Mk6
(GENIUS)

Class 0.5S & Class 1
Meters for all HVCT and MVCT applications

EDMI

Accuracy
- Class 0.5S   (to IEC 60687)
- Class 1 & 2   (to IEC 61036)

Voltage
- Nominal - 57 to 240V (phase to neutral)
- Burden - <10VA / phase @ Vn (3 phase), as per IEC 62053-61, 1998
- Frequency 45-65 Hz

Current
- C.T. Range - 1/1.2A, 5/6A, 1/4A and 5/20A
- W.C. Range - 10/100A (Class 1 only)
- Short time over-current - 20 times the I_{max} for 0.5 seconds
- Burden - <0.5VA/phase

Auxiliary Supply Options
- 240V, 110V (other voltages available on special order)

Measurement Modes
- Single phase (3 circuits)
- 3 phase 3 wire
- 3 phase 4 wire

Measured Energy Values
- 3 element, 4 quadrant
- Import/Export Wh, varh and VAh
- Absolute Wh, varh and VAh
- Phase A,B,C or Total

Other Measured and Displayed Values
- Power: W, var, VA
- True RMS Voltage (3 phase)
- True RMS Current (3 phase)
- Power factor
- Frequency
- Phasor angles

Pulsing Inputs / Outputs
- Maximum of 8 I/O with up to 8 outputs (2 standard) or 6 inputs
- Output voltage - 5 ~ 220V DC, 12 ~ 240V AC
- Output current - 0.1A maximum
- Output pulse width - 1ms to 250ms
- Programmable output polarity
- Input voltages - 5, 12, 48, 110, 240V AC/DC
- Time synchronised (optional)

Communications
- Local - ANSI type 2 optical or FLAG™ (IEC 1107)
- Remote - Isolated RS485 or RS232 or both

Communications Possibilities
- ANSI Type 2 Optical
- IEC 1107
- RS232 (RTS/CTS and DTR/DCD)
- RS485 (2 or 4 wire multidrop)
- SCADA
- Modems (PSTN/GPRS/GSM/CDMA)
- MV90™
- MODBUS®
- PPP/GPRS
- DNP3
- Optional internal modem power supply
- Master/Slave arrangement with up to 31 'Slave' meters accessed through one 'Master' Gateway meter

Temperature Range
- Operating   -10 to +60ºC
- Storage   -40 to +85ºC

Time Keeping
- Accuracy (internal) ±30 sec/month
- Backup time - 2 years without power
- Backup type - lithium battery and optional SuperCap
- Mains synchronised or internal crystal time keeping. Mains synchronised reverts to internal crystal on loss of all phase volts

Data Storage (Configuration, TOU Data and Load Survey)
- FlashRAM, indefinite storage period
- Battery backed up RAM

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, Special
- 13 or more previous periods
- Block or Rolling Maximum Demand
- Time of Maximum Demand

Load Survey / Profile
- NEM compliant
- 400 day-channel capacity at 30 minute intervals
- Up to 50 channels
- Interval programmable from 1 second to 1 month
- Multiple independent surveys
- Energy, instantaneous readings, pulsing inputs, average/min/max readings

Sag / Swell
- 5 cycle resolution
- Records time/date/phase/duration/worst excursion
- Programmable trigger levels

LCD Display
- 16 character by 2 line alphanumeric display
- Programmable units, multipliers and leading zeros
- Up to 64 user definable screen displays
- Displays any available meter parameter

Optional Functions
- Quality of supply (QOS) features
- Waveform capture
- Harmonic analysis to the 50th harmonic
- THD measurement
- Fundamental energy measurement

Equipment Failure Alarms (EFAs)
A single user defined alarm condition (via scripts) is available plus pre-programmed alarms based on numerous:
- Self checks
- Tamper and wiring checks

These alarms can:
- Turn on an LED, LCD indicator or relay output
- Record an event in the event log
- Trigger an event such as a remote alarm or dial an emergency number via scripts

Extensions for Customer Applications: standard or to order
The Genius meter introduces the concept of Extensions to the revenue-metering world. The increasingly complex nature of revenue metering has necessitated the development of exciting new programming tools that allow customers to tailor the meter for specific applications. Using "EziScript", a scripting language developed by EDMI, complex register manipulations can be performed allowing sophisticated changes to the meter operation. EDMI offers custom Extension writing services. New Extensions are constantly under development - contact us to find out the latest updates

Examples of currently available Extensions are:
- Send SMS at percentage of maximum demand
- Average power factor for billing period
- LCD menu system
- Magnetic tamper detection
- Power factor control extension
- Maximum demand control of loads via pulsing outputs
- Average voltage, current, unbalance, THD etc
- Voltage sag / swell or power outage
- Power factor / power quality
- Voltage quality
- Send SMS on equipment failure alarm

Software
- EziView Windows® software (optional), can be used for programming and reading the meter
- EziView also allows offline configuration of tariff programs and all meter parameters, for later upload

Total Metering Solution Sdn. Bhd. (Co. No:476265-H)
22 & 22A, Jalan Anggerik Vanilla 31/93, Kota Kemuning, 40460 Shah Alam, Selangor D.E. Malaysia.
Tel:+603-5122 0029   Fax:+603-5122 0079
E-mail: sales@tms.com.my   Website: www.tms.com.my