



New Product Bulletin

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Re: New Dual AC Power Monitor

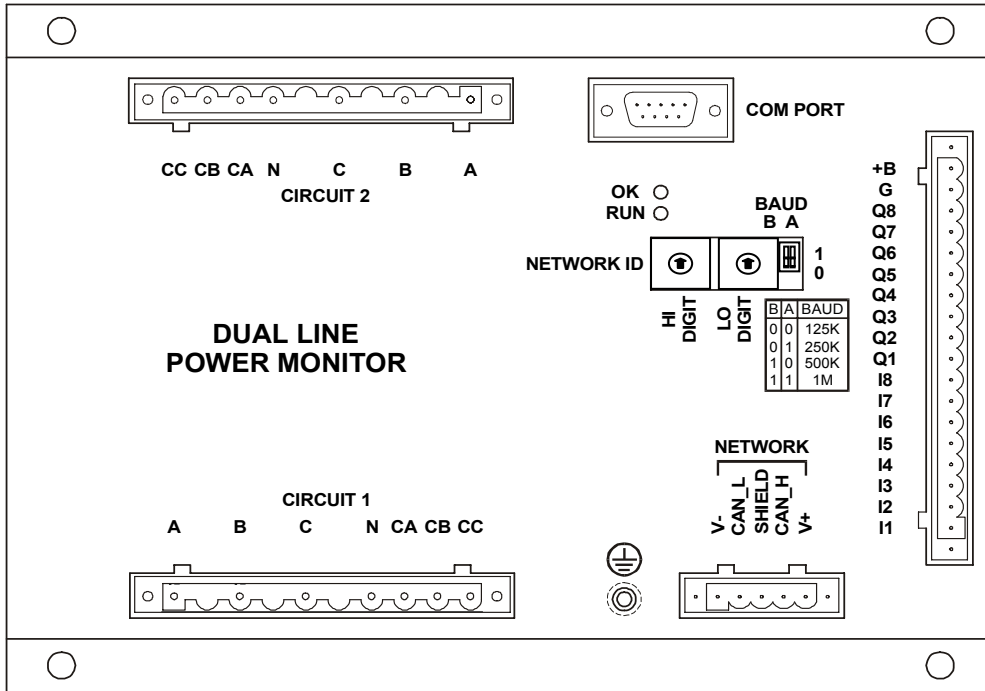
To: Global Distribution

Horner APG Announces Its New Powerful Stand-alone *ACM400 Dual AC Power Monitor Unit* for OCS

Horner APG's new HE200ACM400 Dual AC Power Monitor Unit monitors voltage and current on two separate circuits of 3-phase AC lines. It indicates voltage, current, real power, reactive power, apparent power, power factor, power usage, frequency, and phase difference. The ACM400 connects to the CAN port of an Operator Control Station (OCS) or Remote Control Station (RCS) and provides this information over the CsCAN network as global data. Up to eight (8) ACM400 monitors can be on the network.

The ACM400 is user-configurable using Cscape software to allow either "Delta" or "Wye" connections and select different Potential Transformer (PT) and Current Transformer (CT) ratios based on the application. These configuration parameters are loaded over the CsCAN network by a selected master OCS/RCS that allows these modules to be simply "plugged in" or replaced with little or no user intervention.

In addition, the ACM400 provides eight (8) positive logic inputs and eight (8) 0.5 amp protected negative logic outputs, which are read and controlled respectively by a network master. Network heartbeat functionality is supported in both directions to provide fail-safe operation of this discrete I/O. The ACM400 uses a Digital Signal Processor for data capture, true power and true RMS processing, and I/O. An internal watchdog circuit is used to improve reliability. Plus, firmware and calibration constants are stored in FLASH memory.



Approximate dimensions 9" (229) x 5 1/2" (140) x 1 1/4" (32)

Figure 1 – ACM400 Dual AC Power Monitor

ACM200 - AC Power Monitor SmartStack Module

For less demanding applications, an AC Power Monitor SmartStack module is available. The HE800ACM200 module can be snapped on an OCS, RCS or FOX I/O Base and will monitor the voltage and current of a single 3-phase circuit. The outputs from the module are available to an OCS or RCS unit as %AI values. In addition to the individual line voltage and current readings, the %AI's provide Differential Phase, Voltage and Current Phase referenced to L1 voltage, and Frequency. From this data, other values such as VA, Watts, Total Power, and Power Factor may be calculated. Visit our Web site www.hornerocs.com for more information about the ACM200 SmartStack Module.

ACM400 Specifications			
VOLTAGE INPUTS			
Input Range	90-600Vac	Input Frequency	40 to 70 Hz
Conversion Time	0.2 Sec	Voltage Measurements	True RMS
Accuracy	1%	Voltage Resolution	0.1 Vac
Differential Phase Accuracy	0.5°	Frequency	Referenced to Line A
Differential Phase	Circuit 1A to Circuit 2A	Frequency Resolution	0.01 Hz
Differential Phase Resolution	0.1°	Frequency Accuracy	0.1%
Input Impedance	>2 Megohm to neutral		
CURRENT INPUTS			
AC Current	Three-phase 5A, External Current Transformers (CTs) required	Common Mode	CTs returned to neutral
Over Range	50%	Input Frequency	40 to 70 Hz
Accuracy	1%	Current Measurements	True RMS
Conversion Time	0.20 Sec	Resolution	0.001 A
DIGITAL INPUTS			
Inputs per Module	8	ON Voltage Level	40% of V Supply
Commons per Module	1	OFF Voltage Level	60% of V Supply
Input Voltage Range	6-36 Vdc	Input Characteristics	Sourcing
Peak Voltage	36 Vdc Max.	Input Impedance	10K Ohms – Pull up to V Supply
DIGITAL OUTPUTS			
Outputs per Module	8	ON Voltage Level	1.5 Vdc Max.
Commons per Module	1	Maximum Load Current per Channel	0.5A Max.
Operating Voltage	6 – 36 Vdc	Output Protection	Short Circuit
Output Type	Sinking / 10K Pull-Up	Maximum Leakage Current	100µA
Peak Voltage	36 Vdc Max.	Maximum Inrush Current	600 mA
Output Characteristics	Current Sinking	Minimum Load	None
GENERAL SPECIFICATIONS			
Required Power (Steady State)	12-24 Vdc nominal: 6-36 Vdc Maximum: Approximately 7 Watts	Recommended Number of ACM400's per Network	8 or less
Current (Inrush)	<3 Amp for 10mSec	Network Bandwidth	80 messages per second (8%)
Connectors	Front access	Relative Humidity	5 to 95% Non-condensing
Terminal Type	Screw Clamp, Removable	Operating Temperature	0° to 60° Celsius
Protocol Supported	CsCAN	Weight	9 oz. (256 g)

Contact apgsales@heapg.com for pricing and delivery.

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