

BEMKO A31-BL01A-MID

BEMKO A31-BL01A-MID BL Electricity Meter User Manual

Model: A31-BL01A-MID

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your BEMKO A31-BL01A-MID BL Electricity Meter. Please read this manual thoroughly before installation and retain it for future reference.

2. SAFETY INFORMATION

WARNING: Installation and maintenance of this device must be performed by qualified personnel only. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power before installing or servicing the meter.
- Ensure all wiring connections are secure and correct according to local electrical codes.
- Do not operate the meter if it appears damaged.
- The device is rated IP20, meaning it is protected against solid objects over 12.5mm but has no protection against liquids. Install in a dry environment.

3. PRODUCT OVERVIEW

The BEMKO A31-BL01A-MID is a single-phase electricity meter designed for DIN rail mounting. It accurately measures electrical energy consumption.



Figure 3.1: Front view of the BEMKO A31-BL01A-MID BL Electricity Meter, showing the digital display and pulse indicator.

Key Features:

- Single-phase (1 P) energy measurement.
- Accuracy Class B.
- DIN rail mounting for easy installation.
- Rated voltage: 230 V 50 Hz AC.
- Nominal current: 100 A.
- IP20 protection rating.

4. SETUP AND INSTALLATION

Before proceeding, ensure all power to the installation area is disconnected at the main circuit breaker.

4.1 Mounting

The meter is designed for DIN rail mounting. Securely attach the meter to a standard 35mm DIN rail within an appropriate enclosure.

Figure 4.1: Perspective view illustrating the DIN rail mounting mechanism of the electricity meter.

4.2 Wiring Connections

Refer to the wiring diagram typically found on the meter's casing or in the manufacturer's detailed technical documentation. Ensure correct connection of live (L) and neutral (N) wires for both input and output. The meter supports a nominal current of 100A.



Figure 4.2: Side view showing the terminal block for electrical connections (L and N terminals).

- Connect the incoming live wire to the designated input terminal (L-in).
- Connect the incoming neutral wire to the designated input terminal (N-in).
- Connect the outgoing live wire to the designated output terminal (L-out).
- Connect the outgoing neutral wire to the designated output terminal (N-out).
- Tighten all terminal screws securely to prevent loose connections and overheating.

After all connections are made and verified, restore power to the circuit.

5. OPERATING INSTRUCTIONS

Once installed and powered, the meter will automatically begin measuring energy consumption.

5.1 Reading the Display

The digital display shows the total accumulated energy consumption in kilowatt-hours (kWh). The display is continuous and does not require any button presses for basic reading.



Figure 5.1: Close-up of the meter's digital display, showing the kWh reading and pulse indicator.

5.2 Pulse Output

The meter features a pulse output, indicated by an LED or similar mechanism, typically labeled "2000 imp/kWh". This means the meter generates 2000 pulses for every kilowatt-hour of energy consumed. This output can be used for remote monitoring or integration with other systems.

6. MAINTENANCE

The BEMKO A31-BL01A-MID electricity meter is designed for long-term, maintenance-free operation under normal conditions.

- **Cleaning:** If necessary, gently wipe the meter's exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically inspect the meter and its connections for any signs of damage, loose wiring, or discoloration. Address any issues promptly by disconnecting power and consulting a qualified electrician.
- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges and free from excessive dust or moisture.

7. TROUBLESHOOTING

If you encounter issues with your electricity meter, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Meter display is blank	No power supply to the meter.	Check the main circuit breaker and wiring connections. Ensure power is restored.
Meter not accumulating kWh	Incorrect wiring or no load connected.	Verify wiring connections according to the diagram. Ensure there is an active electrical load.
Pulse indicator (LED) not flashing	No power consumption or faulty meter.	Confirm that electrical devices are drawing power. If consumption is active and the LED is off, contact support.
Unusual noises or smells	Internal fault or overheating.	Immediately disconnect power. Do not attempt to repair. Contact a qualified electrician or manufacturer support.

For issues not listed here or if troubleshooting steps do not resolve the problem, contact qualified technical support.

8. SPECIFICATIONS

Parameter	Value
Model	A31-BL01A-MID
Rated Voltage	230 V AC, 50 Hz
Nominal Current	100 A
Number of Modules	1 P (Single Phase)
Accuracy Class	B
Mounting Type	DIN Rail Mount
Protection Rating	IP20
Pulse Output	2000 imp/kWh
Product Dimensions	9.5 x 1.82 x 7.2 cm
Weight	117 g

9. WARRANTY AND SUPPORT

For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact your retailer. BEMKO products are designed for reliability, but in case of any issues, please reach out to your point of purchase

or the official BEMKO support channels for assistance.

Manufacturer: BEMKO SP. Z O.O.

For technical support or service inquiries, please visit the official BEMKO website or contact their customer service department.