

MAGNO 22+

Dual Source Single Phase BS
Smart Energy Meter



Powering the Future with
Precision and Control

The **Magno 22+** is a single-phase **dual-source** meter designed for residential use, featuring integrated 100A **UC3-compliant** relays for remote disconnection and reconnection of electrical services. It enables measurement of power consumption from **multiple sources** with flexible payment modes, including **dual-wallet** functionality for prepayment systems. Compliant with **STS/CTS** standards and using the **DLMS/COSEM** protocol, the **Magno 22+** ensures seamless integration and reliable operation in residential and commercial environments.



ELECTRICITY



STS
ASSOCIATION

DL
MS[®]



DUAL
WALLET



Main Functionalities

Standards & Compliance

- IEC 62052-11, 21, 31
- IEC 62053-23, 24
- IEC 62059-31-1
- IEC 62059-32-1
- EN62053-23
- EN50470-3

Measurement

- 4 quadrants
- Import/Export Absolute/Q1/Q2/Q3/Q4: Wh, varh and VAh
- Vrms, Irms
- Power factor, frequency
- V-I Phase angle
- Absolute value $|Ai|=|+A|+|-A|$ $|Ae|=|-A|$
- Neutral Current Measurement

Multi TOU Tariff

- Up to 8 tariff
- Up to 200 programmable special days Daily, Weekly, Monthly, Yearly & Special
- Up to 8 separate import and export registers
- Up to 12 seasons
- Up to 24 periods

Prepayment

- Configurable prepayment and post-payment mode
- Three levels for remaining credit alarm
- Emergency credit, friendly time and friendly days support
- Dual wallet
- Meter Keypad (Optional)

Load control

- Remote control command support
- Over current control support
- Power limit support
- 1 poles internal relay (for 100A meter)
- 2 poles internal relay (for 80A meter)
- Disconnect/Reconnect by locally or remotely

Load Profile

- Up to 60 channels
- Support 3 independent surveys
- 24hrs daily survey
- Intervals programmable from 1 to 60 minutes
- Storage 8 channels (15 min) for a year

Communication Ports

- WAN: Plug and play module to support various communication technology
- WAN: G3-PLC, WiSUN, LoRaWAN, Cellular (GPRS, 3G, 4G/LTE, NB-IoT), or Ethernet
- RF or PLC module – For communication with CIU (Customer Interface Unit)
- Optical: Comply with IEC62056-21 standard, DLMS(IEC62056-21 mode E)
- Additional: RS485 (2 wire), VTC interface

Input/Output Ports (Optional)

- Pulse Output
- Dual Source Signal (Tariff change)
- Meter enclosure opening/tamper detection (Active input)
- External Relay output

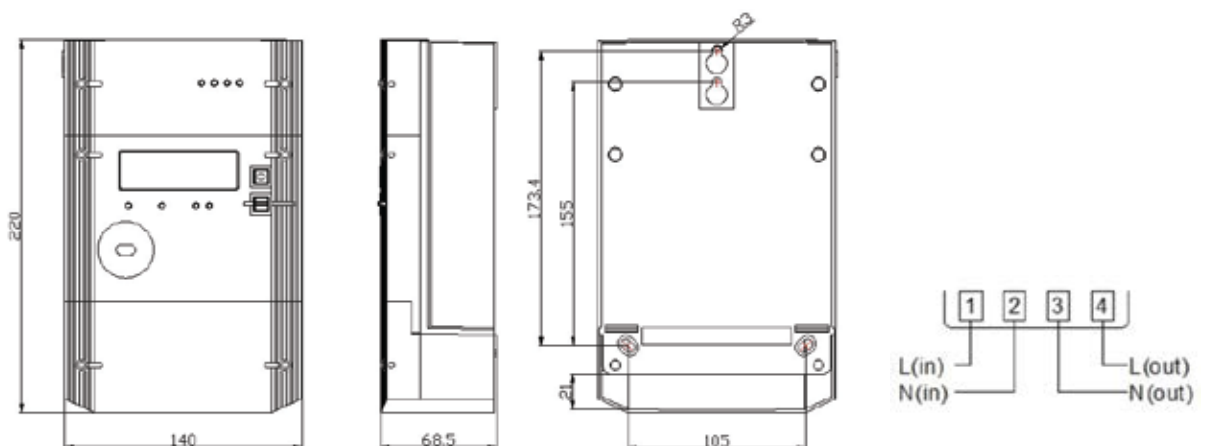
Additional Functionalities:

