



Mk7C

Advanced Single Phase Electronic Revenue Meter



Atlas Series - Class 1 and Class 2

PRODUCT INFORMATION

Built on the advanced Atlas metering platform, the Mk7C is a single phase meter which integrates a 100Amp relay which allows disconnection and reconnection of electrical services remotely.



KEY FEATURES

- AMI
AMI READY
- DISCONNECT RELAY
- MULTIPLE COMMS OPTIONS
- P-PAY
PREPAYMENT
- UPGRADEABLE
- MEASURE EVERYTHING
- LARGE LCD DISPLAY
- ANTI TAMPER

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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
- Ideal for PV Grid Connected Net Metering Applications

Voltage and 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

- 1 Element 4 Quadrant
- Import/Export Wh, varh and VAh
- Per Quadrant Wh, varh and VAh
- Absolute Wh, varh and VAh

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 1 Relay Output)
- Options Include: Passive/Active Inputs, S0/Relay Outputs
- Passive Input Voltage: 5V, 12V, 48V, 110V, 240V
- Active Input Voltage: 12V
- 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. 163.5mm (H) x 134mm (W) x 51mm (D)
- Weight: Approx. 1.1 kg (1.3 kg with Modem)

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 Main 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

- Up to 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
- Option for Passive RS-232
- UDP/IP GPRS/PPP Capable
- Option for Zigbee Mesh RF, MV-90™ & PLC

Battery Options

- Internal 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

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