

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** and **IDIS** protocol, the **Magno 22+** ensures seamless integration and reliable operation in residential and commercial environments.



ELECTRICITY



STS
ASSOCIATION

**DL
MS[®]**

idis

IDIS
COMPLIANT



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

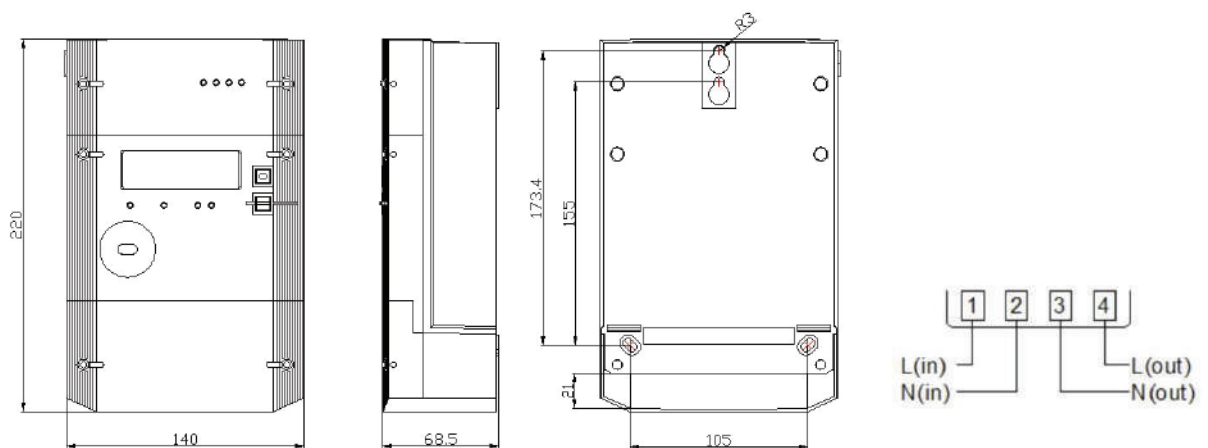
Additional Functionalities:

Event	● 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	● 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	● Alarms with LED/Buzzer and LCD on CIU ● Alarm can be configurable
Tariff Expense (Optional)	● 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	● 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 ● IDIS Compliant
Billing Record	● 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	● The firmware can be upgraded via local interface and WAN interface. ● Schedule activity image support
CIU unit	● 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	220V~240V, 110V~120V
Operating Voltage Range	50%Un~120% Un (When Un = 220V-240V) 80%Un~120% Un (When Un = 110V-120V)
Rated Current & Starting Current	5(100)A, 5(80)A and 0.4% Ib
Rated Frequency	50Hz or 60Hz $\pm 5\%$
Pulse Constant (Configurable)	1000imp/kWh 1000imp/kvarh (Default)
Accuracy Class	- Cl.1 for Active - Cl.2 for Reactive
Power Consumption	Voltage circuit ≤ 2 W or 5VA, Current circuit ≤ 0.5 VA
Battery and Life	- Replaceable Lithium battery, life more than 15 years - Supercap (Optional) – 5 yr lifetime with power off
Normal Operation Range	-25 to +70 , Humidity is up to 95%
Limit Operation Range	-40 to +80 , Humidity is up to 95%
EMC Performance	- Impulse voltage > 10kV, AC voltage > 4kV, Short circuit - current > 3kA, Electrostatic Discharge contact: 8kV & air: 15kV
Protection Class	- IP54 compliant with IEC60529 - Insulation grade II
Housing Material	- Polycarbonate with non-conductive, high impact, - smooth finish, durable, non-flammable, UV stabilized,

Diagram



EDMP GROUP

📍 71-75 Shelton Street, Covent Garden, London, WC2H 9JQ, United Kingdom

EDMP JAFZA

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