EDMI MK32

EDMI Mk32 Prepaid Single Phase Power Smart Meter User Manual

Model: MK32

1. Introduction

The EDMI Mk32 is a sophisticated single-phase smart meter designed for residential electricity management. It supports both STS compliant prepaid and post-paid operational modes, offering flexibility for various utility requirements. This manual provides essential information for the safe installation, operation, and maintenance of your EDMI Mk32 meter.
Key features include:

- Integrated 100A UC3 compliant relays.
- Ability to operate in prepaid or post-paid modes.
- Compatibility with EDMI CIU (Customer Interface Unit) - HD18 and HD21 for wireless split metering.
- Durable and compact design for long-term reliability.

2. Safety Information

WARNING: Installation and servicing of this meter must only be performed by qualified and authorized personnel. Failure to comply may result in serious injury, electric shock, or damage to the equipment.

- Always disconnect power before installation, maintenance, or any wiring procedures.
- Ensure all local and national electrical codes and regulations are strictly followed.
- Do not operate the meter if it appears damaged.
- Keep the meter away from moisture and extreme temperatures.
- The meter contains no user-serviceable parts. Do not attempt to open or repair the unit.

3. Product Overview

The EDMI Mk32 meter features a clear display, an integrated keypad for token entry, and secure terminal connections. Below is an image illustrating the main components of the meter.

Figure 1: Front view of the EDMI Mk32 Smart Meter, showing the display, keypad, and terminal block for electrical connections.

3.1. Key Components

- **Display:** 8-character, eight-segment display (9mm x 4.96mm) for showing consumption, credit, and status messages. Features an option for backlight and remains active without mains power.
- **Keypad:** Numeric keypad for entering STS tokens and navigating display menus.
- **LED Indicators:** Up to 5 LED indicators for power, tamper, and other operational statuses.
- **Terminal Block:** Secure connections for incoming and outgoing electrical wiring.

4. Setup and Installation

IMPORTANT: Installation must be carried out by a certified electrician in accordance with all applicable electrical standards and regulations.

1. **Pre-Installation Check:** Verify that the meter's specifications (voltage, current) match the electrical supply and load requirements. Inspect the meter for any physical damage.
2. **Mounting:** Securely mount the meter in a dry, protected location, ensuring adequate ventilation and

accessibility for reading and maintenance.

3. **Wiring:** Connect the incoming and outgoing electrical cables to the designated terminals as per the wiring diagram provided with the meter. Ensure all connections are tight and secure.
4. **Power On:** Once wiring is complete and verified, restore power to the meter. The display should illuminate, indicating successful power-up.
5. **Initial Configuration (if applicable):** Depending on the utility provider, initial configuration or pairing with a Customer Interface Unit (CIU) may be required. Refer to specific utility guidelines or the CIU manual for details.

5. Operating Instructions

5.1. Prepaid Mode Operation

In prepaid mode, the meter requires a valid STS (Standard Transfer Specification) token to supply electricity. Tokens are typically purchased from your utility provider.

1. **Entering a Token:** Use the numeric keypad to enter the 20-digit STS token.
2. **Confirming Entry:** After entering all digits, press the 'Enter' or 'Red' button (if available) to confirm.
3. **Token Validation:** The meter will validate the token. A successful entry will add credit to your meter, and the supply will be restored (if disconnected). An invalid token will result in an error message on the display.
4. **Checking Credit:** The display typically shows the remaining credit or units. Consult your utility provider's specific instructions for display navigation to view detailed credit information.

5.2. Post-Paid Mode Operation

In post-paid mode, the meter continuously measures electricity consumption. Billing is handled by your utility provider based on periodic readings.

- **Reading Consumption:** The display will show the current electricity consumption (e.g., in kWh).
- **Display Navigation:** Use the meter's buttons (if any, typically indicated by arrows or specific symbols) to cycle through various display parameters such as current consumption, voltage, current, and power factor.

5.3. Customer Interface Unit (CIU) Integration

The Mk32 meter can operate wirelessly with EDMI CIUs like the HD18 and HD21. This allows users to interact with the meter (e.g., enter tokens, check credit) from a convenient indoor location without direct access to the meter itself. Refer to the specific CIU manual for pairing and operational instructions.

6. Maintenance

The EDMI Mk32 meter is designed for minimal maintenance. However, periodic checks can help ensure its longevity and accurate operation.

