

CT Installation Manual

Before You Begin

This chapter contains important safety precautions that must be followed before attempting to install, service, or maintain electrical equipment. Carefully READ and FOLLOW the safety precautions outlined below BEFORE working with CTs.

Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified electrical personnel. If the equipment is used in a manner not specified by Setra, the protection provided by the equipment may be impaired. No responsibility is assumed by Setra for any consequences arising out of the use of this manual.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Only qualified electrical workers should install this equipment. Such work should be performed only after reading this entire set of instructions.

- NEVER work alone.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Turn off all power supplying the power hub and the equipment in which it is installed before working on it.
- All circuit-breakers powering the power hub must meet the relevant requirements of IEC 60947-1 and IEC 60947-3.
- Always use a properly rated voltage sensing device to confirm that all power is off.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. In the USA, see NFPA 70E.
- Before closing all covers and doors, carefully inspect the work area for tools and objects that may have been left inside the equipment.
- Use caution while removing or installing panels so that they do not extend into the energized bus; avoid handling the panels, which could cause personal injury.
- The successful operation of this equipment depends upon proper handling, installation, and operation. Neglecting fundamental installation requirements may lead to personal injury as well as damage to electrical equipment or other property.
- Equipment should be used as specified by this manual, otherwise protection provided by equipment may be impaired.
- NEVER bypass external fusing.
- The power hub should be installed in a suitable electrical and fire enclosure.

Failure to follow this instruction could result in death or serious injury.

Installation


Setra provides following sizes of CTs in five current ratings.

CT Types and Specifications

Model	Voltage/ Frequency	Rating	Rated Current	Output Voltage	CT Wiring
CTS-020	600 VAC 50/60 Hz	CAT III- Basic Insulation	20A	333mV	White Wire (+)
CTS-050			50A		Black Wire (-)
CTS-100		CAT III	100A		Note: For correct polarity, Arrow always points toward the load
CTS-200			200A		
CTS-400			400A		

Environmental Characteristics	
Operating Temperature	-15°C to +70°C
Humidity Rating	5 to 95% RH at 50°C (non-condensing)
Pollution Degree	PD-2
Altitude	2,000 m

Installation of CTs

-  Locate and switch **OFF** the power to the load center or panel that CTs are to be installed in.
- Remove the panel cover.
- Clamp CT around conductor to be measured.
- Connect all CT leads to measurement Hub before powering up the panel or Hub.
- For correct polarity, point arrow towards the load being measured. Arrow is molded in the base of the wire aperture.

DANGER

To reduce the risk of electric shock, always open or disconnect circuit from power-distribution system (or service) of building before installing or servicing current transformers. For connection to service entrance mains use at least CAT IV rated CTs. For monitoring loads use at least CAT-III rated CTs. CTs are not suitable for Class 2 wiring methods and are not intended for connection to Class 2 equipment.

Check your work and tidy up

- Use cable ties to organize and tidy up wires on each side of the breaker panel.
- Do not let lead wire contact bare terminals or other bare current carrying parts.

Warning

CTs may not be installed in equipment where they exceed 75 percent of the wiring space of any cross-sectional area within the equipment. Do not install CTs in an area where it would block ventilation openings, or in an area of breaker arc venting. Secure CTs and route conductors so that they do not directly contact live terminals or bus. CTs should be securely fastened such that they will not slide down to live terminals. **For CTS-020, CTS-050:** Do not install on bare conductors.

Maintenance and troubleshooting

Service

The CTs do not contain any user-serviceable parts. If the CTs require service, contact your local sales representative. Opening the power hub or CTs voids the warranty.