

AC Split-Core CTs with CTid

[Visit the online store page \(1% Accuracy\)](#)

[Visit the online store page \(0.5% Accuracy\)](#)

These are the new CTid-enabled CTs produced by eGauge Systems. An EG4xxx series meter is required for CTid functionality.

The CTs rated current should be the smallest available rating that is at least as high as the maximum current of the rated circuit.

The CTs may not be installed in equipment where they exceed 75% of the wiring space of any cross-sectional area within the equipment.

Do not install CTs where they may block ventilation openings.

Do not install CTs in the area of breaker arc venting.

Not suitable for Class 2 wiring methods.

Not intended for connection to Class 2 equipment.

The ECS20 and ECS36 CTs may be used to measure bare (non insulated) conductors and on service entrance conductors up to 600V. ECS09 are rated for insulated conductors on CAT III up to 250V

AC split-core CTs measure the amperage of a conductor on an AC (alternating current) system. Combined with voltage measurements, this allows calculation of power and energy values. AC CTs provided by eGauge are split-core, meaning they can be wrapped around a conductor instead of having to disconnect the conductor and feed it through the CT.

The eGauge ECS CT series have CTid technology and contain a locator LED that can be blinked to identify which CT is connected to a given sensor port. This is useful if the CT leads cannot be traced.

eGauge ECS CTs are also UL2808 certified and may be used on bare metal or insulated wires up to 600V in Category IV environments.

ECS CTs are available with 1% accuracy (ECSxx-yyy) and 0.5% accuracy (ECSxx-yyy-R).



eGauge ECS Split-Core AC CTs. The CTid LED can be seen through the transparent window on the bottom of the CT.

Specifications

[Full specs \(data-sheet PDF\)](#)

- Accuracy: 1% and 0.5% models available
- Amperage ratings:
 - ECS09 (9mm): 50A, 80A
 - ECS20 (20mm): 100A, 200A, and 300A
 - ECS36 (36mm): 400A and 600A
- Frequency: 50-60Hz
- Temperature range
 - ECS09 and ECS20: -40 °C to 75 °C (-40 °F to 167 °F), 95% RH non-condensing
 - ECS36: -40 °C to 60 °C (-40 °F to 140 °F), 95% RH non-condensing
- Working voltage
 - ECS09: 250VAC, CAT III
 - ECS20 and ECS36: 600VAC, CAT IV
- Indoor use, Pollution Degree 2, Altitude up to 3000m
- Output: 333mVrms at rated amperage
- 18 or 22 AWG twisted-pair leads (UL1015 600V)
- UL2808, UL61010-1, RoHS
- CE Pending
- 5-year Limited Warranty

Hardware included

- 1x ECS AC CT with built-in 8 foot leads and 2-pin plug affixed

Assembly/installation information

The ECS series CTs are a CTid enabled sensor. They are physically installed in the same manner as conventional CTs, but are configured using CTid. See [this article](#) for more information on configuring CTid enabled sensors.

Point the arrow on the CT in the same direction of the normal current flow.

See the [Installation Overview Tips](#) to get started.

1. To reduce risk of electric shock, open or disconnect circuits from the power distribution system (or service) of the building before installing or serving CTs.