- **Cleaning:** Gently wipe the meter's exterior with a soft, dry cloth. Do not use abrasive cleaners, solvents, or excessive moisture.
- **Visual Inspection:** Periodically inspect the meter for any signs of physical damage, loose connections, or tampering. Report any anomalies to your utility provider immediately.
- **Environmental Conditions:** Ensure the meter remains within its specified operating temperature and humidity ranges.

7. Troubleshooting

This section addresses common issues you might encounter with your EDMI Mk32 meter.

- **No Power/Display Off:**
  - Check the main circuit breaker.
  - Ensure there is sufficient credit (in prepaid mode).
  - If the issue persists, contact your utility provider.
- **Invalid Token Error:**
  - Double-check the token digits for accuracy.
  - Ensure the token is valid for your specific meter.
  - Contact your utility provider if the problem continues.
- **Tamper Indication:**
  - If a tamper indicator (LED or display message) is active, it suggests unauthorized interference.
  - Do not attempt to clear it yourself. Immediately contact your utility provider.

For any issues not covered here, or if troubleshooting steps do not resolve the problem, please contact your electricity utility provider or a qualified technician.

8. Specifications

Feature	Detail
Model Number	MK32-211
Brand	EDMI
Type	Prepaid Single Phase Power Smart Meter
Nominal Voltage	220V - 240V
Operating Voltage Range	0.5Un to 1.2Un
Withstand Voltage Range	0V to 456V
Impulse Voltage	4kV
Frequency	50Hz/60Hz
Relays	Integrated 100A UC3 compliant relays (up to two internal disconnect relays, 80A or 120A options)
Display	8 Character eight-segment display (9mm x 4.96mm), with optional backlight, available without mains power.
Standards & Compliance	Class 1 and Class 2, IEC 62052-11, 62053-21, 62053-23, 62055-31, 62055-41, 62055-51

Feature	Detail
Battery Cell Composition	Lithium (Non-rechargeable)
Color	White

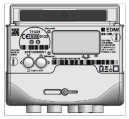
9. Warranty Information

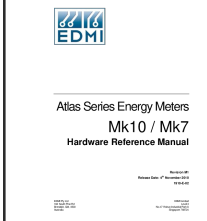
The EDMI Mk32 Smart Meter comes with a**1 Year Manufacturer's Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.
The warranty does not cover damage caused by improper installation, misuse, unauthorized repairs, or external factors such as power surges or natural disasters.
For warranty service, please contact your point of purchase or your electricity utility provider.

10. Support

For technical assistance, operational queries, or reporting faults, please contact your electricity utility provider. They are best equipped to provide support specific to your local network and billing system.
You may also visit the official EDMI website for general product information and resources:www.edmi-meters.com

Related Documents - MK32

EDMI ES-12B 5 Terminal Single Phase Residential Electricity Meter Product Guide 	EDMI ES-12B Single Phase Residential Electricity Meter Product Guide Comprehensive product guide for the EDMI ES-12B, a 5-terminal single-phase residential electricity meter. This guide covers installation, features, environmental conditions, handling, and technical specifications.
EDMI MultiDrive Web API User Guide Version 2.7	EDMI MultiDrive Web API User Guide v2.7 Comprehensive user guide for EDMI's MultiDrive Web API version 2.7, detailing its functionalities, endpoints, and integration capabilities for developers and system integrators.
EDMI EDMI Dual Band Standard 420 Communications Hub Variant (CS-20)	EDMI Dual Band Standard 420 Communications Hub Variant (CS-20) Technical Specifications Detailed technical specifications, features, and compliance information for the EDMI Dual Band Standard 420 Communications Hub Variant (CS-20), including radio specifications, dimensions, power consumption, and operating conditions.

	[EDMI Atlas Series Energy Meters Mk10 / Mk7 Hardware Reference Manual] Detailed hardware reference manual for the EDMI Atlas Series Energy Meters, covering models Mk10, Mk10A, Mk10D, Mk10E, Mk7, Mk7A, Mk7B, and Mk7C. Includes specifications, installation, and connection details.
	[EDMI ES-10C SMETS2 Residential Single Phase Electricity Meter Datasheet] Detailed factsheet for the EDMI ES-10C, a SMETS2 compliant residential single-phase electricity meter. Features include 100A disconnect relay, secure microcontroller, Zigbee and DLMS interfaces, and advanced security.
	[EDMI EN11B NEOS Single Phase Smart Meter - Technical Factsheet] Detailed factsheet for the EDMI EN11B NEOS Single Phase Smart Meter, covering technical specifications, compliance standards, features, and environmental considerations. Ideal for utility and energy management applications.