

# Enercept® kW/kWh Transducers (4-20mA or Pulse Output)

Integral Submetering Solution  
Eliminates the Need for  
Separate Enclosures



## DESCRIPTION

The **Enercept H804x and H805x Series** kW (real power)/kWh (consumption) transducers combine processing electronics and industrial grade CTs in an easy-to-install split-core package. These devices continuously measure voltage and current values for the monitored conductors and update calculations to provide highly accurate true RMS power readings. Models designed for balanced loads include one CT only, while models for unbalanced loads have three CTs.

The unique design of the H804x/H805x Series transducers reduces the number of installed components, making them ideal for monitoring electrical power in commercial and industrial facilities. The H804x provides industry-standard 4-20mA output, and the H805x provides a pulse output.

Installation is simple. The H804x/H805x eliminates the need to mount and wire a transducer and enclosure. CTs and voltage leads are color-matched, and the meters are designed to detect and automatically compensate for phase reversal. No more worries about CT load orientation.

## APPLICATIONS

- Optimize chillers, pumps & cooling towers
- Energy management & performance contracting
- Control processes
- Activity-based costing in commercial and industrial facilities
- Monitor real-time power
- Load shedding

## SPECIFICATIONS



|                                    |                                                                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Inputs:</i>                     |                                                                                                                                                     |
| <b>Voltage Input</b>               | 208/240 or 480VAC, 50/60 Hz RMS <sup>1 2 3</sup>                                                                                                    |
| <b>Current Input</b>               | Up to 2400A continuous per phase <sup>2 3</sup>                                                                                                     |
| <i>Accuracy:</i>                   |                                                                                                                                                     |
| <b>System Accuracy</b>             | ±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>                    |                                                                                                                                                     |
| <b>H804x</b>                       |                                                                                                                                                     |
| <b>Output</b>                      | 4-20mA                                                                                                                                              |
| <b>Supply Power (current loop)</b> | 9-30VDC, 30mA max.                                                                                                                                  |
| <b>H805x</b>                       |                                                                                                                                                     |
| <b>Pulsed Output</b>               | Field selectable; 1, 0.5, 0.25, 0.1kWh/pulse <sup>4</sup>                                                                                           |
| <b>Pulsed Output Type</b>          | Normally Open, Opto-FET, 100mA@24VDC                                                                                                                |
| <i>Environmental:</i>              |                                                                                                                                                     |
| <b>Operating Temperature Range</b> | 0° to 60°C (32° F to 140°F), 50°C (122°F) for 2400A                                                                                                 |
| <b>Humidity Range</b>              | 0 - 95% noncondensing                                                                                                                               |
| <b>Agency Approvals</b>            | UL508                                                                                                                                               |

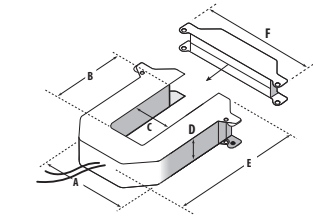
<sup>1</sup> Do not install on the line or load side of a VFD unit, or on any other equipment generating harmonics. For line side applications, use the ESx Series meters.

<sup>2</sup> Contact factory to interface with voltages above 480VAC or current above 2400 Amps.

<sup>3</sup> 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.

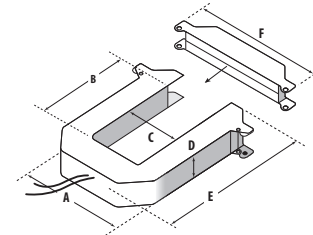
<sup>4</sup> Count must be multiplied by the number of phases when using single CT models to monitor balanced multiphase systems.

## DIMENSIONAL DRAWINGS



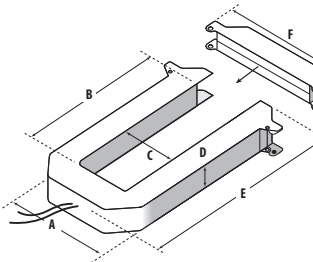
### SMALL 100/300 Amp

|     |      |          |
|-----|------|----------|
| 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 = | 6.0" | (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

### 4-20 mA Output Power Transducers

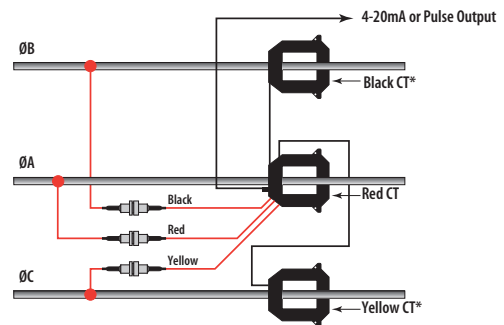
Single CT Models for Use with Balanced 3Ø Loads

