

STATIC 3-PHASE HT LT TYPE, CT PT OPERATED (TOD/TOU) SMART ENERGY METER

Accuracy Class 0.5S

R421

Type T421_DTGC4



R421 is an advanced three-phase, HT LT type, CT PT operated multi-tariff electronic energy meter, equipped with GSM/GPRS communication capability for smart metering. It is DLMS/COSEM certified product and an ideal candidate for interoperability. To resolve the menace of energy theft prevalent in local market, R421 is carefully designed with stringent anti-tampering features. These smart energy meters promote transparency, reduce operational costs, improve customer services and other associated rights. Its state of the art Digital Sigma Delta ADC integrated circuits are used to measure active, reactive energies and MDI values. To offer highest level of flexibility, it can operate as a standalone product or be integrated with various data collection and energy management tools.

 **MicroTech**
Industries (Pvt) Ltd.

Redefining Technological Horizons

Features

- Reading Display in Case of Power Outage/Failure
- Display Scroll and MDI Reset Button
- Long Life, Clear, Wide and High Contrast Display with Broad Viewing Angle
- Phase Indication (A, B, C) and Indication of Load with Blinking Circle Around the Respective Phase on LCD
- Active and Reactive Energy Accumulation
- Active and Reactive Power Measurement
- Load Profile Data Recording with Programmable Time Interval
- Pulse Output Display on LED for kWh and kvarh for Field Testing
- Built in Advanced GSM/GPRS Engine for Secure and Fast Data Communication
- Low Battery Indication on LCD
- GSM/GPRS Module Communication Status Indication on LCD
- On Demand Manual and Automated Meter Reading
- Meter Data Management with Multi-User Capabilities
- Customized Automatic Meter Reading Options i.e. Hourly, Daily, Weekly, Monthly, etc.

Billing Record

Monthly reading for last 24 months of 4 tariffs and totals (TL) of the following:

- kWh
- kvarh
- Cumulative MDI(kW)

Event Record

More than 20 different types of events and logging & storage of the last 50 occurrences with date and time stamp of each event are available such as:

- Power Fail
- Phase Fail
- Reverse Energy
- Over Voltage
- Over Load
- Under Voltage
- MDI Reset
- CT Fail
- PT Fail
- etc.

Security Features

- The meter is protected against any loss of data and functional performance due to any external interference such as influence of CD drive, mobile phones and complies with all relevant IEC/ANSI standards.
- The meter is protected against the influence of strong magnetic field.
- Each meter has a unique serial number in its memory which can be displayed on the LCD.
- Meter keeps on operating with or without neutral wire.
- Over and under voltage indication with symbols (↑↓).
- Demand over load warning.
- Meter body opened Indication on LCD (*OPENED*) & storage of event with date and time stamp.
- Identification (with symbol ← on LCD) & storage of Reverse Energy Flow event with date & time stamp.

Instantaneous Quantities Display

- Voltages U_1, U_2, U_3
- Current with Indication of Direction I_1, I_2, I_3 (↔)
- Phase Indication A, B, C
- Load Indication $\textcircled{A} \textcircled{B} \textcircled{C}$
(Blinking circle around the present phase)
- Active Power (kW) kW_1, kW_2, kW_3 (↔)
- Reactive Power Phase Wise $kvarh_1, kvarh_2, kvarh_3$
- Apparent Power Phase Wise kVA_1, kVA_2, kVA_3
- Power Factor by Phase PF_1, PF_2, PF_3
- Meter Clock Date & Time
- Tariff Indication T_1, T_2, T_3, T_4
- Frequency Fr - Hz
- Battery Voltage btry-3.65V

Weight and Dimensions:

- Weight 2kg (±5%)
- Dimensions 30 x 24 x9(cm)

Temperature Range

- Specified Operating Range -25°C to 60°C
- Limit Range of Operation (Extreme Condition) -25°C to 80°C
- Limit Range for Storage & Transportation -25°C to 80°C

Electrical Specification

- Operating Voltage 3x63.5/110V
3x230/400V
- Basic/Max Current 5/10 A
- Reference Frequency 50Hz
- Accuracy Class
 - ✓ For Active Energy Class 0.5S
 - ✓ For Reactive Energy Class 2.0
- Meter Constant
 - ✓ Active & Reactive 4,500 imp/kWh
 - ✓ Starting Current Less than 10mA
- Power Consumption
 - ✓ Voltage Circuit Less than 0.8W, 1VA
 - ✓ Current Circuit Less than 1VA (at basic current)

Load Profiling

4 channel recording of load profile data with 30 min interval for 90 days, 60 min interval for 180 days and 24 hour interval for 12 years. Load profile data is stored in non-volatile memory (EEPROM).

MicroTech Industries (Pvt.) Ltd.

Plot # 2, Street # 2, Attari Industrial Estate, 18 Km. Ferozepur Road, Lahore, Pakistan.
PABX : +92-42-35990015, Fax: +92-42-35924780, E-mail: marketing.info@mtlimited.com,
Web: www.mtlimited.com



BUREAU
VERITAS

ISO 9001:2000 Standards