E-Plug Enhances Motor Analysis Safety

Convenient and Practical

AREVA's E-Plug hardware permits the acquisition of motor electrical signature analysis data at a motor control center (MCC) — without opening the MCC door. The user simply attaches a connector to the door, while cable from the innovative E-Plug module passes voltage and current data from probes inside the MCC to the connector. The connector then mates with a cable that permits direct feed into EMPATH 2000, expediting electrical signature analysis.

The E-Plug's efficient design comprises an enclosure with external attachment leads. Both current and voltage signals pass through these leads. Inside the enclosure, electronic circuitry processes the signals to prepare them for output to the through-door connector. In short, E-Plug contains everything you need for efficient signal transmission.

Inputs to the E-Plug Module

Power cables to the motor pass through current transducers (CTs) that measure the current flowing through the cable and produce a voltage output proportional to the current flowing to the motor. The voltage output from the current transducers is typically tens of milli-volts per amp, yielding an upper limit of 10 Vac for the current transducer output.

Fused wires attached to the power cables provide a voltage signal to the E-Plug module. For supplied power up to 600 Vrms, the E-Plug module will be directly connected to the voltage signal. For supplied power above 600 Vrms, output from existing potential transformers (PTs) will step the voltage down to 120 Vrms prior to feeding to the E-Plug Module.

For both voltage and current measurements, the frequency response is DC to 5000 Hz, minimum.

Outputs From the E-Plug Module

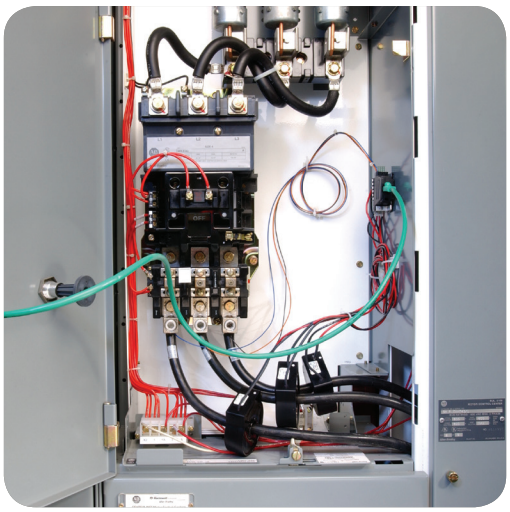
The outputs from the E-Plug Module to the MCC through-door connector are 5 Vac peak for both current and voltage, limiting external voltages at the MCC door to 5 Vac peak. All outputs from the E-Plug Module provide a frequency response from DC to 5 kHz. The accuracy of all outputs is +/- 3%.

Users can acquire motor control center (MCC) data without opening the MCC door.

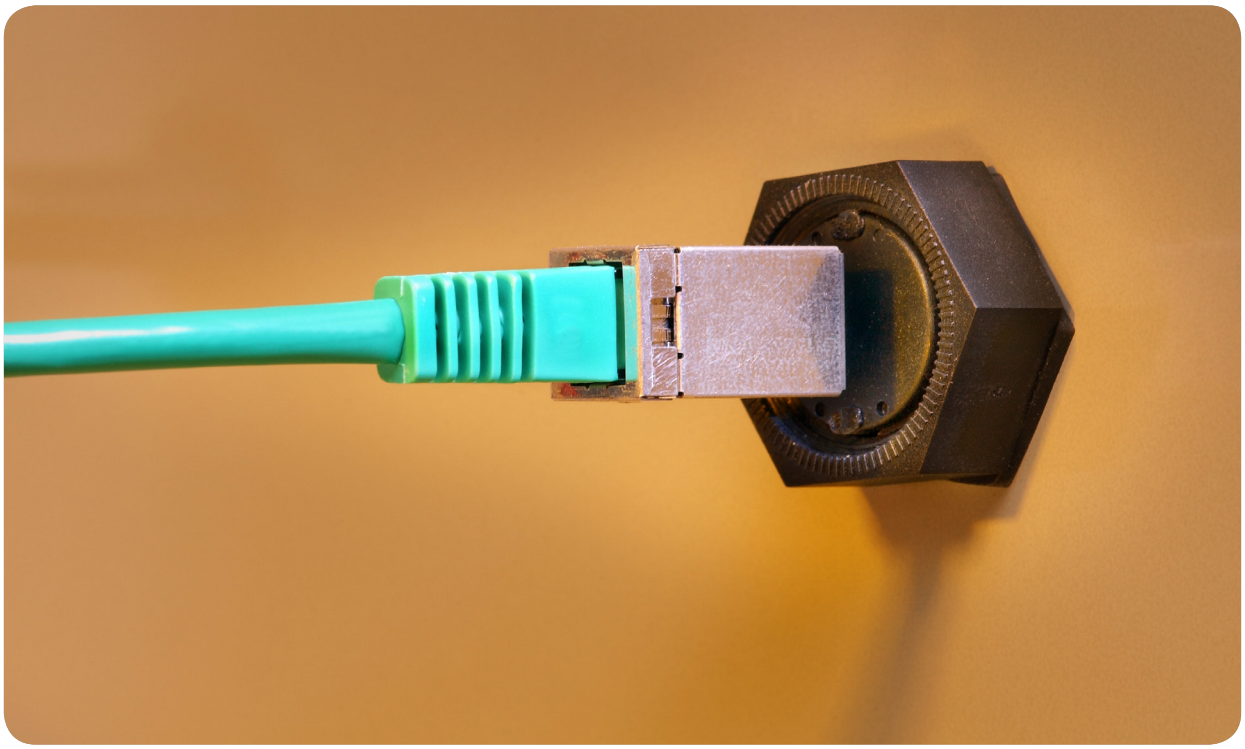
Features and Benefits

- Enhances safety by avoiding exposure to potential dangers associated with opening a 460- or 480-volt cabinet door while equipment is energized
- Precludes both the need for protective clothing and the attachment/removal of probes inside the MCC
- Simplifies connections, requiring only one cable to perform testing
- Reduces overall testing time
- Convenient to use. Eliminates probe handling when performing tests
- One person can perform online motor testing with EMPATH 2000

AREVA
forward-looking energy



E-Plug's design contains everything you need for efficient signal transmission.



E-Plug simplifies motor analysis and enhances safety.

AREVA Inc. Corporate Headquarters
7207 IBM Drive
Charlotte, NC 28262

For more information,
contact your VP, Key Accounts:
Tel: 704 805 2305 – Fax: 434 382 5629
regional.manager@areva.com
www.us.areva.com

The data and information contained herein are provided solely for illustration and informational purposes and create no legal obligations by AREVA. None of the information or data is intended by AREVA to be a representation or a warranty of any kind, expressed or implied, and AREVA assumes no liability for the use of or reliance on any information or data disclosed in this document. © 2014 AREVA Inc. All rights reserved.

7/14 **ANP:U-090-V5-14-ENG**