

AH08/AH09



AH08/AH09

Multi-Turn Coils

OPERATION

The AH08 and AH09 multi-turn coils are intended for use in applications where the monitored load exceeds the 2400A rating of power meters. A suitable 5A current transformer (CT) is applied to the primary, high-current conductor. The AH08/AH09 then amplifies this 0-5A signal for accurate sensing by a power meter.

The AH08 is a 20-turn coil suitable for 100A meters, such as the 100A Enercept H8036-0100-2. The AH09 is a 60-turn coil suitable for 300A meters, such as the 300A Enercept H8036-0300-2 or the H81xx Commercial Energy Meter.



DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Follow safe electrical work practices. See NFPA 70E in the USA, or applicable local codes.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Read, understand and follow the instructions before installing this product.
- Turn off all power supplying equipment before working on or inside the equipment.
- Use a properly rated voltage sensing device to confirm power is off.
DO NOT DEPEND ON THIS PRODUCT FOR VOLTAGE INDICATION
- SECONDARY LEADS/TERMINALS OF CURRENT OUTPUT (e.g. 5A) CTs MUST BE SHORTED, OR CONNECTED TO THE BURDEN AT ALL TIMES.

Failure to follow these instructions will result in death or serious injury.

NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- The installer is responsible for conformance to all applicable codes.
- Mount this product inside a suitable fire and electrical enclosure.

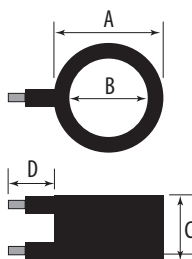
INSTALLATION

1. Disconnect power to the conductors to be monitored before beginning installation. Do not install the CTs before all connections are made.
2. Select the appropriate multi-turn coil for your application: use the AH08 for connection to a 100A CT; use the AH09 for connection to a 300A CT.
3. Select CTs with 5A outputs and a current rating suitable for the conductor to be monitored (e.g. 5000A:5A).
4. Wire CTs to the controller or energy meter. Place an AH08/AH09 coil through each CT (see Wiring section, page 2).
5. Attach the AH08/AH09 terminals to the secondaries of the 5A CTs.
6. Install the 5A CTs around the primary conductors.

PRODUCT IDENTIFICATION

Model	Description
AH08	20 turn multi-wrap coil
AH09	60 turn multi-wrap coil

DIMENSIONS



AH08	AH09
A = 2.2" (56 mm) nom.	A = 2.5" (64 mm) nom.
B = 1.5" (38 mm) nom.	B = 1.5" (38 mm) nom.
C = 1.2" (29 mm) max.	C = 1.2" (29 mm) max.
D = 1.25" (32 mm) max.	D = 1.25" (32 mm) max.

CALCULATIONS

To correctly interpret data reported by the power meter, use a data multiplier:

$$\text{Data multiplier} = \text{Primary current on the 5A transformer} / \text{current rating of the meter}$$

$$\text{Actual current} = \text{data multiplier} * \text{meter reading}$$

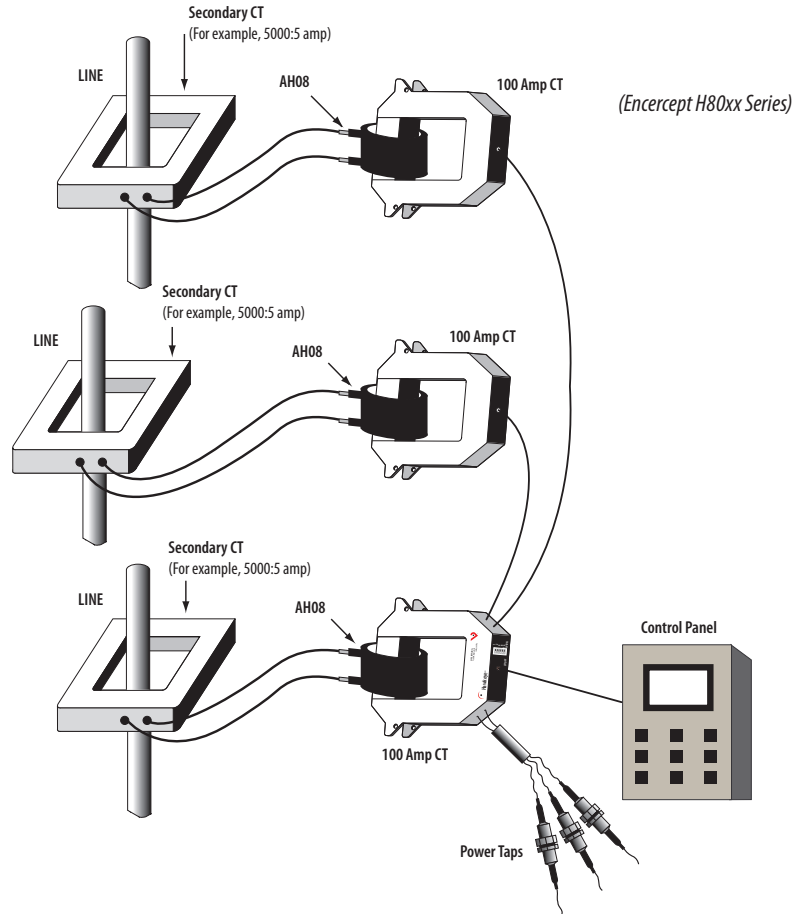
Example: Using an Enercept 100A meter and AH08 20-turn coil to monitor a 5000A conductor produces a meter reading of 40A.

$$\text{multiplier} = 5000A / 100A = 50$$

$$\text{actual current} = 50 * 40A = 2000A$$

WIRING EXAMPLES

Example 1: AH08 attached to a 100A Enercept meter, wired directly to the building controller



Example 2: AH09 attached to a 300A H81xx meter

