

Mk10H

 **ATLAS** – Class 1

Three Phase Smart
DIN Rail Meter

The Atlas Mk10H is EDM's first poly phase DIN Rail meter that is designed for sub-metering users. It comes with many advanced functionalities including AMI capabilities, high data storage, data processing and versatile communications capabilities with a class 1 accuracy measurement engine.



Key Features

AMI

AMI READY



MEASURE
EVERYTHING



FIRMWARE
UPGRADE



DIN RAIL

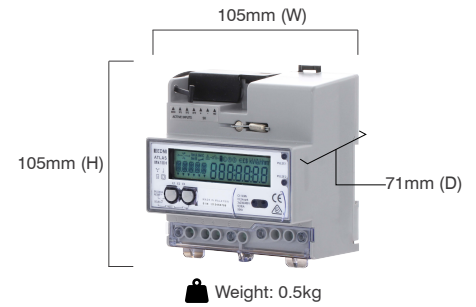


QUICK & EASY TO
DEPLOY

Mk10H

 **ATLAS** - Class 1

Three Phase Smart DIN Rail Meter



Standards and Compliance

- Class 1
- IEC 62052-11, 62053-21, 62053-23
- NMI M6

Measurement

- 3 phase 4 wire

Voltage

- Nominal voltage: 220V - 240V
- Operating range: 0.8Un to 1.15Un
- Impulse voltage: 10kV

Current

- CT range: 1/4A, 1/6A, 1/10A, 5/6A, 5/10A
- CT limit: 20 x I_{max} for 0.5 seconds

Terminal

- Terminal size: Ø 3.3mm - 3.8mm

Power Consumption

- Voltage circuit: <10VA/phase, 2W@ V_n
- Current circuit: <0.5VA/phase @ I_n

Frequency

- 50Hz - 60Hz

Inputs/Outputs Configuration

- 3 x Active inputs (Active input voltage: 15V)
- 1 x S0 output (S0 output: 27V, 27mA maximum)
- 2 Programmable LED indicators

Battery

- Internal lithium battery (3.6V, 950mAh)
- Backup time: 10 years without power

Real-time Clock

- Precision clock accuracy: <5ppm (15 seconds per month) at 23°C

Data Memory

- 2.1MB of non-volatile memory

Display

- 7 Characters of seven-segment display (9.30mm x 4.35mm)
- 5 full alphanumeric starburst characters for screen ID (6.15mm x 3.53mm)
- Display available without main power
- Option for backlight

Measured Values

- 3 elements 4 quadrants
- Import/Export/Absolute Wh, varh and VAh
- Per quadrant Wh, varh and VAh
- Phase A, B, C and total
- W, var, VA, Vrms, Irms
- Power factor, frequency, phase angles

Power Quality Indication

- Total Harmonic Distortion (THD)
- Unbalance (sequence components)
- Sag/Swell
 - 5 Cycle resolution
 - Records time/date/phase/duration/average and worst excursion
 - Programmable trigger levels

LCD Configuration

- Up to 60 user-defined screens of any meter parameter
- Up to 4 display sets
- Definable enunciators

Load Survey/Profile

- Up to 32 channels and 2 independent surveys
- Intervals programmable from 1 to 60 minutes
- Over 3600 days (10 years) storage (2 channels and 30 minutes interval)
- Energy instantaneous readings, pulsing inputs as channel sources
- Ability to store average/minimum/maximum values for interval duration

Time of Use

- 8 rates plus unified rate
- Up to 32 separate import and export registers
- Daily, weekly, monthly, yearly and special days
- Up to 200 programmable special days and 8 seasons
- Up to 61 previous periods plus billing totals
- Block or rolling maximum demand
- Energy, pulsing inputs
- Time of maximum demand

Calendar

- Supports Daylight Saving time
- Supports Gregorian or Persian calendars
- RTC and frequency synchronisation

Tamper Detection and Alarms

- Provision for sealing with conventional wire or plastic seals
- Reverse current detection
- Advanced tamper detection and logging
- Pre-programmed alarms for meter self-check
- Alarms trigger LEDs, enunciators, or communications event

Security

- Multi-level security (username and password including encrypted log-in)
- Up to 7 independent security levels
- Up to 6 individual users

Communications

- Up to 3 independently working communication ports:
 - Optical port: FLAG (IEC 62056-21)
 - RS-232 with modem power supply (3.7W, 0.2A)
 - RS-485 screw terminal (2-wire)
- GSM/GPRS/3G supported

Protocol

- EDMI command line
- MODBUS

Software

- EDMI EziView software available for meter programming and reading (Windows® compatible)
- EDMI MultiDrive software available for large scale AMI and AMR solutions (Windows® compatible)

Environmental

- Specified operating range: -25°C to +60°C
- Operating range limit: -40°C to +70°C
- Storage range limit: -40°C to +80°C
- Relative humidity: Up to 75% mean, 95% non-condensing for 30 days
- Ingress protection: IP51 (faceplate), IP30 (meter)

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