

Enercept® Networked Power Transducers (Modbus® RTU)

Integral Monitoring Solution Eliminates The Need For Separate Enclosures

APPLICATIONS

- Energy managing & performance contracting
- Monitoring for commercial tenants
- Activity-based costing in commercial and industrial facilities
- Real-time power monitoring

FEATURES

The world's most cost-effective power transducer

- Monitor energy parameters (kW, kWh, kVAR, PF, Amps, Volts) at up to 63 locations on a single RS-485 network...greatly reduces wiring time and cost
- Fast split-core installation eliminates the need to remove conductors...saves time and labor
- Precision electronics and current transformers in a single package...reduces the number of installed components...huge labor savings
- Smart electronics eliminate CT orientation concerns...fast trouble-free installation

High accuracy

- ±1% total system accuracy, (10% to 100% of CT rating)



U.S. Patent No. 6,373,238



DESCRIPTION

The Enercept H8035/8036 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.

SPECIFICATIONS

<i>Inputs:</i>	
Voltage Input	208 to 480VAC, 50/60 Hz RMS †(††)
Current Input	Up to 2400A continuous per phase †
<i>Accuracy:</i>	
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
<i>Outputs:</i>	
Type	Modbus RTU**(*)
Baud Rate	9600, 8N1 format
Connection	RS-485, 2-wire + shield
<i>Environmental:</i>	
Operating Temperature Range	0° to 60°C (32° F to 140°F), 50°C (122°F) for 2400A
Humidity Range	0 - 95% non-condensing

UL, approved for California CSI Solar applications (check the CSI Solar website for model numbers)

** Detailed protocol specifications are available at: <http://www.veris.com/modbus>

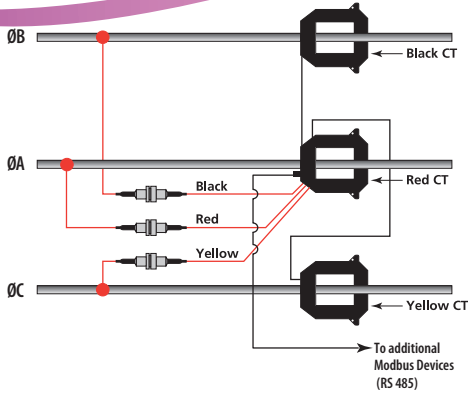
* Other protocols available. Please consult factory.

† Contact factory to interface for voltages above 480VAC or current above 2400 Amps.

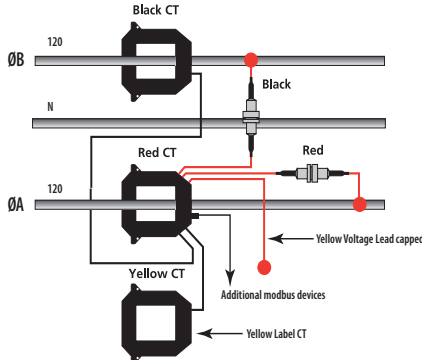
†† Do not apply 600V Class current transformers to circuits having a phase-to-phase voltage greater than 600V, unless adequate additional insulation is applied between the primary conductor and the current transformers. Veris assumes no responsibility for damage of equipment or personal injury caused by products operated on circuits above their published ratings.

APPLICATION/WIRING EXAMPLES

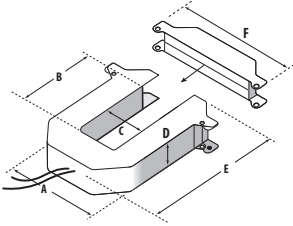
208 or 480VAC 3Ø Installation



240VAC 1Ø, 3-Wire Installation

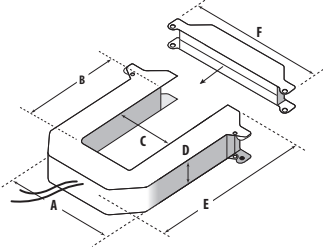


DIMENSIONAL DRAWINGS



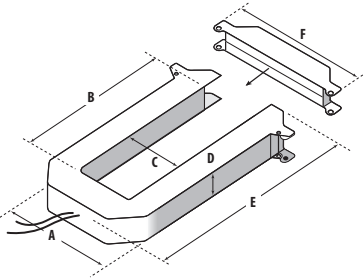
SMALL
100/300 Amp

- A = 3.8" (96 mm)
- B = 1.2" (30 mm)
- C = 1.3" (31 mm)
- D = 1.2" (30 mm)
- E = 4.0" (100 mm)
- F = 4.8" (121 mm)



MEDIUM
400/800 Amp

- A = 4.9" (125 mm)
- B = 2.9" (73 mm)
- C = 2.5" (62 mm)
- D = 1.2" (30 mm)
- E = 5.2" (132 mm)
- F = 5.9" (151 mm)



LARGE
800/1600/2400 Amp

- A = 4.9" (125 mm)
- B = 5.5" (139 mm)
- C = 2.5" (62 mm)
- D = 1.2" (30 mm)
- E = 7.9" (201 mm)
- F = 6.0" (151 mm)

ORDERING INFORMATION

Modbus Basic Power Transducers*



MODEL	MAX. AMPS	CT SIZE
H8035-0100-2	100	SMALL
H8035-0300-2	300	SMALL
H8035-0400-3	400	MEDIUM
H8035-0800-3	800	MEDIUM
H8035-0800-4	800	LARGE
H8035-1600-4	1600	LARGE
H8035-2400-4	2400	LARGE

*H8035 models work with H8920-5 LON nodes

ACCESSORIES

CT Mounting brackets (AH06)
H8920 Series LON nodes

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
kW, Real Power ØA*
kW, Real Power ØB*
kW, Real Power ØC*

*Based on derived neutral voltage.

Modbus Enhanced Data Stream Power Transducers*

MODEL	MAX. AMPS	CT SIZE
H8036-0100-2	100	SMALL
H8036-0300-2	300	SMALL
H8036-0400-3	400	MEDIUM
H8036-0800-3	800	MEDIUM
H8036-0800-4	800	LARGE
H8036-1600-4	1600	LARGE
H8036-2400-4	2400	LARGE

*H8036 models work with H8920-1 LON nodes