



Mk7A

Advanced Single Phase Two-Element Electronic Revenue Meter



Atlas Series - Class 1 and Class 2

PRODUCT INFORMATION

Built on the advanced Atlas metering platform, the Mk7A is a single phase two-element meter which integrates both a 100Amp and 60Amp relay which allows disconnection and reconnection of electrical services remotely.



KEY FEATURES

AMI

AMI READY



DISCONNECT
RELAY



MEASURE
EVERYTHING



TAMPER
PROOF



LARGE
LCD DISPLAY



MULTIPLE
COMMS OPTIONS



LARGE
DATA STORAGE

Mk7A



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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
- 1 Phase 2 Wire with 100A Disconnect Switch
- Twin Element Measurement & Control, Main 100A, Load 60A
- Ideal for PV Grid Connected Gross and Net Metering Applications
- Many Configuration Options for Element & Relay

Voltage & Power Supply

- Nominal Voltage: 220V – 240V
- Operating Range: 180V – 290V
- Burden: <10VA/phase @ Vn
- Frequency Range: 45Hz – 65Hz CURRENT
- WC Range: 5/100A, 10/100A
- WC Limit: 30 times I_{max} for 0.5 cycles 7000A for 3 cycles
- Burden: <0.5VA/phase

Measured Energy Values

- 2 Element 4 Quadrant
- Import/Export Wh, varh and VAh
- Per Quadrant Wh, varh and VAh
- Absolute Wh, varh and VAh
- Main, Load & Total

Other Measured & Displayed Values

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

Power Quality Indication

- Total Harmonic Distortion (THD)
- 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 2 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
- 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

Load Survey / Profile

- AMI Ready
- Up to 2.1 Megabytes of Non-Volatile Memory
- Over 7200 Days (20 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

Physical Dimensions

- Standard Version: Approx. 233mm (L) x 128mm (W) x 85mm (D)
- Weight: Approx. 1.8 kg

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: 9.3mm (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
- 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)
- Option for second RS-232
- UDP/IP GPRS/PPP Capable
- Option for Zigbee Mesh RF & MV-90™

Battery Options

- Internal Battery
- Replaceable External Battery

Software

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

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