

Installing IQ System Controller 3 INT with PV-only system

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Introduction

The IQ System Controller 3 INT consolidates interconnection equipment and includes pre-wired CTs, relays, and a communication gateway into a single enclosure. This document describes wiring and commissioning the IQ System Controller 3 INT with PV-only. This helps to enable the installation of IQ Battery 5P to have power backup support through the Enphase Energy System.

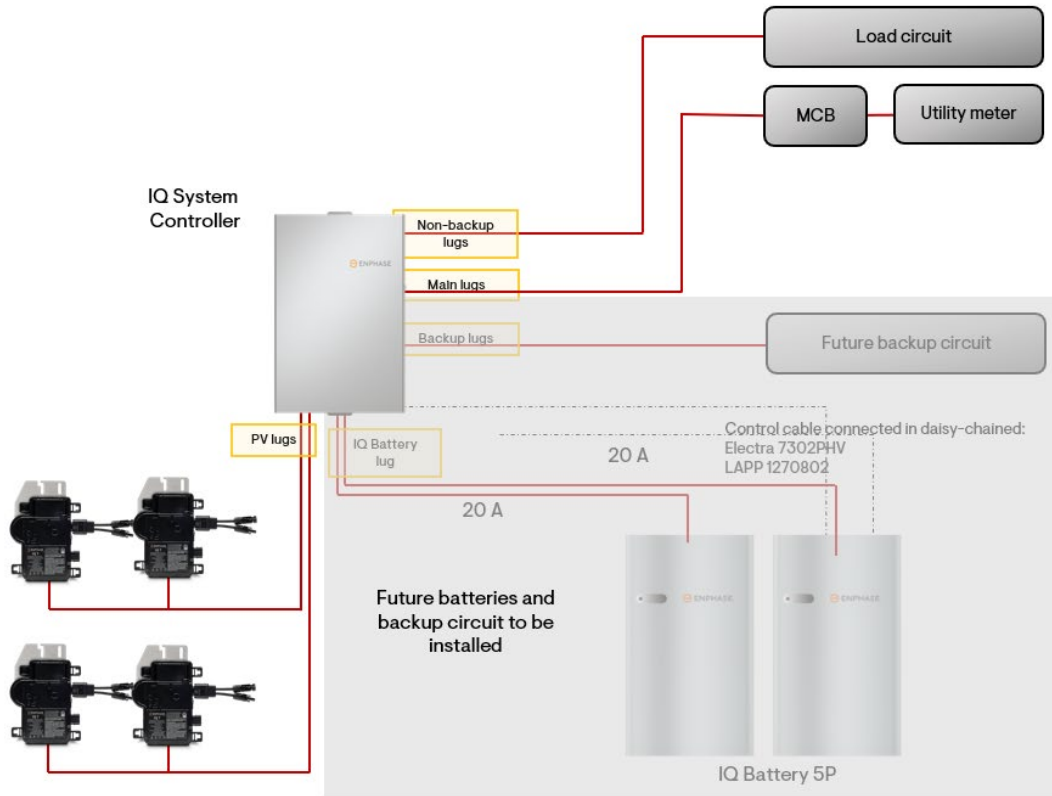


NOTE: Installing the system with only the IQ7 or IQ8 Series Microinverters and the IQ System Controller 3 INT cannot provide backup power without the batteries.

Wiring

To wire the IQ System Controller 3 INT, perform the following wiring:

- Wire the incoming site mains from the main service board (MSB) to the IQ System Controller 3 INT. This must include all active, neutral, and earth conductors (three active lines for three-phase sites).
- The return path from the IQ System Controller 3 INT to the MSB requires only an active connection. This must come from the non-backup load lugs (three active lines for three-phase sites).
- Run a spare backup (a single-phase backup line from the L1 backup terminal) and terminate it for future use. The spare backup is required when you add an IQ Battery 5P to the system.
- Connect the PV circuits to the PV input lugs inside the IQ System Controller 3 INT through the pre-installed 4-pole distributed energy system (DER) breakers on the left DIN rail. Also, connect the N-wire to the DER breakers.
- Extra CTs are not required if you wire the system per the above instructions.
- IQ Relay is not required as the IQ System Controller 3 INT has DER relays and microgrid interconnect device (MID) relay (to transition off-grid).



