ENPHASE

ENGLISH

IQ Combiner 6C

Quick install guide

MODEL
X-IQ-AM1-240-6C

VERSION 1.0
MARCH 2025

140-00248-01

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1. Introduction

The IQ Combiner 6C consolidates interconnection equipment into a single enclosure, simplifying the installation of Enphase Energy Systems. It integrates the IQ Gateway installation by providing a consistent, pre-wired solution for residential applications. This all-in-one solution includes breaker spaces for photovoltaic (PV) systems, batteries, EV chargers, and load controllers, along with integrated current transformers (CTs) for metering.

Compatibility: The IQ Combiner 6C is compatible with IQ6/IQ7 or IQ8 Microinverters, IQ Battery 10C, IQ Meter Collar, and IQ EV Charger. M or S Series Microinverters or non-Enphase solar inverters may be connected only to the integrated load controller space.

Smart

- Includes IQ Gateway for communication and control
- Includes Enphase Mobile Connect (CELLMODEM-07-NA)
- Supports flexible networking: Wi-Fi, Ethernet, and cellular
- IQ PV Production metering (revenue grade)
- IQ Battery metering (revenue grade)
- Consumption/load monitoring
- IQ EV Charger monitoring [1]

Easy to install

- Mounts to one stud with centered brackets
- Supports conduit entries from the top sides (left and right), bottom, bottom sides (left and right), and rear
- Spaces to support up to 7 × 2-pole (240 V) branch circuit breakers for DER
- Includes integrated load controller to support additional loads/legacy Enphase PV/third-party PV)
- Up to 5 × 20 A total IQ PV branch circuits
- Up to 2 × 80 A IQ Battery branch circuits
- Up to 1 × 60 A IQ EV Charger branch circuit
- Up to 1 × 80 A integrated load controller branch circuit
- Pre-installed 60 A PV aggregate breaker as a rapid shutdown device
- Eliminate CT wiring errors
  - Integrated PV CT (L2) does not require any wire to pass through the CT or any additional wiring
  - Integrated Battery CTs (L1, L2) do not require any wire to pass through the CT or any additional wiring
  - Integrated load controller CTs (L1, L2) do not require any wire to pass through the CT or any additional wiring
- Provision for field-wired EV CT (L2)

Reliable

- Durable NRTL certified NEMA type 3R enclosure
- 15-year limited warranty
- 2-year labor reimbursement program coverage

NOTE: The IQ Combiner 6C can be used for grid-interactive (i.e., grid-tied) applications. When used in conjunction with an IQ Meter Collar, it enables multi-mode(grid-forming) installations, eliminating the need for the IQ System Controller.

[1] The IQ EV Charger requires a field-installed CT. The CT must be purchased separately.

2. System configurations

Based on the user requirement, the IQ Combiner can be installed in multiple site configurations.

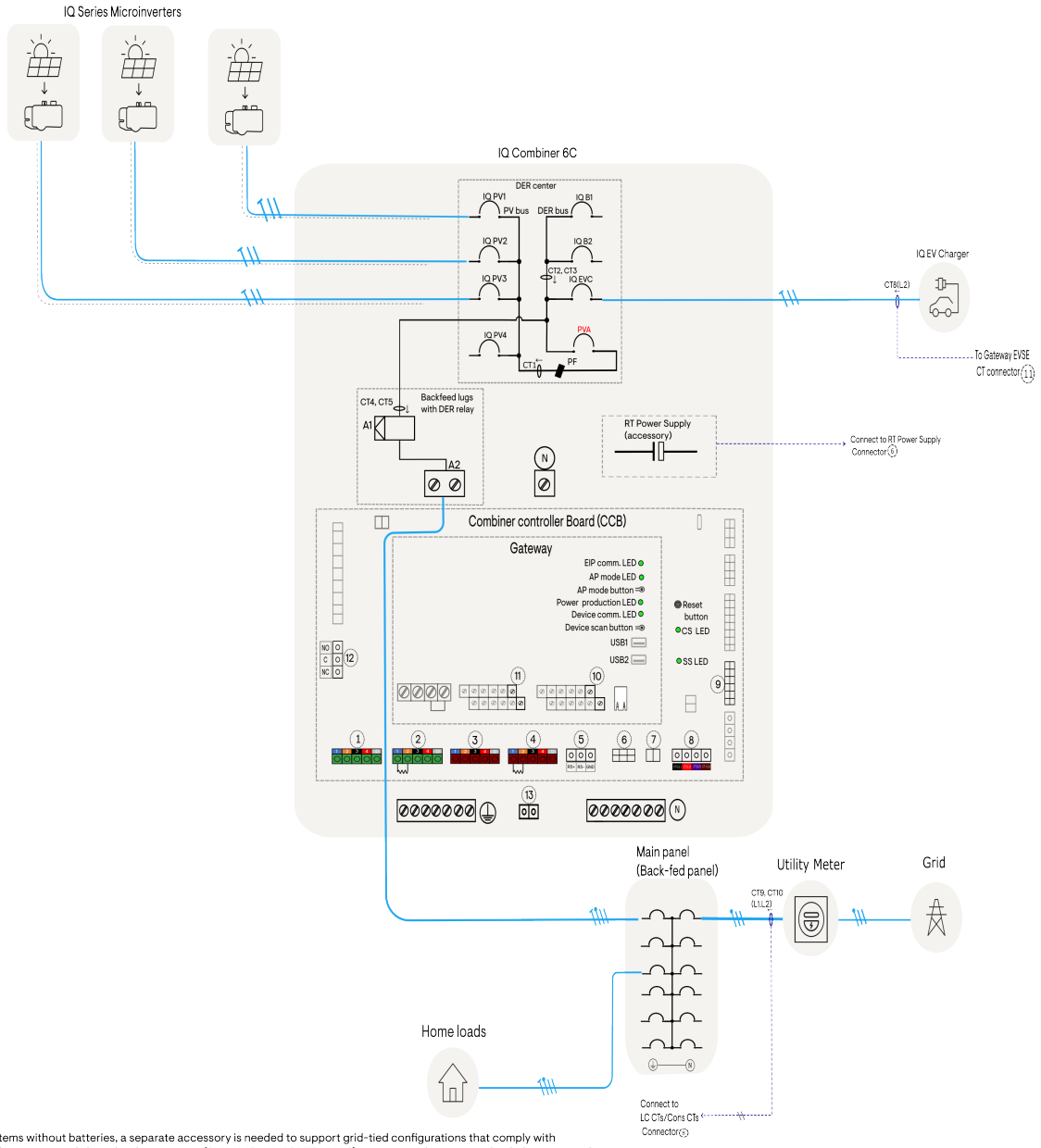
2.1 Grid-tied system

A grid-tied microgrid system is always connected to the utility grid. When the energy produced exceeds the energy consumed, the excess energy can be fed back into the grid. However, a grid-tied system alone does not provide a backup solution when the utility grid is unavailable.

2.1.1 Scenario 1: Gried-tied - Solar only

This is the preferred configuration when homeowners want to minimize their utility bills and reduce their carbon footprint without requiring backup. Due to the Enphase system's modular design, homeowners have the option to start with this configuration and upgrade to storage later.

This configuration requires the installation of external Consumption CTs for home energy monitoring.



Note:
1. For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

2. In this configuration integrated Load controller must be disassembled to accommodate the assembly of power supply board. Refer the ride through power supply assembly section for more details.

NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8 + IQ7/IQ6

NOTE: This configuration supports mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Combiner 6C
- Consumption CTs
- Power supply board with capacitors (available as an optional accessory)
- IQ EV Charger

NOTE: For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

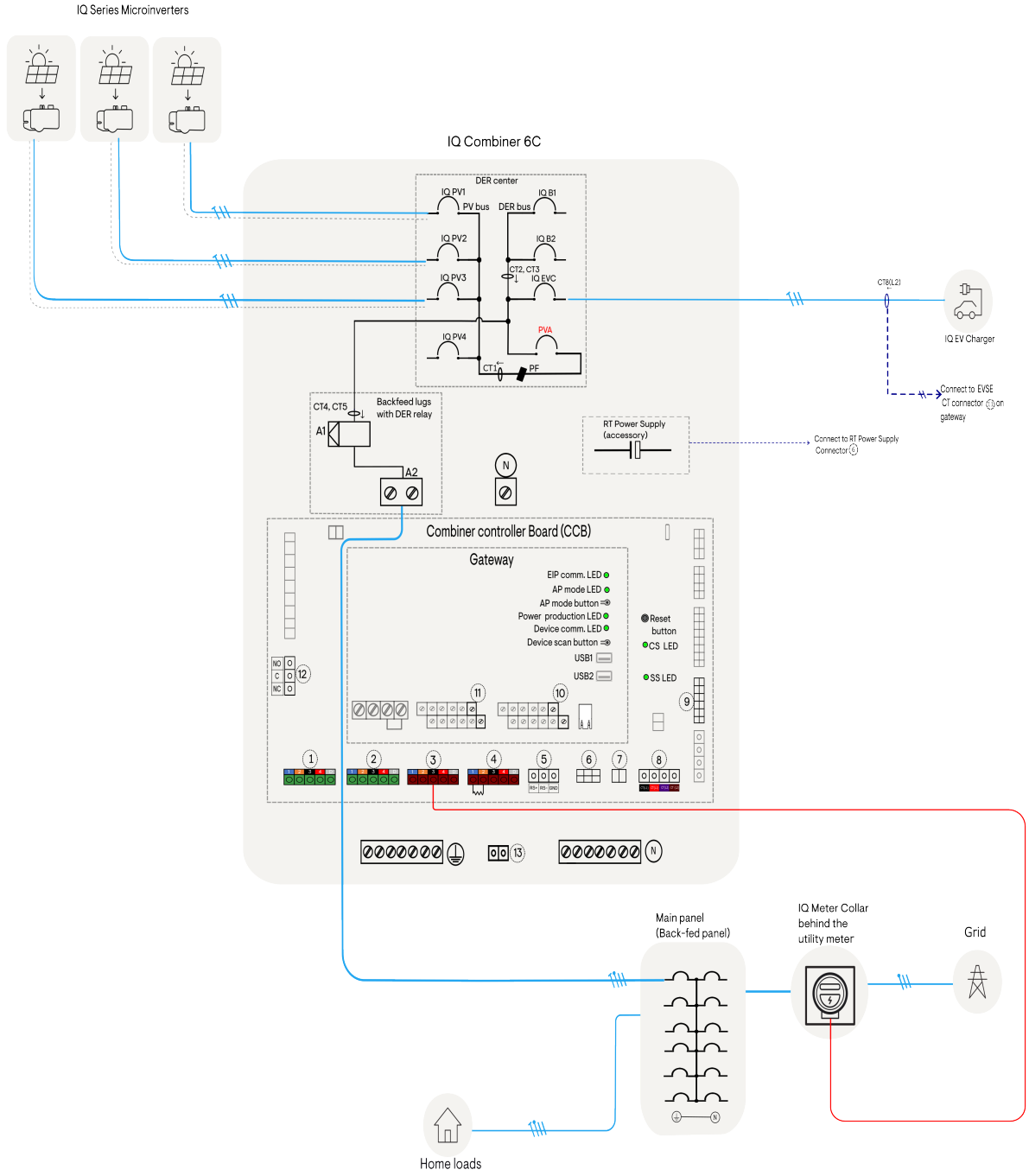
NOTE: In this configuration integrated Load controller must be disassembled to accommodate the assembly of power supply board. Refer to the Power supply board with capacitors section for more details.

2.1.2 Scenario 2: Grid-tied - Solar only with IQ Meter Collar

This scenario is an alternative to scenario 1 for homeowners aiming to lower their utility bills and reduce their carbon footprint without needing backup. Additionally, this configuration offers homeowners the flexibility to start with this setup and upgrade to storage in the future.

The IQ Meter Collar needs to be installed behind the utility meter, either on a meter-main combo or a separate utility meter.

NOTE: The configuration requires utility authorization for the installation of the IQ Meter Collar behind the utility meter.



Note:
1. For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

2. In this configuration integrated load controller must be disassembled to accommodate the assembly of power supply board. Refer the ride through power supply assembly section for more details.

NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8 + IQ7/IQ6

NOTE: This configuration supports mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Combiner 6C
- IQ Meter Collar (optional, requires external Consumption CTs if not installed)
- Power supply board with capacitors (available as an optional accessory)
- IQ EV Charger

NOTE: For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps

manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

NOTE: In this configuration integrated Load controller must be disassembled to accommodate the assembly of power supply board. Refer to the Power supply board with capacitors section for more details.

2.1.3 Scenario 3: Grid-tied - Solar only with IQ Meter Collar (supports legacy microinverters/third-party PV)

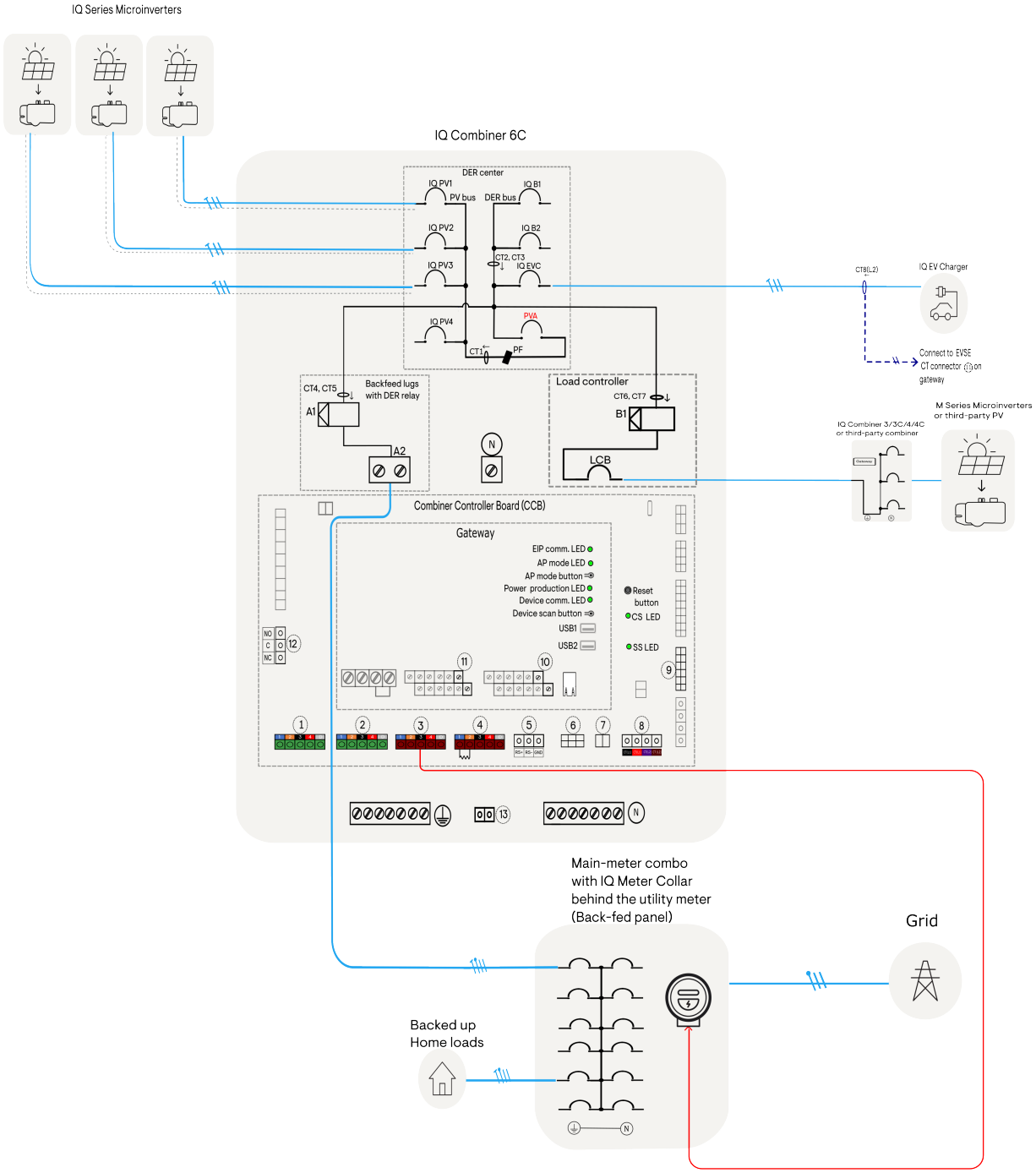
This scenario enhances features of non-backup scenarios 1 and 2 by using the integrated load controller to support legacy PV or third-party PV systems for NEM 1.0/NEM 2.0 expansion.

The scenario may require the installation of an IQ Meter Collar as an optional component. The IQ Meter Collar needs to be installed behind the utility meter, either on a meter-main combo or a separate utility meter.

NOTE: The installation of an IQ Meter Collar is optional in this non-backup configuration; however, if not installed will require the use of external Consumption CTs.

NOTE: The configuration requires utility authorization for installation of IQ Meter Collar behind the utility meter.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, offering versatile applications. In this scenario, the integrated load controller is used for adding legacy PV or third-party PV systems.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8 + IQ7/IQ6

NOTE: This configuration supports mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Combiner 6C
- IQ Meter Collar (optional, requires external Consumption CT if not installed)
- M Series Microinverters/third-party PV

NOTE: Integrated gateway within the IQ Combiner 6C does not support legacy Enphase PV or a third-party PV.

NOTE: The system may need a software upgrade during commissioning to support this configuration.

NOTE: For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

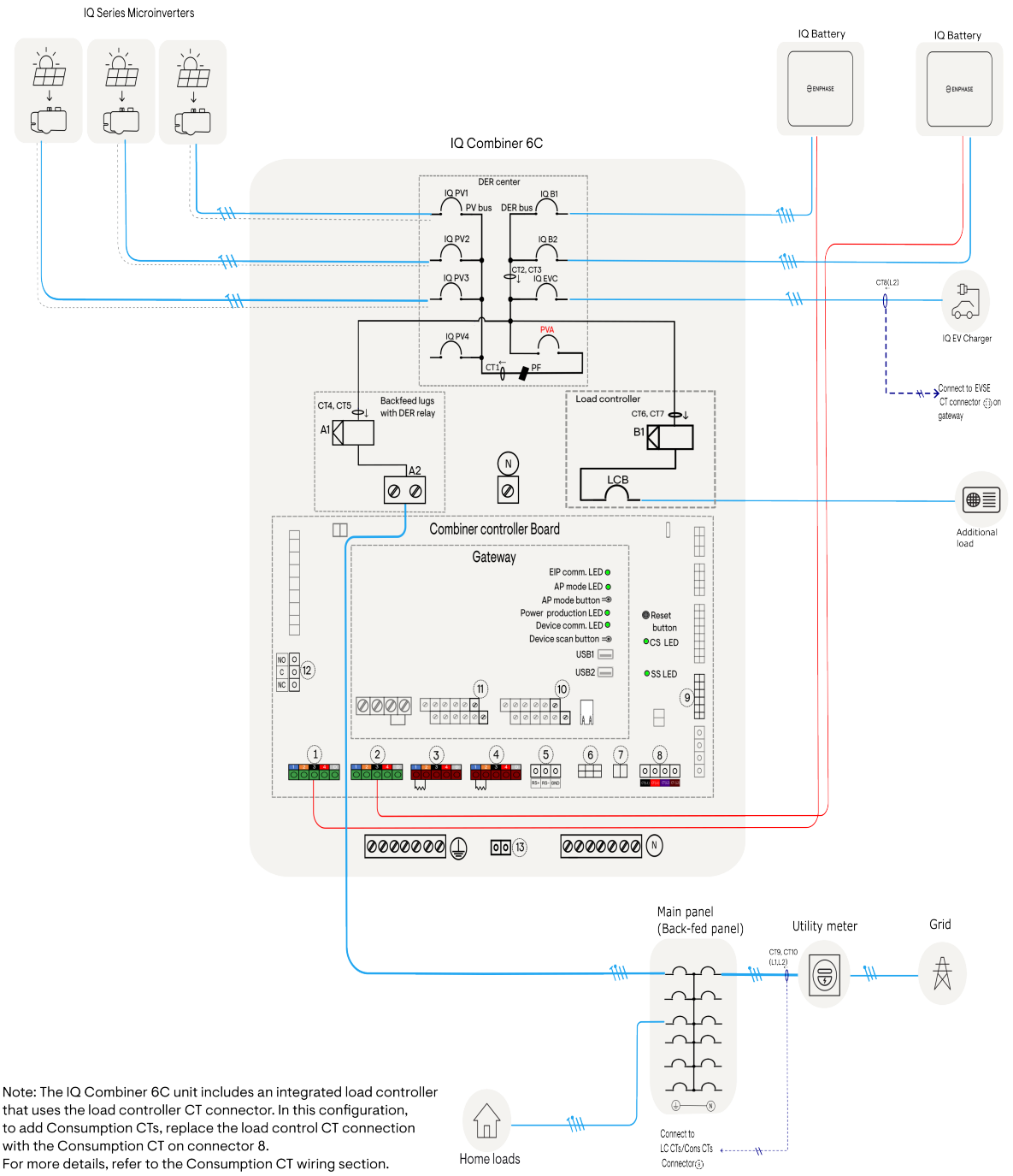
NOTE: In this configuration integrated Load controller must be disassembled to accommodate the assembly of power supply board. Refer to the Power supply board with capacitors section for more details.

2.1.4 Scenario 4: Grid-tied - Solar + Battery

This configuration is for homeowners aiming to minimize utility bills, reduce their carbon footprint, and store excess solar power for use during non-sunlight hours. The system allows energy generated by the solar panels to be stored and used at any time, day or night, regardless of weather conditions.

This configuration requires the installation of Consumption CTs for home energy monitoring in the absence of an IQ Meter Collar.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect additional loads removed from the back-fed panel or main panel.



Note: The IQ Combiner 6C unit includes an integrated load controller that uses the load controller CT connector. In this configuration, to add Consumption CTs, replace the load control CT connection with the Consumption CT on connector 8.
For more details, refer to the Consumption CT wiring section.

NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8 + IQ7/IQ6

NOTE: This configuration supports mixing of IQ8 Microinverters with IQ6/IQ7.

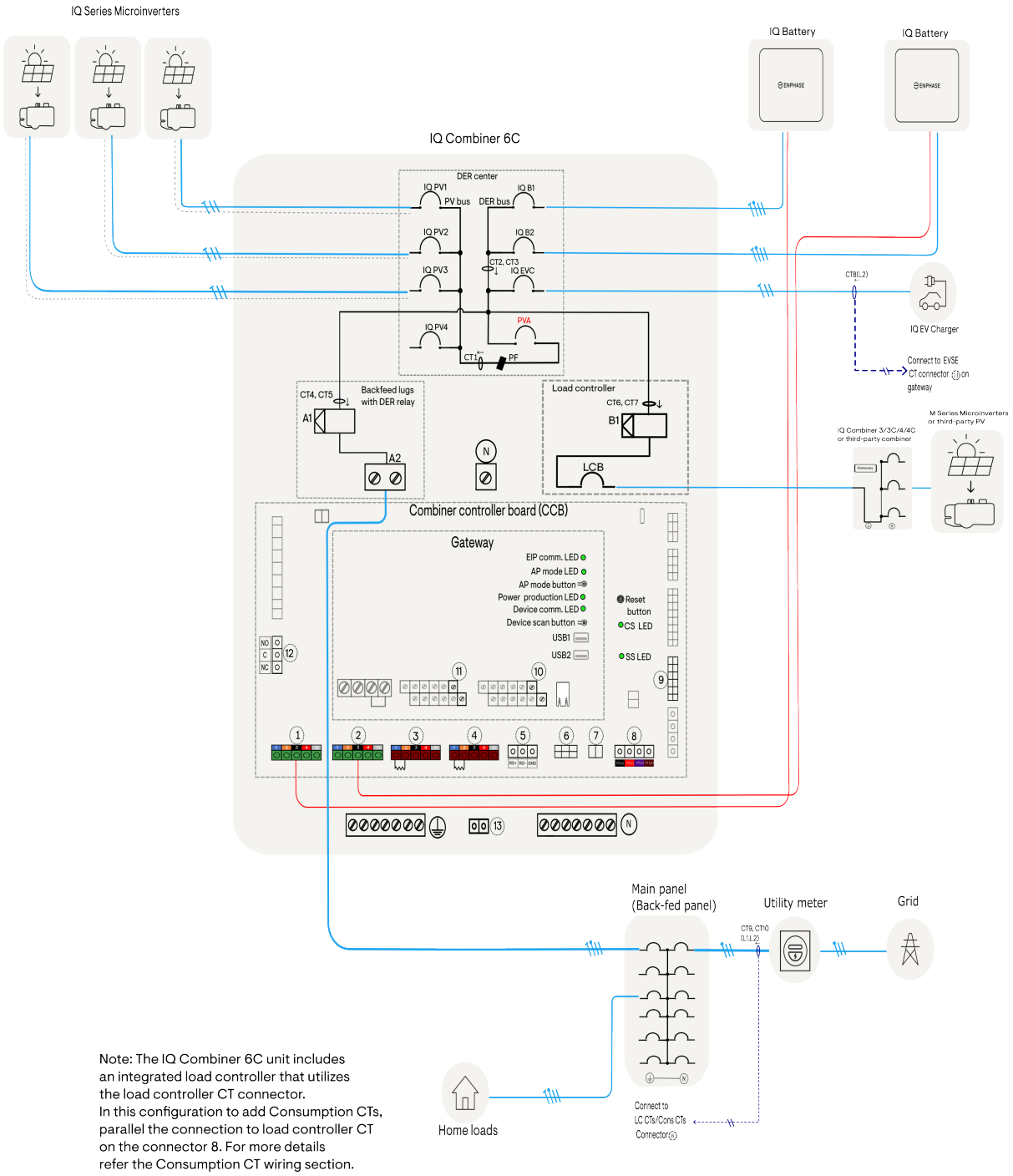
- IQ Battery 10C/10CS
- IQ Combiner 6C
- Consumption CT
- IQ EV Charger

NOTE: The system may need a software upgrade to support this configuration.

