



MCS-POWERMETER-KIT

Description & Specifications



Part # **MCS-POWERMETER**

Description

The **MCS-POWERMETER** monitors the voltage, current, power, energy, and many other electrical parameters on single and three-phase electrical systems. A MCS-POWERMETER uses direct connections to each phase of the voltage, and uses rope current transformers to monitor each phase of the current.

Information on energy use, demand, power factor, line frequency, and more are derived from the voltage and current inputs.

The communication interface to the MCS-POWERMETER is an RS-485 serial connection that uses Modbus protocol for retrieving data.

The MCS-POWERMETER coupled with the MCS-MODBUS provides the MCS-MAGNUM the information to allow calculation of tonnage and KW per ton.

The ViewPoint software is designed to let you easily configure the MCS-POWERMETER for different current transformers, check readings, and verify correct setup. MCS will factory program these setting prior to shipping.

MCS-POWERMETER uses the ViewPoint software to communicate with the meter. It needs to be installed on any computer talking to the MCS-POWERMETER. Compatible with Windows.

NOTE: You can download the Viewpoint software at: <https://www.dent instruments.com/software-download/ps3037>

Kit Components Include



3 Rope Current Transformers (MCS-ROCOIL-CT)



MCS-MODBUS-I/O

The **MCS-MODBUS-I/O** gives the MCS-MAGNUM the ability to act as a Modbus Master using the Modbus RTU Protocol. This allows the **MCS-MAGNUM** to communicate to the MCS-POWERMETER as a Modbus slave device.

Specifications

Enclosure.....	ABS plastic, 94-V0 flammability Rtg.
Weight	340 g (12 ounces), exclusive of CTs
Dimensions.....	9.5" x 3.3" x 1.6"
Operating Temperature.....	-7 to + 60° C (-20 to 140° F)
Humidity.....	5% to 95% non-condensing
Communication Rate.....	Modbus 9600 default, 19200, 38400,57600, 76800, 115200
Data Bits.....	8
Parity	None
Stop Bits.....	1
Maximum Current Input.....	158% of current transducer rating (mv CTs) to maintain accuracy. Measure up to 4000 Amps RōCoil CTs
Measurement Type.....	True RMS high-speed digital signal processing (DSP)
Line Frequency.....	50/60Hz
Power	L1 Phase to L2 Phase. 80-600VAC CAT III 50/60Hz, 90mA Max. Non-user replaceable .5 Amp internal fuse protection
Power Out	Unreg. 5VDC output, 140mA max
Waveform Sampling	12 kHz
Parameter Update Rate.....	.5 seconds
Measurements	kW, kWPeak, kW Demand, Power Factor, Amp1, Amp2, Amp3, Volt1, Volt2, Volt3
Useful Current Range.....	5-5000A AC
Accuracy	0.2% (<0.1% typical) ANSI, C12.20-2010 Class 0.2
Resolution	0.01 Amp, 0.1 Volt, 0.01 watt, 0.01 VAR, 0.01 VA, 0.01
Indicators.....	Bi-color LEDs (red and green): 1 LED to indicate communication, 3 LEDs for correct phasing
User Selectable.....	Modbus RTU or RS-485