Enercept® Networked Power Transducers (Modbus® RTU)

Integral Monitoring Solution Eliminates the Need for Separate Enclosures

**DESCRIPTION**

The Enercept H8035 and H8036 Series are innovative three-phase networked (Modbus RTU) power transducers that combine measurement electronics and high accuracy industrial grade CTs in a single package. The need for external electrical enclosures is eliminated, greatly reducing installation time and cost.

There are two application-specific platforms to choose from. The Basic Enercept energy transducers (H8035) are ideal for applications where only kW and kWh are required. The Enercept Enhanced power transducers (H8036) output 26 variables including kW, kWh, volts, amps, and power factor, making them ideal for monitoring and diagnostics.

Color-coordination between voltage leads and CTs makes phase matching easy. Additionally, the Enercept automatically detects and compensates for phase reversal, eliminating the concern of CT load orientation. Up to 63 Enercepts can be daisy-chained on a single RS-485 network.

**APPLICATIONS**

- Energy management and performance contracting
- Monitoring for commercial tenants
- Activity-based costing in commercial and industrial facilities
- Real-time power monitoring
- Load shedding

**SPECIFICATIONS**

**Inputs:**

- **Voltage Input:** 208 to 480VAC, 50/60 Hz RMS
- **Current Input:** Up to 2400A continuous per phase

**Accuracy:**

- **System Accuracy:** ±1% of reading from 10% to 100% of the rated current of the CTs, accomplished by matching the CTs with electronics and calibrating them as a system

**Outputs:**

- **Type:** Modbus RTU
- **Baud Rate:** 9600, 8N1 format
- **Connection:** RS-485, 2-wire + shield

**Environmental:**

- **Operating Temperature Range:** 0° to 60°C (32° F to 140°F), 50°C (122°F) for 2400A
- **Humidity Range:** 0 - 95% noncondensing

**Agency Approvals:**

UL508

Approved for California CSI Solar applications (check the CSI Solar website for model numbers).

1 Do not install on the line or load side of a VFD unit, or on any other equipment generating harmonics. For line side applications, use the ESx Series meters.
2 Contact factory to interface for voltages above 480VAC or current above 2400 Amps.
3 Do not apply 600 V Class current transformers to circuits having a phase-to-phase voltage greater than 600 V, unless adequate additional insulation is applied between the primary conductor and the current transformers.
4 Detailed protocol specifications are available at: http://www.veris.com/modbus
5 Other protocols available. Please consult factory.
APPLICATION/WIRING EXAMPLES

208 or 480VAC 3Ø, Installation

DIMENSIONAL DRAWINGS

DATA OUTPUTS

H8035
kWh
kW

H8036
kWh, Consumption
kW, Real Power
kVAR, Reactive Power
kVA, Apparent Power
Power Factor
Average Real Power
Minimum Real Power
Maximum Real Power
Voltage, L-L
Voltage, L-N*
Amps, Average Current

ORDERING INFORMATION

ACCESSORIES

Modbus Basic Power Transducers*

<table>
<thead>
<tr>
<th>MODEL</th>
<th>MAX. AMPS</th>
<th>CT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>H8035-0100-2</td>
<td>100</td>
<td>SMALL</td>
</tr>
<tr>
<td>H8035-0300-2</td>
<td>300</td>
<td>SMALL</td>
</tr>
<tr>
<td>H8035-0400-3</td>
<td>400</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>H8035-0800-3</td>
<td>800</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>H8035-0800-4</td>
<td>800</td>
<td>LARGE</td>
</tr>
<tr>
<td>H8035-1600-4</td>
<td>1600</td>
<td>LARGE</td>
</tr>
<tr>
<td>H8035-2400-4</td>
<td>2400</td>
<td>LARGE</td>
</tr>
</tbody>
</table>

*H8035 models work with H8920-5 LON nodes

Modbus Enhanced Data Stream Power Transducers*

<table>
<thead>
<tr>
<th>MODEL</th>
<th>MAX. AMPS</th>
<th>CT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>H8036-0100-2</td>
<td>100</td>
<td>SMALL</td>
</tr>
<tr>
<td>H8036-0300-2</td>
<td>300</td>
<td>SMALL</td>
</tr>
<tr>
<td>H8036-0400-3</td>
<td>400</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>H8036-0800-3</td>
<td>800</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>H8036-0800-4</td>
<td>800</td>
<td>LARGE</td>
</tr>
<tr>
<td>H8036-1600-4</td>
<td>1600</td>
<td>LARGE</td>
</tr>
<tr>
<td>H8036-2400-4</td>
<td>2400</td>
<td>LARGE</td>
</tr>
</tbody>
</table>

*H8036 models work with H8920-1 LON nodes

LON nodes (H8920)
CT Mounting brackets (AH06)
Modbus-to-BACnet Converter (E8950)
Modbus TCP Converter (U013-0013)

Accessories

HQ0001711.B 04122