2.1.5 Scenario 5: Grid-tied - Solar + Battery (supports legacy microinverters/third-party PV)

This scenario enhances non-backup scenario 4 by utilizing the integrated load controller to support legacy PV or third-party PV systems. Additionally, this configuration requires the installation of external Consumption CTs for home energy monitoring.

The IQ Combiner 6C comes with an integrated load controller with built-in CTs that serves multiple purposes. In this scenario, the integrated load controller is used for adding legacy PV or third-party PV systems.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8 + IQ7/IQ6

NOTE: This configuration supports mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Battery 10C/10CS
- IQ Combiner 6C
- Consumption CTs
- IQ EV Charger
- M Series Microinverters/third-party PV

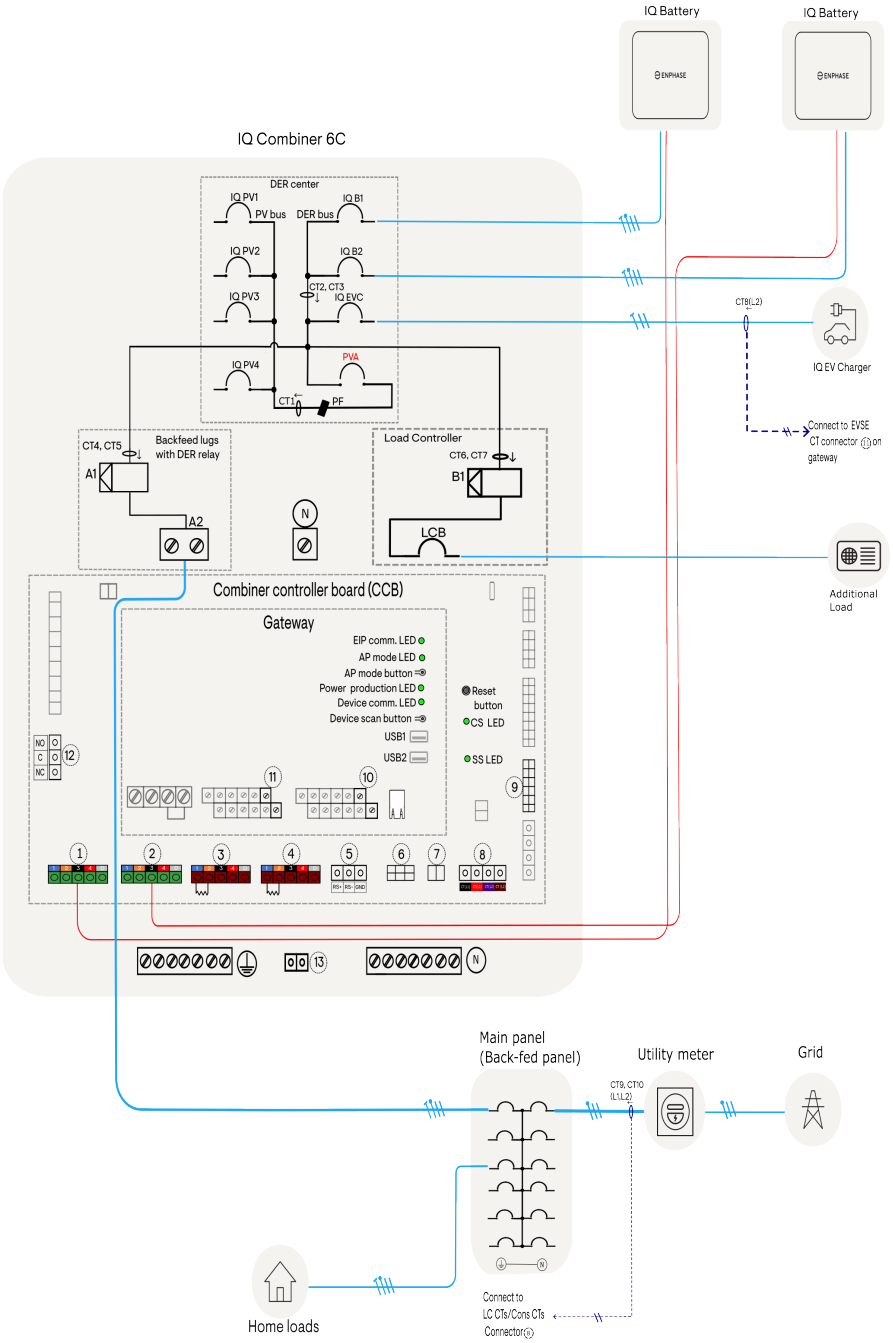
NOTE: Integrated gateway within IQ Combiner 6C does not support legacy Enphase PV or a third-party PV.

NOTE: The system may need a software upgrade during commissioning to support this configuration.

2.1.6 Scenario 6: Gried-tied - Battery only

This configuration is ideal for homeowners looking to reduce their utility bills and store energy for use during peak hours.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect additional loads removed from the back-fed panel or main panel.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- IQ Battery 10C /10CS
- IQ Combiner 6C
- Consumption CTs
- IQ EV Charger

NOTE: The system may need a software upgrade during commissioning to support this configuration.

2.2 Grid forming

A grid-forming system is further enhanced compared to a grid-tied system. Unlike grid-tied systems, which rely on external grid support for stability, grid-forming systems can operate independently and establish a micro grid when needed. They can support loads even when the utility grid is unavailable.

2.2.1 Scenario 1: Grid forming - Whole Home backup

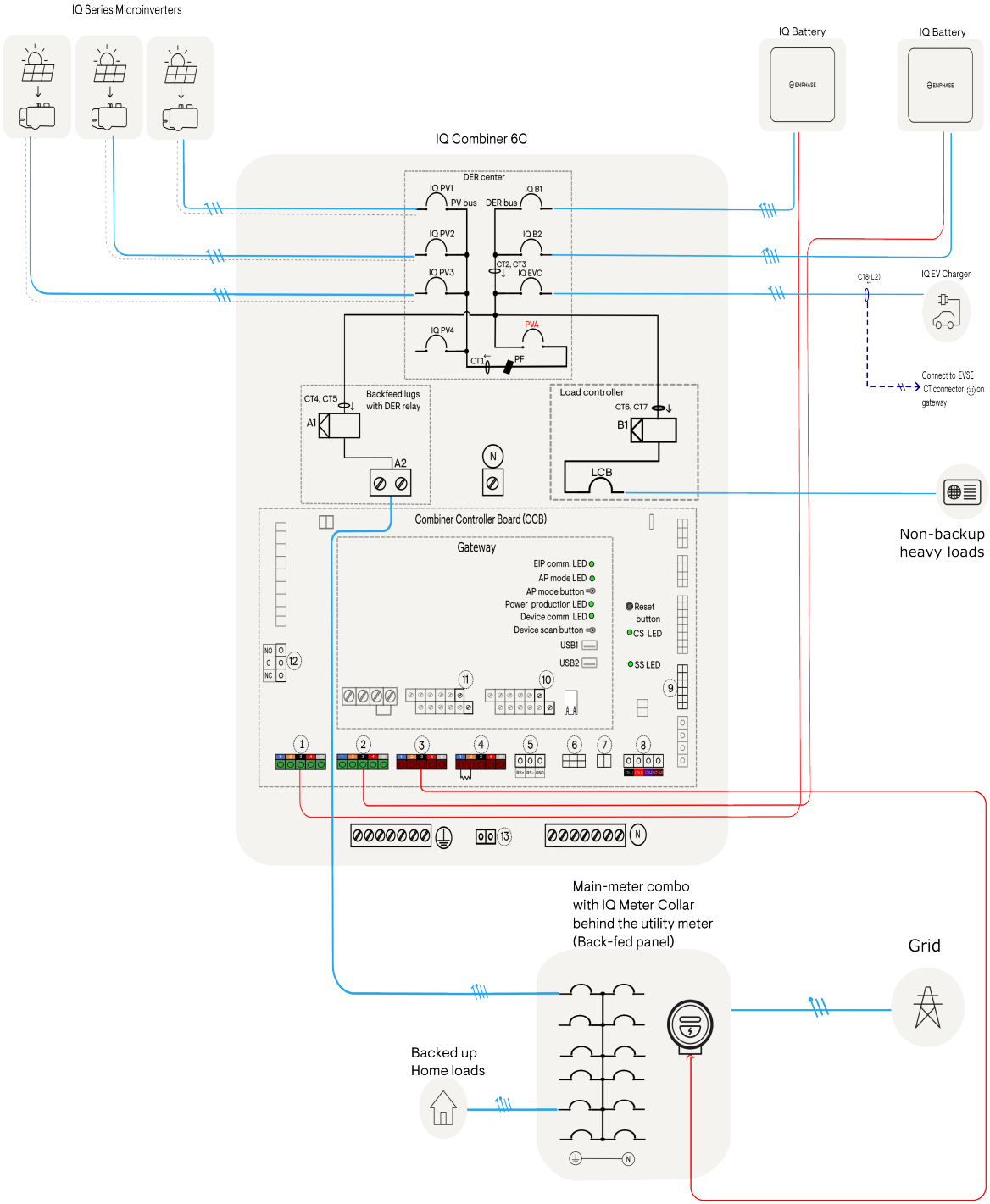
This configuration is ideal for homeowners who want to ensure that all home loads stay powered during a utility grid outage.

The scenario necessarily requires the installation of an IQ Meter Collar. The IQ Meter Collar needs to be installed behind the utility meter, either on a meter-main combo or a separate utility meter.

NOTE: The IQ Meter Collar works as a microgrid interconnect device (MID) to enable backup. The installation of the IQ Meter Collar enables full home monitoring.

NOTE: The configuration requires utility authorization for installation of IQ Meter Collar behind the utility meter.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect additional or heavy loads that will be shed when the system transitions to off-grid.



NOTE: For notations, refer to Legends in the Appendix section

Supported system components:

- Microinverters: IQ8/IQ7/IQ6

NOTE: This configuration does not support mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Battery 10C/10CS
- IQ Combiner 6C
- IQ Meter Collar
- IQ EV Charger

2.2.2 Scenario 2: Grid forming - Whole Home backup (supports legacy microinverters/third-party PV)

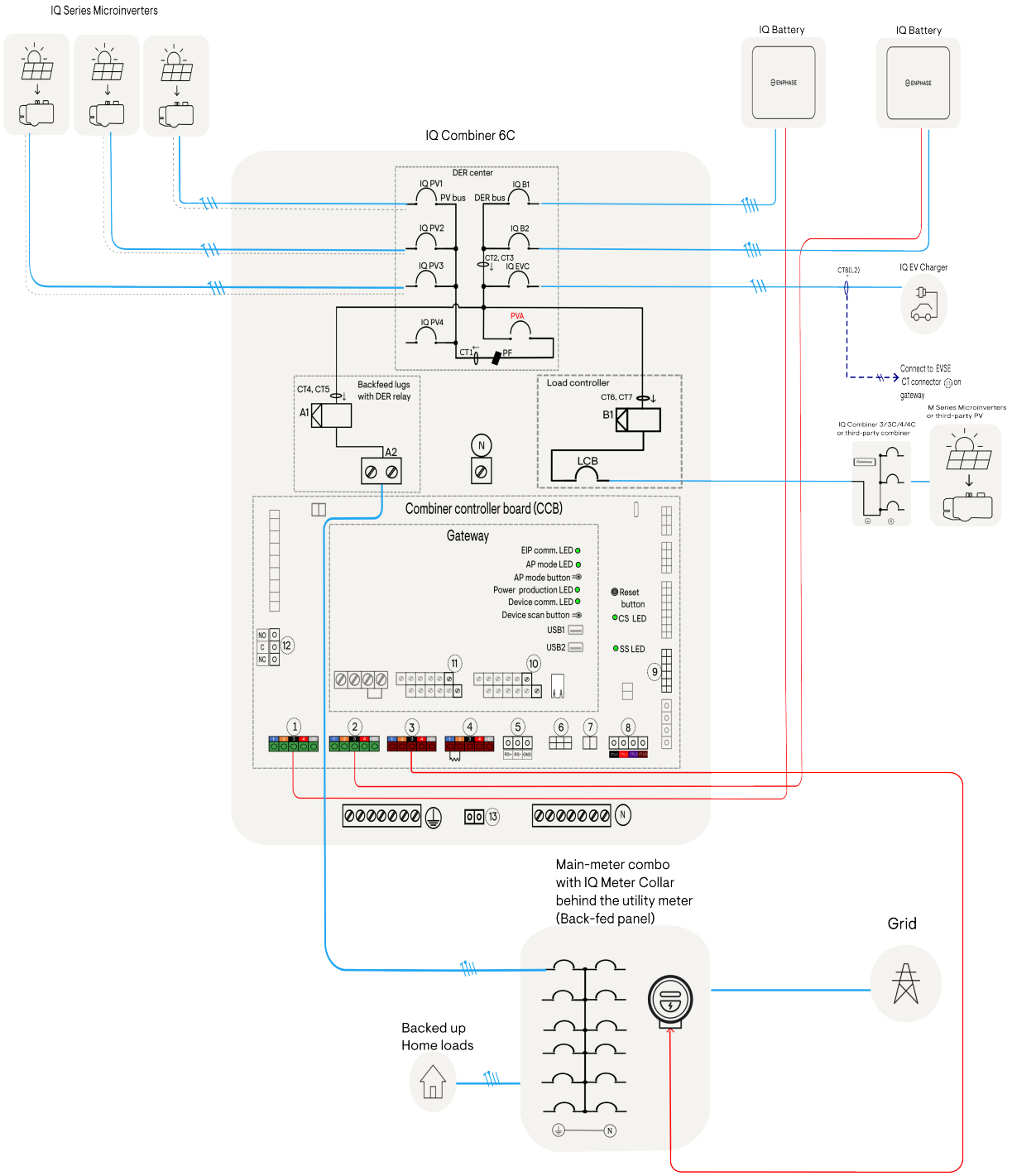
This configuration serves as an alternative to Scenario 1 for whole-home backup, supporting legacy microinverters or third-party PV systems for NEM 1.0/2.0 expansion on integrated load controller space.

The scenario necessarily requires the installation of an IQ Meter Collar. The IQ Meter Collar needs to be installed behind the utility meter, either on a meter-main combo or a separate utility meter.

NOTE: The IQ Meter Collar works as a microgrid interconnect device (MID) to enable backup. The installation of the IQ Meter Collar enables full home monitoring.

NOTE: The configuration requires utility authorization for installation of IQ Meter Collar behind the utility meter.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect legacy microinverters or third-party PV systems.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8/IQ7/IQ6

NOTE: This configuration does not support mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Battery 10C/10CS
- IQ Combiner 6C
- IQ Meter Collar
- IQ EV Charger
- M Series microinverters/Third party PV

NOTE: Legacy Enphase microinverters/third-party PV will be shed when the system transitions to off-grid.

NOTE: The integrated gateway within IQ Combiner 6C does not support legacy Enphase PV or a third-party PV.

2.2.3 Scenario 3: Grid forming - Whole Home backup (IQ Meter Collar in a discrete meter pan)

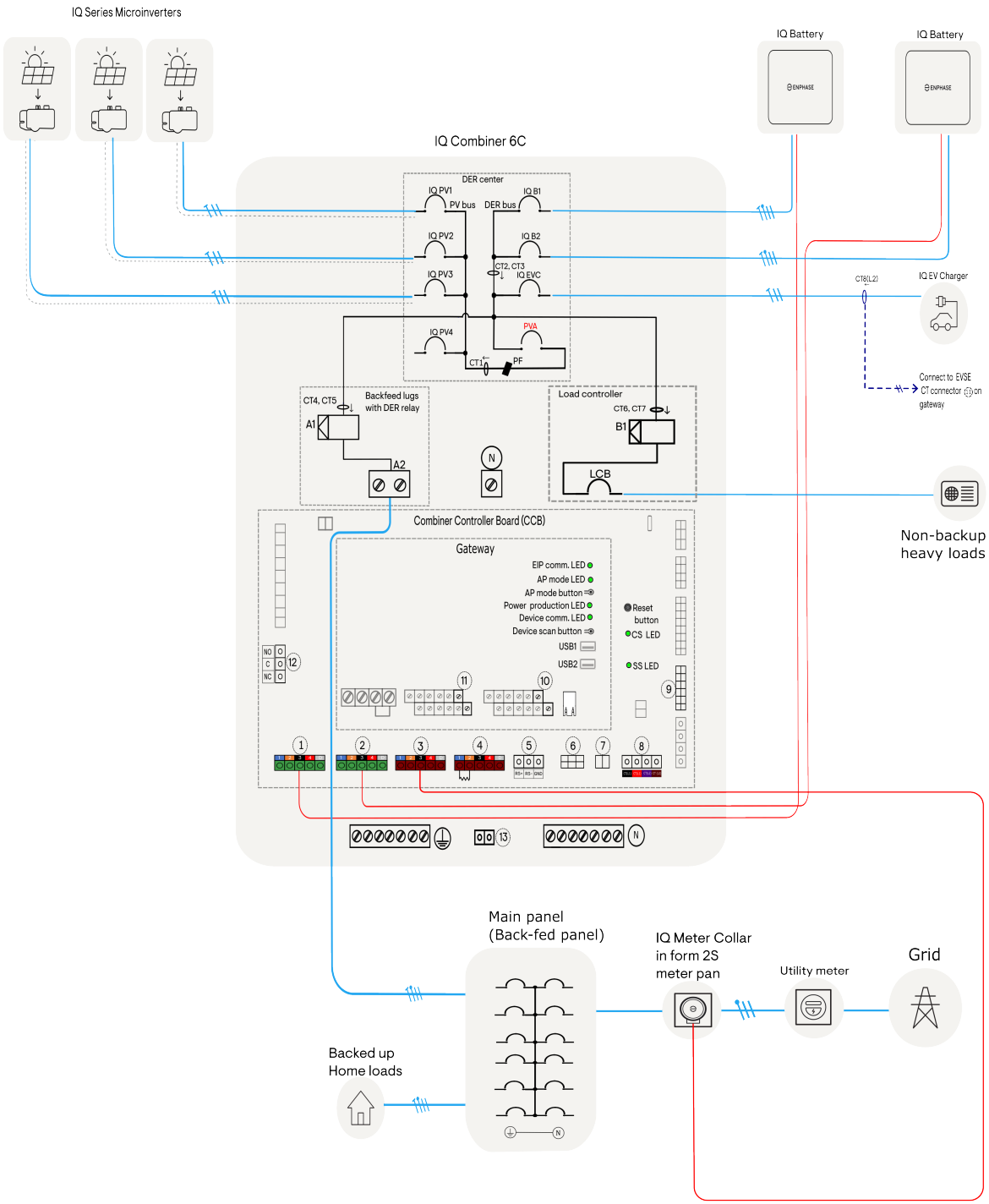
This is the preferred configuration when homeowners want the home to remain powered when the utility grid shuts down.

The scenario necessarily requires the installation of an IQ Meter Collar. The IQ Meter Collar can be installed on a discrete Form 2S meter pan between the utility meter and the back-fed panel.

NOTE: The IQ Meter Collar works as a microgrid interconnect device (MID) to enable backup. The installation of IQ Meter Collar also enables full home monitoring.

NOTE: The configuration does not require utility authorization for installation of IQ Meter Collar on a discrete Form 2S meter pan.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect additional or heavy loads that will be shed when the system transitions to off-grid.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8/IQ7/IQ6

NOTE: This configuration does not support mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Battery 10C/10CS
- IQ Combiner 6C
- IQ Meter Collar
- IQ EV Charger

2.2.4 Scenario 4: Grid forming - Partial Home backup

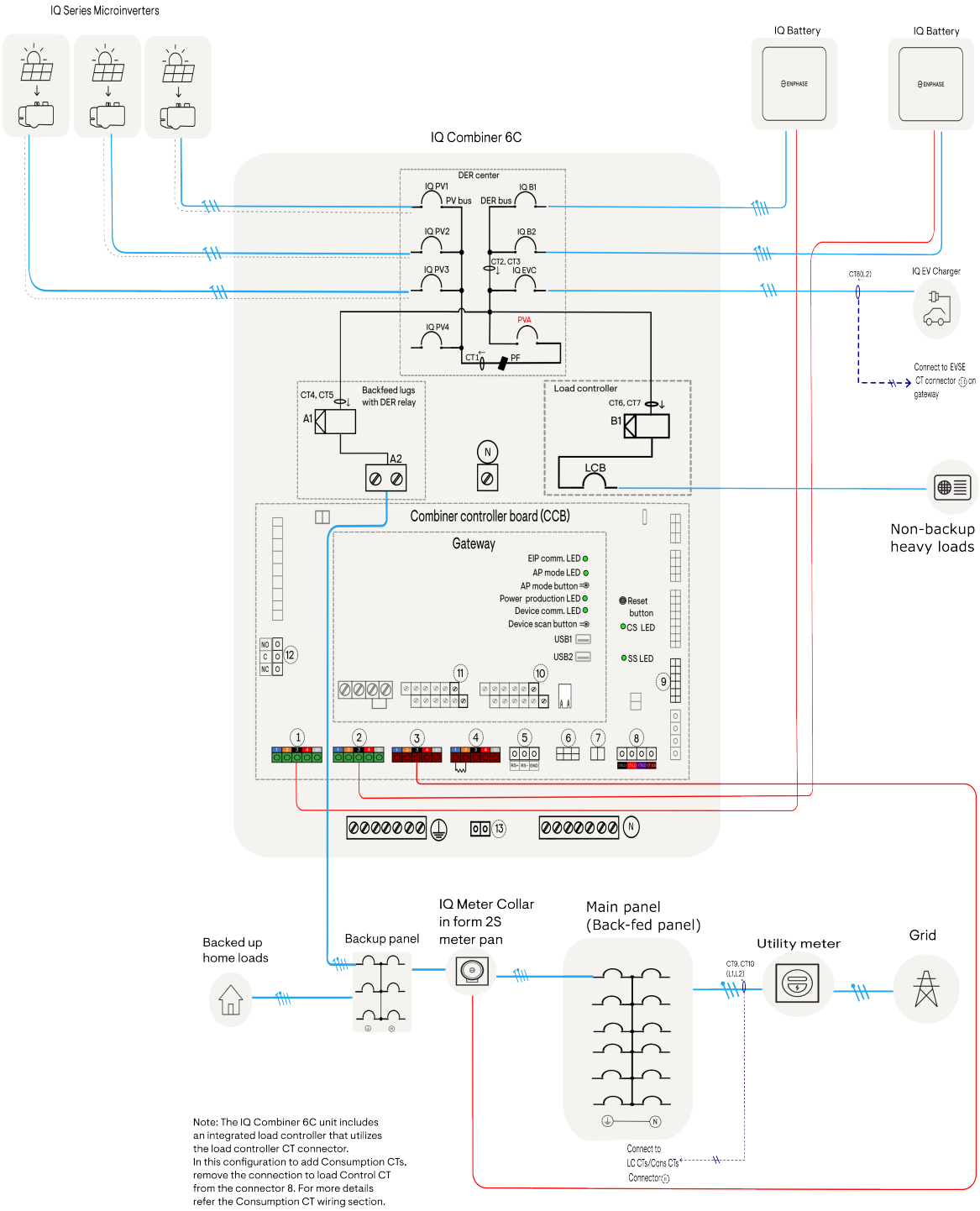
This configuration is ideal for homeowners who want to make sure that only specific home loads remain powered during a utility grid outage.

The scenario necessarily requires the installation of an IQ Meter Collar. The IQ Meter Collar can be installed on a discrete Form 2S meter pan between IQ Combiner 6C and a back-fed panel.

NOTE: The IQ Meter Collar works as a microgrid interconnect device (MID) to enable backup. This configuration may require the installation of external consumption CTs for whole-home monitoring.

NOTE: The configuration does not require utility authorization for installation of IQ Meter Collar on a discrete Form 2S meter pan.

The IQ Combiner 6C includes an integrated load controller with built-in CTs, which can be used to connect additional or heavy loads that will be shed when the system transitions to off-grid.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ8/IQ7/IQ6

NOTE: This configuration does not support mixing of IQ8 Microinverters with IQ6/IQ7.

