



Mk7B

SMART SINGLE PHASE ELECTRONIC REVENUE METER

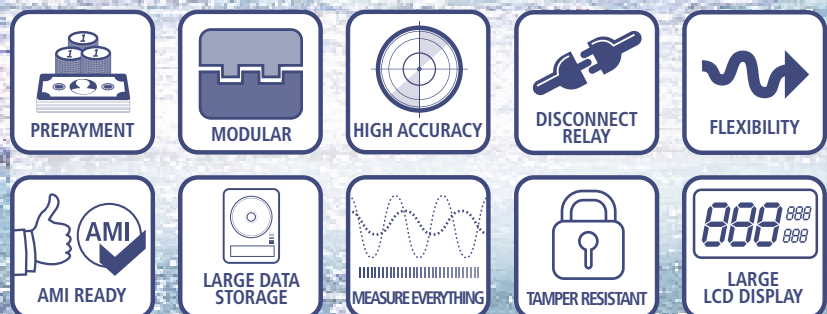


Mk7B – Smart Single Phase Electronic Revenue Meter

Designed for Smart Residential, the Mk7B can operate in credit or pre-payment modes, with a 100Amp relay for remote connect-disconnect of electrical services. The Mk7B provides a modular pod-based system which allows communications and I/O options expansion, and is easily field-upgradable. It is another member of the Atlas family of meters.

ATLAS SERIES

Class 1 & Class 2



Mk7B

SMART SINGLE PHASE ELECTRONIC REVENUE METER



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



VOLTAGE & POWER SUPPLY

- Nominal Voltage: 220V – 240V
- Operating Range: 180V – 290V
- 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



MEASURED VALUES

- 1 Element 4 Quadrant
- Import/Export/Absolute/Per Quadrant:
Wh, varh and VAh
- W, var, VA, V_{RMS}, I_{RMS}, Fundamental V, I
- 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

- Built-in SO (27V, 27mA max)
or Relay (240V, 5A/2A) Output
- 2 LED Indicators
- Output Pulse Width: 1ms to 100ms
- Ripple Receiver
- Further I/O Expansion via Pods

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 (without suction)

TIME CLOCK & CALENDAR

- Accuracy (internal) within 15 Seconds per Month
- Backup Time of 10 Years without Power (Lithium Battery)
- Supports Daylight Saving Time & Gregorian or Persian Calendars

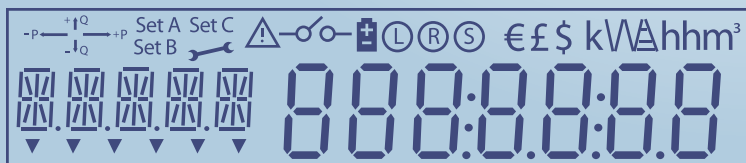
BATTERY OPTIONS

- Internal Battery
- External Battery, Under Terminal Cover or inside Pod



LARGE LCD DISPLAY

- Large 7-Segment Display
- Display Digit Size: 9.3mm (H)
- Up to 60 User-Defined Screens of any Meter Parameter
- Display Available even without Mains Power
- Screen ID is Full Alphanumeric, 5 Digits
- Option for Backlight



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 & 2 Independent Surveys
- Intervals Programmable from 1 to 60 Minutes
- Energy, Instantaneous Readings, Pulsing Inputs
as Channel Sources
- Ability to Store Average/Minimum/Maximum
Values for Interval Duration



TAMPER DETECTION & ALARMS

- Provision for Sealing with Conventional Wire
or Plastic Seals, Meter is Sealed for Life
- Reverse Current Sense
- Option for Magnetic Tamper Detection
- 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



POD SYSTEM

- Interchangeable Pods for I/O and Communications
- Hot Pluggable, Automated Configuration
- Sealable Separately
- Robust UDP/IP/PPP GPRS
- Standard Pod Options Include:
 - GPRS Modem with Internal Antenna + Zigbee SEP
 - GPRS Modem with External Antenna + Zigbee SEP + 3 I/O
 - Other Combinations Including RS232 & RS 485
 - Ethernet + Zigbee SEP



SOFTWARE

- EDMi EziView Software Available for Meter Programming
& Reading (Windows 7/Vista/XP/2000)
- EDMi MultiDrive Software Available for Large Scale AMI & AMR
Solutions (Windows 7/Vista/XP/2000)
- Supported by Many Popular Third-party Multi-vendor AMR Systems



PREPAYMENT

- Credit or Debit Operation
- Energy or Currency Based
- STS Token Compatible (IEC 62055-31)
- Multiple Energy Sources
- 8 Rates Per Source
- External Debt Repayment x2
- Minimum Charges, Standing Charges
& Emergency Credit
- Configurable Warnings & Indicators

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 Special Days & 8 Seasons
- Up to 61 Previous Periods plus Period Totals
- Block or Rolling Maximum Demand
- Energy, Pulsing Inputs
- Time of Maximum Demand

SECURITY

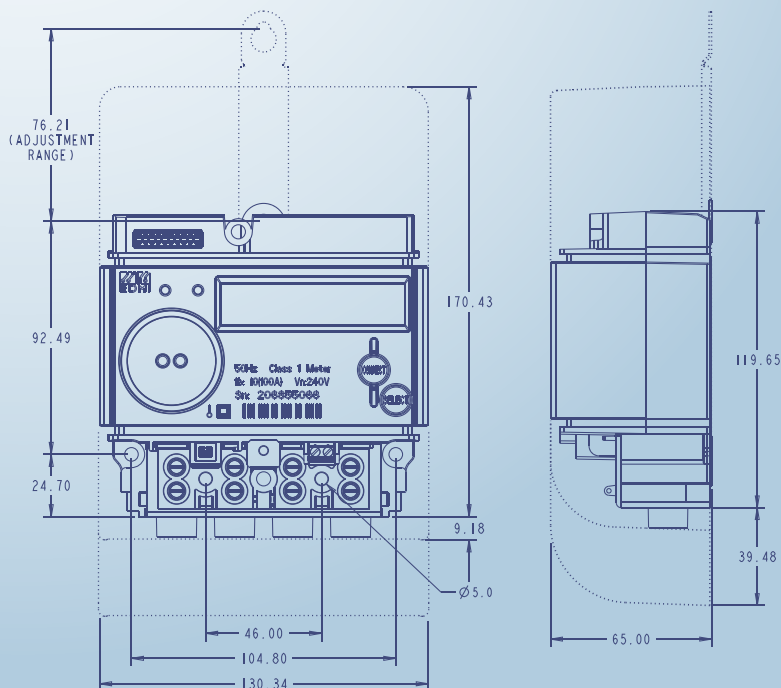
- Multi-level Security (Username & Password
including Encrypted Log-in)
- Up to 7 Independent Security Levels
- Up to 6 Individual Users

COMMUNICATIONS

- Up to 3 Independently Working
Communication Ports
- Optical Port: FLAG (IEC 62056-21)
or ANSI Type 2 (ANSI C12.18)
- Option for DLMS COSEM (IEC 62056)
- Pod Interface for Easy Field Upgrade
or Replacement

PHYSICAL DIMENSIONS

- Short Cover: 180mm (H) x 131mm (W) x 65mm (D)
- Long Cover: 210mm (H) x 131mm (W) x 65mm (D)
- Weight: Approx. 0.75 kg (0.95 kg with Modem)



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