

Installing Enphase CTs

Use this instruction with the Enphase IQ Gateway Quick Install Guide or the Enphase IQ Gateway Metered Quick Install Guide to install Enphase Current Transformers (CTs). The IQ Gateway and the IQ Gateway Metered use CTs for precision energy production and consumption metering. Read and follow all warnings and instructions in this instruction and in the Quick Install Guide included with the IQ Gateway and available at: enphase.com/support.

SAFETY

Safety and advisory symbols

	DANGER: This indicates a hazardous situation, which if not avoided, will result in death or serious injury.
	NOTE: This indicates information particularly important for optimal system operation. Follow instructions carefully.

Safety instructions

	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.
	DANGER: Risk of electrocution! Do not install CTs when current flowing in the sensed circuit. Always install CT wires in the terminal blocks before energizing the sensed circuit.
	DANGER: If equipment is used in a manner not specified by Enphase Energy, Inc, the protection provided by the equipment may be impaired.
	DANGER: Risk of electric shock. Be aware that installation of this equipment includes risk of electric shock. If you wire the IQ Gateway at the sub-board, always de-energise the sub-board before beginning.
	DANGER: Risk of electric shock. Risk of fire. Only qualified personnel should troubleshoot, install, or replace the CTs.
	NOTE: Because of variance in switchboard design and main power feed, there may not always be enough space to install CTs.
	NOTE: Do not install the CTs in a switchboard where they exceed 75% of the wiring space of any cross-sectional area within the equipment.
	NOTE: Perform all electrical installations in accordance with all national and local electrical codes.
	NOTE: Restrict installation of current transformers in an area where they would block ventilation openings, or in area of breaker arc venting.
	NOTE: Secure current transformer and route conductors so that they do not directly contact live terminals or bus.

Revision history

REVISION	DATE	DESCRIPTION
140-00090-05	December 2023	Editorial updates.
Previous releases.		

Specifications

SPECIFICATION	CT-200-SPLIT
Model number	U40002
Primary voltage, current and frequency ratings	250 V, 200 A 45-66 Hz
Secondary current (maximum)	80 mA
Overvoltage category	IV (service entrance)
Pollution degree	2
Indoor use	yes
Operating ambient temperature range	-40°C to 65°C
Relative humidity rating	95% non-condensing
External burden resistance	The IQ Gateway provides burden resistance of max 5 ohms and min 0.1 watts
External dimensions (mm)	60.5 x 50.8 x 35.3
Internal aperture dimensions (mm)	24.38 x 21.33

Installation and removal

The installation and removal steps are as follows. For more information, refer to the IQ Gateway Quick Install Guide.

Preparation

- A) If not already done, de-energize the home load panel and the PV system.

Install CTs

- A) Before running multiple CT wires through conduit, use colored tape to mark each CT and the far ends of its wires. Use a different color for each CT so you can know which wires correspond to a given CT.
- B) Make sure that the primary circuit wire(s) are de-energized until you have secured the CT wires in the terminal blocks. Connect the white and blue wires as appropriate for your installation as described in the Quick Install Guide for the IQ Gateway model you are installing.

- NOTE:** Only run active conductors through each CT. Each CT can monitor multiple active conductors of a given phase.

- C) Tighten all connections as described in the Quick Install Guide for the IQ Gateway model you are installing.
- D) Open and clamp the CT on primary circuit wire(s) as needed. Make sure that the CT closes with a click.

Remove CTs

- A) Open and remove the CTs from all wires.
- B) Disconnect the white and blue wires from the terminal blocks.

