

# Cyberhawk™ MPC Power Protection Meter

## MONITORS PROTECTS AND CONTROLS

Cyberhawk monitoring protection and control (MPC) provides energy management decision support tools and also protects your electrical infrastructure from damaging power events. Locate Cyberhawk MPC at your building entrance and connect it to your Intranet/Internet to protect your electrical infrastructure and manage energy consumption. Common applications include the building entrance of K-12 schools, colleges and universities, medical centers, data centers and commercial and industrial applications where energy management and power protection are imperative.

## REAL-TIME MONITORING FOR IMPROVED SYSTEM RELIABILITY

Monitor and control your electrical system with Cyberhawk MPC. MPC collects a broad range of data including:

- Volts (Line & Phase), Current (Line & Neutral)
- Energy, Power (kW, kVA, kVAR) and PF (total and  $\cos \theta$ )
- Distortion, Harmonics, K-Factor (V & I)
- Waveforms (V & I)
- User programmed event (alarm) recording with time/date stamp
- Data Logging of up to twenty parameters

## ACQUIRES AND STORES DATA FOR ENERGY MANAGEMENT

Cyberhawk MPC incorporates SCADA type software that provides live and historical data and event logs to facilitate power management programs. Cyberhawk MPC data files can be uploaded to your network or individual PC allowing you to store an unlimited amount of data for analysis. Use Cyberhawk MPC data to:

- Benchmark and trend building electrical performance
- Identify cost avoidance opportunities
- Validate and enhance energy savings programs
- Support education for sustainability programs



## PROTECTS YOUR ELECTRICAL INFRASTRUCTURE

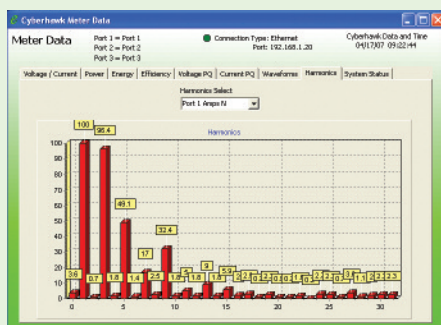
To protect against lightning strikes (direct/ground-induced), high energy transients, electrical noise, overvoltage conditions and single phasing, Cyberhawk MPC incorporates Powersmiths powerful sustained total electrical protection (STEP™). STEP modules are comprised of 80 mm industrial grade metal oxide varistors (MOV) mounted in an environmentally sealed, solid-metal housing. They have been extensively tested and field proven to meet the most demanding applications.

## AUTOMATES PROTECTIVE ACTIONS

To ensure the load is never left unprotected, Cyberhawk MPC can be user configured to shunt trip the system or load breakers in the event of swells, phase loss or any other user-defined event. Because it can be programmed to provide automatic email notification Cyberhawk MPC allows you to react quickly to unexpected events.

## PROVIDES WEB-ENABLED MONITORING AND REPORTING

An integrated Web Server provides anywhere, anytime access to Cyberhawk MPC data for analysis and reporting.



## KEY FEATURES

- Monitors power quality and provides automated alerts
- Protects your building entrance from damaging power events including severe lightning strikes
- Dynamically isolates selected equipment
- Collects and stores electrical power system data for energy management programs
- Provides anytime anywhere access to electrical system data
- Supports education for sustainability programs such as Powersmiths Interactive Learning Systems

## DESCRIPTION

An integrated package providing a monitoring, protection and control function. It is packaged in a NEMA 2 case and pre-wired for easy installation with an integral fused disconnect; control wiring to DIN-rail terminals, and 'Shorting' CT terminal blocks. (Note CTs, which are application specific, are not included and are normally ordered separately).

The unit is powered by the 3-phase voltage sensing lines, eliminating the need for a separate 120 V feed; also it can operate on only one phase at voltages <50% of nominal.

It incorporates a Touch Screen Display for local viewing and an integrated Web Server for remote accessibility via an Internet/Intranet connection through a Java enabled IE Browser. Third party software is supported through a native Modbus protocol over Ethernet or RS485.

Electrical system protection is provided through integrated STEP™ modules. STEP units have been extensively tested & field proven in demanding applications including: tested to 200 kA per mode (8 x 20µs); Lightning Tested to 100kA, (10 x 350µs), STEP is the only MOV device to have passed this test.

## ORDERING INFORMATION

### Cyberhawk-MPC - 80 - 3W480/277 - 7M - S - 1 - X

TVSS Engine	System/Voltage	Modules	Config.	Other Options
80: 80mm (380 kA)	1P: 120 277 347 2P: 240/120 3W: 208/120 480/277 600/347 3D: 208 or 480 3H: 600	2M: 2 Modules 3M: 3 Modules 4M: 4 Modules 7M: 7 Modules	1: Integrated 2: Split	Note: Listed as applicable
		Display		
		S: 128 x 64 Pixel M: ¼ VGA Mono C: ¼ VGA Color		

Selection of some options may change enclosure size and weight. Consult factory for detailed product data sheet for these and other configurations. \*Specific case used determined by factory unless specified.

## TECHNICAL SPECIFICATIONS

### SYSTEM RATINGS:

Voltages: 208/120, 480/277, 600/347

Operating range: -50% to +130% of nom. 1 or 3 phase

Power: < 13W Burden; 200ms hold-up

Accuracy: 0.1% typical (V & I) 0.5% Power/Energy

### PROTECTION:

Fused Disconnect: 200Amp 200kAIC rated

Modes 3-Phase: 7 Module (L-N, L-L, L-G, N-G)

Surge withstand: 380,000 A (8 x 20 µs) rated per mode

200,000 A (8 x 20 µs) tested per mode

100,000: A (10 x 350 µs, lightning)

1000: A (2 ms, long wave)

Overvoltage: 130% indefinite

173% (0.1Ω impedance) 50,000 cycles

200% (0.1Ω impedance) 150 cycles

Filtering: >30dB @ 100kHz; >50dB @ 1MHz

### RELAY OUTPUTS:

Contacts: 2 x SPDT; 5A @ 250VAC

### AUXILIARY INPUTS:

Digital: 2 (self-biased 24VDC)

Temperature: 4 Type A Thermistor inputs

(1 ambient sensor provided)

### MEMORY:

Events: 1,000 in NV RAM

Clock: Battery-backed

Firmware: Flash based; field upgradeable

### COMMUNICATION:

Ethernet: 10/100 BaseT

Protocols: TCP/IP, Modbus TCP 4-level Password

RS485 (alternate): 2-wire to 19.2kB, Modbus

### HUMAN INTERFACE:

Touch Screen: 128 x 64 pixel, ¼ VGA (optional)

Setup: Local and Remote by software

Access Restriction: Password protected

### DATA LOGS:

Parameters: 20 (user selectable)

Log Interval: 10 sec. to 1 hour

Built-in Log Time (parameters x log interval):

example - 4 months for 12 parameters @15 min

Network/PC based Log Time: unlimited

### PHYSICAL:

Size: 32" x 24" x 10"; 92 lbs weight

Mounting: Wall (bracket included)

Enclosure: NEMA 2

Temperature: -10 °C to + 40 °C

### WARRANTY:

5 year limited warranty



Technical specifications subject to change without notice.

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Printed on acid free, elemental chlorine free paper. Paper contains 50% recycled content including 15% post consumer waste.



POWERSMITHS INTERNATIONAL CORP. 10 Devon Road, Brampton, Ontario L6T 5B5 Canada

Phone: (905) 791-1493 Toll-free: (800) 747-9627 Fax: (905) 791-8870 Email: info@powersmiths.com

www.powersmiths.com