- IQ Battery 10C/10CS
- IQ Combiner 6C
- IQ Meter Collar
- IQ EV Charger
- Consumption CTs (optional, for full home monitoring)

2.2.5 Scenario 5: Grid forming - Partial Home backup (supports legacy microinverters/third-party PV)

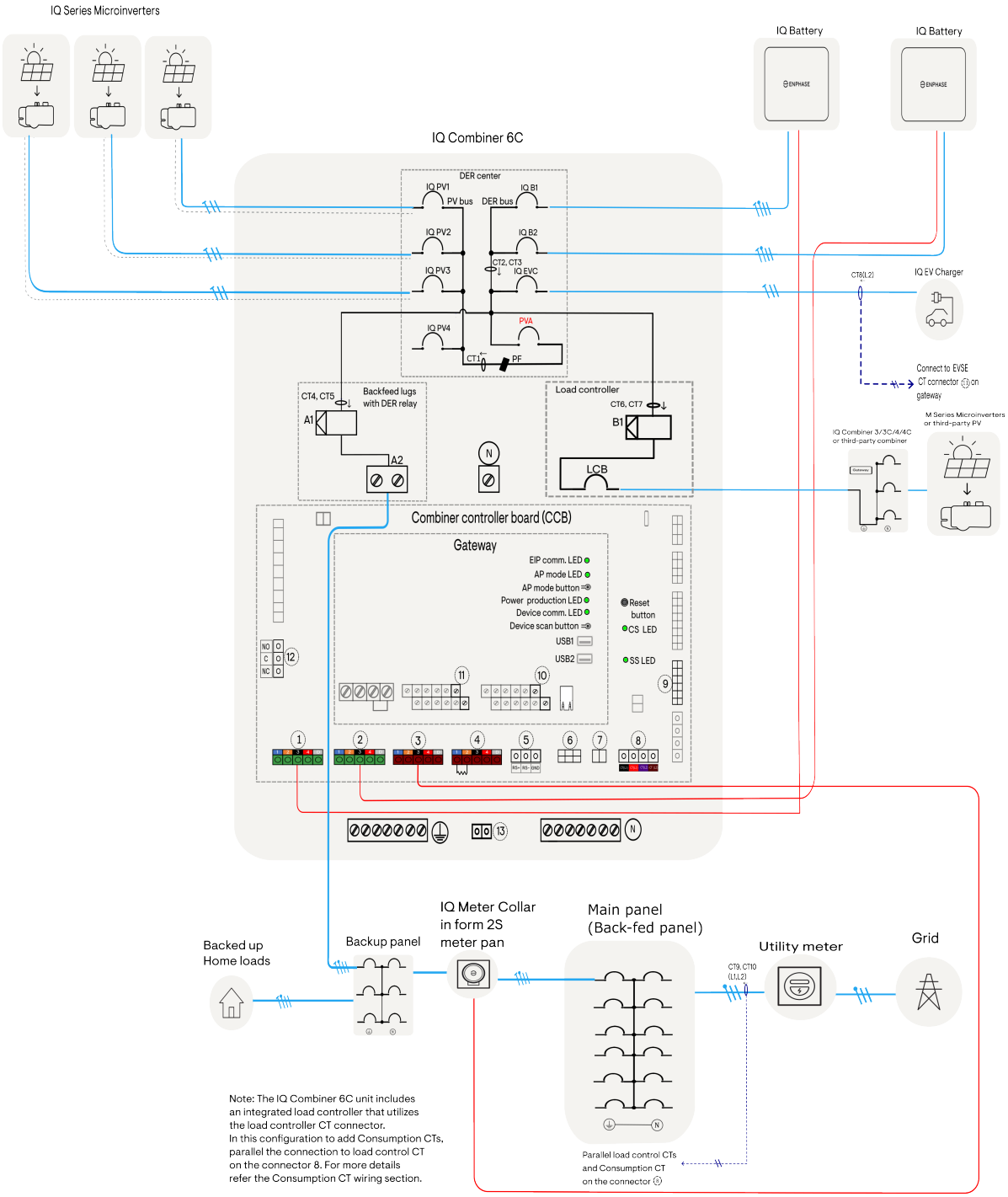
This configuration serves as an alternative to Scenario 4 for partial home backup, supporting legacy microinverters or third-party PV systems for NEM 1.0/2.0 expansion on integrated load controller space.

The scenario necessarily requires the installation of an IQ Meter Collar. The IQ Meter Collar can be installed on a discrete Form 2S meter pan between IQ Combiner 6C and a back-fed panel.

NOTE: The IQ Meter Collar works as a microgrid interconnect device (MID) to enable backup. This configuration necessarily requires the installation of external Consumption CTs for whole-home monitoring.

NOTE: The configuration does not require utility authorization for installation of IQ Meter Collar on a discrete Form 2S meter pan.

The IQ Combiner 6C comes with an integrated load controller with built-in CTs that serve multiple purposes. In this scenario, the integrated load controller is used for adding legacy PV or third-party PV systems.



NOTE: For notations, refer to Legends in the Appendix section.

Supported system components:

- Microinverters: IQ6/IQ7/IQ8
- **NOTE:** This configuration does not support mixing of IQ8 Microinverters with IQ6/IQ7.
- IQ Battery 10C/10CS
- IQ Combiner 6C
- IQ Meter Collar
- Consumption CTs
- IQ EV Charger
- M Series Microinverters/Third-party PV

NOTE: Legacy Enphase microinverters/third-party PV will be shed when the system transitions to off-grid.

NOTE: The integrated gateway within IQ Combiner 6C does not support legacy Enphase PV or a third-party PV.

3. What's in the box

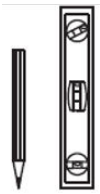
IQ Combiner 6C

Quick install guide

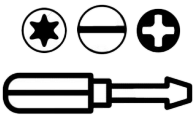
Enclosure	IQ Combiner 6C unit
Enphase Mobile Connect	Pre-installed CELLMODEM-07-NA cellular modem with a 5-year data plan within the enclosure
Control (CTRL) headers (4x)	Pre-installed control headers with resistors on two of them
Accessory kit	• Quick install guide • Labels • Headers with resistors (2x) • Consumption CT headers • Top-side conduit plate 3/4" × 1 , 1/4" × 1
PV Aggregate breaker	Pre-installed (60 A) UL 489 certified breaker within the enclosure, usable as Rapid Shutdown initiator for outdoor installs

4. Tools/Additional items required

Drill machine

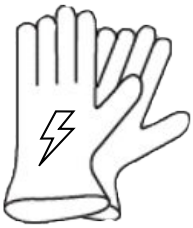


Marker, drill leveling tool

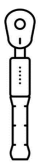


Flat and Phillips head screwdriver (at least 8" long)

Measuring tape

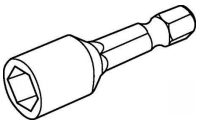


Gloves



Torque wrench

(15-50) lb-in



Hex nut driver 7/16"

(Optional for disassembly of the integrated load controller)

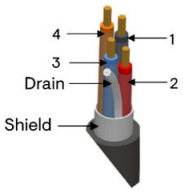
Wire stripper

Conduit connector

¾" - 2 ½ "

Copper conductors: 12-2/0 (rated at 90°C)

Lag bolts or other screw types with washer to install the wall bracket on the wall



Enphase SKU for control cable:

CTRL-SC3-NA-01

5. IQ Combiner 6C - Mounting

5.1 Location planning

- The IQ Combiner 6C is NEMA type 3R rated and can be mounted indoors or outdoors.
- Install this product where cables from PV, grid, and IQ Battery are easily accessible and can be wired to the IQ Combiner 6C.

- This product is designed to be installed on a vertical wall only. Do not install it flat on the ground. It must be mounted within 15° vertically.
- The mounting surface must be able to support the weight of the combiner box with wires and conduits attached to it.

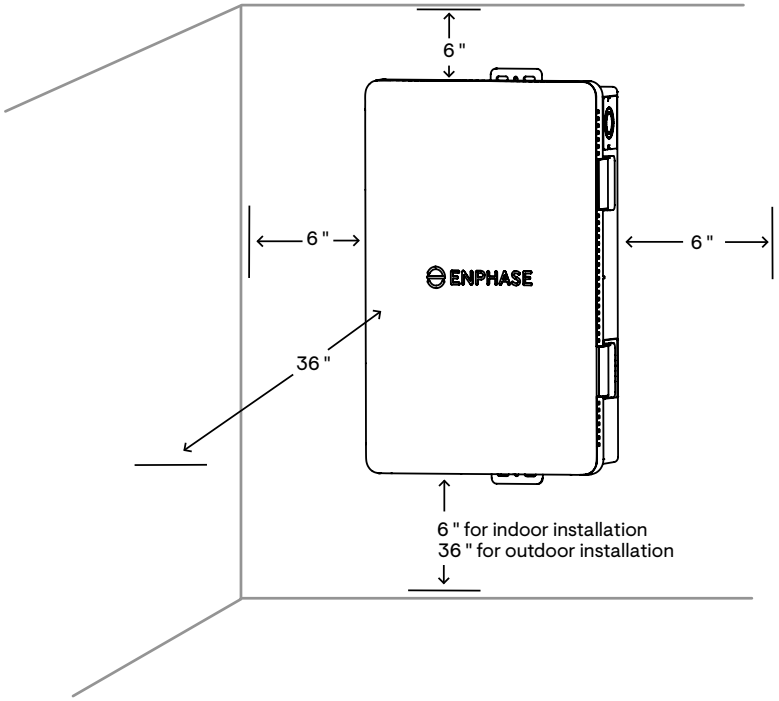
- Follow all local standards and regulations during installation.
- The product operates within an ambient temperature range from -40°C to 46°C.
- For optimal performance, the system should be installed in a location without direct sunlight; however, it is designed to operate even under direct sunlight.
- Extended exposure to direct sunlight at higher ambient temperature conditions may impact the optimal performance of the product.
- Do not install the product in a very dusty environment.

- This product must not be installed at altitudes above 9842 ft (3000 m).
- In flood-prone areas, ensure that the clearance from the ground is sufficient to avoid water ingress.

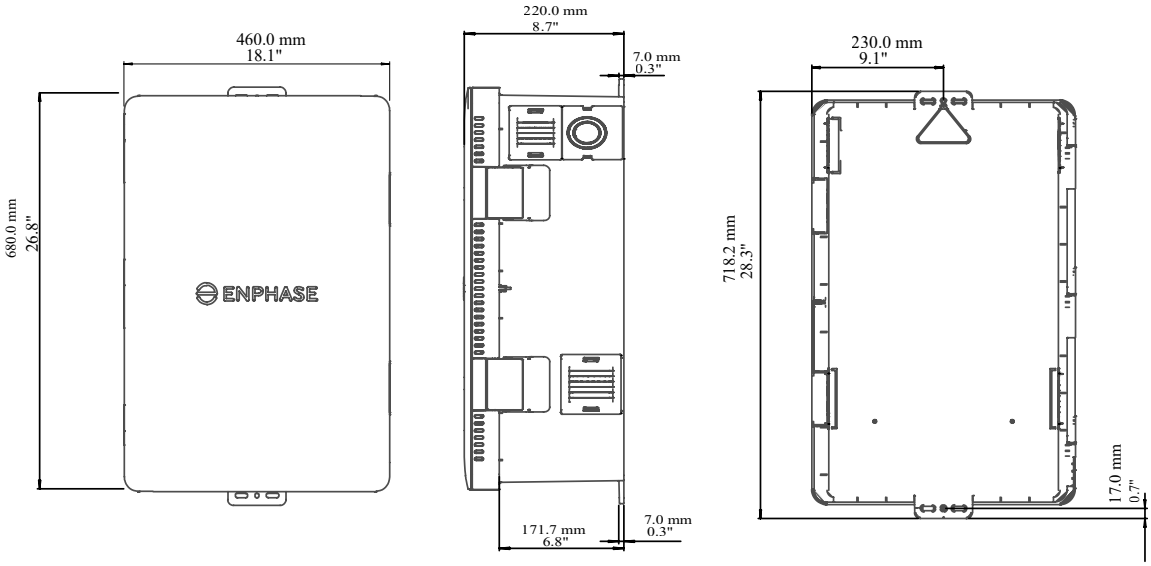
- The enclosure is suitable for both indoor and outdoor use, designed to endure moisture, rainfall, and harsh environmental conditions. However, avoid installing it directly beneath any downspouts, faucets, or other sources of continuous water flow.

5.2 Recommended clearance

- For outdoor installation, ensure clearance of 36" from the ground.
- For indoor installation, ensure clearance of 6" from the ground.
- The IQ Combiner 6C features forced convection cooling with vents, it is recommended to maintain a 6-inch distance from the nearest side wall to enhance thermal regulation and facilitate fan filter servicing.
- Follow all local standards and regulations related to the mounting of electrical equipment.

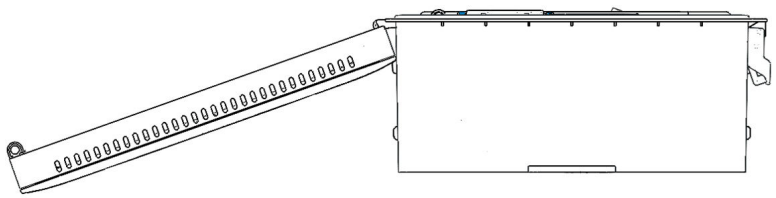


NOTE: Conduits may be placed within the 6-inch clearance zone along the sides and bottom of the enclosure, as long as they do not block the airflow of the fan with the filter.



5.3 Opening the door

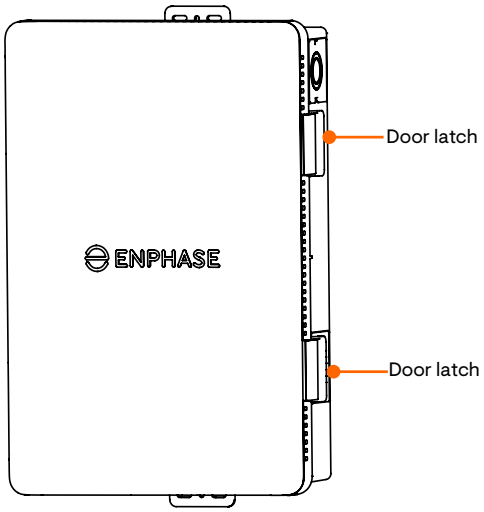
- The IQ Combiner 6C door is designed to open beyond 180° and rest flat against the wall or on a flat surface used during preparation.
- Installation may be done without door removal.



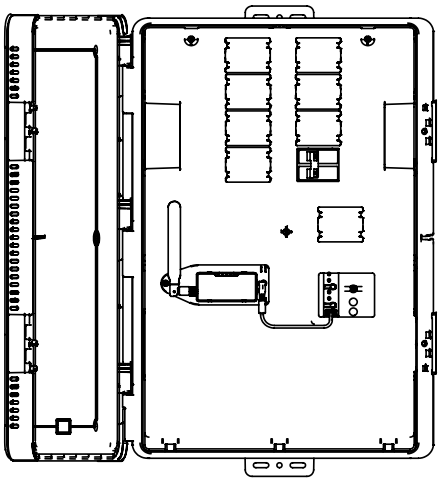
5.4 Detaching the door

1. Open the door latch.
2. Open the door between 90° and 120° while facing the enclosure.
3. Slide up the door for removal.
4. Set the door aside to be reattached later.

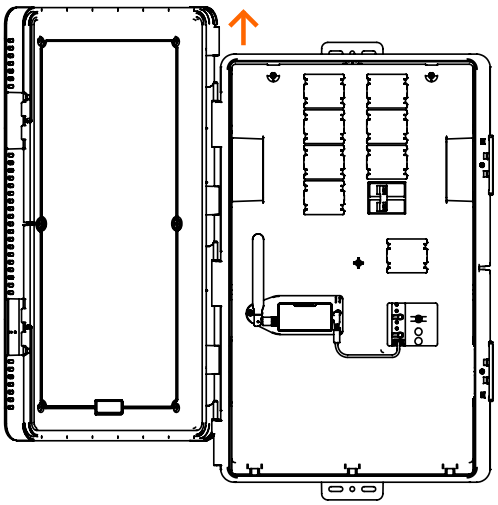
1 Open the door latch



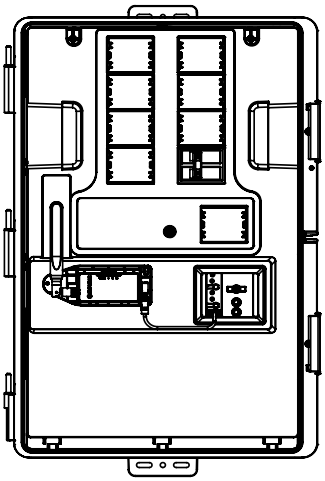
2 Open the door between 90° to 120° while facing the enclosure.



3 Slide up the door for removal



4 Enclosure with detached door

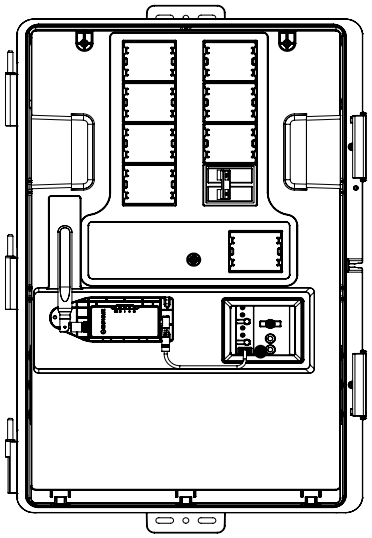


5.5 Removing the dead front

1. Unplug the USB connection to Mobile Connect (for IQ Combiner 6C) before removing the dead front. It is not necessary to disassemble the Mobile Connect from the dead front.
2. Unfasten the three fasteners holding the dead front.
   a. For convenience ensure to unfasten the centred fastener before unfastening the top left and top right ones.
3. Gently lift and angle the top section of the dead front away from the enclosure to detach it.

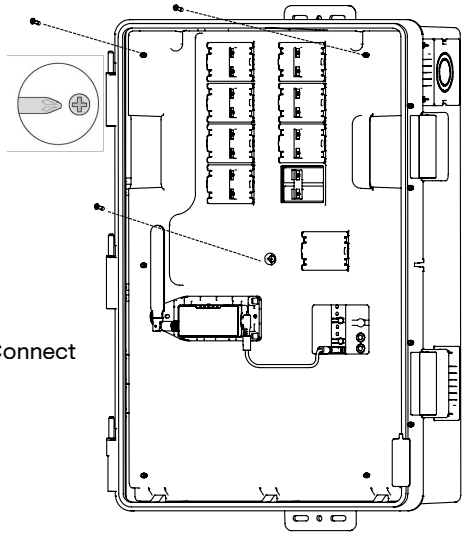
NOTE: To use each breaker position, remove the filler plate from the dead front.

1 Unplug the Mobile Connect USB

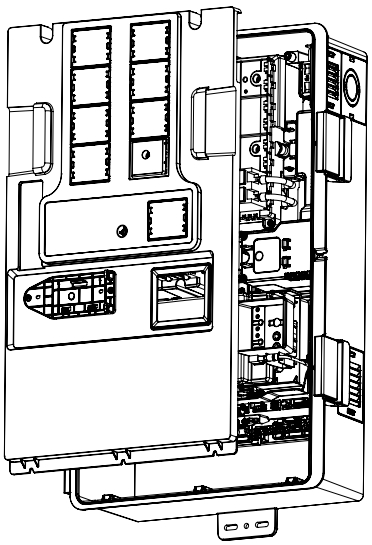


Mobile Connect USB

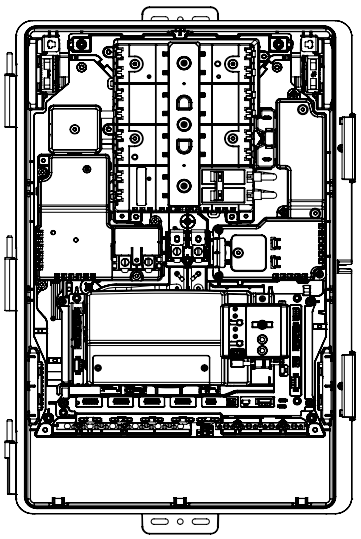
2 Unfasten the three fasteners holding the dead front



3 Gently lift and angle the top section away from the enclosure to detach it



4 Enclosure without dead front



5.6 Install on the wall

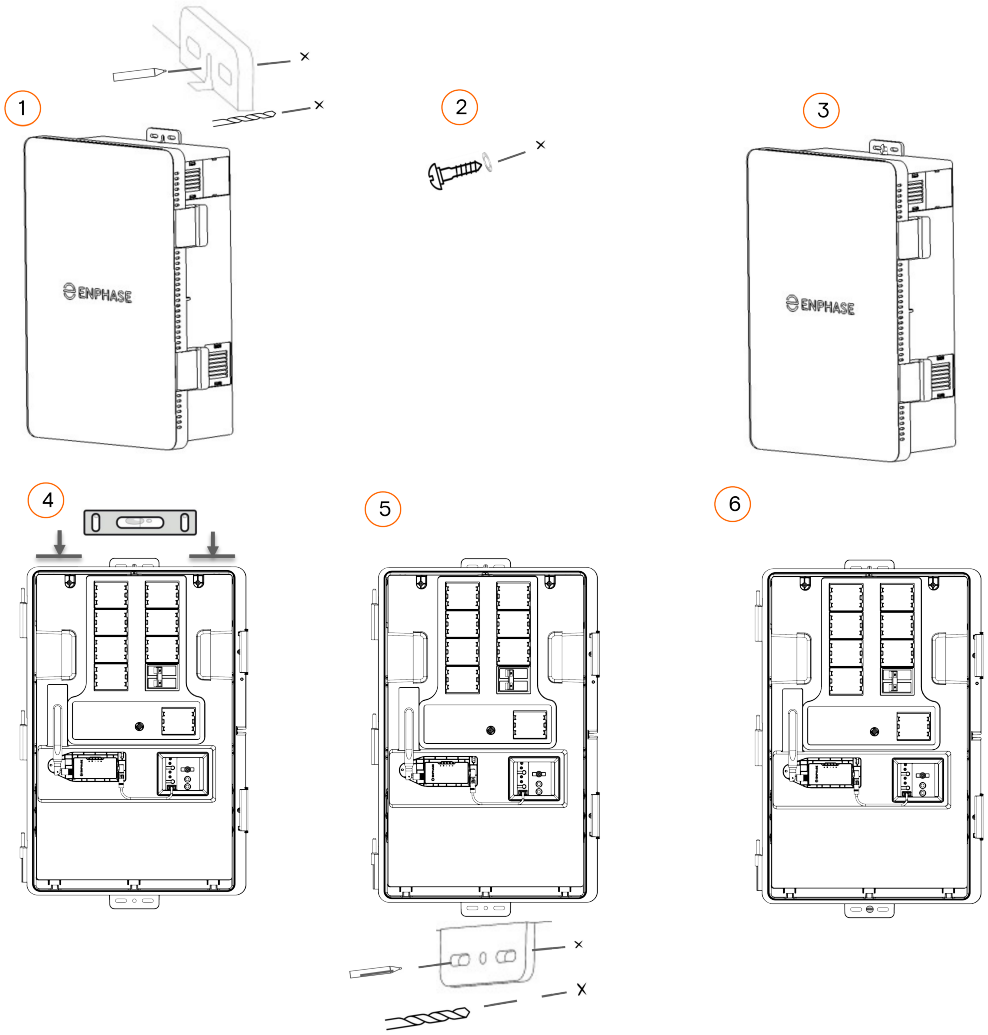
1. Position the unit on the wall so that the mounting holes in the center of the tabs align with the center of the stud.
   - Mark the top center hole for pre-drilling and set aside the unit safely.
   - Drill at the marked location.
2. Insert the screw in the drilled hole, use flange head washers between fastener heads and the wall.
   - Make sure to leave a gap between the screw head and wall for ease of mounting.
3. Hang the enclosure on the screw.
   - Remove or open the door for ease of mounting.
4. Use a drill leveling tool before marking the bottom drilling hole.
5. Mark the bottom drill location.
   - Drill at the marked location.

- Insert the screw in the bottom drilled hole, while ensuring the washer is between the unit and the screw head.

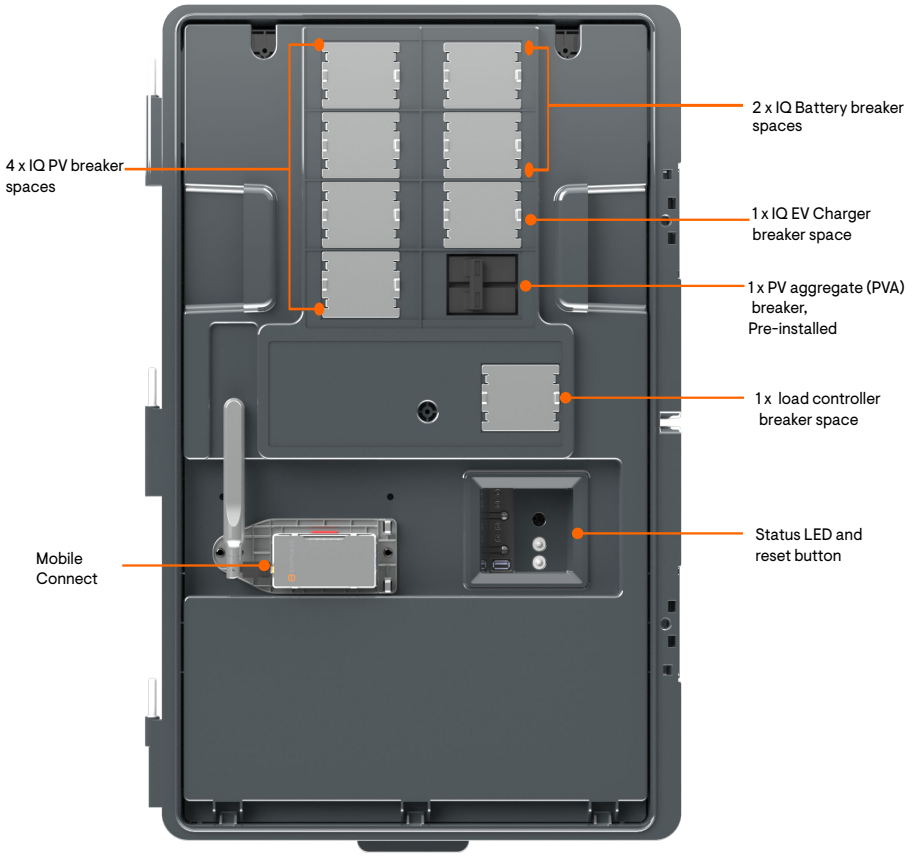
6. Once the unit is secured with both the top and bottom screws, tighten the screws to the required torque.

