



# Mk10A

## Advanced Three Phase Electronic Revenue Meter



Atlas Series - Class 1 and Class 2

### PRODUCT INFORMATION


The Mk10A is another addition to the Atlas series which enhances the Mk10 meter with additional communications capabilities for use in Power Quality indication, advanced commissioning functionalities and larger memory storage.





### KEY FEATURES


**AMI**  
AMI READY

  
CT / WC  
CONNECTED

  
LARGE  
DATA STORAGE

  
LARGE  
LCD DISPLAY

  
MEASURE  
EVERYTHING

  
UPGRADEABLE

# Mk10A



Atlas Series - Class 1 and Class 2

## Advanced Three Phase Electronic Revenue Meter



### SPECIFICATIONS

#### Measurement

- Class 1 & Class 2 (MID Class B & Class A)
- Compliance with IEC 62052-11, 62053-21, 62053-23
- Compliance with AS 62052.11, 62053.21, 62053.23

#### Voltage & Power Supply

- Nominal Voltage: 220V – 240V
- Operating Range: 180V – 290V
- Burden: <10VA/phase @ Vn (3 Phase)
- Frequency Range: 45Hz – 65Hz

#### Current

- CT Range: 1/6A, 5/20A
- CT Limit: 20 times I<sub>max</sub> for 0.5 seconds
- WC Range: 5/100A, 10/100A
- WC Limit: 30 times I<sub>max</sub> for 0.5 cycles 7000A for 3 cycles
- Burden: <0.5VA/phase

#### Measured Energy Values

- 3 Element 4 Quadrant
- Import/Export Wh, varh and VAh
- Per Quadrant Wh, varh and VAh
- Absolute Wh, varh and VAh
- Phase A,B,C and Total

#### Other Measured & Displayed Values

- Power: W, var, VA, Vrms, Irms
- Power Factor, Frequency, Phasor Angles

#### Power Quality Indication

- Total Harmonic Distortion (THD)
- Unbalance (Sequence Components)
- Waveform Download

#### Sag / Swell

- 5 Cycle Resolution
- Records Time/Date/Phase/Duration/ Average & Worst Excursion
- Programmable Trigger Levels

#### Inputs / Outputs Configuration

- Up to 4 I/O Total in 3 Isolated Groups (Maximum 2 Relay Outputs)
- Options Include: Passive/Active Inputs, S0/BOSFET/Relay Outputs
- Passive Input Voltage: 5V, 12V, 48V, 110V, 240V
- Active Input Voltage: 12V
- BOSFET Output: 240V, 100mA maximum
- S0 Output: 27V, 27mA maximum
- Relay Output: 240V, 5A/2A
- 2 LED Indicators, Independent of I/O
- Programmable Output Pulse Width: 1ms to 100ms

#### Environmental

- Operating Range: -25°C to +60°C
- Limit Range: -40°C to +70°C
- Storage Range: -40°C to +80°C
- Relative Humidity: Up to 75% mean, 95% non-condensing for 30 days
- Ingress Protection: IP54, UL50 (3R)
- Salt Spray Resistant (IEC 60068-2-11)

#### Load Survey / Profile

- AMI Ready
- Up to 2.1 Megabytes of Non-Volatile Memory
- Over 3600 Days (10 Years) Storage (2 Channels, 30-Minute Intervals)
- Up to 32 Channels
- Intervals Programmable from 1 to 60 Minutes
- 2 Independent Surveys
- Energy, Instantaneous Readings, Pulsing Inputs as Channel Sources
- Ability to Store Average /Minimum/Maximum Values for Interval Duration

#### Time Clock & Calendar

- Accuracy (internal) within 15 Seconds per Month
- Backup Time of 10 Years without Power (Lithium Battery)

- Supports Daylight Saving Time
- Supports Gregorian or Persian Calendars

#### Time of Use

- Up to 8 Rates plus Unified Rate
- Up to 32 Separate Import & Export Registers
- Daily, Weekly, Monthly, Yearly & Special
- Up to 200 programmable Special Days
- Up to 61 Previous Periods plus Period Totals
- Block or Rolling Maximum Demand
- Energy, Pulsing Inputs
- Time of Maximum Demand

#### Large LCD Display

- Large 7-Segment Display
- Display Digit Size: 10.7mm (H)
- Up to 60 User-Defined Screens of any Meter Parameter
- Definable Enunciators
- Display Available even without Mains Power

#### Security

- Multi-level Security (Username & Password including Encrypted Log-in)
- Up to 7 Independent Security Levels
- Up to 6 Individual Users

#### Tamper Detection & Alarms

- Provision for Sealing with Conventional Wire or Plastic Seals
- Bypassing Current & Reverse Current
- Advanced Tamper Detection and Logging
- Pre-programmed Alarms for Meter Self-check
- Alarms Trigger LEDs, Enunciators, Relay Outputs or Comms Event
- Alarms are Stored in Event Logs

#### Communications

- 3 Independently Working Communication Ports
- Optical Port: FLAG (IEC 62056-21) or ANSI Type 2 (ANSI C12.18)
- RS-232 with Modem Power Supply (2G/3G Supported)
- RS-485 Multi-drop (2 or 4 Wire RJ45 or 2 Wire Screw Terminal) or second RS-232
- UDP/IP/PPP/GPRS Capable
- Compatible with Zigbee & MV-90™

#### Battery Options

- Internal Battery
- Replaceable External Battery

#### Software

- EDMI EziView Software Available for Meter Programming & Reading (Windows Vista/XP/2000)
- EDMI MultiDrive Software Available for Large Scale AMI & AMR Solutions (Windows Vista/XP/2000)
- Supported by Many Popular Third-party Multi-vendor AMR Systems

#### Physical Dimensions

- Standard Version: Approx. 292.5mm (L) x 175mm (W) x 94mm (D)
- Weight: Approx. 2 kg for WC, Approx. 1.8 kg for CT

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