

# Mk7C

**ATLAS** – Class 1 and Class 2

Single Phase Smart Meter  
with Disconnect and Reconnect  
Feature

Built on the advanced Atlas metering platform, the Mk7C is a single phase meter with an integrated 100A UC3 compliant relay which allows disconnection and reconnection of electrical services remotely.



## Key Features

AMI

AMI READY



DISCONNECT  
RELAY



MEASURE  
EVERYTHING



LARGE LCD  
DISPLAY



ANTI TAMPER



MULTIPLE COMMS  
OPTIONS



UPGRADEABLE

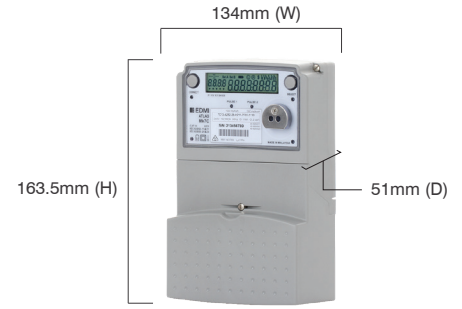


LARGE DATA  
STORAGE

# Mk7C

**ATLAS** - Class 1 and Class 2

## Single Phase Smart Meter with Disconnect and Reconnect Feature



Weight: 1.1kg

### Standards and Compliance

- Class 1 and Class 2
- IEC 62052-11, 62052-21, 62052-31\*, 62053-21, 62053-23
- AS 62052.11, 62052.21, 62053.21, 62053.23
- NMI M6

### Measurement

- 1 phase 2 wire

### Voltage

- Nominal voltage: 220V - 240V
- Operating range: 176V - 276V
- Withstand: Up to 290V
- Burden: IEC 62053-61 compliant

### Current

- WC range: 5/100A, 10/100A
- WC limit: 7000A for 3 cycles
- Burden: <0.5VA/phase

### Frequency

- 45Hz - 65Hz

### Relay

- 100A IEC 62055-31 Annex C UC3
- \*Relay fault detection
- Enhanced relay switching time  $\leq 10s$
- May be ordered without a disconnect relay

### 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
- Active input voltage: 12V (common ground)
- S0 output: 27V, 27mA maximum
- Relay output: 240V, 2A
- 2 Programmable LED indicators
- Programmable output pulse width: 1ms to 100ms

### Battery

- Internal battery
- Backup time: 10 years without power (Lithium Battery)

### Real-time Clock

- Accuracy (internal) within 15 seconds per month at 23°C

### Data Memory

- 2.1 or 4.1\*MB of non-volatile memory

### Display

- Large 7 segment display
- Display digit size: 9.3mm x 4.35mm
- Up to 60 user-defined screens of any meter parameter
- Definable enunciators
- Display available without main power

### Measured Values

- 1 element 4 quadrants
- Import/Export/Absolute Wh, varh and VAh
- Fundamental Wh
- W, var, VA, Vrms, Irms
- Power factor, frequency, phasor angles
- Supports ripple control/AFLC

### Power Quality Indication

- Total Harmonic Distortion (THD)
- Option for live waveform display
- Sag/Swell
  - 5 Cycle resolution
  - Records time/date/phase/duration/average and worst excursion
- Programmable trigger levels

### Load Survey/Profile

- Over 5000 days storage (2 channels, 30-minute intervals)
- Supports Advanced Demand Management (ADM) with prioritised rules
- AMI Ready
- Up to 32 channels and 4 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

### Time of Use

- Up to 8 rates plus unified rate
- Up to 32 separate import and export registers
- Daily, weekly, monthly, yearly and special days
- Up to 200 programmable special days
- Up to 61 previous billing periods plus billing totals
- Block or rolling maximum demand
- Time of maximum demand
- Energy, pulsing inputs

### Calendar

- Supports Daylight Saving time
- Supports Gregorian or Persian calendars

### Tamper Detection and Alarms

- Provision for sealing with conventional wire or plastic seals
- Reverse current detection
- Advanced tamper detection and logging
- Pre-programmed alarms for meter self-check
- Alarms trigger LEDs, enunciators, relay outputs or communications event
- Alarms are stored in event logs
- Option for fixed-threshold magnetic tamper detection
- \*Option for high-sensitivity 3D magnetic tamper detection with configurable threshold

### Security

- Multi-level security (username and password including encrypted log-in)
- Up to 7 independent security levels
- Up to 6 individual users
- AES128 bit encryption

### 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 (It supports most modems in the market)
- RS-485 multi-drop (2 or 4-wire RJ45 or 2-wire screw terminal)
- Option for passive RS-232
- UDP/IP GPRS/PPP capable
- Compatible with MV-90™ and PLC

### Protocol

- EDMI command line
- DLMS
- MODBUS

### Software

- EDMI EzView software available for meter programming and reading (Windows® compatible)
- EDMI MultiDrive software available for large scale AMI and AMR solutions (Windows® compatible)
- Supported by many popular third-party multi-vendor AMR systems
- Supports Function Based Setup

### Environmental

- Specified operating range:
  - 25°C to +60°C
- Limit range of operation:
  - 40°C to +70°C
- Storage range limit:
  - 40°C to +80°C
- Relative humidity:
  - Up to 75% mean, 95% non-condensing for 30 days
- Ingress protection: IP54
- Protective Class II
- Surge Test: 5kV
- Impulse Test: 10kV

Specifications with \* symbol available in manufacturing codes with prefix 7Cx3

## EDMI Limited (Headquarters)

47 Yishun Industrial Park A, Singapore 768724

Tel: +65 6756 2938 Fax: +65 6756 0125

Email: [marketing@edmi-meters.com](mailto:marketing@edmi-meters.com)

[techsupport@edmi-meters.com](mailto:techsupport@edmi-meters.com)

[www.edmi-meters.com](http://www.edmi-meters.com)

