and RS485 — broad interoperability out of the box.

SOFTWARE

Visualising Your Energy: The Prizma PV Dashboard



Prizma PV real-time power flow dashboard.

The heart of the Prizma PV experience is its elegantly designed dashboard. Our interface translates intricate power flows into clear, actionable visuals — giving operators immediate situational awareness.

Real-time Power Flow
Instantly see energy sources (solar, grid, battery) and where it flows to load.

Source Contribution
Percentage and power delivered by each generation source, at a glance.

Historical Data
Access detailed generation data in kWh and kVarh for smart energy decisions.

Technical Specifications

PARAMETER	SPECIFICATION
Processor	Dual-Core ARM Processor
Memory (RAM)	1 GB DDR3
Storage	8 GB eMMC on-board + SD Card slot (up to 128 GB)
Operating System	Linux Kernel (Customised Distribution)
Ethernet	2× RJ45 ports (ETH1, ETH2)
Serial Ports	2× RS485, 2× RS232 (via green terminal blocks)
Communication Protocols	Modbus TCP, Modbus RTU, HTTP/HTTPS, MQTT, TCP/IP
Power Input	9–36 V DC (wide-range industrial power)
Power Consumption	< 5 W typical
Operating Temperature	−20°C to +70°C
Storage Temperature	−40°C to +85°C
Humidity	5% to 95% non-condensing
Mounting	DIN-Rail mountable
Dimensions	Compact industrial enclosure (approx. 100 × 70 × 60 mm)
Weight	~300 g
Certifications	CE, FCC, RoHS compliant
Status LEDs	PWR (Power), RUN (System), LINK (Network)

INTEGRATION

I/O Connectivity & Application Areas

Front Panel Interfaces

- **Status LEDs**
  PWR (Power), RUN (System), LINK (Network)
- **Terminal Block 1**
  RS485/RS232 ports (Channels 1–2)
- **Terminal Block 2**
  RS485/RS232 ports (Channels 9–10)
- **Ethernet Ports**
  Dual Gigabit Ethernet (ETH1, ETH2)
- **Power Terminal**
  9–36 V DC screw terminal connection

Application Areas

- ✓ PV Control System
- ✓ PV Monitoring & SCADA
- ✓ Fuel Saving Controller
- ✓ Zero Export Control
- ✓ PV Plant Data Acquisition
- ✓ Data Acquisition Systems

Supported Device Types

Energy Meters | PV Inverters | Sync Controllers | Modbus TCP/RTU | RS485 Devices

PROCUREMENT

Ordering Information

STANDARD PACKAGE INCLUDES

- Prizma PV ARM Embedded Computer
- DIN-Rail mounting clips
- Terminal block connectors
- Quick start guide
- Power cable

OPTIONAL ACCESSORIES

- SD Card (various capacities)
- Mounting brackets
- Extension cables
- Pre-configured controllers
- Cloud Integration (future)