

## 3 PHASE CURRENT TRANSDUCER w/ RS485 OUTPUT

### FEATURES:

- ◆ True RMS, accurate measurements.
- ◆ RS485 Communication.
- ◆ Easily addressable (up to 63 devices).
- ◆ Supports inexpensive solid/split core current transformers and standard 5 A CTs.
- ◆ Compact Size, Easy Wiring, DIN Mounting.
- ◆ Ideal for Control and Energy Management Applications.

### APPLICATION:

The ETA3.RTU transducer offers inexpensive yet accurate true RMS monitoring of AC current in three independent circuits or one 3 phase circuit.

This unique product is ideal as a precision AC load transducer for Control and Energy Management applications.

The ETA3.RTU combined with inexpensive current transformers provides a convenient tool for accurate load monitoring in any electrical equipment.

### PRODUCT DESCRIPTION:

The ETA3.RTU is a microprocessor based precision current transducer that performs true RMS current measurements in one three phase circuit or in three independent AC circuits.

The unit supports standard current transformers (5A or 1A) as well as a variety of inexpensive current sensors including inexpensive split and solid core CTs as well as precision sensors that may be applied to the secondary wires of the existing 5 A CTs.

The ETA3.RTU measures true RMS current in each of the three inputs and provides output data (via RS485 port) that is proportional to the RMS current in each input and to the averaged current  $\{I_{avg} = (I_1 + I_2 + I_3) / 3\}$ . The transducer supports the Modbus RTU protocol.

The ETA3.RTU may be powered by 24 VAC/VDC and a small the unit is housed in a universal DIN mount enclosure.

The ETA3.RTU-Display may be used instead of a dedicated Modbus Master to graphically display the readings from up to six ETA3.RTU modules. Contact Elkor for more details.

### ORDERING INFORMATION:

ETA3.RTU- [1] - [2]

- [1] Specifies CT Input Type:
- 5A** Inputs for 5A CTs
  - MCTA** Inputs for MCTA (Solid Core) CTs (up to 300A)
  - MSCT** Inputs for MSCT(x) (Split Core) CTs
  - 333mV** Inputs for 333mV output CTs
  - 1000mV** Inputs for 1000mV output CTs
  - \*\*\* Contact Elkor for other input options

- [2] Specifies Desired Full Scale Calibration (N/A for 5A)

Example:

ETA3.RTU-MSCT1-100A

Specifies transducer with MSCT1 CTs. Output Full Scale = 100A



### SPECIFICATIONS:

- Power Req.:** 24 VDC/VAC, 2 VA  
(for AC; a dedicated Class 2 transformer is recommended)
- Current Inputs:** 5A or 1A CTs  
Elkor Current Transformers (solid/split core — MCT/MSCT):  
mV output CTs (1000mV or 333mV)
- Output:** RS485 digital communication port. Up to 63 devices may be served by one line. 9600, N, 8, 1, Modbus RTU protocol.
- Accuracy:** TRMS, 0.5% FS, output resolution 10 bits.
- Temperature Range:** Standard: 0-70°C  
Industrial (optional): -40°C to 80°C, conformal coated.
- Indication:** Power - green LED.
- Mounting:** DIN Rail - universal DIN attachment mounted on the back of enclosure; dim. h=3.75" w=2" d=2.25" (95x50x60mm).