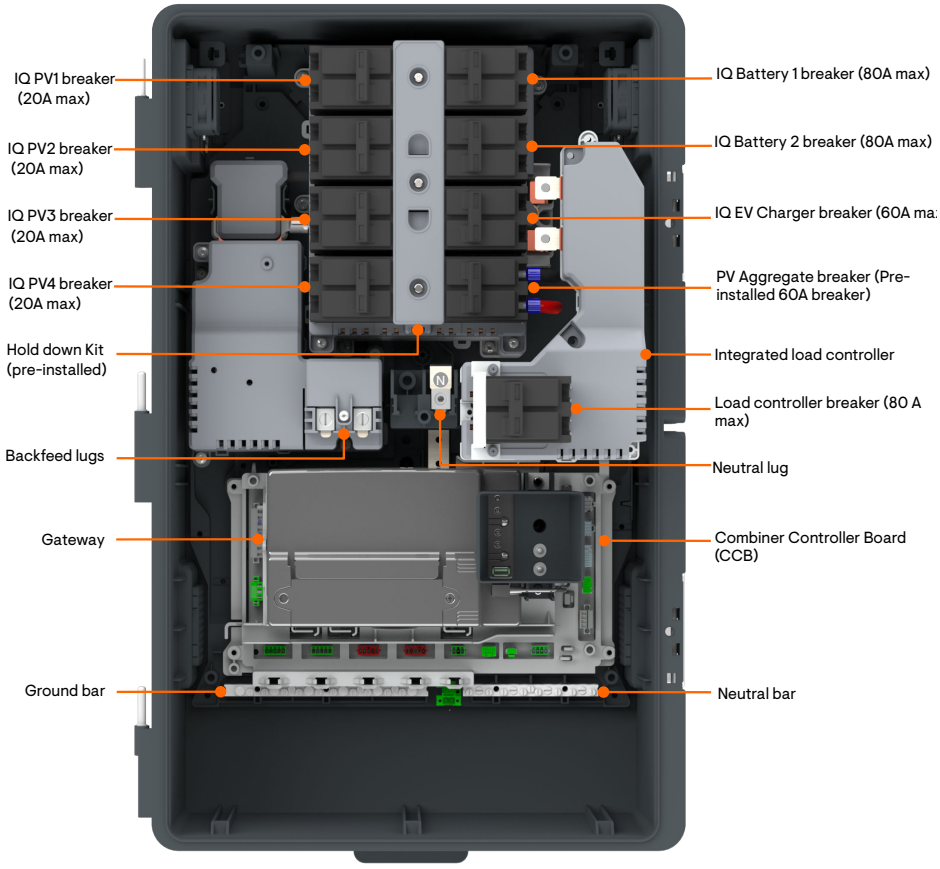
NOTE: Do not lift the unit by the door while mounting.

NOTE: Adhere to local standards for mounting.



6. IQ Combiner 6C - Internal view





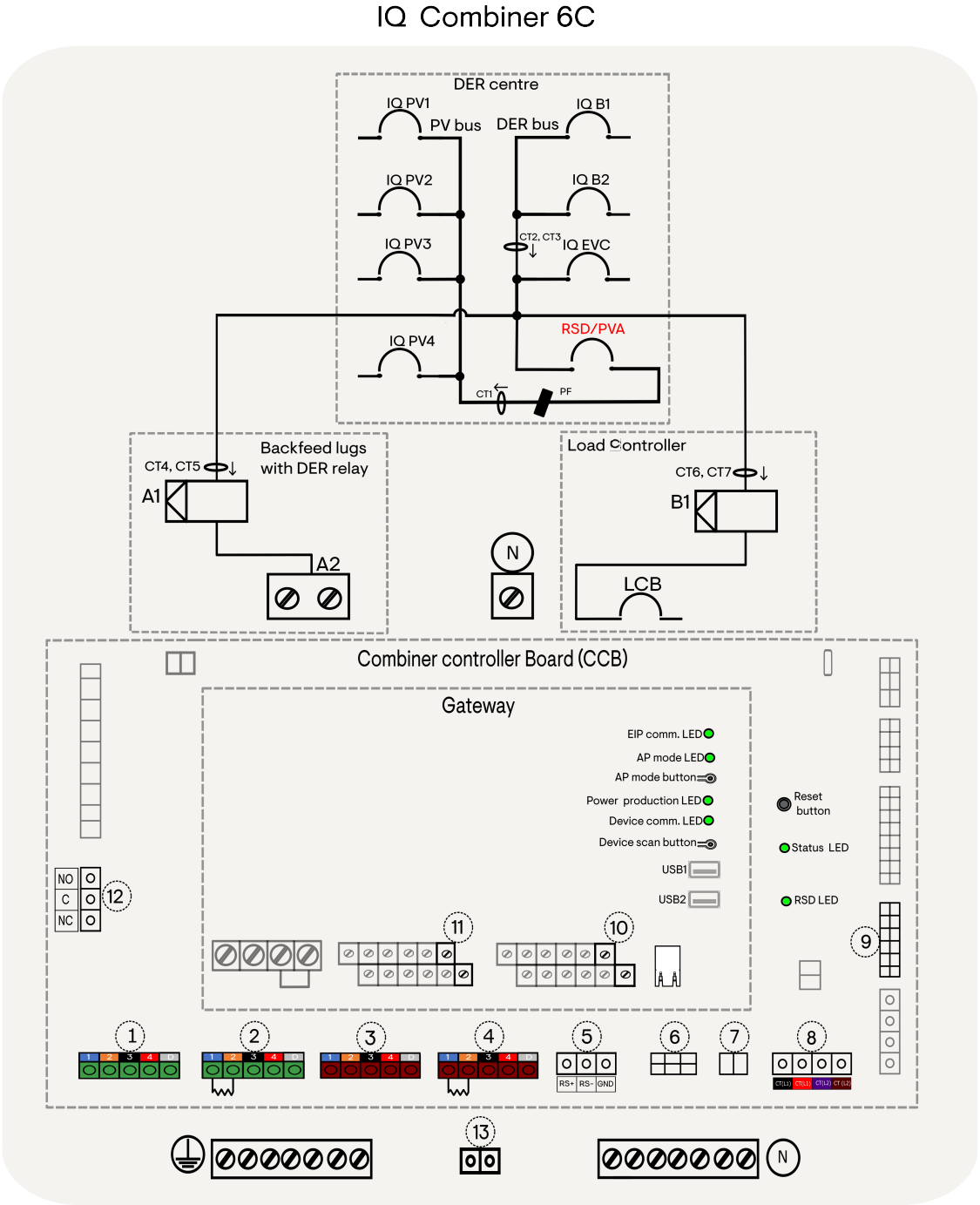
NOTE: PV aggregate breaker (60 A) works as a rapid shutdown device, pre-installed in the enclosure.

NOTE: The load controller is built into the unit.

NOTE: PV/Battery/EVSE breaker shown for demonstration purposes only, install as needed.

NOTE: IQ Combiner 6C is shipped with a 60 A PVA breaker preinstalled to support 3 × 20 A PV branch circuits. For more than 3x 20 A PV branch circuits upgrade the PVA to 100 A max breaker.

7. IQ Combiner 6C – Schematic layout



LEGENDS:

A1: DER relay
A2: Backfeed Lugs
B1: Load Control relay
B2: upto 1 x 60A for load controller addon breaker
PVA: Preinstalled 60A PV Aggregate(PVA) breaker as Rapid Shutdown Device (RSD)
PV1,PV2,PV3,PV4: upto 4 x 20A for PV breakers
IQB1,IQB2: upto 2 x 80A for IQ Battery (IQB) Breaker
IQ EVC: upto 1 x 60A for 1 x IQ EV Charger (IQEVC) Breaker
PF: PLC ferrite(PF) at PV Aggregate (L2)
USB1: Mobile connect connection
USB2: Factory wired connection to Gateway

CT1: Integrated revenue grade PV CT(L2)
CT2,CT3: Integrated revenue grade battery CTs (L1,L2)
CT4,CT5: Integrated Backfeed CTs(L1,L2)
CT6, CT7: Integrated Load Control CTs(L1,L2)
CT8: Install EVSE CT as needed, wire EVSE CT(L2) to gateway
CT9,CT10: Install consumption CTs (L1,L2) as needed , wire to Load/Consumption CT connector

NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Do not connect the drain to the IQ Meter Collar. The drain wire must be terminated on the IQ Combiner.

NOTE:

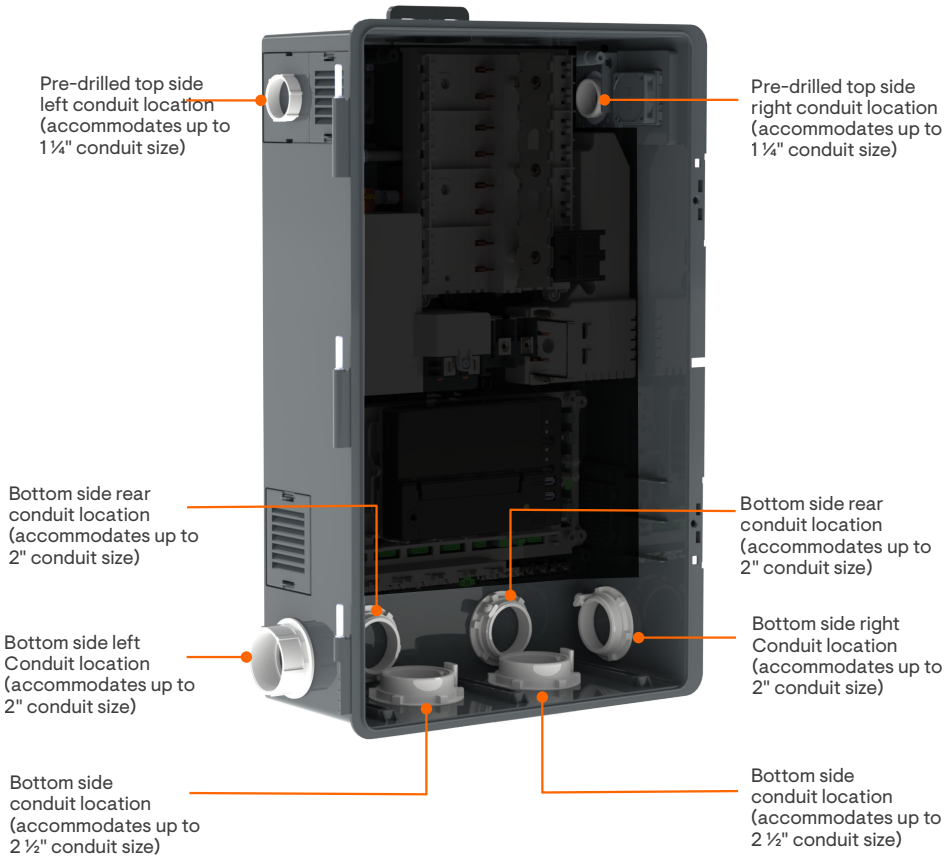
- Integrated revenue-grade PV CT (L2).
- Integrated revenue-grade battery CTs (L1-L2).
- Integrated load monitoring CTs (L1, L2) with load controller.
- One unit of CT-200-CLAMP or CT-200-SPLIT must be purchased separately and installed on the L2 line of the EV charger. Lead wires of the CT must be connected to the IQ Gateway according to the instructions in the quick install guide.

8. IQ Combiner 6C – Conduit drilling

The bottom and bottom sides of the IQ Combiner 6C are the best locations to drill holes for conduit fittings. The top left, top right, and rear conduit entry (below the electronics assembly) are also supported.

Use a snap punch or other type of center punch to prevent the drill from wandering.

Drill a pilot hole with a smaller drill before using a step drill bit.



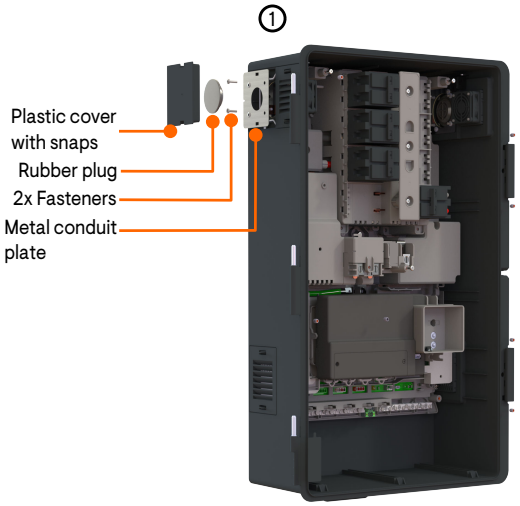
NOTE: Ensure all conduit entries are sealed to prevent water ingress.

Conduit location	Maximum conduit size
Top left, top right	¾", 1", 1¼ " (pre-drilled)
Bottom left, bottom right	Up to 2"
Rear	Up to 2"
Bottom	Up to 2½ "

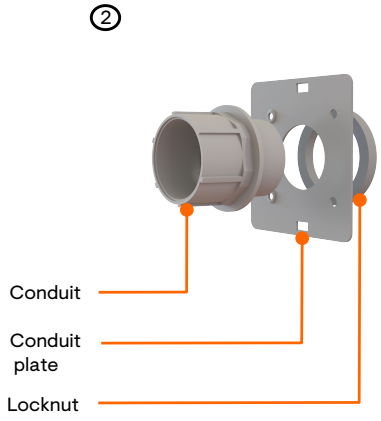
NOTE: Refer section “Top-side conduit" for more details on running conduits through the top-side location.

9. IQ Combiner 6C – Top-side conduit

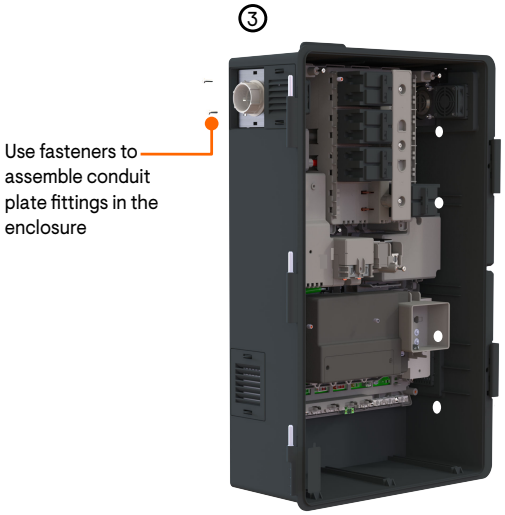
The IQ Combiner 6C has two pre-drilled conduit locations on the top side of the enclosure, covered with a plastic cover and rubber plug. The pre-installed conduit plate can be used to attach the conduit with a locknut for a complete installation. The metal conduit plate beneath the plastic cover can be replaced with conduit plates from the accessory kit. Follow the steps to use the top-side conduit for wiring.



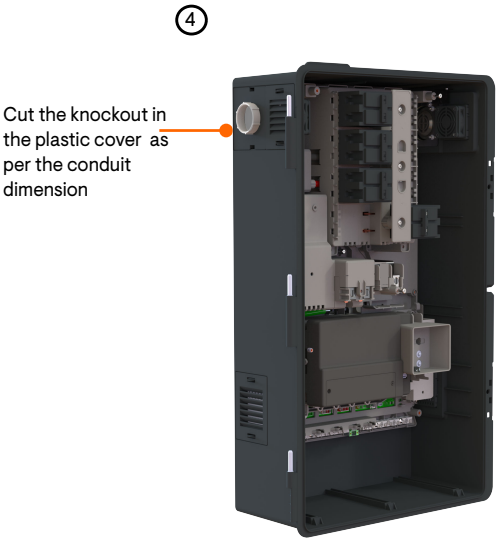
Step 1:
Detach the plastic cover secured by snaps.
Remove the rubber cap sealing the conduit holes in the plate.
Unscrew the two fasteners to take off the metal conduit plate.



Step 2:
Secure the conduit fittings with a lock nut, ensuring the conduit plate is sandwiched between them.



Step 3:
Snap the assembled metal conduit plate to the enclosure
Reinstall the assembled conduit plate fittings into the enclosure using fasteners (torque to 1Nm/8.85 lb-in.).



Step 4:
Utilize the knockout provision in the plastic cover during installation.

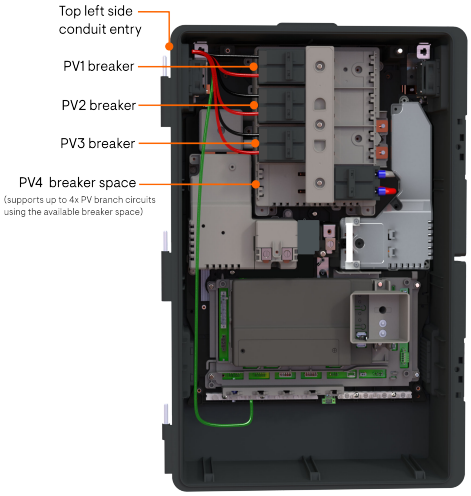
NOTE: IQ Combiner 6C is preinstalled with a 1" conduit plate on the left top conduit for PV wiring. The IQ Combiner 6C is preinstalled with a 1" conduit plate on the right top conduit for battery/EVSE wiring.

NOTE: The accessory kit provided in the packaging includes a ¾" plate and a 1 ¼" conduit plate. Use the conduit plate as required.

NOTE: Ensure to seal the conduit entries to prevent water ingress.

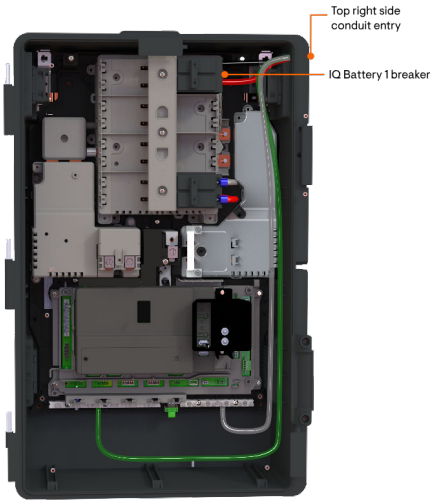
9.1 Wiring using top-side conduit

- IQ Combiner 6C is preinstalled with a 1" conduit plate on the left top conduit for PV wiring.
- The left top conduit can be used to wire up to 4 x 20 A PV branch circuits.



PV wiring

- IQ Combiner 6C is preinstalled with a 1" conduit plate on the right top conduit for battery / EVSE wiring.
- The top right conduit supports wiring for a battery breaker with a maximum of 3 AWG for L1, L2, and N with 4 AWG for Ground.



Battery wiring

NOTE: If using more than 3 PV branch circuits replace the PVA breaker with 100 A breaker.

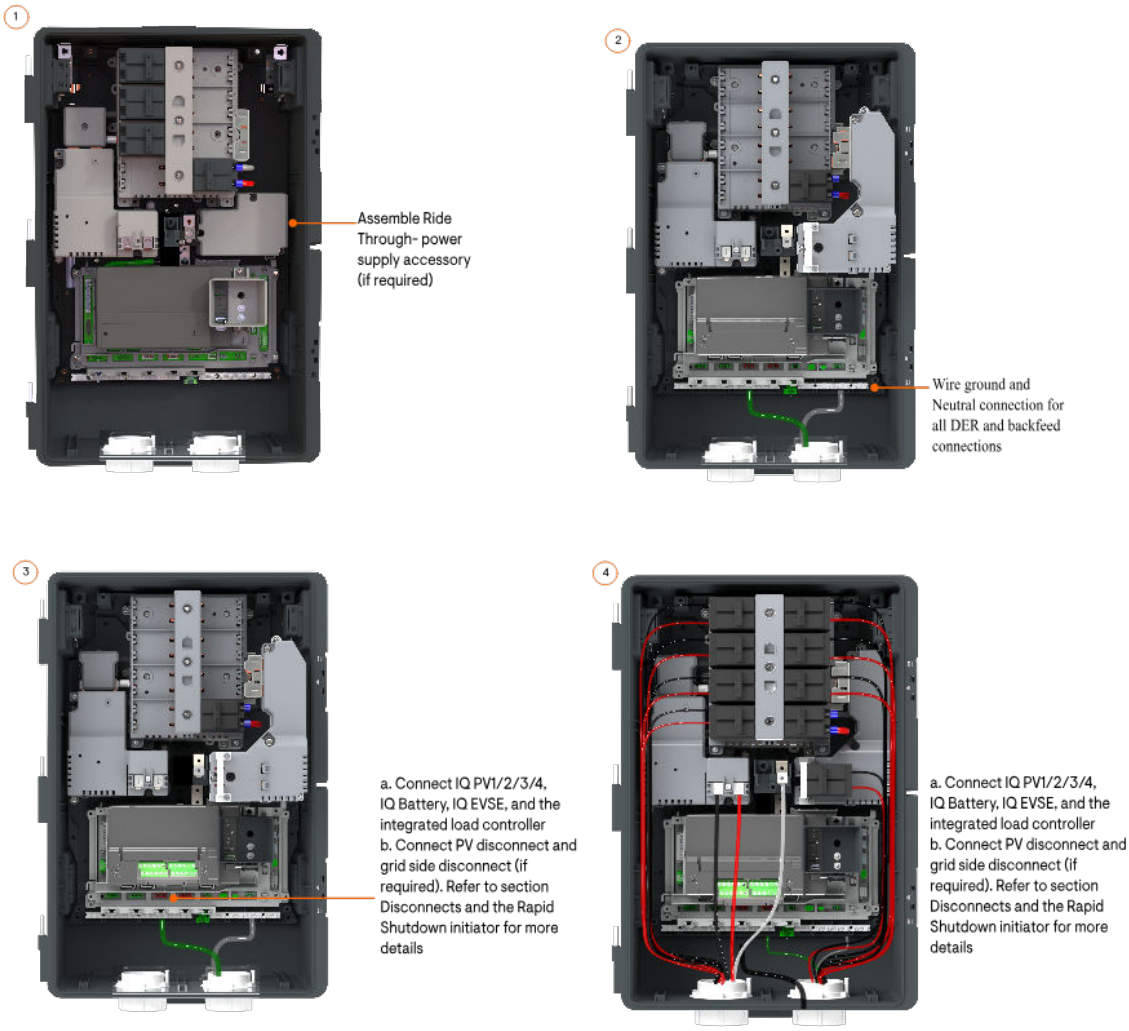
NOTE: Use top conduit considering local codes for wire bend radius.

10. Wiring sequence

To ensure a smooth installation of the IQ Combiner 6C, follow the wiring sequence carefully so that no wiring overlaps and access to connectors, lugs, and terminals is maintained.

1. Power supply accessory: Check if the system requires a power supply accessory. If the battery is not present and IEEE 2030.1 is applicable, assemble and wire the power supply accessory first. For more details, refer to the section on the power supply board with capacitors.
2. Ground and neutral wiring: Wire the ground and neutral connectors for all DER and backfeed connections.
3. CCB and Gateway Connections:
   - Connect all control wiring connectors on the CCB.
   - Connect the EVSE CT (if required).
4. General Wiring:
   - Connect IQ PV1/2/3/4, IQ Battery, IQ EVSE, and the integrated load controller.

- Connect PV disconnect and grid side disconnect (if required). Refer to section Disconnects and the Rapid Shutdown initiator for more details.



Note:
Make sure to adhere to the wiring sequence for a smoother installation process.
Refer to the relevant section in the quick install guide (QIG) for each step and substep.

11. Power supply board with capacitors

A Ride Through Power supply board (RT-PSB) with capacitors is required in solar-only systems if the utility mandates the IEEE 2030.5 connection to be powered during low-voltage ride-through. Some jurisdictions require compliance with IEEE 2030.5 for grid ride-through cases, particularly for solar-only systems. This standard ensures that Distributed Energy Resources (DER), such as solar panels, can effectively communicate with the grid to maintain stability and reliability.

For solar systems without batteries, a separate accessory is needed to support grid-tied configurations that comply with IEEE 2030.5. The power supply board with capacitors (SKU: X-IQ-NA-PSBECAP-R6) is an optional accessory that helps manage the interaction between the solar system and the grid, ensuring compliance with local regulations and standards. It is not mandatory and can be ordered separately if needed.

