Multi-Circuit Meter for Modbus®

Branch Circuit Monitoring for up to 84 Single-Phase or 28 Three-Phase Circuits

Modular Design Reduces Cost Per Measurement Point

The CCS Multi-Circuit Meter (MCM) for Modbus® measures bidirectional energy, power, voltage, current, etc. for up to 84 single-phase or 28 three-phase circuits. It communicates using either Modbus RTU over RS-485 or Modbus TCP/IP over Ethernet. The MCM provides revenue-grade system accuracy when used with the CCS Accu-CT® family of revenue-grade (C0.6 or better) current transformers.

The MCM provides over fifty electrical measurements including:

- **True RMS Energy:** kWh per-phase and sum
- **True RMS Power:** watts, per-phase and sum
- **Power Factor:** per-phase and average
- **RMS voltage per-phase and average**
- **RMS current per-phase and average**
- **Reactive Energy:** VAR hours per-phase and sum
- **Reactive Power:** VARs, per-phase and sum
- **Demand and peak demand**
- **Frequency**

Models available for all utility services:

MCM models are line powered from 100 to 600 Vac, line-to-neutral or line-to-line for single-phase, or three-phase, wye or delta services.

The MCM includes all the standard features of a WattNode® Modbus meter.

Standards and Compliance

The MCM supports industry standards low voltage 0.333 Vac output current transformers. When used with high accuracy CTs, it meets or exceeds ANSI C12.1 and C12.20 class 0.5 accuracy. It is UL 508A Listed (U.S. and Canada)

Standard Features

- **Protocol:** Modbus RTU Modbus or TCP/IP.

- Multi-channel models for 12, 24, 36, 48, 60, 72, and 84 single phase circuits

- **ANSI C12.1-2008 and ANSI C12.20-2010 class 0.5 accuracy with proper CTs**

- **Correct CT direction and phase wiring errors remotely**

Models available for all utility services:

- 120V single-phase 2-wire
- 120/208V three-phase 4-wire wye
- 120/240V single-phase 4-wire delta
- 240V single-phase 2-wire
- 277/480V three-phase 4-wire wye
- 480V three-phase 3-wire delta
- 347/600V three-phase 4-wire wye
- 600V three-phase 3-wire delta
- And other international utility services

- **DIP Switch Settings: Modbus address, baud rate, RS-485 termination and bus biasing**

- **Diagnostic LEDs for all channels**

- **Available in NEMA 4 fiberglass or steel enclosures**