Event	<ul style="list-style-type: none">● Fraud detection log (Meter cover & terminal cover open detect with and without power, module cover open detect, current reverse, magnetic detect, neutral current mismatch etc.)● Failure detection log (Memory error, relay error, battery low voltage, clock invalid etc.)● Power quality event log (Under voltage / Over voltage(Sag/Swell) ,Over current/current imbalance, Power up/down, etc.)● Security event log (Parameters change, clock adjust, etc.)● Standard event log (Power up/on, time synchronization, etc.)
Anti Tamper	<ul style="list-style-type: none">● More than 4 sealing positions● Terminal cover, meter cover and module 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
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
Communication Protocol	<ul style="list-style-type: none">● International open protocol● IEC62056-21 E mode DLMS● HDLC DLMS and TCP/IP DLMS, Support suite 0 and suite 1● STS/CTS Token and SMS● LLS support 3 level passwords for local and remote communication● HLS support auth and encryption for local and remote communication
Billing Record	<ul style="list-style-type: none">● Up to 12-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">● The firmware can be upgraded via local interface and WAN interface.● Schedule activity image support
CIU unit	<ul style="list-style-type: none">● The meter can communicate with the CIU via RF or PLC● Parameters transfer● Credit token, Key change token, clear balance token, clear tamper token, set power limit token, test token etc.● Fully complies with STS standard

Technical Specification:

Rated Nominal Voltage	<ul style="list-style-type: none">• 220V~240V, 110V~120V
Operating Voltage Range	<ul style="list-style-type: none">• 50%Un~120% Un (When Un = 220V-240V)• 80%Un~120% Un (When Un = 110V-120V)
Rated Current & Starting Current	<ul style="list-style-type: none">• 5(100)A, 5(80)A and 0.4% Ib
Rated Frequency	<ul style="list-style-type: none">• 50Hz or 60Hz ±5%
Pulse Constant (Configurable)	<ul style="list-style-type: none">• 1000imp/kWh• 1000imp/kvarh (Default)
Accuracy Class	<ul style="list-style-type: none">• Cl.1 for Active• Cl.2 for Reactive
Power Consumption	<ul style="list-style-type: none">• Voltage circuit ≤2 W or 5VA, Current circuit ≤0.5 VA
Battery and Life	<ul style="list-style-type: none">• Replaceable Lithium battery, life more than 15 years• Supercap (Optional) – 5 yr lifetime with power off
Normal Operation Range	<ul style="list-style-type: none">• -25°C to + 60°C, Humidity is up to 95%
Limit Operation Range	<ul style="list-style-type: none">• -40°C to + 70°C, Humidity is up to 95 %
EMC Performance	<ul style="list-style-type: none">• Impulse voltage > 10kV, AC voltage > 4kV, Short circuit• current > 3kA, Electrostatic Discharge contact: 8kV & air: 15kV
Protection Class	<ul style="list-style-type: none">• IP54 compliant with IEC60529• Insulation grade II
Housing Material	<ul style="list-style-type: none">• Polycarbonate with non-conductive, high impact,• smooth finish, durable, non-flammable, UV stabilized,

Diagram



EDMP

📍 PO Box 125428, Plot No. MO0147C, Junction of N400 & N406 Streets,
Jebel Ali Free Zone, Dubai, United Arab Emirates
✉ info@edmpco.com 🌐 www.edmpco.com

Copyright © 2026 EDMP Limited. All Rights Reserved. All trademarks are the property of their respective holders. EDMP's Policy is one of continuous product development and the right is reserved to modify specifications contained herein without notice.