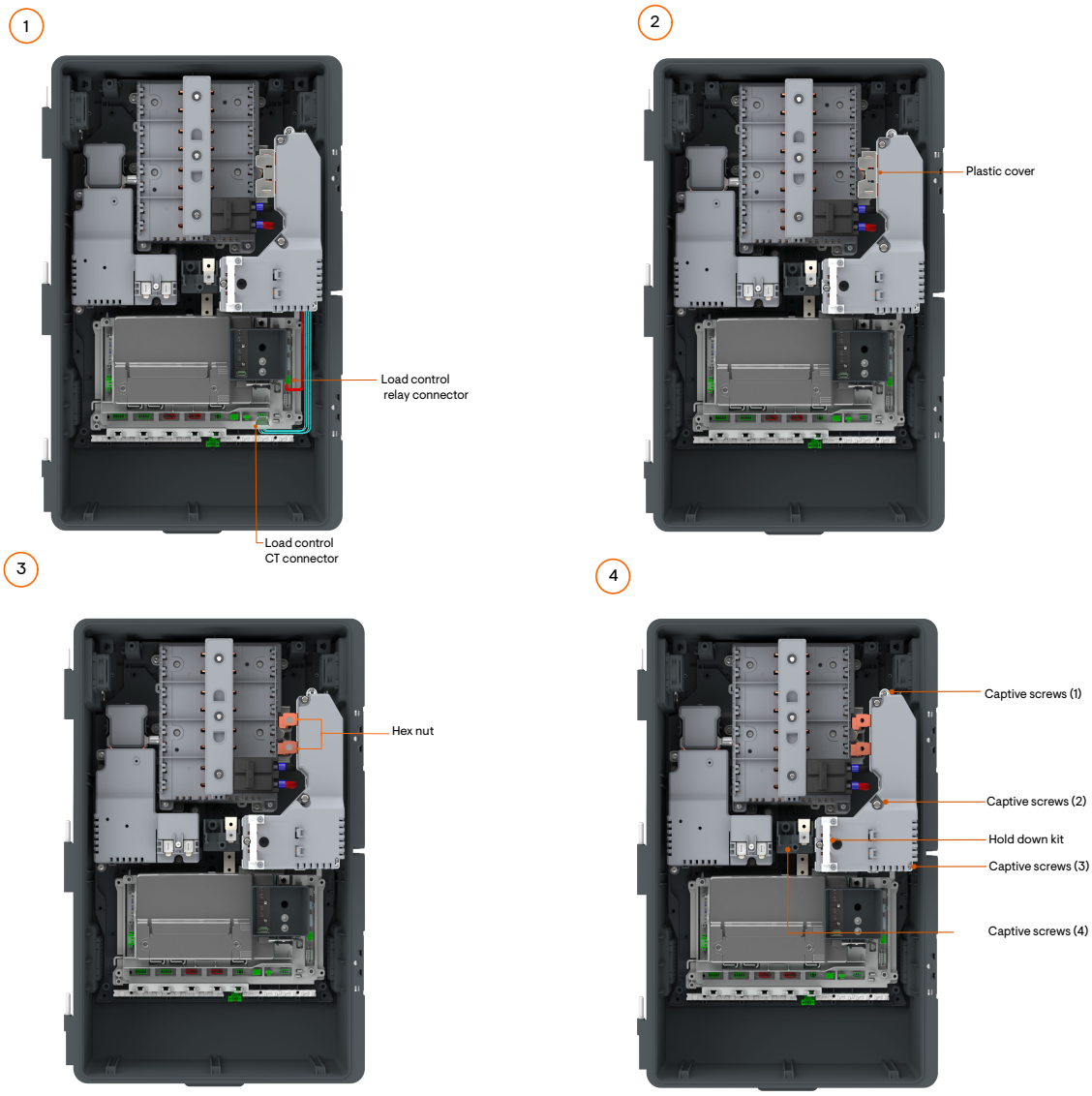
11.1 Integrated load controller: Disassembly

- The assembly of the power supply board with capacitors accessory requires disassembly and removal of the integrated load controller with connectors.
- Ensure the system is completely powered off to avoid any electrical hazards.

- Ensure to disconnect any wires connected to the load controller breaker, if the load controller is already in use.
- Ensure to disconnect the load relay and CT connectors.
- Ensure the space is clear and ready for the installation of the Ride-through Power Supply accessory.

Follow the steps to disassemble the load controller.

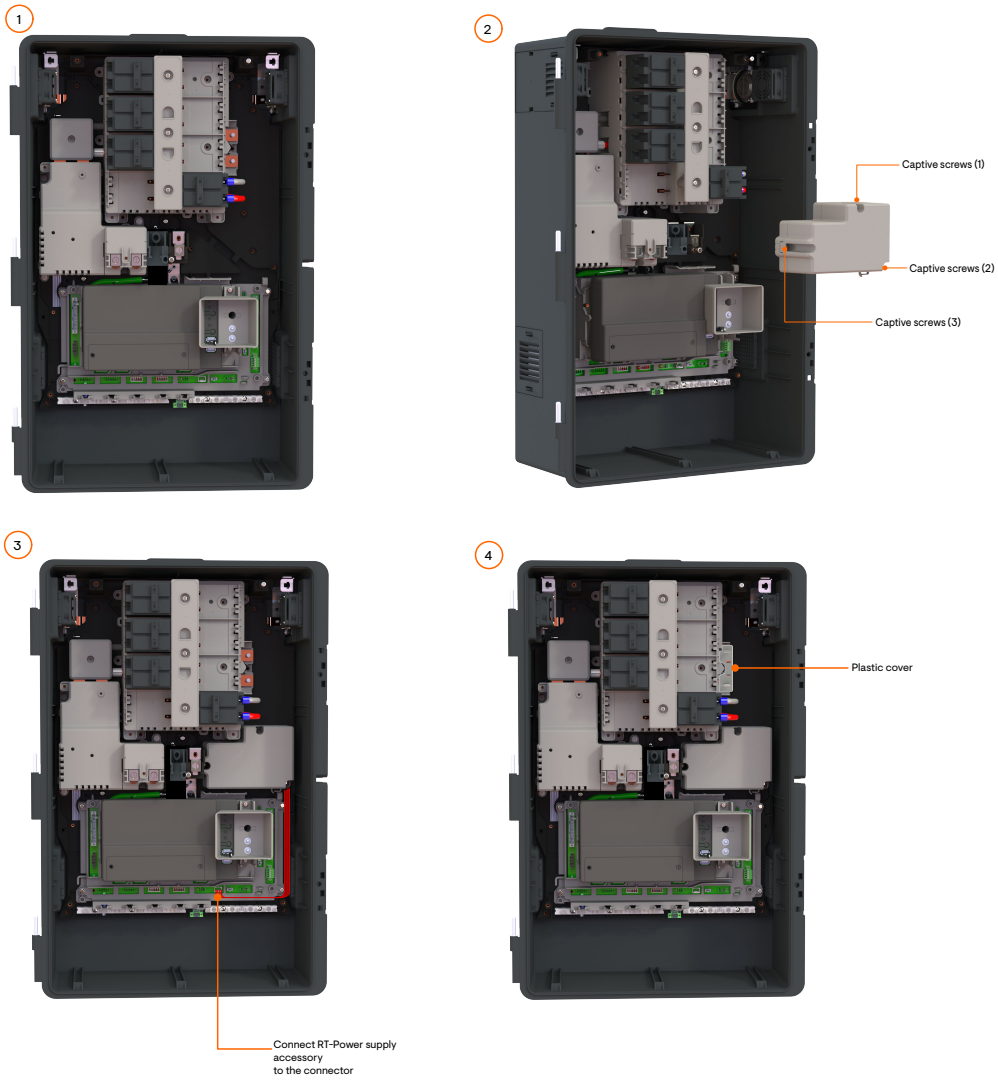
1. Unplug the load controller relay connector and load controller CT connector.
2. Remove the plastic cover that is snapped onto the enclosure to access the terminals connecting the integrated load controller to the DER bus.
3. Unfasten the 2x hex nut(7/16") using a hex socket driver.
4. Remove the hold-down kit to access the captive screw beneath it thereafter unfasten the 4x captive screws.



11.2 Power supply board with capacitors: Assembly

Mounting: The RT-PSB accessory includes captive screws, which are used to install the ride-through power supply to the base enclosure. Use a Phillips screw head driver for torquing.

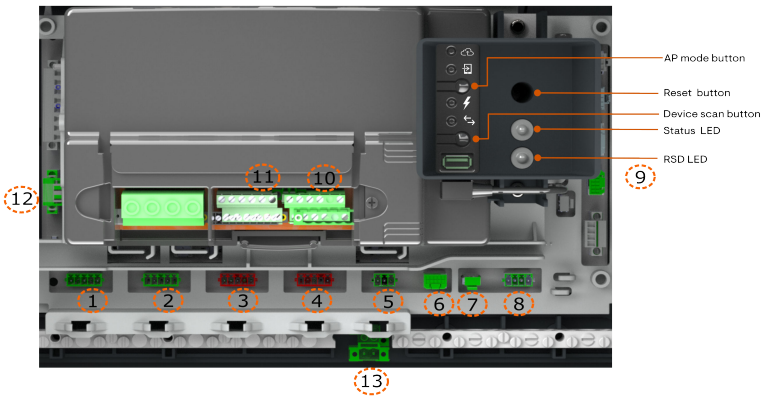
1. Ensure the load controller is disassembled from the enclosure.
2. Use 3x captive screws in the RT-PSB accessory to mount it in the enclosure. (Torque to 1 N m/8.85 lb-in).
3. Connect the RT-power supply accessory on the marked connector.
4. Ensure to install back the plastic cover disassembled with Load controller add-on.



NOTE: The power supply accessory can only be installed if the integrated load controller is not mounted.

12. Gateway and combiner controller board connections

Connector	Connections	Wire sizes
1	IQ Battery control (CTRL) header 1	Cu: 18 AWG
2	IQ Battery CTRL header 2	Cu: 18 AWG
3	IQ Meter Collar control (CTRL) header 3	Cu: 18 AWG
4	Spare control (CTRL) header 4 (not to be used)	—
5	RS485	Cu: 28-16 AWG
6	Supplemental RT power supply (for accessory)	—
7	Rope CT header (for accessory)	—
8	Load/Consumption CT connector (for accessory)	—
9	Load relay connector (for accessory)	—
10	NO dry contact relay (240 VAC, 3 A)	Cu: 28-14 AWG
11	EVSE CT	Cu: 28-16 AWG
12	NO/NC dry contact relay (120 VAC, 3 A)	Cu: 28-16 AWG
13	AC Sense (240 VAC, < 1 A) - To connect outdoor location Rapid Shutdown initiator	Cu: 16-12 AWG



NOTE: All non-marked connections are factory connections used for internal wiring.

12.1 Control wiring

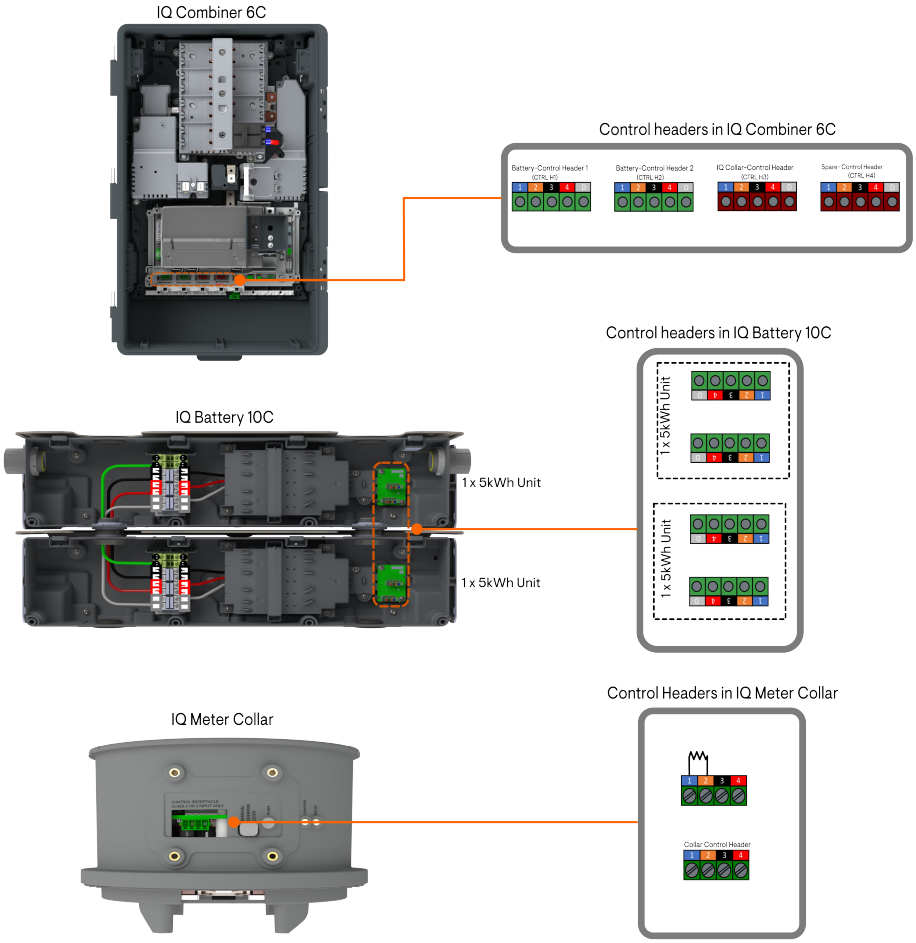
- The IQ Combiner 6C, along with the IQ Battery and IQ Meter Collar, requires control connections between the devices to operate correctly. This is done using the Enphase Control Cable (SKU: CTRL-SC3-NA-01).
- The control cable must comply with UL 3003, UL 1277, and UL 83 standards. The Enphase Control Cable has optimal impedance and has been validated for optimal system performance. Third-party cables may not have the correct characteristic impedance, and consequently, may not work reliably. Enphase cannot guarantee performance when a third-party control cable is used.
- The same conduits can be used for power and control wire routing only when using an Enphase Control Cable.
- All five pins (CTRL H, CTRL L, GND, 24V, Drain) can be terminated in a control header connector on each system component, the drain wire should only be terminated on one end of the control wiring between system components
- The Combiner 6C features two color-coded control wire headers (red and green) labeled H1, H2, H3, and H4.
- In the IQ Combiner 6C, the green headers labeled as control headers H1 and H2 are specifically designated for Battery control connections.
- In Combiner 6C, the red headers labeled as control header H3 are specifically designated for IQ Meter Collar control connections.
- The other red headers labeled as control header H4 are for future Enphase accessories. The control header H4 is shipped with a preinstalled termination resistor.

NOTE: Do not remove the preinstalled termination resistor from control header H4.

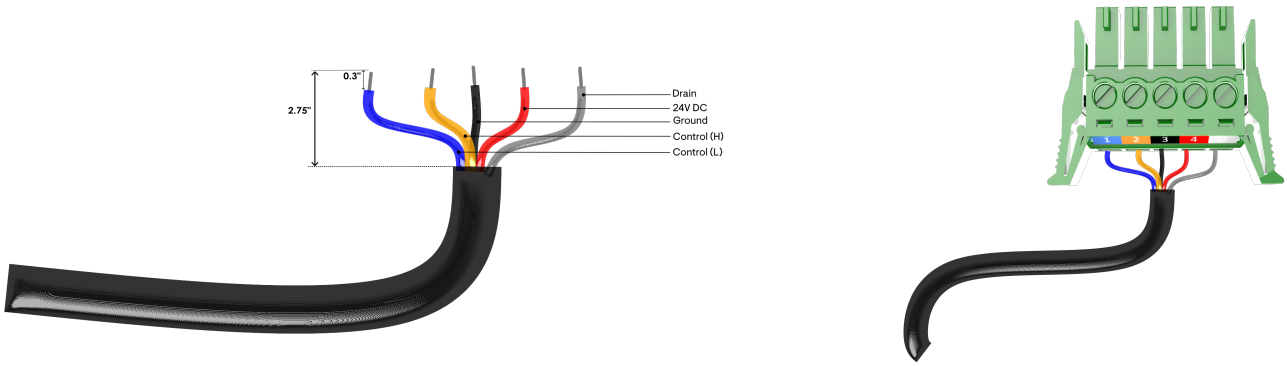
- Battery control headers (H1 and H2) must each be terminated with a resistor at both ends. These terminations can be located either within the IQ Battery headers or the IQ Combiner.

NOTE: IQ Combiner 6C is shipped with preinstalled termination resistors on one of the green headers. Remove the termination resistor as required.

- Refer to the connector connections label available on the product for easy reference.
- The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications..
- Make sure the drain wires do not come in contact with any live connection.

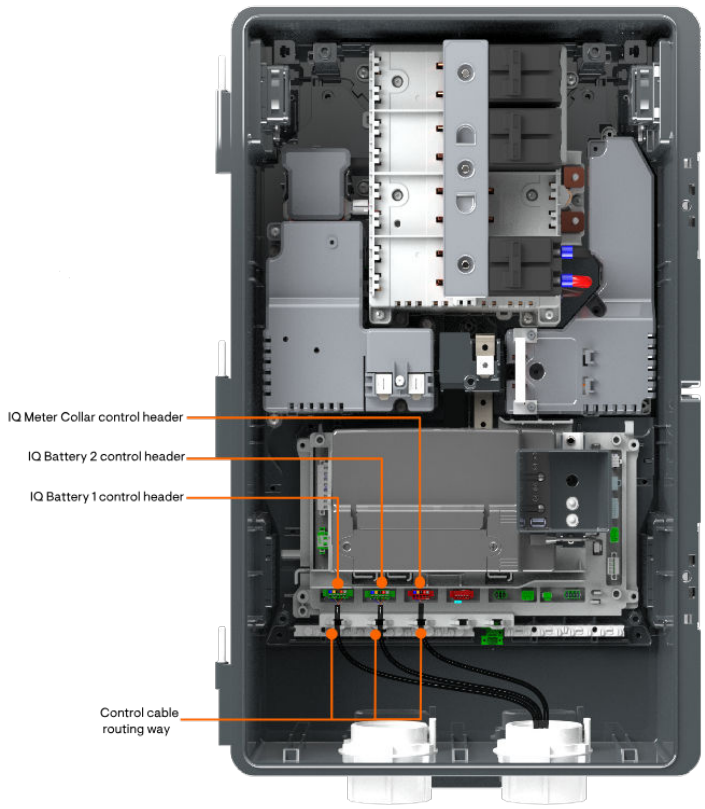


1. Identify the control headers in the system components i.e. IQ Meter Collar, IQ Combiner, IQ Battery.



2. Strip the control wires as per the specifications. Connect (CTRL L, CTRL H, 24 V) on the header marked 1,2,3,4. Connect the drain wire to the terminals marked D for IQ Combiner 6C and IQ Battery.

Control cable wiring and routing in IQ Combiner 6C



3. Use the wire clamp feature provided to route the control cable in IQ Combiner 6C.

NOTE: The IQ Meter Collar features a 4-pin control wiring header. Do not connect the drain wire to the IQ Meter Collar. The drain wire from the IQ Meter Collar's control cable must be terminated only in the IQ Combiner 6C.

NOTE: The control header within the IQ Meter Collar does not require a separate termination resistor as it has a built-in resistor on its control port.

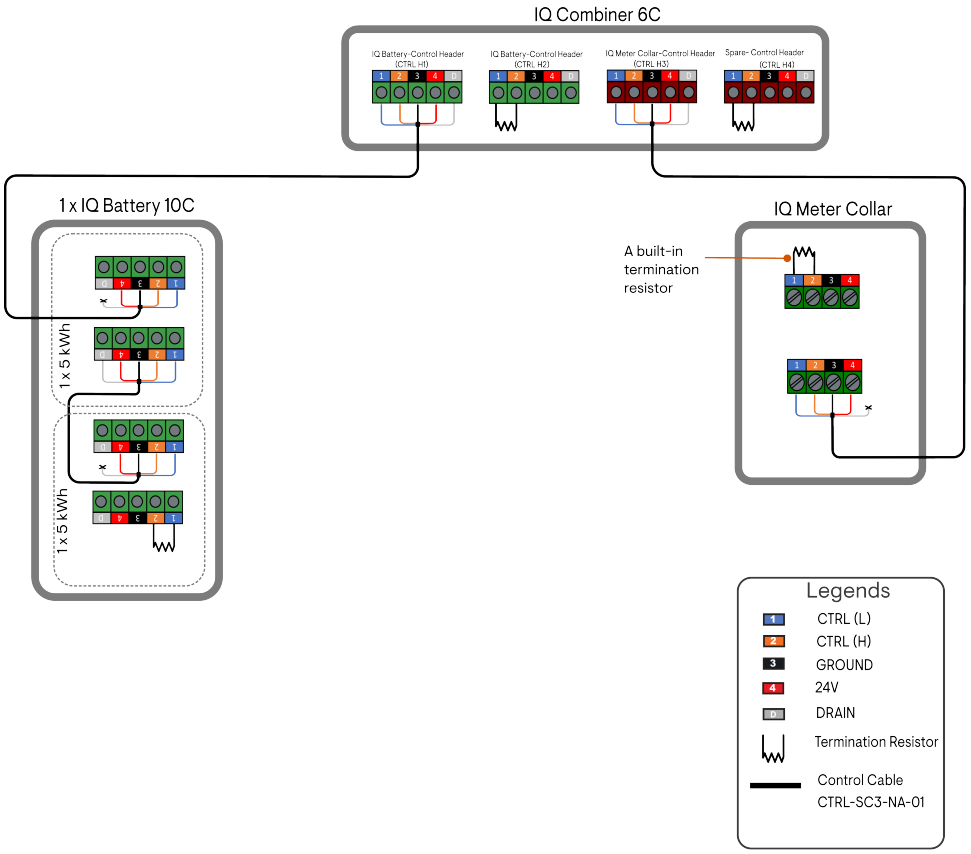
12.1.1 Sequence 1: Control wiring between one IQ Battery 10C, IQ Combiner 6C, and IQ Meter Collar

IQ Meter Collar → IQ Combiner 6C → 1 unit of IQ Battery 10C connected to IQ Battery Header 1

NOTE: Make sure to terminate the IQ Battery Control Header 2 in this sequence.

Control wiring between system components

System components
- 1 unit of IQ Battery
- IQ Combiner 6C
- IQ Meter Collar



Note: Do not terminate drain wire on both ends of system components.

NOTE: The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications.

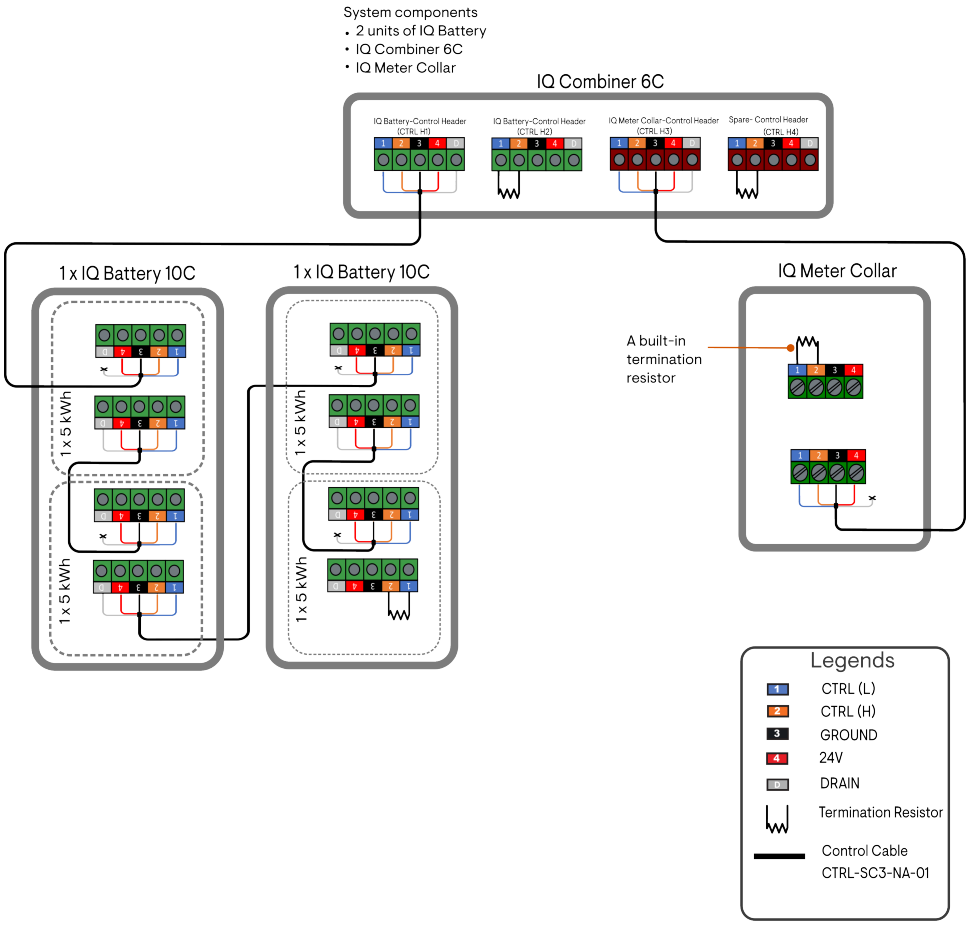
NOTE: The drain wire should only be terminated on one end of the control wiring between system components.

12.1.2 Sequence 2: Control wiring between two IQ Battery 10C, IQ Combiner 6C, and IQ Meter Collar

IQ Meter Collar → IQ Combiner 6C → 2 units of IQ Battery 10C connected to IQ Battery Header 1

NOTE: Make sure to terminate the IQ Battery Control Header 2 in this sequence.

Control wiring between system components



Note: Do not terminate drain wire on both ends of system components.

NOTE: The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications

NOTE: The drain wire should only be terminated on one end of the control wiring between system components.