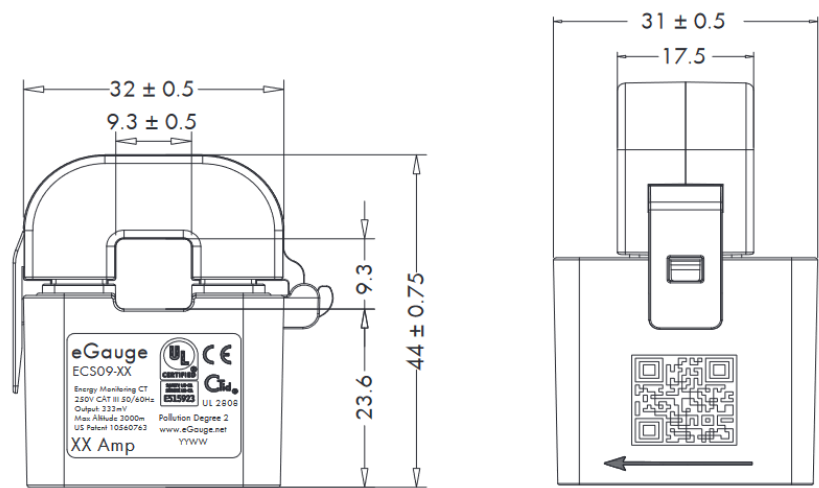
2. Open the CT by gently pulling on the latch and then rotating the top open. **Do not touch the polished ferrite core surfaces.** Any oils or debris in that area worsens accuracy.
3. Slide the CT over the conductor of the circuit to be measured. Make sure the arrow on the CT points in the direction of the normal current flow (the current flow that should yield a positive power reading).
4. Close the CT by gently pushing down on top of the CT until the latch engages.
5. Verify that the CT is fully closed by squeezing together the top and bottom parts of the CT.
6. Optional: secure the CT to the conductor with a cable tie.
7. Route the twisted pair wires of the CT to the meter such that they do not directly contact live terminals or bus bars.
8. Plug the 2-pin terminal at the end of the twisted pair wires into an unused port on the meter.
9. When connected to an EG4xxx meter, use the [CTid® scanning feature](#) to automatically detect the sensor type and its current rating. If using an older model meter, use the drop-down method to [Configure the sensor input](#).



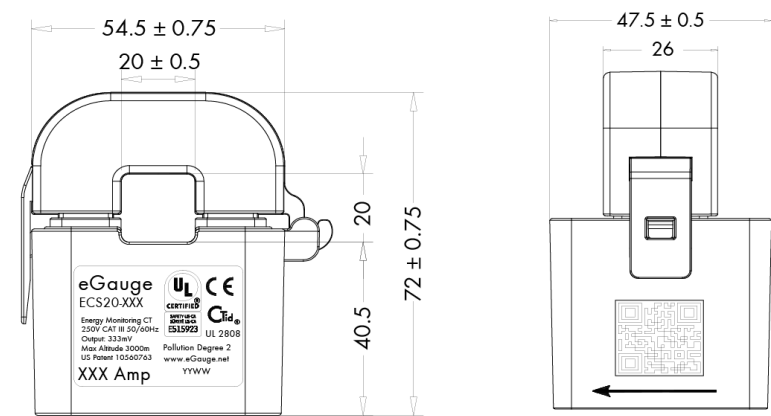
CTs connected to eGauge meter.

Dimensional Diagrams

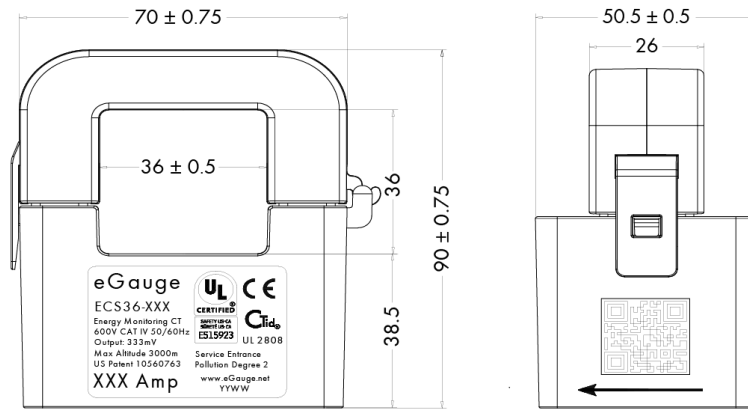
ECS09



ECS20 (click to enlarge)



ECS36 (click to enlarge)



Documents

- [eGauge ECS datasheet](#)
- [ECS series CT installation guide insert](#)
- [ANSI revenue grade accuracy certification](#)

Related Information

- [CT Selection Guide](#)
- [Configuring CTid-enabled sensors](#)
- [EG4xxx Certification Documents and Declarations](#)
- [2-Pin Plug](#)

Please visit kb.egauge.net for the most up-to-date documentation.