



Technical Specifications

Multiple Customer Metering System

The Sieco-Tech Canada PowerStar Multiple Customer Metering System is used for billing residential and commercial building occupants for the electrical power they consume.

Small current transformers are installed on the power-lines supplying power to each suite. Current transformers are connected to the PowerStar meter by multi-conductor cables (supplied). The individual energy consumption of each occupant is then recorded and transmitted to an online central billing database. Meter data may be transmitted automatically via the internet, or polled using software.

Compact design allows 24 meters to fit into tight spaces often considered too confined for metering. Innovative connecting methods reduce installation costs. Multiple communications protocols allow for versatility when interconnecting meters and/or for sharing of existing communications within the building.

Our Online Meter Data Management / Repository is available to collect, store and organize meter data, produce reports, graphs and status reports.

Features

- Communications: Internet Protocol (IP) communications capable. Meter can establish an internet connection and communicate metering and status information via standard File Transfer Protocol (FTP)
- Event log: Record events such as under-voltage, over-voltage, and meter programming, including occurrence number and time. Includes a power failure information recording function
- Time Of Use (TOU) – The meter provides the capability of 4 rates, 80 time segments, 4 seasons, 10 day schedules (day-type table) supporting weekends and holidays. Each rate has a separate register to accumulate energy consumption
- Interval Data Logging – The meter records the kWh consumed for every consecutive time interval for every metering point. Logging interval times are selectable from 5 minutes to 24 hours. Data remains in memory for a minimum of 96 days at 1 hour intervals



Approvals - Measurement Canada LMB-EG-07e and related addenda S-E-06 (rev. 1) and SEG-02 (Sealing Provisions), approval # AE-1760 • ANSI C12.20 Class .5 Accuracy • CSA Canadian Electrical Code C22. 2 No. 61010-4 for use in Canada • UL 61010-1 for use in the United States • FCC – Part 15, Subpart B, Class B, also Part 68 • Industry Canada CS-03

Physical Features

General

- 24 single-phase or network (2-phase) metering points per metering panel
- Optional model with 12 metering points is available

Specific:

- LCD display - 4 lines x 20 characters
- Four push-button switches for user interface for meter reading and field service
- Connection points for up to 48 milliAmp CTs. (80mA max)
- Cables connecting milliAmp Current Transformers to the meter included with the appropriate connector
- The cable is type: 16-pair, 22-gauge twisted-pair in 10 foot lengths

Enclosure

- Size – 21.6" x 10.3" x 2.75"
- Enclosure includes sealing tabs for revenue approval sealing rendering meters tamper proof while seals remain affixed
- Meter Test Port with 24 optically-isolated digital outputs to provide kWh pulses for purposes of testing the meters for accuracy. (500 imp/kWh with 200/0.08A CTs)
- 3-phase, 4-wire voltage input terminals rated for 120/208 volts
- Auxiliary 120 volt power input for applications in which separate power from metering voltages is required (100-140 volt range)
- Programming Switch for meterological parameter changes. Switch is not accessible when seals are in place

Non-Volatile Memory

- Data retention time after power off – ≥ 20 years
- Storage Capacity – 8MB (Represents 96 days kWh data at 1 hour intervals), or 24 days at 15 minute intervals
- Real Time Clock w/ lithium battery - Time Lost ≤ 360 s/year, NTP Programmable

Communications Methods

- Ethernet (IP) – RJ45 Port
- Telephone (POTS) – 56kbps Modem, RJ11 Port
- RS485 – RJ11 Port
- Power-Line Carrier (PLC)

MEASURED VALUES

KiloWatt-Hours

Resolution – 0.002kWh

kWh ± 0.5 % maximum error

KiloWatts Instantaneous (per CT)

Voltage (per phase)

Current (per CT)

RATINGS

120/208v 3-phase or 120/240v single-phase Voltage Inputs

Current - Max 80 mA (Model MR1-120MA-24)
or 5A (Model MR1-1205A-24)

Current Transformers - 200Amp to 80 milliAmp, or 3rd Party
5A Secondary

Reference Frequency – 50Hz/60Hz

Temperature -25+55C

Relative humidity ≤ 95 %

Meter Software

Software is available capable of:

- Programming parameters of the meter.
- Testing the meters.
- Reading metered values and interval data



3 CT Cable Inputs (24 Units Total)



Current Transformer (CT)



RS11, Ethernet, Tel

Sieco-Tech Canada Inc.
240 Wharnclyffe Road North, Suite 301
London, Ontario, N6H 4P2
Tel: 226-777-1386 Fax: 705-707-1708
info@siecotech.com

www.siecotech.com