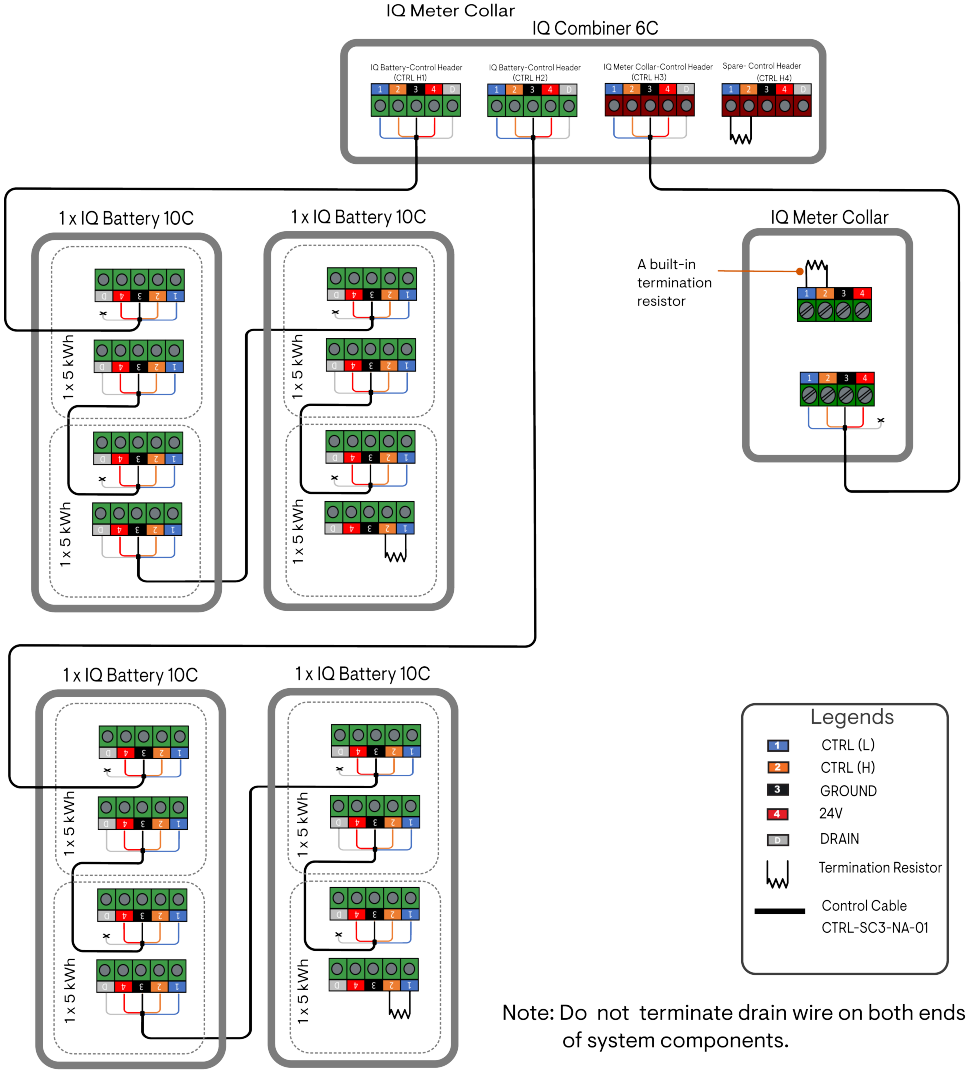
12.1.3 Sequence 3: Control wiring between four IQ Battery 10C, IQ Combiner 6C, and IQ Meter Collar

IQ Meter Collar → IQ Combiner 6C → 2 units of IQ Battery 10C connected to IQ Battery Header 1

IQ Meter Collar → IQ Combiner 6C → 2 units of IQ Battery 10C connected to IQ Battery Header 2

Control wiring between system components

System components
- 4 units of IQ Battery
- IQ Combiner 6C
  IQ Meter Collar



Note: Do not terminate drain wire on both ends of system components.

NOTE: The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications

NOTE: The drain wire should only be terminated on one end of the control wiring between system components.

12.1.4 Sequence 4: Control wiring between four IQ Battery 10C, IQ Combiner 6C without the IQ Meter Collar

IQ Meter Collar → IQ Combiner 6C → 2 units of IQ Battery 10C connected to IQ Battery Header 1 (No IQ Meter Collar in the system)

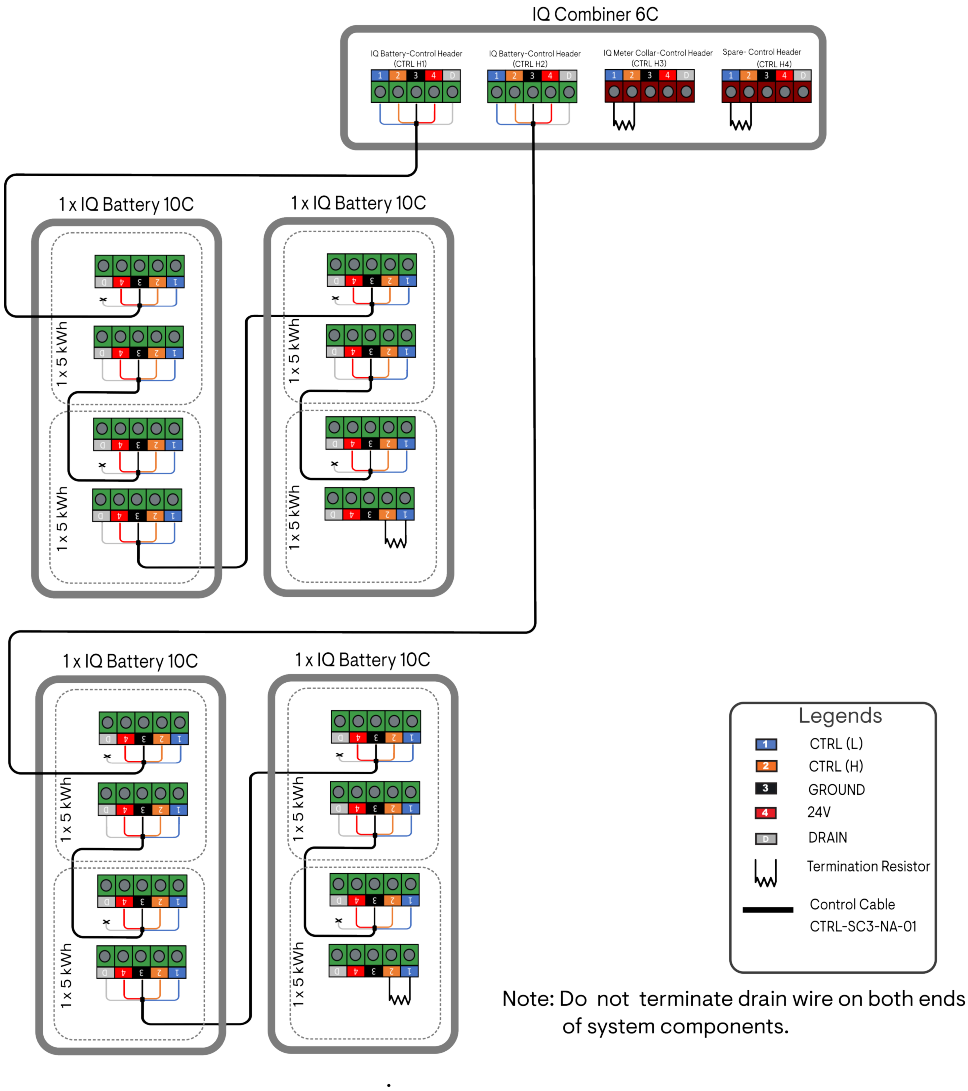
IQ Meter Collar → IQ Combiner 6C → 2 units of IQ Battery 10C connected to IQ Battery Header 2 (No IQ Meter Collar in the system)

NOTE: Make sure to terminate the IQ Meter Control Header in this sequence.

NOTE: The sequence can be adjusted to accommodate more than four or fewer than four units of IQ Battery.

Control wiring between system components

System components
- 4 units of IQ Battery
- IQ Combiner 6C



Note: Do not terminate drain wire on both ends of system components.

NOTE: The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications

NOTE: The drain wire should only be terminated on one end of the control wiring between system components.

12.1.5 Sequence 5: Control wiring between four IQ Battery using one header in IQ Combiner 6C

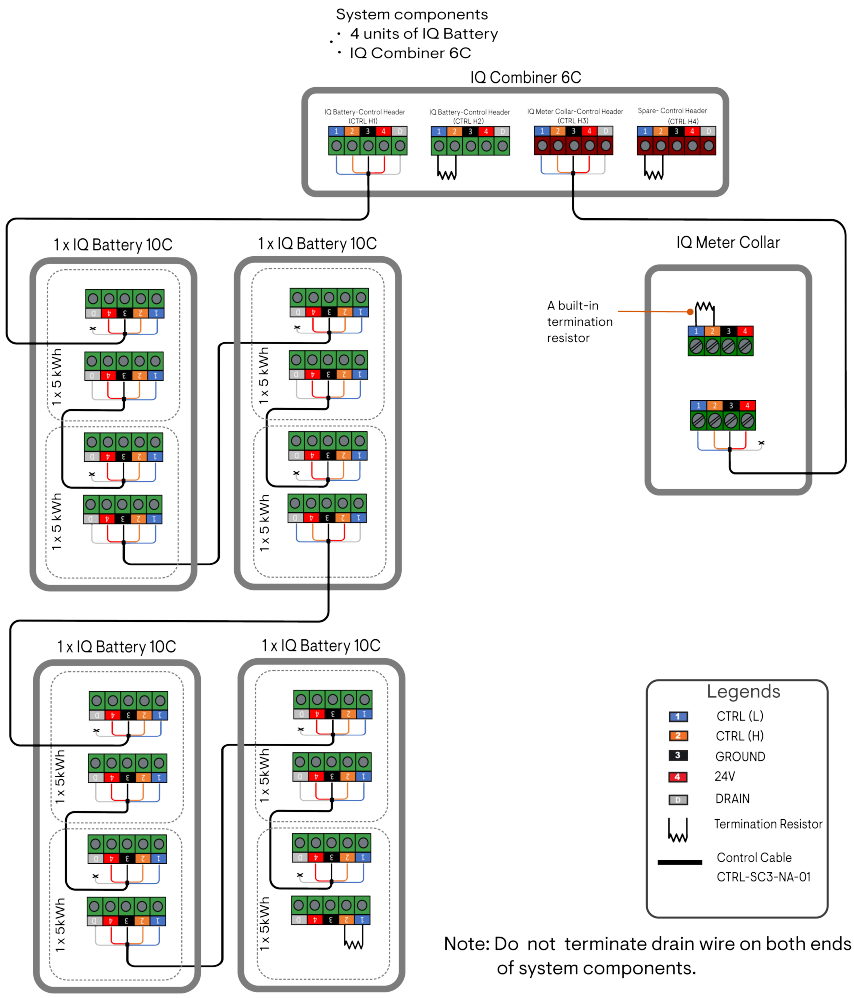
IQ Meter Collar → IQ Combiner 6C → 4 units of IQ Battery 10C connected to IQ Battery Header 1

NOTE: The sequence can be adjusted to accommodate more than four or fewer than four units of IQ Battery.

NOTE: The sequence can be used without IQ Meter Collar as well. Make sure to terminate the IQ Meter Collar control header, if the IQ Meter Collar is not included in the system.

NOTE: The sequence can be used with IQ Meter Collar as well.

Control wiring between system components



NOTE: The control wiring length from the IQ Combiner 6C to the IQ Battery or the IQ Meter Collar must not exceed 250 feet in either case to ensure the system operates according to specifications

NOTE: The drain wire should only be terminated on one end of the control wiring between system components.

12.2 Consumption CT wiring

Full home monitoring can be achieved using either consumption CTs (L1, L2) or an IQ Meter Collar. However, certain configurations may require the installation of both the IQ Meter Collar and Consumption CTs to support comprehensive monitoring.System configurations requiring the installation of Consumption CTs

Wire Consumption CTs- Methods	Applicable Grid-tied configurations	Applicable grid forming configurations
Method 1: Replace load controller CTs header with Consumption CTs	• Grid-tied system - Solar only • Grid-tied - Solar + Battery (without IQ Meter Collar) • Grid-tied - Battery only (without IQ Meter Collar)	• Grid forming - partial home backup
Method 2: Parallel Consumption CTs with load controller CTs on the same header	• Grid-tied - Solar + Battery, supports legacy microinverters/third-party PV (without IQ Meter Collar)	• Grid forming - partial home backup (supports legacy microinverters/third-party PV)

12.2.1 Wire Consumption CTs- Method 1 (Replace Load Controller CTs header with Consumption CTs)

- Consumption CTs are installed on the service entrance when a site is required to monitor the net import/export to the grid.
- This is mandatory on sites where power export limiting (PEL) restrictions must be met.

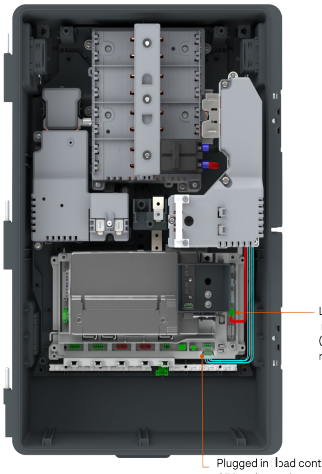
- Make sure the main panel remains de-energized until the CT wires are securely connected.
- Clamp the CTs on the main panel feed wire L1 & L2. The direction of CTs must be away from the grid towards the main load center.
- Remove the load controller CT header connection from connector 8.
- Wire the leads of the CTs to connector LC/Consumption CT to position 8.

NOTE: The load controller is unable to monitor the loads connected after the installation of the Consumption CT

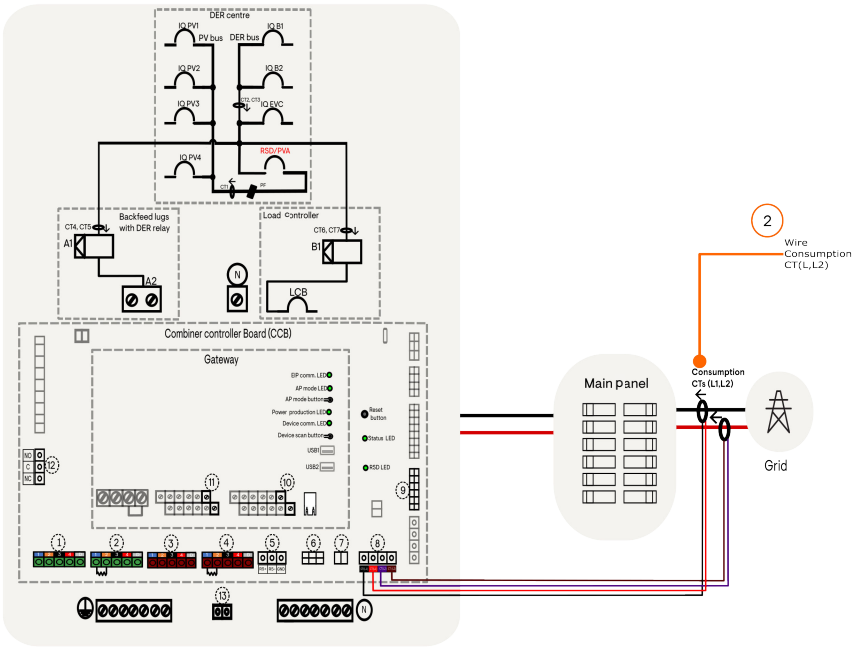
Follow the steps to connect Consumption CTs in parallel to load controller CTs.

1 Remove the load controller CT header from connector 8.

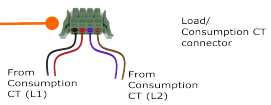
Note: Do not remove the load controller relay connector.



IQ Combiner 6C



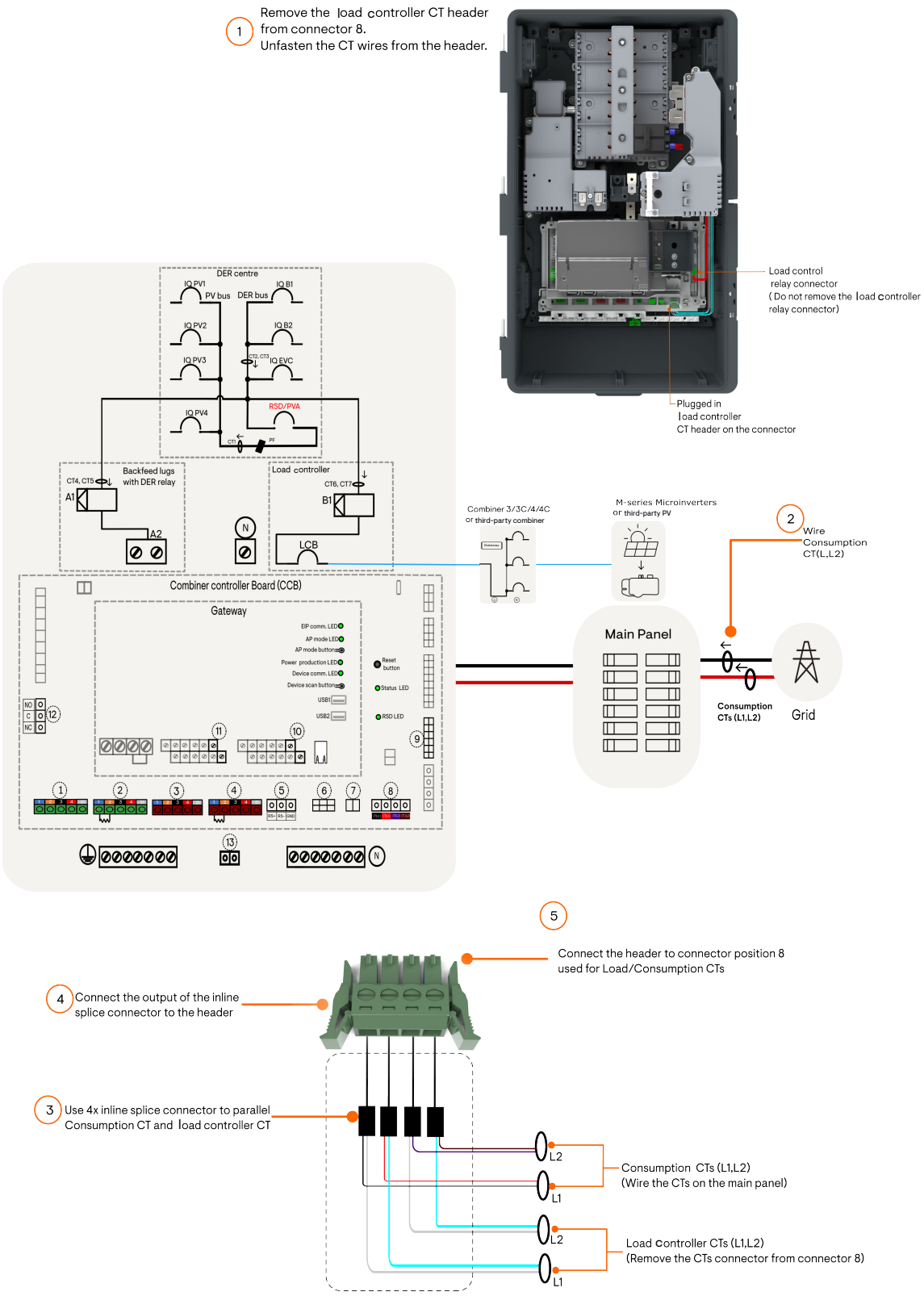
3 Connect the Consumption CT header to connector position 8 used for Load/Consumption CTs



12.2.2 Wire Consumption CTs-Method 2 (Parallel Consumption CTs with load controller CTs on the same header)

- Consumption CTs are installed on the service entrance when a site is required to monitor the net import/export to the grid.
- This is mandatory on sites where power export limiting (PEL) restrictions must be met.
- Make sure the main panel remains de-energized until the CT wires are securely connected.
- Clamp the CTs on the main panel feed wire L1 & L2. The direction of CTs must be away from the grid towards the main load center.
- Remove the load controller CT header connection from connector 8.
- Unfasten the load controller CT wires from the header.
- Wire Consumption CTs (L1, L2) on the main panel.
- Use an inline splice connector to parallel Consumption CTs and load controller CTs.
- Wire the output leads from the inline splice connector of the CTs to connector LC/Consumption CT at position 8.

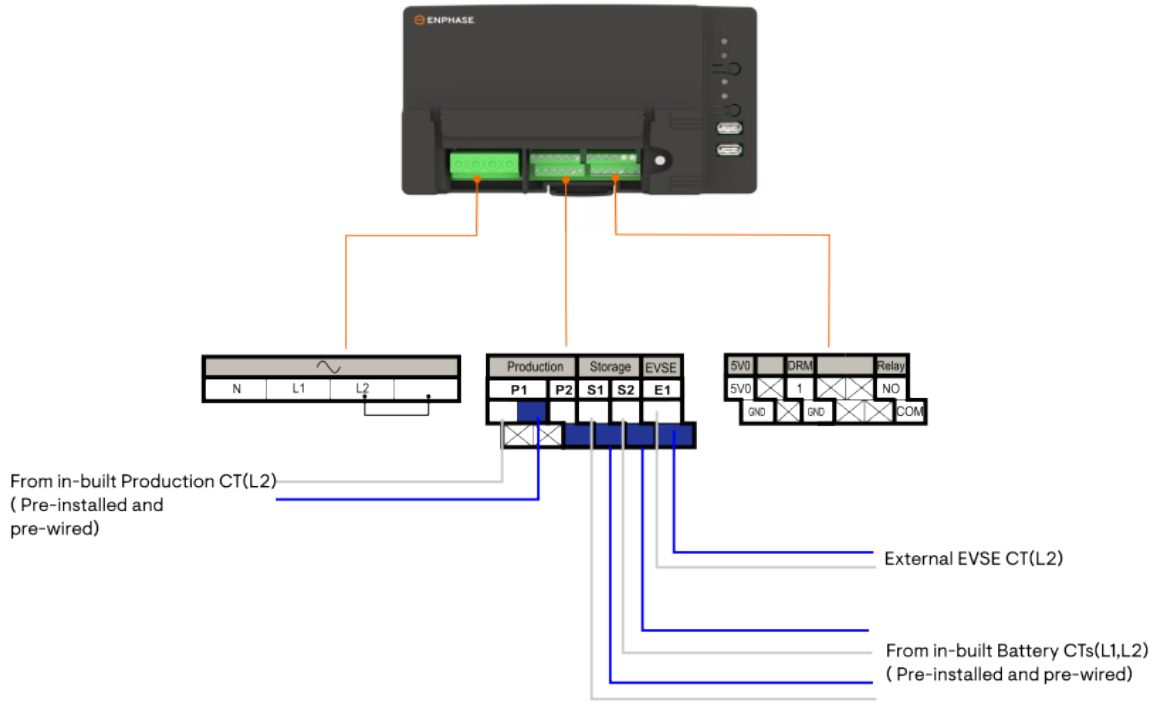
Follow the steps to connect Consumption CTs in parallel to load controller CTs.