Three CT Models for Use with Unbalanced 3Ø Loads

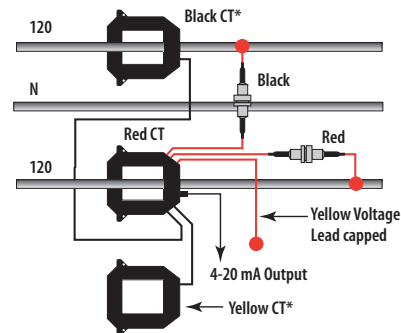
| MODEL        | VOLTAGE | MAX. AMPS | OUTPUT | CT SIZE | CT TYPE         |
|--------------|---------|-----------|--------|---------|-----------------|
| H8041-0100-2 | 208/240 | 100       | 4-20mA | SMALL   | Single CT Model |
| H8041-0300-2 |         | 300       |        | SMALL   |                 |
| H8041-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8041-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8041-0800-4 |         | 800       |        | LARGE   |                 |
| H8041-1600-4 |         | 1600      |        | LARGE   |                 |
| H8041-2400-4 |         | 2400      |        | LARGE   |                 |
| H8042-0100-2 | 480     | 100       | 4-20mA | SMALL   | Single CT Model |
| H8042-0300-2 |         | 300       |        | SMALL   |                 |
| H8042-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8042-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8042-0800-4 |         | 800       |        | LARGE   |                 |
| H8042-1600-4 |         | 1600      |        | LARGE   |                 |
| H8042-2400-4 |         | 2400      |        | LARGE   |                 |
| H8043-0100-2 | 208/240 | 100       | 4-20mA | SMALL   | Three CT Model  |
| H8043-0300-2 |         | 300       |        | SMALL   |                 |
| H8043-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8043-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8043-0800-4 |         | 800       |        | LARGE   |                 |
| H8043-1600-4 |         | 1600      |        | LARGE   |                 |
| H8043-2400-4 |         | 2400      |        | LARGE   |                 |
| H8044-0100-2 | 480     | 100       | 4-20mA | SMALL   | Three CT Model  |
| H8044-0300-2 |         | 300       |        | SMALL   |                 |
| H8044-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8044-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8044-0800-4 |         | 800       |        | LARGE   |                 |
| H8044-1600-4 |         | 1600      |        | LARGE   |                 |
| H8044-2400-4 |         | 2400      |        | LARGE   |                 |

## APPLICATION/WIRING EXAMPLES

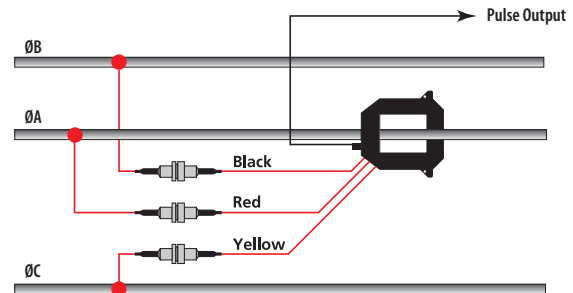
### H804x/H805x 208 or 480VAC 3Ø, 3/4 Wire



### H804x 240VAC 1Ø, 3-Wire



### H805x 208 or 480VAC 3Ø, 3/4-Wire



### Pulse Output Power Transducers

Single CT Models for Use with Balanced 3Ø Loads

Three CT Models for Use with Unbalanced 3Ø Loads

| MODEL        | VOLTAGE | MAX. AMPS | OUTPUT | CT SIZE | CT TYPE         |
|--------------|---------|-----------|--------|---------|-----------------|
| H8051-0100-2 | 208/480 | 100       | Pulse  | SMALL   | Single CT Model |
| H8051-0300-2 |         | 300       |        | SMALL   |                 |
| H8051-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8051-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8051-0800-4 |         | 800       |        | LARGE   |                 |
| H8051-1600-4 |         | 1600      |        | LARGE   |                 |
| H8051-2400-4 |         | 2400      |        | LARGE   |                 |
| H8053-0100-2 | 208/480 | 100       | Pulse  | SMALL   | Three CT Model  |
| H8053-0300-2 |         | 300       |        | SMALL   |                 |
| H8053-0400-3 |         | 400       |        | MEDIUM  |                 |
| H8053-0800-3 |         | 800       |        | MEDIUM  |                 |
| H8053-0800-4 |         | 800       |        | LARGE   |                 |
| H8053-1600-4 |         | 1600      |        | LARGE   |                 |
| H8053-2400-4 |         | 2400      |        | LARGE   |                 |

## ACCESSORIES

CT Mounting brackets (AH06)

