Mk7A

ADVANCED SINGLE PHASE TWO-ELEMENT ELECTRONIC REVENUE METER

Mk7A – Advanced Single Phase Two-Element Electronic Revenue Meter

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.
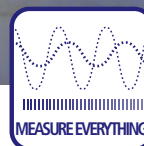
ATLAS SERIES
Class 1 & Class 2

- HIGH ACCURACY
- DISCONNECT RELAY
- FLEXIBILITY
- MEASURE EVERYTHING
- TAMPER RESISTANT
- LARGE LCD DISPLAY
- AMI READY
- MULTIPLE COMMUNICATIONS OPTIONS
- LARGE DATA STORAGE

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The Mk7A is a single phase two-element meter, with an added ability for remote connect-disconnect of electrical services.

ATLAS SERIES
Class 1 & Class 2

MEASUREMENT
HIGH ACCURACY
- 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

DISCONNECT 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 Imax for 0.5 cycles
  7000A for 3 cycles
- Burden: <0.5VA/phase

MEASURED ENERGY VALUES
MEASURE EVERYTHING
- 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
FLEXIBILITY
- 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℃ to +60℃
- Limit Range: -40℃ to +70℃
- Storage Range: -40℃ to +80℃
- Relative Humidity: Up to 75% mean, 95% non-condensing for 30 days
- Ingress Protection: IP54

LOAD SURVEY/PROFILE
LARGE DATA STORAGE
- 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 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
TAMPER RESISTANT
- 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
MULTIPLE COMMUNICATIONS OPTIONS
- 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
AMI READY
- 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

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