12.3 IQ Gateway connections

P1	Do not use (used internally for PV Production CT)
P2	Do not use
S1	Do not use (used internally for battery CT)
S2	Do not use (used internally for battery CT)
S3	IQ EV Charger CT connection

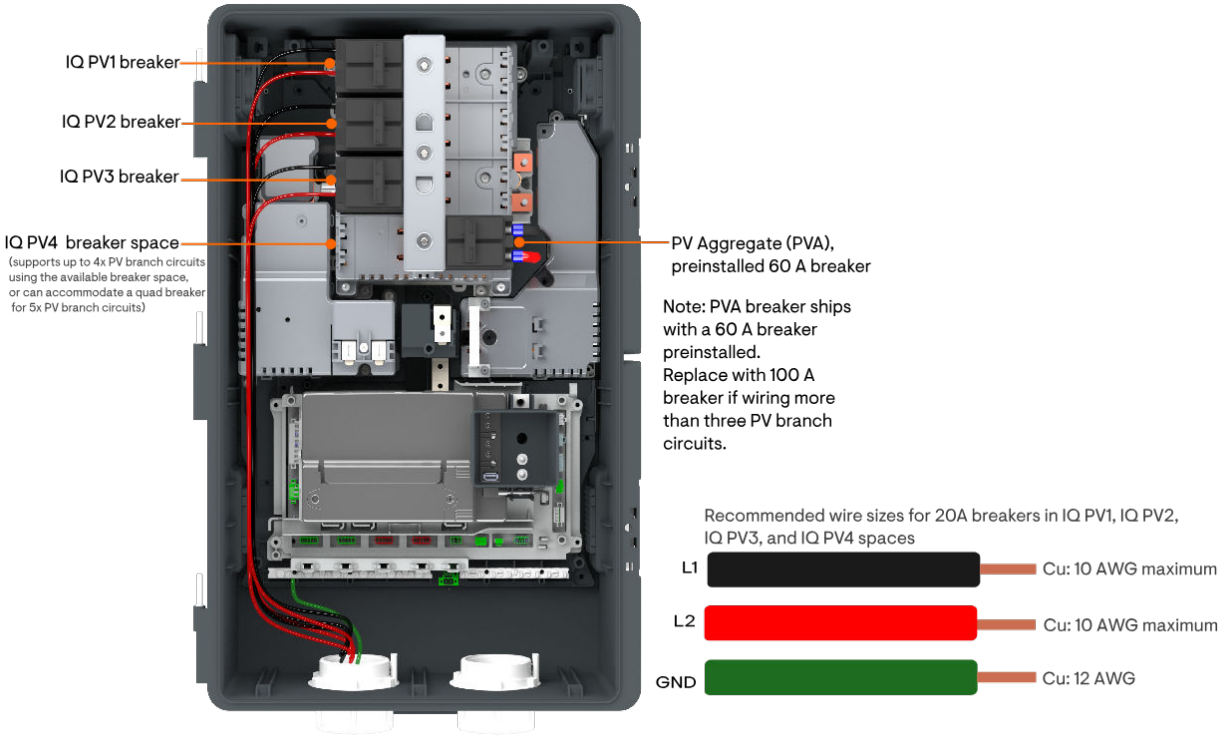
DRM	Digital I/O for demand response functionality
Relay	NO (240 V,3 A)
5V0	For internal use only



13. Wiring

13.1 IQ PV wiring

- IQ Combiner 6C supports a maximum continuous current of 64 A (at ambient temperatures ranging from -40°C to 46°C or -40°F to 115°F) or 80 A (at ambient temperatures ranging from -40°C to 38°C or -40°F to 100°F) as the combined output of PV.
- IQ Combiner supports five 20 A PV branches using three double-pole breakers and one quadplex breaker at PV4 space.
- Use copper conductors that are appropriately sized to meet local code requirements and voltage drop/rise considerations.
- PV breakers must be installed on the designated PV breaker spaces in the IQ Combiner.
- PV busbar includes integrated production CT, no external wiring or passing of conductors through CT is required.
- Connect L1 and L2 (usually one black and one red) from each AC branch circuit to the circuit breaker(s). Observe the L1 and L2 polarity marking at each breaker position.
- Connect the ground (green or green/yellow) to the ground bar.
- The unit comes pre-installed with a hold-down kit for all branch circuit breakers used within the enclosure. No external hold-down kit is required.
- The combiner 6C includes a pre-installed 60 A PV aggregate (PVA) breaker, supporting up to 3 × PV strings.
- If using more than 3 PV branch circuits replace the PVA breaker to 100 A breaker.
- If using an external panel board for combining branch circuits with feed-in of more than 48 A maximum continuous, connect it at PV4 space using a 100 A maximum breaker rating.
- The PV aggregate breaker can be used as a PV disconnecting means. If IQ Combiner 6C is installed outdoors, the PV aggregate breaker can be the Rapid Shutdown initiator. Refer to Disconnects and Rapid Shutdown initiator configurations for more details.



Applicable breaker for 3 × PV branch circuits on PV 1/2/3 space	
Eaton (BR2xx)	20 A

Applicable breaker for PV 4 space	
Eaton (BR2xx)	20/40/60/80/100 A
Eaton quad (BRDC220220)	20/20 A

NOTE: Quad breaker only supported at IQ PV4 space.

Applicable breaker for PVA	
Eaton (BR2xx)	60/100A

NOTE: Must ensure to connect IQ Battery to the designated marked breaker spaces. Failure to do so may void warranty clauses.

NOTE: Do not connect loads at any of the DER spaces.

NOTE: Follow NEC for the selection of wire gauges, also refer to the breaker manufacturer's guidance for breaker-specific wire gauges.

NOTE: Use only copper conductors rated for a minimum of 90°C.

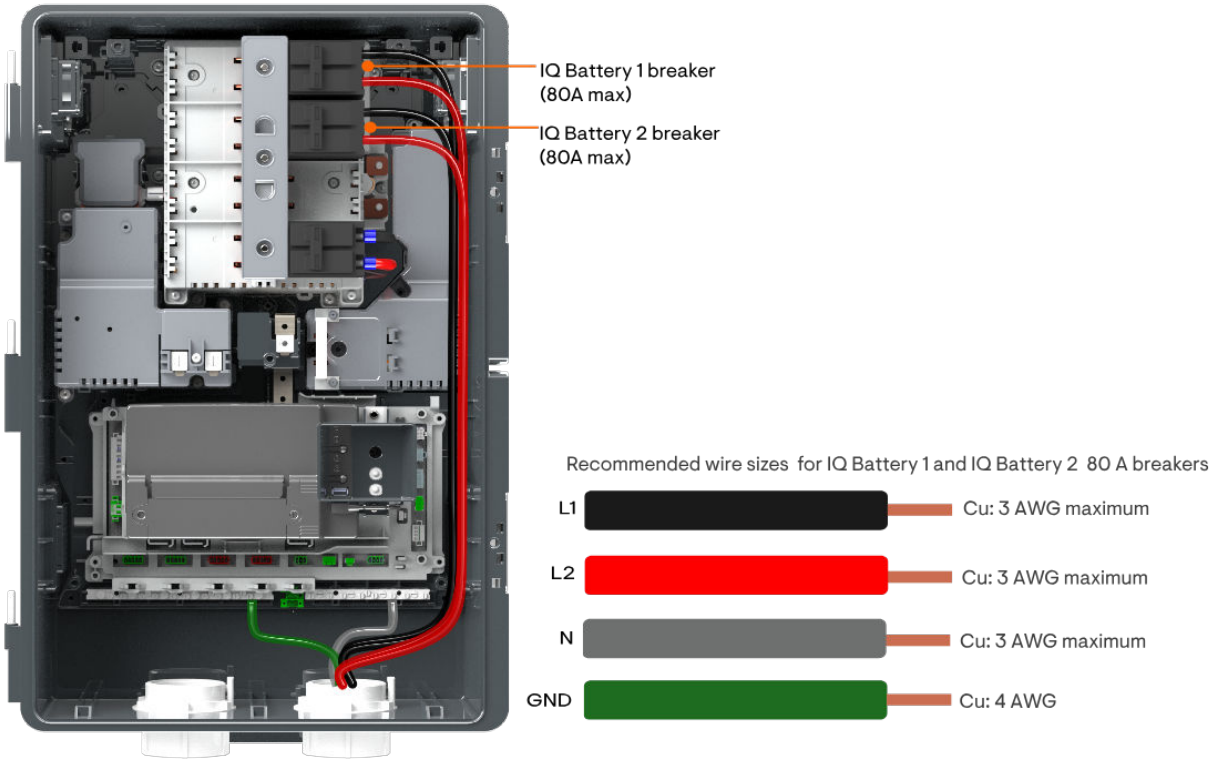
NOTE: Ensure to follow local codes for selecting the correct wire gauges.

NOTE: Ensure to adhere to the minimum wire bending space requirements. If the bending space is insufficient for wiring on the ground bars, use cross conduits for their wiring.

13.2 IQ Battery wiring

- IQ Battery breakers must be installed on designated breaker spaces in the IQ Combiner.
- Use copper conductors sized to meet local code requirements and voltage drop/rise considerations.
- DER busbar integrates battery CTs, no external CT wiring is needed.
- Bring in the wires from the IQ Batteries.
- Connect the ground (green or green/yellow) to the ground bar.
- Connect L1 and L2 (usually one black and one red) from the IQ Battery to the circuit breaker(s). Observe the L1 and L2 polarity marking at each breaker position.

- As per the NEC code, hold-down kits must be used for the breakers for battery branch circuits for grid-forming systems. The unit comes pre-installed with a hold-down kit for all branch circuit breakers used within the enclosure. No external hold-down kit is required.



NOTE: IQ Combiner 6C is only compatible with IQ Battery 10C.

Applicable breaker for IQ Battery 1 and 2	
Eaton (BR2xx)	40/80 A

NOTE: Must ensure to connect IQ Battery to the designated marked breaker spaces. Failure to do so may void warranty clauses.

NOTE: Do not connect loads at any of the DER spaces

NOTE: Follow NEC for the selection of wire gauges, also refer to the breaker manufacturer's guidance for breaker-specific wire gauges.

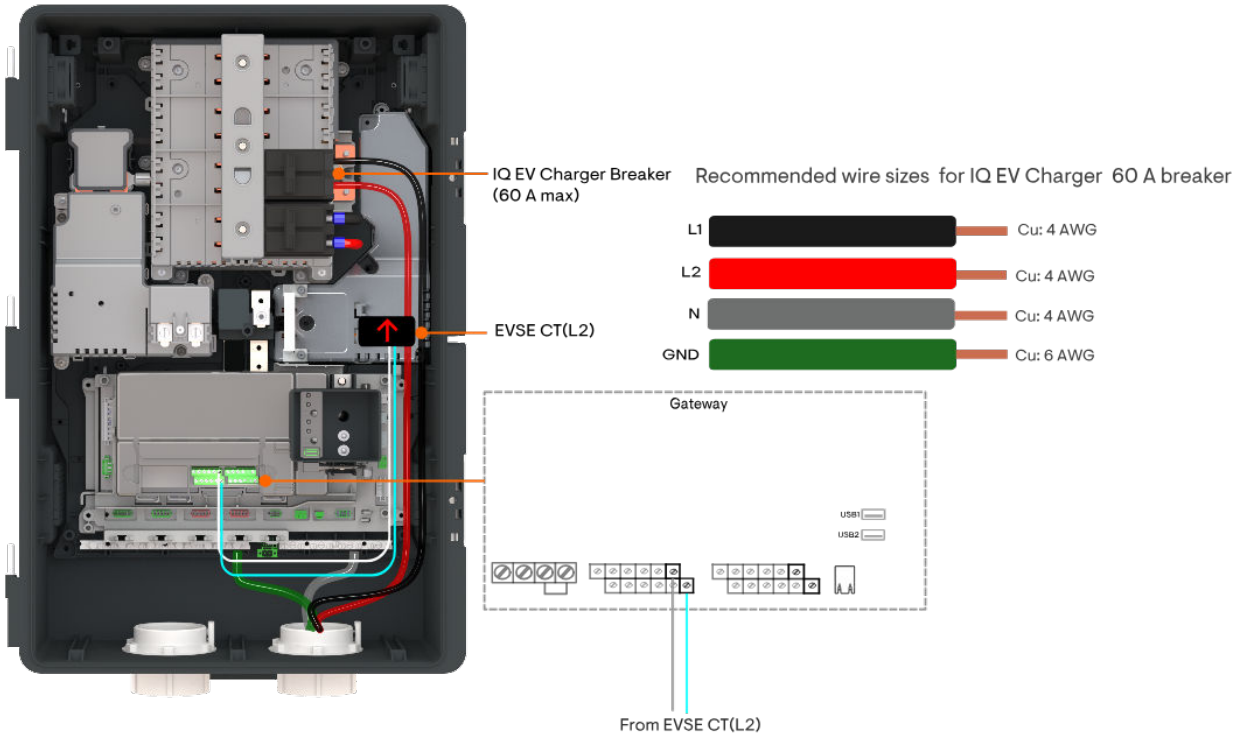
NOTE: Use only copper conductors rated for a minimum of 90°C.

NOTE: Ensure to follow local codes for selecting the correct wire gauges.

NOTE: Ensure to adhere to the minimum wire bending space requirements. If the bending space is insufficient for wiring on the neutral and ground bars, use cross conduits for their wiring.

13.3 IQ EV Charger wiring

- Use copper conductors sized to meet local code requirements and voltage drop/rise considerations.
- Bring in the wires from the IQ EV Charger.
- Connect the ground (green or green/yellow) to the ground bar.
- IQ EV Charger breaker must be installed on designated breaker spaces in the IQ Combiner 6C.
- The unit comes pre-installed with a hold-down kit for all branch circuit breakers used within the enclosure. No external hold-down kit is required.
- External CT (L2) needed for IQ EV Charger must be wired to EVSE CT connector number 11 on Gateway.



NOTE: Only Enphase IQ EV Chargers are supported at EVSE breaker space.

Applicable breaker for IQ EV Charger	
Eaton (BR2xx)	40/60 A

NOTE: Must ensure to connect IQ EV Charger to the designated marked breaker spaces. Failure to do so may void warranty clauses.

NOTE: Do not connect loads at any of the DER spaces.

NOTE: Wire gauges are specified based on the wire-bending space requirements in the National Electrical Code. Follow NEC for the selection of wire gauges, also refer to the breaker manufacturer's guidance for breaker-specific wire gauges.

NOTE: Use only copper conductors rated for a minimum of 90°C.

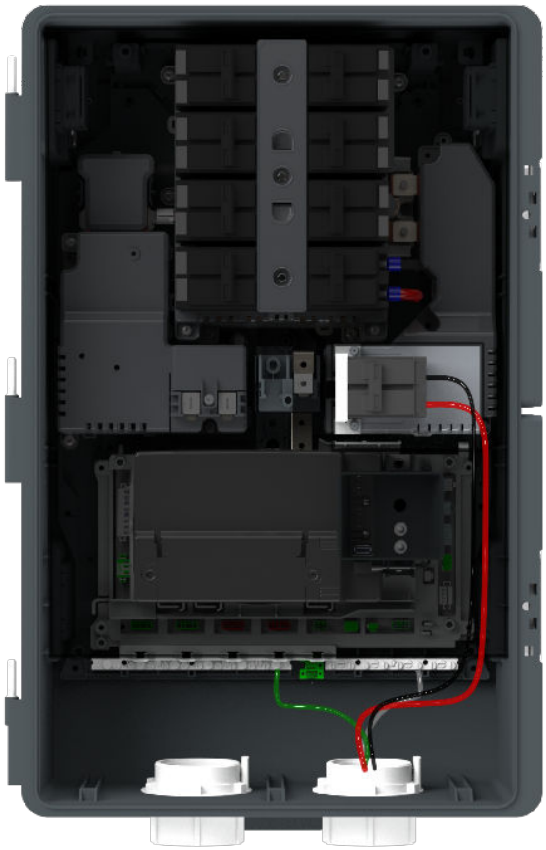
NOTE: Ensure to follow local codes for selecting the correct wire gauges.

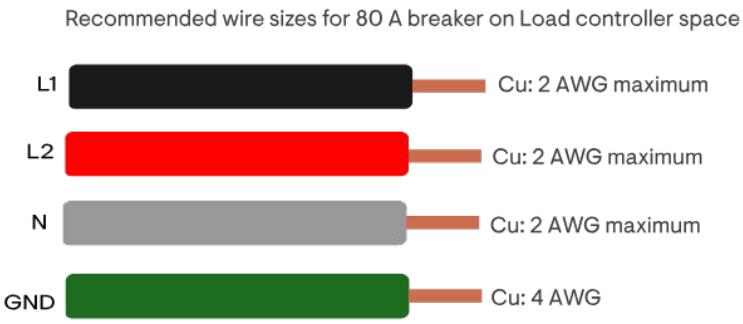
NOTE: Ensure to adhere to the minimum wire bending space requirements. If the bending space is insufficient for wiring on the neutral and ground bars, use cross conduits for their wiring.

13.4 Integrated Load Controller wiring

The integrated load controller within IQ Combiner 6C allows users to connect and configure additional loads. The integrated load controller also facilitates load monitoring and control. If not used to connect additional loads, load controllers can also be used to connect third-party PV systems or legacy Enphase systems using the space.

- Helps avoid extra costs if NEC 2023 702.4 (A) or 710.15 (A) require a larger system size.
- Supports up to 1 x 80 A, double-pole breaker.
- IQ Combiner 6C supports a maximum continuous current of 48 A (at ambient temperatures ranging from -40°C to 46°C or -40°F to 115°F) or 64 A (at ambient temperatures ranging from -40°C to 38°C or -40°F to 100°F)
- It also includes an integrated current transformer for monitoring purposes.
- Includes integrated hold-down kit.





- Install a breaker maximum of up to 80 A on the load controller space.
- Connect L1, and L2 from the load control breaker to a non-backed-up load panel using a breaker or lugs on the load panel.
- The unit comes pre-installed with a hold-down kit for all branch circuit breakers used within the enclosure. No external hold-down kit is required.

Applicable breaker for load controller space	
Eaton (BR2xx)	20/40/60/80 A

NOTE: Must ensure to connect loads to the designated marked breaker spaces. Failure to do so may void warranty clauses. Do not connect loads at any of the DER spaces.

NOTE: Do not connect loads at any of the DER spaces.

NOTE: Wire gauges are specified based on the wire-bending space requirements in the National Electrical Code. Follow NEC for the selection of wire gauges, also refer to the breaker manufacturer's guidance for breaker-specific wire gauges.

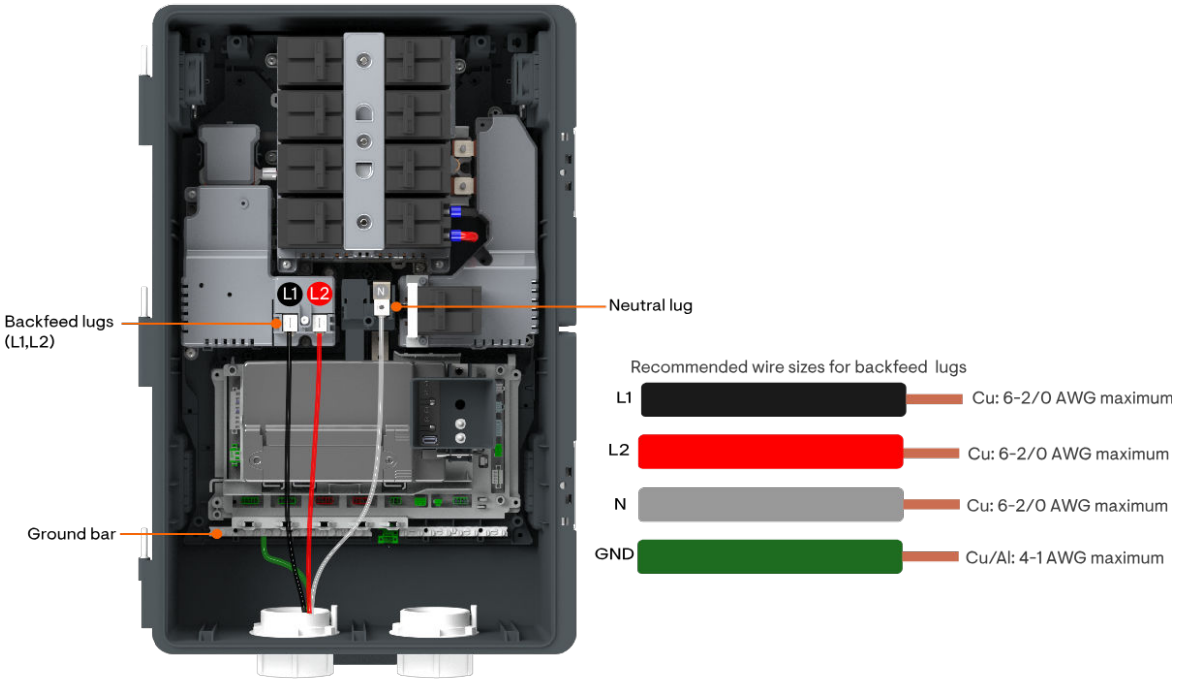
NOTE: Use only copper conductors rated for a minimum of 90°C.

NOTE: Ensure to follow local codes for selecting the correct wire gauges.

NOTE: Ensure to adhere to the minimum wire bending space requirements. If the bending space is insufficient for wiring on the neutral and ground bars, use cross conduits for their wiring.

13.5 Backfeed wiring

- Ensure that all control and CT wiring is connected to the terminals before making any backfeed connections.
- Install a breaker on the back-fed main panel for connecting the IQ Combiner 6C.
- Connect the L1 and L2 output from the mains lugs on the IQ Combiner to the installed breaker on the main load center.
- Connect neutral and grounds to the back-fed panel using either the lugs or bars.



NOTE: Maximum wire gauges are specified based on the wire sizes that can be accommodated by lugs and bars.

NOTE: Follow NEC for the selection of wire gauges, also refer to the breaker manufacturer's guidance for breaker-specific wire gauges.

NOTE: Use only copper conductors rated for a minimum of 90°C.

NOTE: Ensure to follow local codes for selecting the correct wire gauges.

NOTE: Ensure to adhere to the minimum wire bending space requirements. If the bending space is insufficient for wiring on the neutral and ground bars, use cross conduits for their wiring.

14. LEDs and push buttons

The IQ Gateway has four LEDs. The LEDs provide critical information about site health. The status of LEDs helps troubleshoot any issues during site commissioning or after the site is operational.

The combiner controller board includes two LEDs: a combiner status LED and a Shutdown Status LED. The IQ Combiner 6C continuously monitors the RSD mechanism to ensure its proper function.

The IQ Combiner 6C includes a reset button , to reset the IQ Gateway and the combiner controller board board as per need basis.

Gateway LEDs

Enphase Installer Platform (EIP) communication LED

- Green when connected to Enphase's EIP cloud.
- Flashing green when connecting to EIP or WiFi router.
- Red when connected to local network only i.e., no internet.
- OFF if no network is available

AP mode LED

- Green when AP mode is enabled, and IQ Gateway Wi-Fi network is available.
- OFF when AP mode is disabled.

OFF is default unless installer is using AP mode.

AP mode button

Only used by installer during installation or to configure the system.

Starts IQ Gateway's wireless Access Point (AP) to connect mobile phone directly.

Power production LED

- Green light when all microinverters are producing power.
- Flashing green when an upgrade of the microinverters is in progress.
- Red if one or more microinverters stop producing power.
- Flashing red when microinverters are not yet detected.
- OFF if all the microinverters stop producing or communicating.

Usually red at dawn/dusk, off at night & flashing red after IQ Gateway restarts.

Device communication LED

- Flashing green when IQ Gateway is scanning for microinverters.
- Green when all provisioned microinverters are communicating with IQ Gateway.
- Red if one or more microinverters are not communicating with IQ Gateway.
- OFF if all microinverters are not communicating with IQ Gateway.

Usually red during dawn/dusk and off at night.

Device scan button

Only used by installer during installation or to configure the system.

Starts/stops a 15-minute scan for devices over the power line.

On Power-Up, LEDs can take up to 30 seconds to glow. After powering off the gateway, wait for 2 minutes before powering it back on.

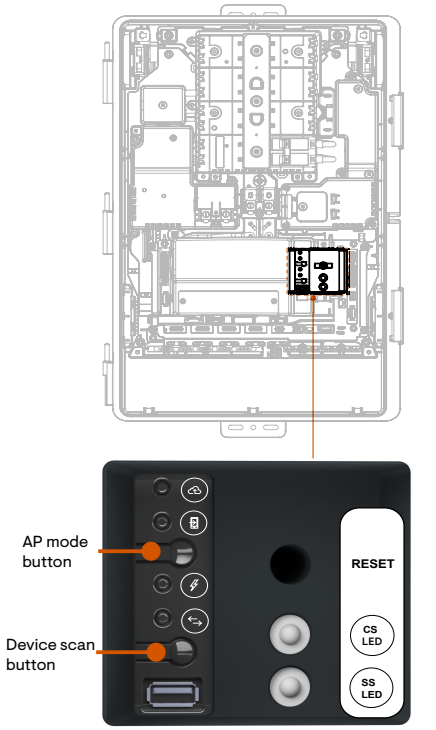
Combiner controller Board (CCB) LEDs

Combiner Status (CS) LED

- Solid green when there is no control signaling error between system components.
- OFF when the grid and DER power is not available.
- Flashing red when there is control signaling error between system components.
- Flashing blue when there is a internal signaling error between system components.

Shutdown Status (SS) LED[1]

- Solid green when the System Shutdown is not initiated, DER relay is closed.
- Flashing green when the System Shutdown is not initiated, DER relay is opened.
- OFF when the System Shutdown is initiated, DER and load relays are opened.
- Solid red when the System Shutdown self test fails.
- Flashing red when there is a System Shutdown mechanism error.
- Rapid flashing red when System Shutdown is not initiated, DER or load relay is either stuck open or close.



Reset button

Short Press: Reset the Gateway.
Long Press: Reset the Combiner Controller Board (CCB)

1: The Shutdown Status (SS) LED may act as the rapid shutdown and emergency shutdown indicator, depending on the system configurations installed.

NOTE: On power-up, LEDs can take up to 30 seconds to glow.

NOTE: After powering off the gateway, wait for two minutes before powering it back on.

15. Disconnects and Rapid Shutdown initiator

Depending on the location of the IQ Battery 10C, IQ Combiner 6C, and back-fed panel, the Rapid Shutdown initiators and disconnects may vary. The factory-installed PV aggregate 60 A breaker functions as a rapid shutdown initiator when the IQ Combiner 6C is installed outdoors. However, based on NEC and local compliance requirements, the system can meet rapid shutdown and disconnect requirements with the specified configurations.

In certain situations, it may be necessary to install a visible blade disconnect (safety disconnect) as a visible break for the DER system at the point of connection to the grid. A 3-pole visible blade disconnect with the third pole wired to the AC sense header can be used

as a visible DER brake mechanism. A 2-pole visible blade disconnect with an auxiliary contact wired to the AC sense header can also be used as a visible DER brake mechanism.

15.1 Configurations for Grid Forming systems

The IQ Combiner 6C supports various configurations for connecting disconnects and rapid shutdown initiators for grid forming system.

