

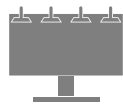
# MAGNO 30

High-Accuracy ANSI Metering for  
Smart Grid Applications

The Magno 30 is a cutting-edge smart electricity meter designed on ANSI Standards for residential and industrial energy management, providing a flexible solution for AMI initiatives. It offers a comprehensive set of features, including power grid monitoring, load control, tamper detection, and vending functions, making it an ideal solution for residential and industrial applications. The Magno 30 enhances utility operations by providing real-time insights into energy usage, allowing for more effective energy management. It is equipped with advanced anti-tamper capabilities that protect against fraud and minimize line losses, which in turn boosts utility revenues and improves overall grid integrity. Fully compliant to DLMS/COSEM and ANSI C12.18, C12.19.



MULTI  
COMMUNICATION



LARGE  
LCD DISPLAY



HIGH  
SECURITY



RELAY  
CONTROL



# Main Functionalities

<b>Measurement</b>	<ul style="list-style-type: none"><li>• Import/Export Active Energy, Reactive Energy</li><li>• Q1/Q2/Q3/Q4 for Reactive Energy</li><li>• High accuracy per ANSI Class 0.2 / 0.5.</li></ul>
<b>Instantaneous Value</b>	<ul style="list-style-type: none"><li>• Real-time voltage, current, and power factor.</li><li>• Active, reactive, and apparent power monitoring.</li><li>• Detect abnormal load behavior.</li></ul>
<b>Billing</b>	<ul style="list-style-type: none"><li>• Total and tier registers for energy and demand.</li><li>• ANSI C12.19 billing tables supported.</li><li>• Remote, local, and scheduled billing.</li></ul>
<b>Time of Use</b>	<ul style="list-style-type: none"><li>• Up to 4 tariffs and 4 seasons programmable.</li><li>• Holiday, weekend, and weekday schedules supported.</li><li>• Daylight Saving Time adjustment available.</li></ul>
<b>Load control</b>	<ul style="list-style-type: none"><li>• Relay disconnect/reconnect for over/under-voltage and overload.</li><li>• Remote tamper-based disconnection.</li><li>• Supports reconnection via system command.</li></ul>
<b>Load Profile</b>	<ul style="list-style-type: none"><li>• Configurable intervals (5, 15, 30, 60 min).</li><li>• Stores energy and instrumentation profiles.</li><li>• Multiple channels supported with extended memory.</li></ul>
<b>Self-Read</b>	<ul style="list-style-type: none"><li>• Up to 40 blocks of stored self-read data.</li><li>• Scheduled, remote, or local initiation</li><li>• Ensures data retention during outages.</li></ul>
<b>Demand</b>	<ul style="list-style-type: none"><li>• Block or rolling demand measurement.</li><li>• Programmable demand window intervals.</li><li>• Supports local, remote, and scheduled reset.</li></ul>
<b>Communication</b>	<ul style="list-style-type: none"><li>• According to ANSI C12.18, C12.19</li><li>• Cellular: GPRS, 3G, 4G</li><li>• RF: Wi-SUN.</li><li>• Transparent DLMS/ANSI data exchange.</li><li>• Remote Communication with GridLynk HES system.</li></ul>
<b>Ports</b>	<ul style="list-style-type: none"><li>• Optical port (ANSI C12.18 Type 2).</li><li>• Sealed and software-blocked options.</li><li>• Optional eSIM</li><li>• Remote communication modules embedded</li></ul>
<b>Protocol</b>	<ul style="list-style-type: none"><li>• IPv4 and/or IPv6</li><li>• DHCP</li><li>• TCP, UDP</li><li>• ANSI C12.21 / 12.22</li></ul>
<b>Firmware Upgrade</b>	<ul style="list-style-type: none"><li>• IOver-the-Air (OTA) upgrades supported.</li><li>• Local upgrade with rollback option.</li><li>• Broken-download recovery and scheduling.</li></ul>

