





Mk6E

GENIUS - Class 0.2S and Class 0.5S (MID Class C)

High Accuracy Three Phase Smart Meter

The Mk6E is an enhanced upgrade of the Mk6 meter, built with a higher class accuracy of 0.2S, catering to the high-end markets. The Mk6E is a high-precision meter created for generation and transmission applications, as well as for revenue metering at high-end consumer facilities.



Key Features















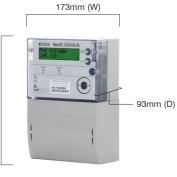




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Weight: 2kg

· Option for internal modem power

• Master/Slave arrangement with up to

31 'Slave" meters accessed through

• EziView Windows® software (optional),

configuration of tariff programs and all

meter parameters, for later upload to

can be used for programming and

or screw terminal)

Compatible with MV-90[™]

· EDMI command line

Protocol

• MODBUS

DLMS

DNP3 level 2

• IFC 870-5-102

DL/T 645-2007

one 'Master' gateway meter

· Option for SCADA card

- RS-485 multi-drop (4-wire with RJ45

262mm (H)

Standards and Compliance

- Class 0.2S and Class 0.5S
- IEC 62052-11, 62053-22 (Class 0.2S and Class 0.5S), 62053-23 (Class 2)
- EN 50470-1. EN 50470-3
- NMI-M6

Measurement

- · 3 phase 3 wire
- 3 phase 4 wire

Voltage

- Nominal voltage: 57V 240V (phase to neutral)
- Burden: <10VA / phase @ Vn (3 phase), as per IEC 62053-61

Current

- CT range: 1/4A, 1/6A, 5/10A and 5/20A
- Short time over-current: 20 x Imax for 0.5 seconds
- Burden: <0.5VA/phase

Auxiliary Supply Option

• 100V to 240V AC/DC

Frequency

• 45Hz - 65Hz

Inputs/Outputs Configuration

- Up to 10 I/O total, independent common ground with 4kV isolation
- Active input: 5V
- Passive input voltage: 5V, 12V, 24V, 48V, 110V, 240V
- BOSFET output: 240V, 100mA maximum
- 2 Programmable LED indicators
- Programmable output pulse width: 1ms to 250ms
- Programmable output polarity
- Time synchronised (optional)

Battery

- Backup type: Optional lithium battery 1200mAh, 3.6V and SuperCap (single/ dual)
- Backup time: 2 years without power
- Battery shelf life of 10 plus years at room temperature

Real-time Clock

- Accuracy: 0.5 seconds per day (over full temperature range)
- Mains synchronised or internal crystal (TCXO) time keeping. Mains synchronised reverts to internal crystal (TCXO) on loss of all phase volts

Data Memory

- Configuration, TOU data and load survey data
 - Flash RAM
 - Battery backed up RAM

Display

- 16 Characters by 2 lines alphanumeric display
- Programmable units, multipliers and leading zeros
- · Up to 64 user-defined screen displays
- Displays any available meter parameter

Measured Values

- 3 elements, 4 quadrants
- Import/Export/Absolute Wh, varh and VAh
- Phase A, B, C or Total
- W, var, VA
- True RMS voltage (3 phase)
- True RMS current (3 phase)
- · Power factor, frequency, phasor angles

Power Quality Indication

- Total Harmonic Distortion (THD)
- Unbalance
- Fundamental voltage, current and watt measurement
- Harmonics (up to the 50th)
- Sag/Swell
 - 5 Cycle resolution
 - Records time/date/phase/duration/ average and worst excursion
- Programmable trigger levels
- Waveform capture (voltage and current only)

Load Survey/Profile

- NEM compliant
- Over 900 kilobytes of flash data storage space

- 3100 day-channel capacity at 30 minute intervals
- 1875 day capacity at 30 minute intervals/2 channels
- 520 day capacity at 15 minute intervals/3 channels
- Up to 50 channels
- Interval programmable from 1 minute to 1 month
- Multiple independent surveys
- Energy, instantaneous readings, pulsing inputs, average/min/max readings

Time of Use

- 8 rates plus unified rate
- Up to 12 separate import and export registers
- Up to 200 programmable special days
- Daily, weekly, monthly, yearly and special days
- 13 or more previous periods
- · Block or rolling maximum demand
- · Time of maximum demand
- · Configurable billing rest button

Extensions for Customer Applications

Mk6E GENIUS plus®meter continues the successful concept of meter "Extensions" introduced in the original Mk6 Genius® using "EziScript", complex register manipulations can be performed allowing sophisticated meter functions. New extensions are constantly under development, contact us to find out the latest updates.

Some examples of currently available extensions are:

- Send SMS at percentage of maximum demand, or equipment failure alarm
- Maximum demand control of loads via pulsing outputs
- Time of use history, etc.

• Specified operati

meters

- Specified operating range: -25°C to +60°C
- Storage range limit:
 -25°C to +80°C

reading the meter

EziView also allows offline

Relative humidity:
 Up to 95% non-condensing

Communications

- Up to 3 independently working communication ports:
 - Optical port: FLAG (IEC 62056-21) or ANSI Type 2 (ANSI C12.18)
 - RS-232 (RTS/CTS and DTR/DCD)

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