

MAGNO 31

Advance Three Phase
Standalone Energy Meter



**Powering the Future with
Precision and Control**

The **Magno 31** is a standalone energy meter designed to offer both efficiency and convenience for energy management. Its user-friendly interface and robust design make it ideal for large residential and commercial users.

Built with a focus on security and durability, the **Magno 31** features high-level data protection, optional **built-in battery** or **supercapacitor** for power resilience, and ultrasonic welding for a tamper-resistant enclosure.



ELECTRICITY



Main Functionalities

Standards & Compliance	• IEC 62052-11 • IEC 62053-11 • IEC 62053-21 • IEC 62053-23 • IEC 62056-21 • IEC 62056-61
Connection Type	• 3 Phase, 4 Wire
Measurement	• KWH as principal unit of measurement • Active and Reactive energy measurement • Instantaneous VRMS, IRMA, Frequency • Time of Use, Load Profile, Maximum Demand, Event Logs, etc.
Load Profile	• Data recorded for 60 days (15min intervals) • Data recorded: KW, KVAR, KWH, Voltage, Current
Demand	• Demand cycle configurable, the default is 15 minutes
Tariff	• Up to 4 tariff rates • Easy configuration • Accumulated energy of different tariffs
Billing	• Billing data including energy and maximum demand • Monthly settlement of max 12 months
Real Time Clock	• Clock accuracy (daily deviation): $\leq 0.5s/day$
Communication	• Optical Port • Protocol: IEC62056-21 mode C • Built in RF module (for meter data reading)
Security	• Communication is password protected
Protocol	• Open standard protocol: IEC62056-21

Technical Specification:

Rated Nominal Voltage	• 3x120V/208V • 3x127/220 V (-20% to +20%)
Operating Voltage Range	• 80%Un~115% Un
Rated Current & Starting Current	• 5(100)A 0.4% Ib
Rated Frequency	• 50Hz, 60Hz $\pm 2\%$
Pulse Constant (Configurable)	• 3200imp/kWh, 3200imp/kvarh (Configurable)

Technical Specification:

Accuracy Class	• Cl.1 for Active, Cl.2 for Reactive
Power Consumption	• Voltage circuit ≤ 2 W or 10VA (for each phase) Voltage circuit • Current circuit ≤ 4 VA @Ib
Temperature Ranges	• Normal Operation Range: -25 to +55 , Humidity is up to 95% • Limit Operation Range: -25 to +60 Humidity is up to 95% • Limit range for Storage: -40 to +70 Humidity is up to 95%
EMC Performance	• Voltage > 6KV, AC Voltage > 4KV, Short circuit, Current > 3KA, • Electrostatic Discharge contact: 8KV & air: 15KV, Immunity (IEC61000-2-2), • High frequency electromagnetic field immunity, (IEC61000-4-3) • Electric fast transient pulse group immunity (IEC61000-4-4) • Surge immunity (IEC61000-4-5); 6KV

Additional Functionalities:

Event Records	• Overvoltage, low voltage, power failure • External magnetic tamper, Record 25 events • Meter Cover Open, Record 25 events • Terminal Cover Open, Record 25 events • Current reverse, Record 25 events • Phase Absence • Reverse Current • Password error detection • Time Calibration • Memory Error • Demand reset
LCD	• Large digit LCD display for easy reading • Display available during power off • LCD Backlight • Wide viewing angle
LED	• Phase Absence indication • Reverse current indication
Memory	• Non-volatile memory which can support over 10 years
Battery	• Support power off display • Support RTC clock
Terminals	• Two screws for fixing the terminal conductor • The terminals are made of copper • Connection cross-sectional area over 25mm²

Additional Functionalities:

Protection Class

- IP54 compliant with IEC60529
- Insulation grade II

Housing Material

- PC+10%GF material, Fire retardant, flame resistant, Anti-UV, thermal deformation engineering plastic, Transparent meter cover and terminal cover
- Option for ultrasonic welding

Design Life

- ≥ 10 years

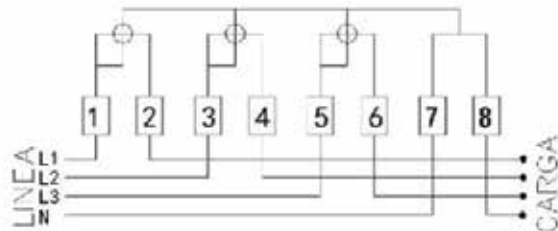
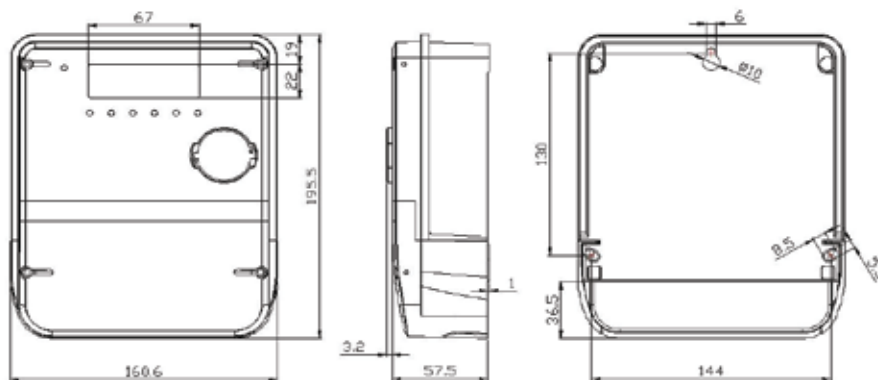
Dimensions

- 195.5 x 160.6 x 57.5 mm

Weight

- 800g

Diagrams



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