## Additional Functionalities:

<b>Event</b>	<ul style="list-style-type: none"><li>• Up to 300 items logs, with up to 80 different event types<ul style="list-style-type: none"><li>• Standard Event log,</li><li>• Fraud Detection log,</li><li>• Disconnecter Control log,</li><li>• Power Quality Event log,</li><li>• Communication log,</li><li>• Security event log</li></ul></li></ul>
<b>Detection &amp; Alarm</b>	<ul style="list-style-type: none"><li>• Tamper detection and alarm</li><li>• Meter and Terminal cover detection alarm</li><li>• Power quality, reverse current detection and alarm</li></ul>
<b>Display</b>	<ul style="list-style-type: none"><li>• Configurable Auto Cycling Display (Obis Codes or Text)</li><li>• Energy and instantaneous power are displayed on LCD</li><li>• Three display modes:<ul style="list-style-type: none"><li>• Normal: Display energy and instantaneous power</li><li>• Test: Display data for testing purposes</li><li>• Alternate: Display all measurement items</li></ul></li></ul>

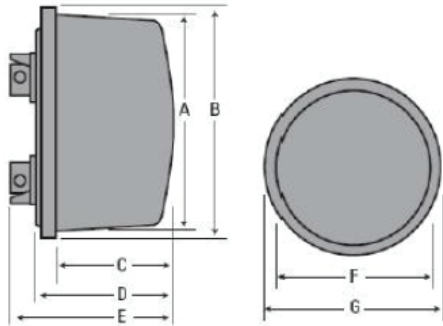
## Technical Specification:

<b>Rated Nominal Voltage</b>	<ul style="list-style-type: none"><li>• 120V~240V / 120V~480V interface.</li></ul>
<b>Operating Voltage Range</b>	<ul style="list-style-type: none"><li>• 80%Un~120% Un</li></ul>
<b>Basic Current</b>	<ul style="list-style-type: none"><li>• 2.5A, 15A, 30A</li></ul>
<b>Maximum Current</b>	<ul style="list-style-type: none"><li>• up to 200A (without Relay), or 100A (with Relay)</li></ul>
<b>Starting Current</b>	<ul style="list-style-type: none"><li>• 10mA for Class 20</li><li>• 50mA for Class 100</li><li>• 100mA for Class 200</li></ul>
<b>Accuracy</b>	<ul style="list-style-type: none"><li>• ANSI Class 0.2, 0.5 for active/reactive energy</li></ul>
<b>Rated Frequency</b>	<ul style="list-style-type: none"><li>• 50Hz or 60Hz <math>\pm</math>5%</li></ul>
<b>Pulse Constant (Configurable)</b>	<ul style="list-style-type: none"><li>• Multiple Options: 3.6, 7.2, 14.4, 21.6 Wh/Pulse)</li></ul>
<b>Power Consumption</b>	<ul style="list-style-type: none"><li>• Voltage circuit <math>\leq</math>5 W, Apparent <math>\leq</math>20VA, Current circuit <math>\leq</math>1 VA</li></ul>
<b>Lifetime</b>	<ul style="list-style-type: none"><li>• <math>\geq</math> 10 years</li></ul>
<b>Normal Operation Range</b>	<ul style="list-style-type: none"><li>• -25°C to +65°C, Humidity is up to 95%</li></ul>
<b>Limit Operation Range</b>	<ul style="list-style-type: none"><li>• -40°C to +85°C, Humidity is up to 95%</li></ul>
<b>EMC Performance</b>	<ul style="list-style-type: none"><li>• Electrostatic Discharge &gt;8kV contact, 15kV air</li><li>• Fast transient burst &gt; 4kV</li><li>• Surge Withstand 6-8kV</li><li>• RF Immunity 10V/m at load, 30V/m without current.</li></ul>
<b>Protection Class</b>	<ul style="list-style-type: none"><li>• IP54 compliant with UL50-Type3</li></ul>

# Meter Forms

Form	Voltage Range / Wiring Type	Meter Phase Type	Accuracy Class	Test Current (A)	Max Current (A)	Energy Constant (Kh)
1S	120/240V, 2-wire, 1 element	SP	0.5	15/30	200	3.6
2S	120/240V, 3-wire, 1 element	SP	0.5	15/30	200	7.2
9S	120-480V, 4-wire, 3 element	TP	0.2	2.5	20	1.8
12S	120/240V, 3-wire, 2 element	SP	0.5	15/30	200	14.4
16S	120-480V, 4-wire, 3 element	TP	0.2	15/30	200	21.6

# Diagram



A	B	C	D	E	F	G
6.29"	6.95"	3.93"	4.93"	5.93"	6.29"	6.95"
16cm	17.7cm	10cm	12.54cm	15.08cm	16cm	17.7cm

## EDMP

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