

MAGNO 12

Single Phase DIN-Rail Smart Prepaid Meter



Magno 12 is an advanced single-phase DIN-Rail prepaid meter designed for comprehensive power grid monitoring, load controlling, tamper monitoring, and vending functionalities. It incorporates an advanced anti-tamper solution aimed at enhancing utility revenues while minimizing line losses. This meter is meticulously crafted to comply with industry standards, ensuring reliable and efficient operation in both residential and commercial settings.


Magno 12 complies with the STS/CTS standard and utilizes the DLMS/COSEM open protocol, ensuring seamless integration and compatibility with existing systems. This makes it an ideal choice for residential customers seeking reliable and standardized solutions for their electricity metering needs.



Magno 12 Main Functionalities:

Icon	Function	Description
	Measurement	<ul style="list-style-type: none"> ➤ Active and Reactive Energy ➤ Import and Export Energy ➤ Absolute and Algebra Active Energy
	Multi TOU Tariff (Optional)	<ul style="list-style-type: none"> ➤ Up to 4 TOU tariffs ➤ Up to 8 switch-time tables and 8 day-tables ➤ Up to 12 week-tables and 12 season-tables ➤ Up to 50 holiday-tables
	Max-Demand	<ul style="list-style-type: none"> ➤ Block and Slide demand mode ➤ Active/reactive maximum demand ➤ Record 13 months Maximum Demand (KW,KVAR)
	Prepayment	<ul style="list-style-type: none"> ➤ STS, CTS and STS6 ➤ Prepaid and Post-paid switchover ➤ Local and remote charge ➤ LED and Buzzer for low credit alarm ➤ Emergency credit and friendly mode
	Tariff Expense (Optional)	<ul style="list-style-type: none"> ➤ Up to 10 steps tariff ➤ Up to 5 steps Monthly service charge ➤ Up to 5 kinds subsidy ➤ Up to 3 kinds fixed charge ➤ Up to 5 kinds levies charge ➤ Up to 3 kinds VAT charge
	Load control	<ul style="list-style-type: none"> ➤ Multi control mode ➤ Local and remote load control ➤ Disconnection scheme can be configurable ➤ Relay status indicator ➤ Relay malfunction self-check
	Load Profile	<ul style="list-style-type: none"> ➤ Up to 2 Megabytes of Non-volatile memory ➤ Up to 3 channels profiles ➤ Up to total 100 days records ➤ Capture period and members can be configurable
	Communication Ports	<ul style="list-style-type: none"> ➤ Up to 4 independent communication ports ➤ Optical Port for local communication ➤ MC171 Port for the data recovery maintenance ➤ Wired MBUS for communicating with CIU ➤ Remote communication with G3PLC/Mesh-RF/Lora (Optional)

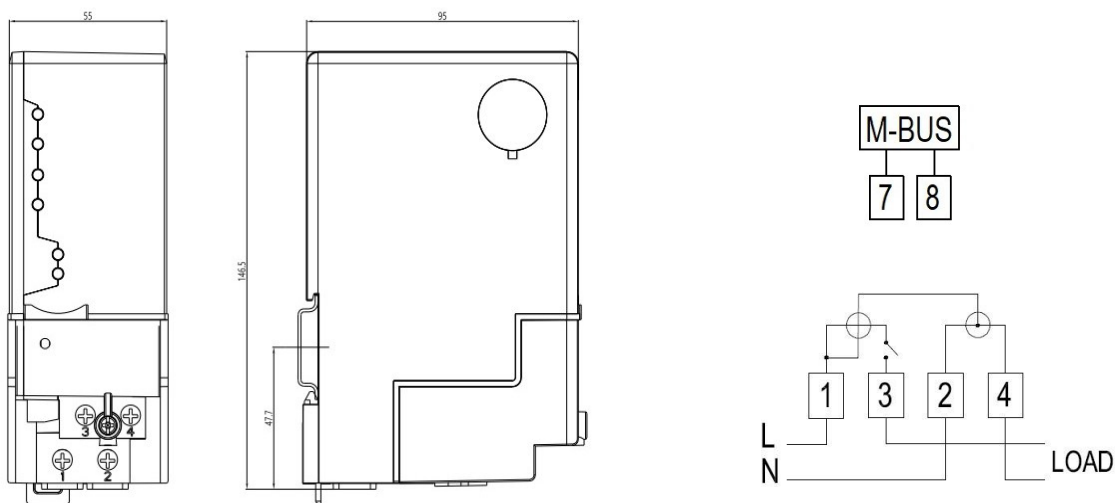
Magno 12 Main Functionalities:

Icon	Function	Description
	Event	<ul style="list-style-type: none"> ➤ Up to 100 standard event records with occurred date and time: low battery, clock sync, clock malfunction, NV memory malfunction, watchdog reset, meter malfunction, MD reset, high temperature, firmware upgrade etc. ➤ Up to 225 tamper event records with occurred date and time: meter cover open, terminal cover open, module cover open, strong magnetic interference, unauthorized login, parameter configuration etc. ➤ Up to 100 control event records with occurred date and time: disconnect the breaker, connect the breaker, breaker control failure etc. ➤ Up to 225 power grid event records with occurred date and time: power on, power off, under voltage, over voltage, over current, overload, current polarity reversal, current bypass, low power factor, neutral disturbance etc. ➤ Up to 50 charge event records with occurred date and time: charging value, charging TOKEN etc. ➤ Up to 50 management TOKEN event records with occurred date and time: Management TOKEN type, management TOKEN etc.
	Anti Tamper	<ul style="list-style-type: none"> ➤ Terminal cover sealing ➤ Self-protection under Overload control, Abnormal voltage control, Arrearage control, Tamper control, Malfunction control, Fire disaster control etc.
	Alarm	<ul style="list-style-type: none"> ➤ Alarms with LED/Buzzer and LCD on CIU ➤ Alarm can be configurable
	Communication Protocol	<ul style="list-style-type: none"> ➤ International open protocol ➤ IEC62056-21 E mode DLMS ➤ HDLC DLMS and TCP/IP DLMS ➤ STS/CTS TOKEN and SMS
	Billing Record	<ul style="list-style-type: none"> ➤ Up to 13-month billing data ➤ Calculate monthly net consumption of energy ➤ Up to 31 days daily data ➤ Calculate daily net consumption of energy
	Firmware Upgrade	<ul style="list-style-type: none"> ➤ Firmware upgrade ➤ Fast and stable solution
	CIU/UIU unit	<ul style="list-style-type: none"> ➤ Handy keypad ➤ LCD display with backlight ➤ Consumption rate indicator ➤ Wireless RF Communication ➤ Alarm with LED/LCD/Buzzer ➤ Easy to install

Magno 12 Technical Specification:

Description	Value
Rated voltage	220V~240V
Operating voltage range	60%Un~130%Un
Rated Current & Starting Current	5(100)A,5(80)A,5(60)A and 0.4%Ib
Rated frequency	50Hz
Pulse Constant	1000imp/kWh 1000imp/kvarh
Accuracy Class	Cl.1 for Active Cl.2 for Reactive
Power Consumption	Voltage circuit < 1W or 5VA, Current circuit < 0.2VA
Battery and Life	Internal battery, life more than 10 years
Tropical working temperature	-40°C to +70°C, Humidity is up to 95%
EMC Performance	Impulse voltage > 8KV, AC voltage > 4KV, Short circuit current > 3KA, Electrostatic Discharge > 8KV&15KV etc.
Protection class	IP54 comply with IEC60529 Insulation grade II
Housing material	Polycarbonate with non-conductive, high impact, smooth finish, durable, non-flammable, UV stabilized, UV resistant and high resistance to weathering
Dimension	146.5 mmX55mmX95mm

Magno 12 Diagram:



Electro Digital Meter Project Management Services Company

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