

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

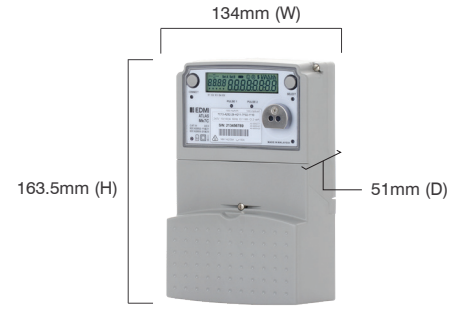


LARGE DATA
STORAGE

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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 (2G/3G/4G/LTE supported)
- 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 EziView 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

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