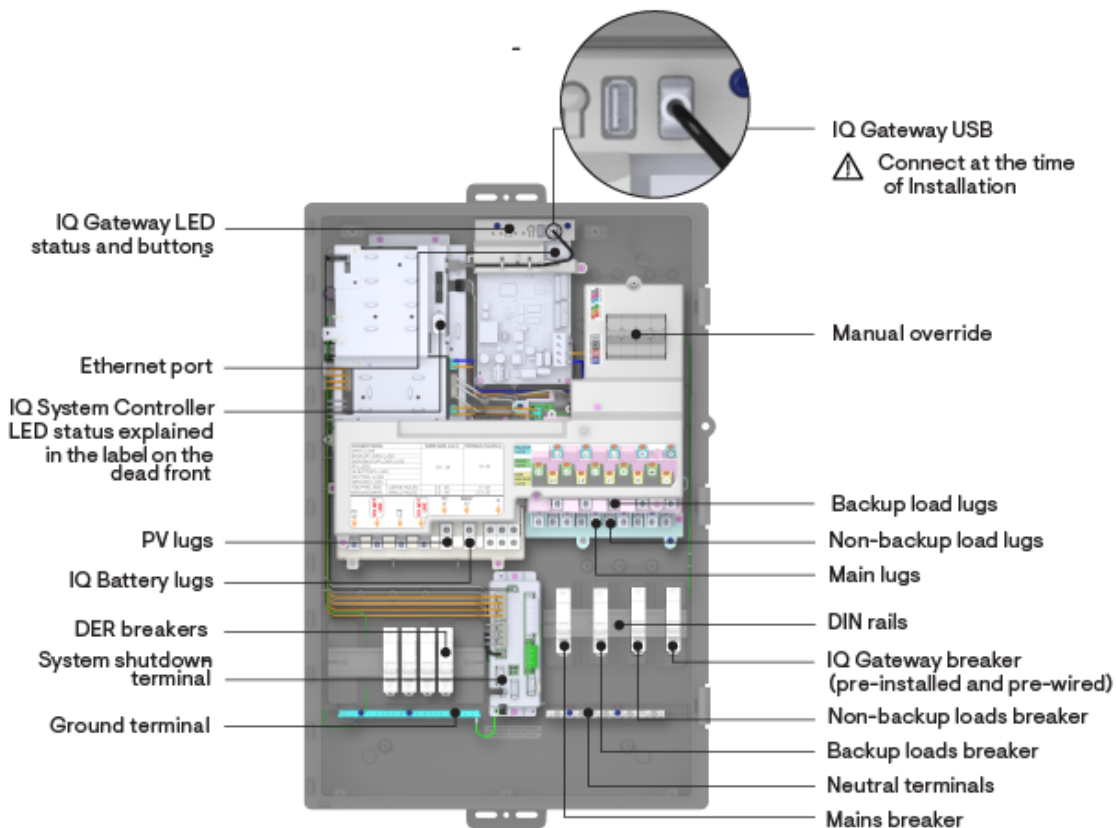
Internal view of the IQ System Controller 3 INT

The image below shows the IQ System Controller 3 INT after removing the dead front.

DIN rails are provided to install breakers. Use conductors (line, neutral, and ground) and breakers of proper ampacity and protection requirements according to local codes.

Before connecting the wires, refer to the wiring table, torque recommendations, and local codes for specific local requirements in the [IQ System Controller 3 INT Quick Install Guide](#).

IQ Gateway LED status and buttons are explained on the door label and in the “Operation” section of the [IQ System Controller 3 INT Quick Install Guide](#).



NOTE: Breakers for IQ Battery, mains, and non-back-up/backup loads are not supplied with IQ System Controller 3 INT and must be purchased separately.



WARNING: Ensure to connect the USB cable from the controller printed circuit board assembly (PCBA) to IQ Gateway before closing the dead front.

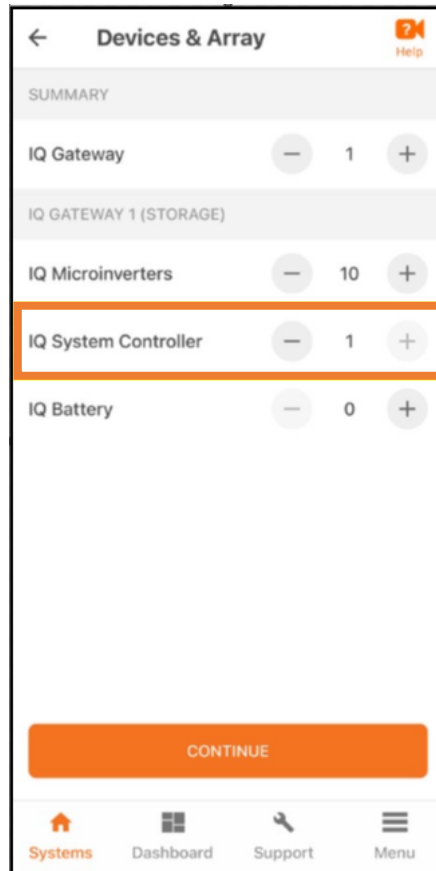


WARNING: Ensure that wires are not pinched while re-attaching the dead front.

The neutral connection between the incoming mains and the IQ System Controller is not switched in Australia and New Zealand.

To find the complete details on the IQ System Controller 3 INT, refer to the product page at <https://enphase.com/en-au/store/storage/iq-system-controller-3-int>.

Commissioning



To successfully install and commission the IQ System Controller 3 INT, it is mandatory to have the Enphase Installer App version V3.34.3 or higher. Ensure this requirement is fulfilled by checking the **Menu** tab and updating via the Apple App Store or Google Play Store.

Commission as per the commissioning guide

[Commissioning of grid-tied PV-only Enphase Energy System](#). All additional steps must be completed as per standard installation.



NOTE: After completing all the necessary steps for commissioning, contact [Enphase Support](#) for assistance in commissioning the IQ System Controller 3 INT. This step is only temporary until Enphase adds this feature to the Enphase Installer App.

For any additional help and information, contact Enphase Support at (1800) 006-374 (AU) or email support_au@enphaseenergy.com.

Revision history

Revision	Date	Description
TEB-00071-2.0	April 2024	The version of Enphase Installer App 3.34.3 now allows the addition of IQ System Controller and proceeds without adding the IQ Battery.
TEB-00071-1.0	October 2023	Initial release.