CENTRON®

Cooper MCT-410cL

The Itron CENTRON® Meter now supports two-way Cooper Technologies Power Line Communications (PLC) to provide low-cost remote meter reading and advanced data collection. The MCT-410cL Metering and Control Transponders use two-way Cooper PLC with CENTRON field-proven technology to address residential applicatons. Every MCT-410cL includes the standard functions of remote kWh meter reading, outage recording, freeze register capability, Load Profile, Voltage Profile, Time-Of-Use (TOU) and Net Metering. System control is via a Cooper Technologies' Yukon® Master Station, which supports the Cooper PLC system. The Master Station can be tied to a utility billing or customer information system (CIS) for automatic download of billing information. Cooper Power System guarantees 100% compatibility with your billing system.

OVERVIEW:

The MCT-410cL plugs into a standard meter socket and is available as a retrofit kit as well as the following forms:

» Form 1S

» Form 2S (Class 200 or Class 320)

» Form 3S

» Form 4S

» Form 12S (120V)

FEATURES

» Calculates kW demand, records peak kW and stores in the meter

» Remotely settable 5, 15, 30 or 60 minute Load Profile intervals

» Four programmable TOU rates including critical peak

» Calculates voltages to an accuracy of ±1% and records min/max voltages

» Remotely settable 5, 15, 30 or 60 minute Voltage Profile intervals

» Logs date, time and duration of power outages

» Tamper detection

» Uses utility-owned power line communications

» Group addressing

» Simple plug-in installation requiring no field test equipment or programming

» Polycarbonate or glass meter covers

» Real-time clock without the need for a battery

» Electronic LCD register

» Communication

  • Cooper's Power Line Communication allows on-demand reads within 3 to 6 seconds (round trip). Cooper PLC also supports one-way and two-way load management and distribution automation, simultaneous with metering activity.

» kWh Meter Reading

  • kWh pulses are received directly from the CENTRON metrology and are stored in non-volatile memory.

» Last Interval kW Demand

  • kW demand is calculated over a configurable interval of 1 minute to 60 minutes. Peak kW is recorded with the date and time it occurred.

» Load Profile

  • Load Profile data (kwh) is recorded at 5,15,30,or 60 minute intervals. Default configuration stores up to 150 days of Load Profile data for a 15 minute interval on a single channel.

» Time-of-Use

  • Up to four TOU rates and four TOU schedules can be remotely configured. One of the TOU rates can be configured for Critical Peak mode. User configurable time zone with daylight savings time and holiday dates.

» Last Interval Voltage Demand

  • Voltage demand is calculated over a configurable interval of 30 seconds to 15 minutes. The minimum and maximum voltages are recorded with the date and time they occurred.

» Voltage Profile

  • Voltage Profile data (vh) is recorded at 5, 15, 30 or 60 minute intervals. Default configuration stores up to 18 days of Voltage Profile data for a 15 minute interval on a single channel.

» Net Metering

  • The CENTRON MCT-410cL can record and store the energy consumption and direction. This enables the user to monitor the net energy usage in each meter.

» Outage Count and Duration Log

  • Time/date and duration of the six most recent power interruptions are logged. Outage duration is calculatedin cycles or seconds. Number of missing cycles required to record an outage is configurable.

» Tamper Detection

  • A tamper flag can be set on the detection of reverse power or zero usage in a single day.

» Addressing

  • Unique Addressing – All meters are shipped with a Cooper-configured unique address, eliminating the need for on-site programming.

  • Group Addressing – Supports over 8,000 group addresses for use with the following commands: Freeze Register, Critical Peak, voltage min/max reset and power outage counter.

» Freeze Register

  • The Freeze Register command stores the current demand and energy readings for later retrieval. This command can be used with unique meter addressing or can be broadcast using group addressing. The Freeze Register command allows utilities to fine tune the billing period for improved accuracy. For example, a utility can broadcast a freeze command at midnight on a reading day and then collect the data at a later time.

» 3S and 4S Versions

  • The 3S and 4S versions of the MCT-410cL have the ability to store a multiplier in the meter so that the display reflects either primary usage or secondary usage.

BENEFITS

» Each meter stores vast amounts of data in non-volatile memory, which allows interval and peak usage data to be obtained without having to download and manage the data in a database.

» There is no longer a need to install special meters at problem accounts.

» Each meter comes with full Load Profile, Voltage Profile, Outage Profile and Disconnect capability.

» Cooper PLC provides on-demand reads from the meter within 3 to 6 seconds round trip. This allows customers issues to be resolved during a customer service call. Reads can be repeated immediately if needed.

SPECIFICATIONS

Communication

» Type: Two-way Cooper Technologies Power Line Communication

» Carrier Frequency: 9.6 or 12.5 kHz

» Modulation: CPSK Coherent Phase Shift Keying

» Data Rate: 72 to 76 bps

» Error Detection: Six bit BCH Code on all carrier messages

Operating Requirements

» Voltage: 240 VAC, 120 VAC, 60 Hz

» Temperature: -40° F to 185° F (-40° C to 85° C)

» Humidity: 0 to 95% non-condensing

Surge Withstand Capability

» Oscillatory: 6 kV @ 100 kHz waveform per ANSI C12.1 (IEEE C62.41)

» Fast Transient: 6 kV @ 1.2x50 µs - 8x20 µs wave for per ANSI C12.1 (IEEE C62.41)

Electrostatic Discharge

» 15 kV through Air per ANSI C12.1 (IEC61004-2)

Declarations of Conformity

» Tested To Comply With FCC Standards FOR HOME OR OFFICE USE

» Complies with IC:ICES – 006 En conformité avec IC:NMB -006

Dimensions

» 6.95" x 6.95" x 4.00" (17.65 cm x 17.65 cm x 12.7 cm)

Certifications

» Measurement Canada Certified

Itron is a global technology company. We build solutions that help utilities measure, manage and analyze energy and water. Our broad product portfolio includes electricity, gas, water and thermal energy measurement and control technology; communications systems; software; and professional services. With thousands of employees supporting nearly 8,000 utilities in more than 100 countries, Itron empowers utilities to responsibly and efficiently manage energy and water resources.

Join us in creating a more resourceful world; start here: **www.itron.com**

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