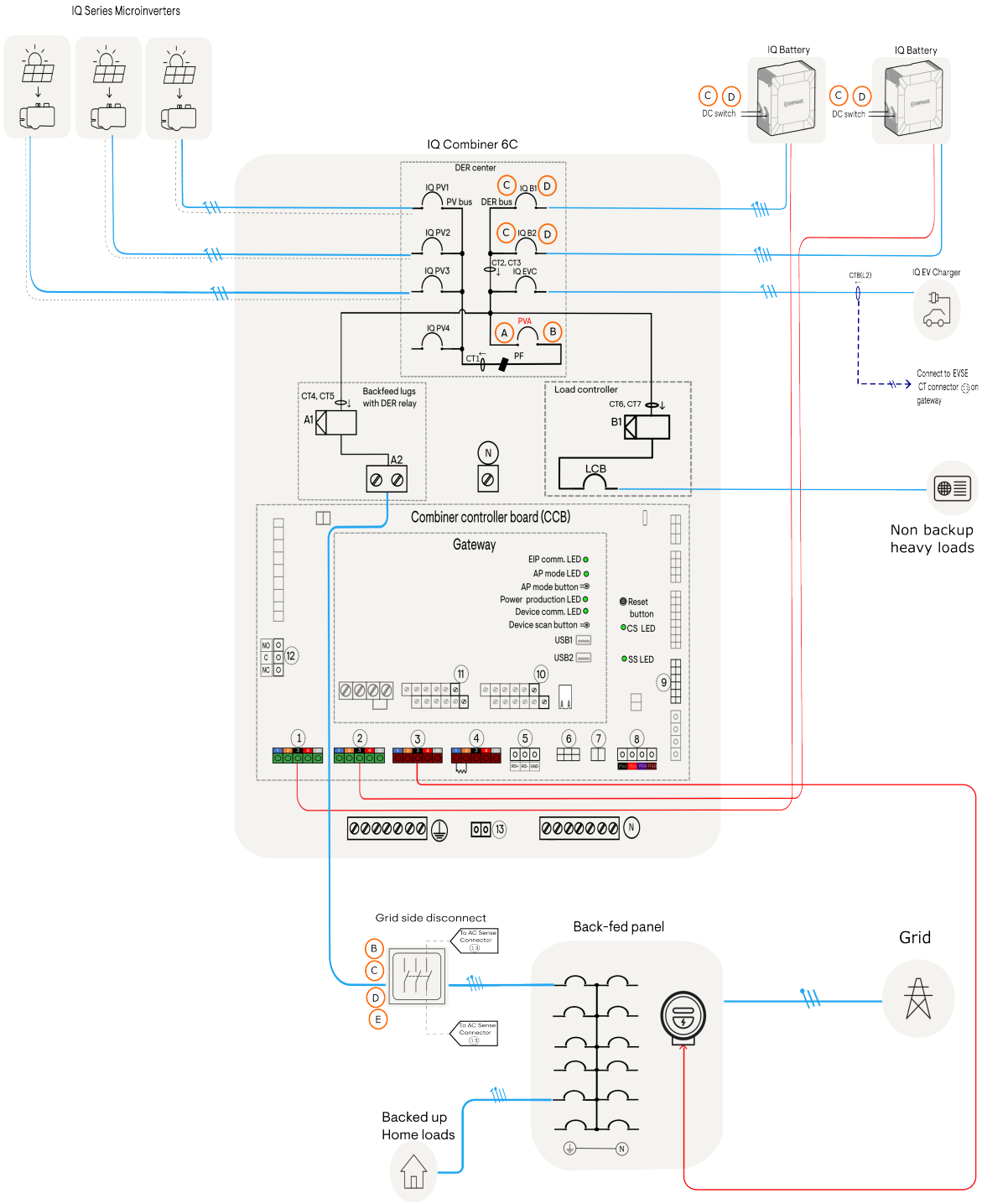
Before connecting a disconnect or a rapid shutdown initiator to the system ensure the followings

1. Turn OFF the PV aggregate breaker.
2. Turn OFF the IQ PV, IQ Battery, IQ EVSE, and Load Controller breakers.
3. Turn OFF the DC switches in the battery.
4. Ensure the Shutdown Status LED on the unit is OFF.
5. Turn OFF the back-fed breaker in the panel.

15.1.1 Configuration 1: IQ Combiner 6C outdoors, IQ Battery 10C units outdoors, back-fed panel Outdoors or Indoors

Location of IQ Combiner 6C	Outdoors
Location IQ Battery 10C	Outdoors
Location of back-fed panel	Outdoors or Indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No
B	PV Rapid Shutdown (2023 NEC 690.12)	Yes	No	No	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	Yes	Yes	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	Yes



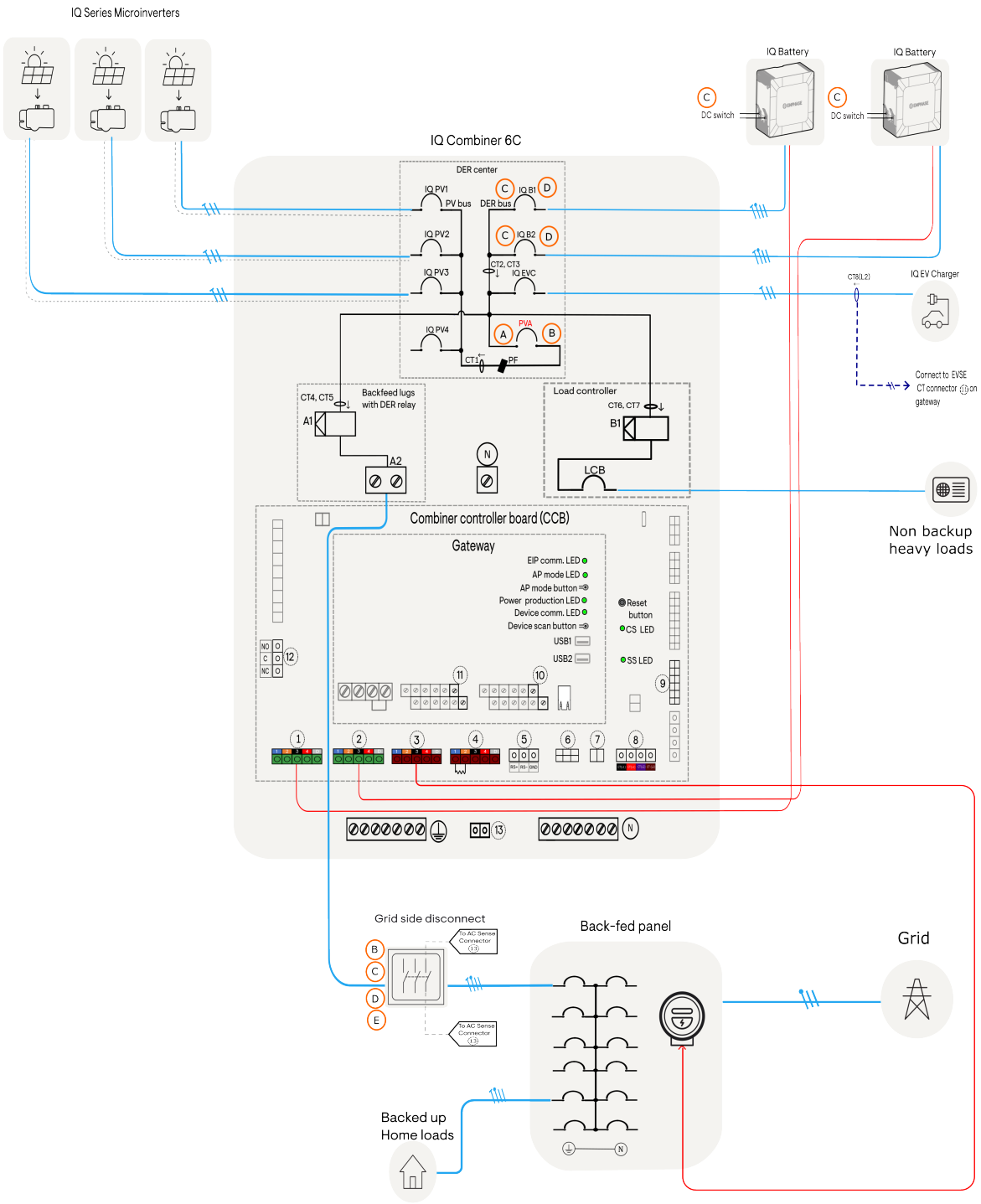
NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.1.2 Configuration 2: IQ Combiner 6C outdoors, IQ Battery 10C units indoors, back-fed panel outdoors or indoors

Location of IQ Combiner 6C	Outdoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Outdoors or Indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No
B	PV Rapid Shutdown (2023 NEC 690.12)	Yes	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	Yes	No	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	Yes



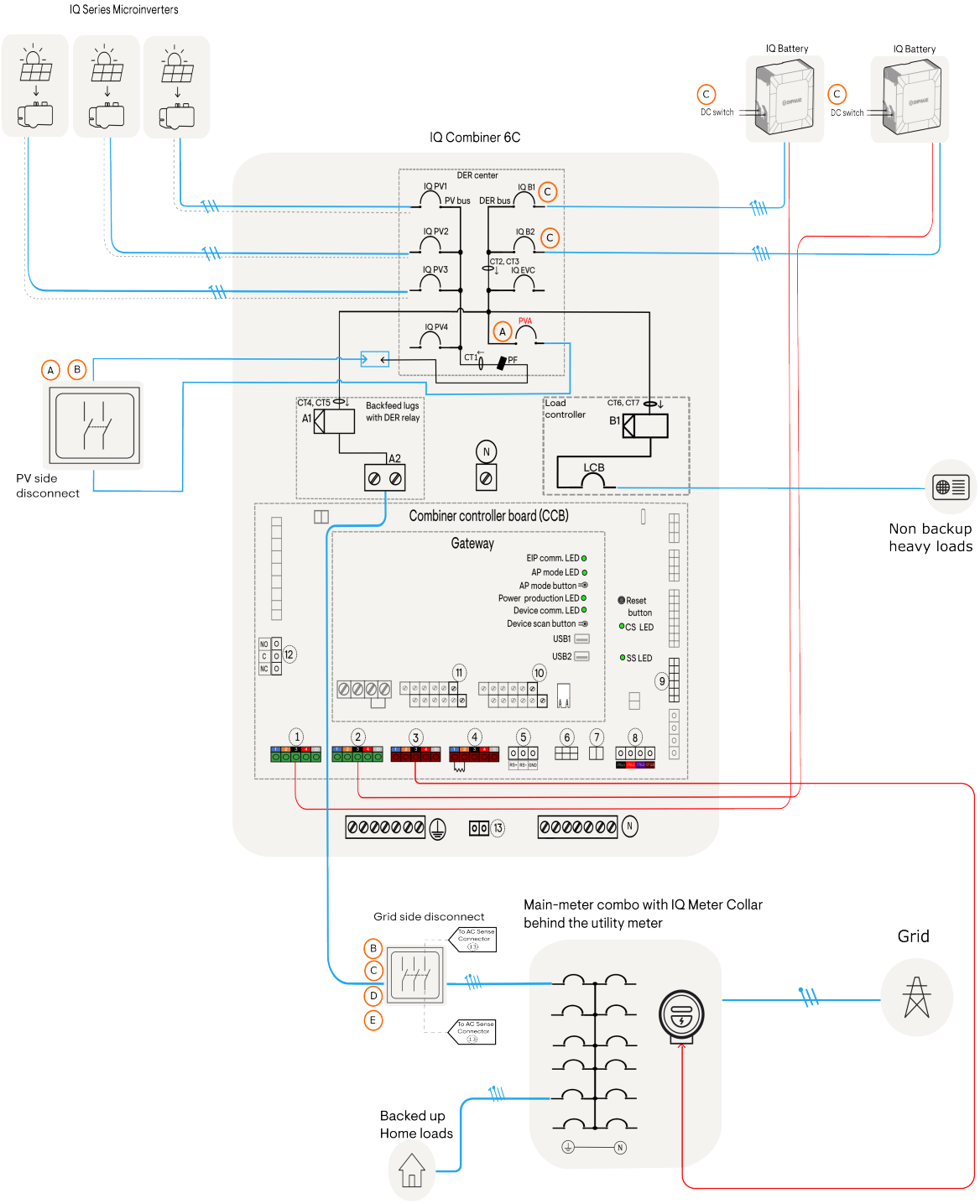
NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.1.3 Configuration 3: IQ Combiner 6C indoors, IQ Battery 10C units indoors, back-fed panel indoors

Location of IQ Combiner 6C	Indoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC Code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	PV side disconnect	Grid side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	Yes	No
B	PV Rapid Shutdown (2023 NEC 690.12)	No	No	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	No	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	N o	No	No	No	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	Yes



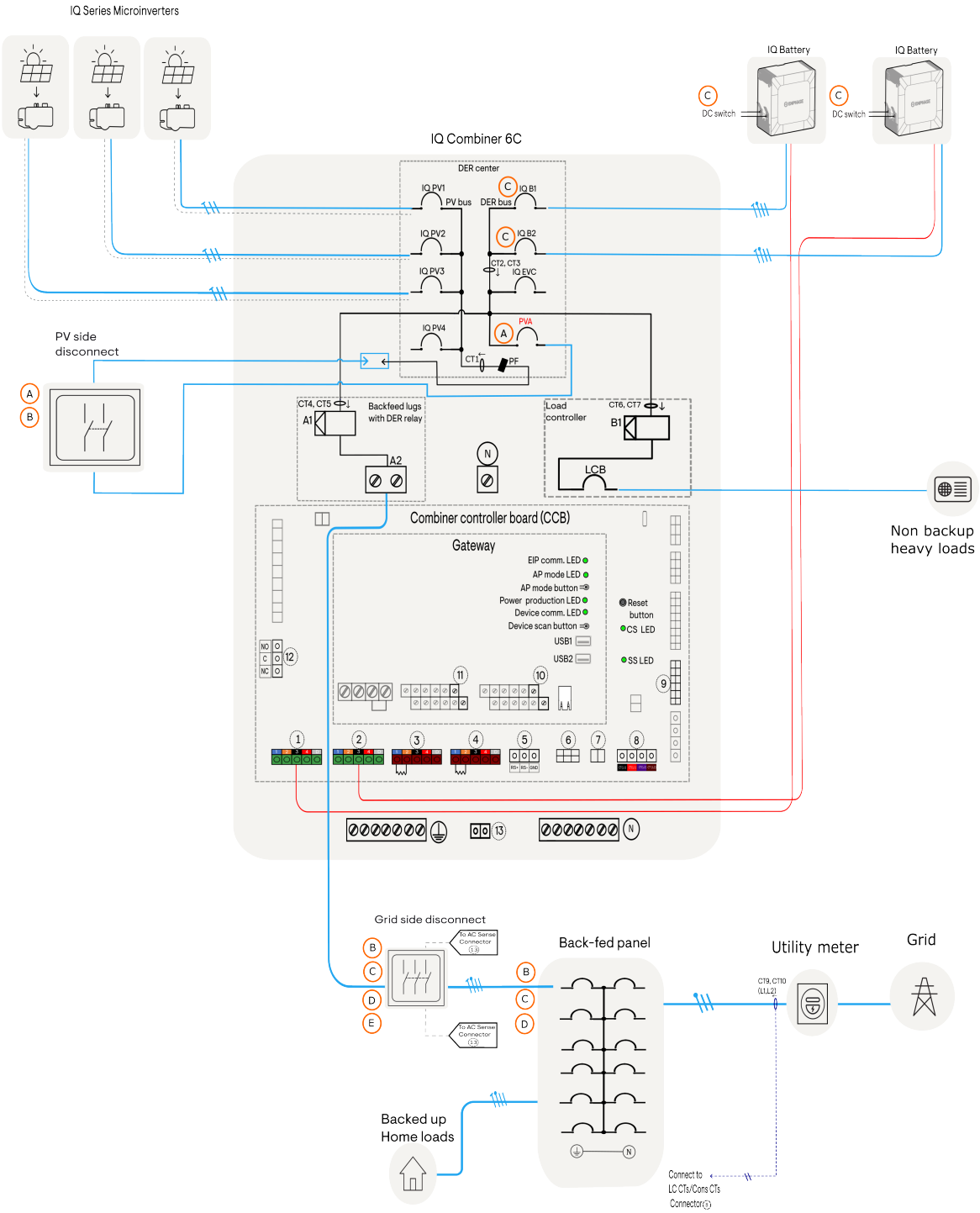
NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.1.4 Configuration 4: IQ Combiner 6C indoors, IQ Battery 10C units indoors, back-fed Panel outdoors

Location of IQ Combiner 6C	Indoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Outdoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	PV-side disconnect	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	Yes	No
B	PV Rapid Shutdown (2023 NEC 690.12)	No	No	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	No	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	No	No	No	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	Yes



NOTE: For notations refer to Legends in the Appendix section

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.2 Configurations for grid-tied systems

The IQ Combiner 6C supports various configurations for connecting disconnects and rapid shutdown initiators for grid tied system.

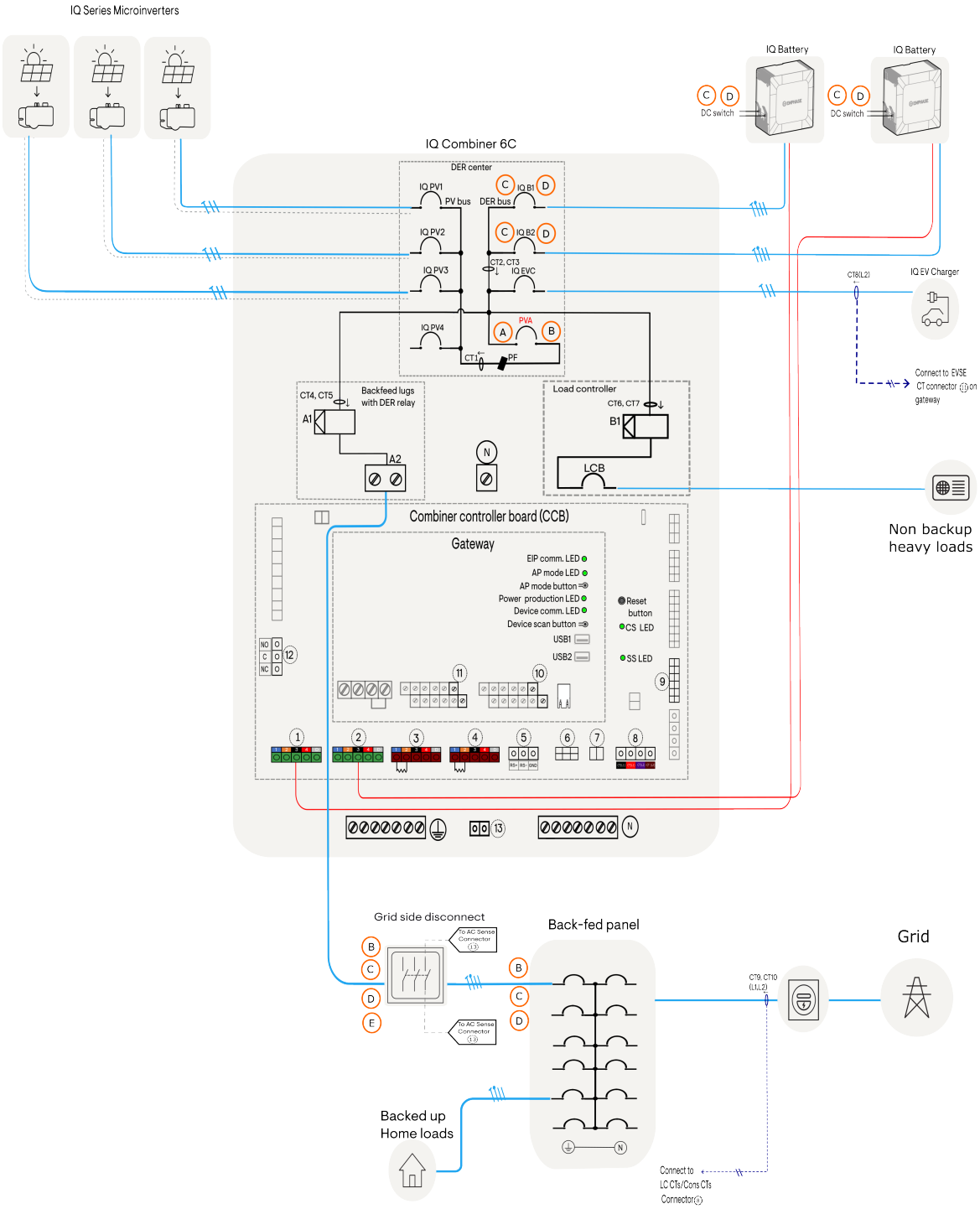
Before connecting a disconnect or a rapid shutdown initiator to the system ensure the followings

1. Turn OFF the PV aggregate breaker.
2. Turn OFF the IQ PV, IQ Battery, IQ EVSE, and Load Controller breakers.
3. Turn OFF the DC switches in the battery.
4. Ensure the Shutdown Status LED on the unit is OFF.
5. Turn OFF the back-fed breaker in the panel.

15.2.1 Configuration 1: IQ Combiner 6C outdoors, IQ Battery 10C units outdoors, back-fed panel outdoors or indoors

Location of IQ Combiner 6C	Outdoors
Location IQ Battery 10C	Outdoors
Location of back-fed panel	Outdoors or indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC Code or Utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Back-fed breaker	Grid side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No	No
B	PV Rapid Shutdown (2023 NEC 690.12)	Yes	No	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	Yes	Yes	Yes	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	Yes



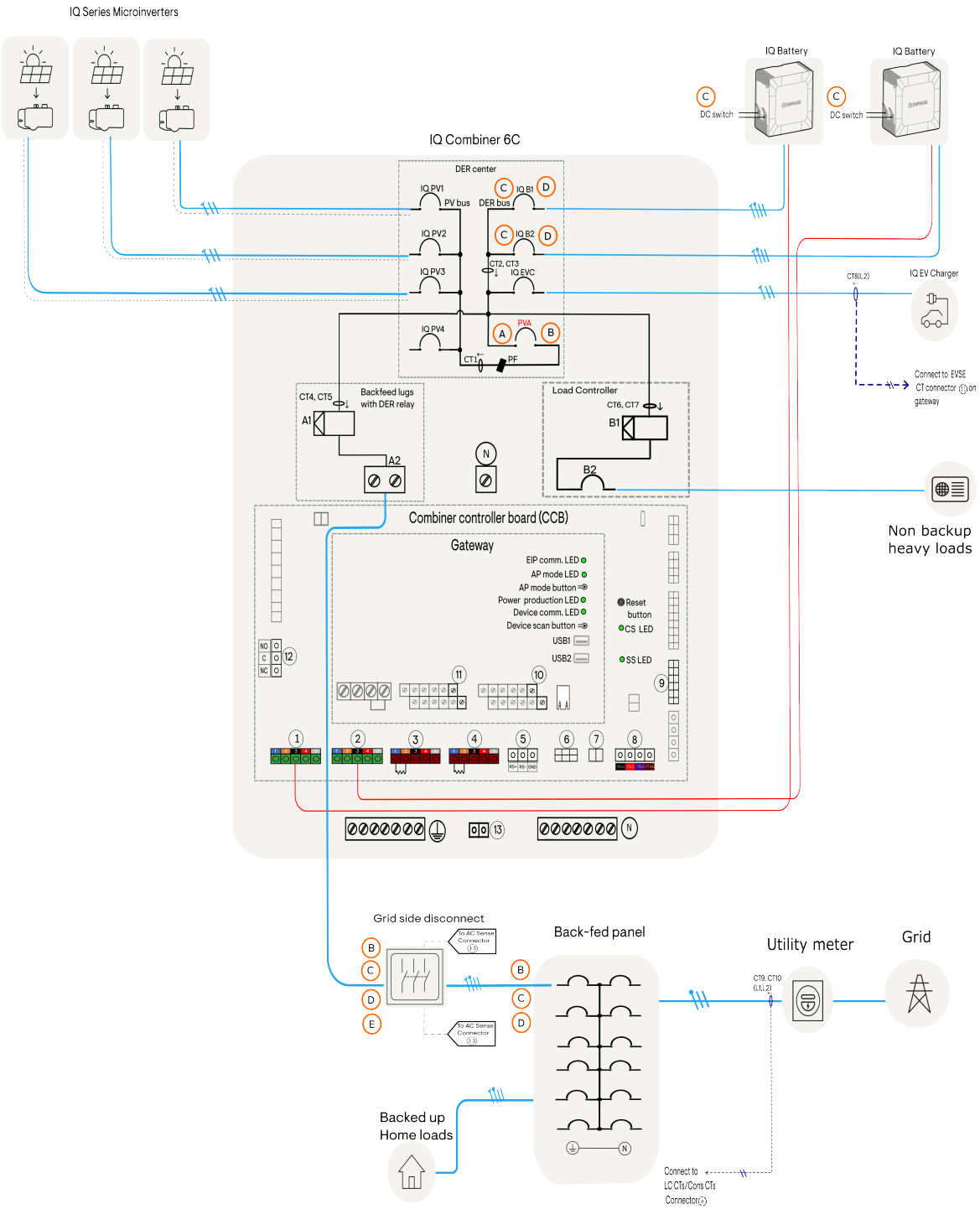
NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.2.2 Configuration 2: IQ Combiner 6C outdoors, IQ Battery 10C units indoors, back-fed panel outdoors or indoors

Location of IQ Combiner 6C	Outdoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Outdoors or Indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC code or Utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Back-fed breaker	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No	No
B	PV Rapid Shutdown (2023 NEC 690.12)	Yes	No	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	Yes	No	Yes	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	Yes



NOTE: For notations, refer to Legends in the Appendix section.

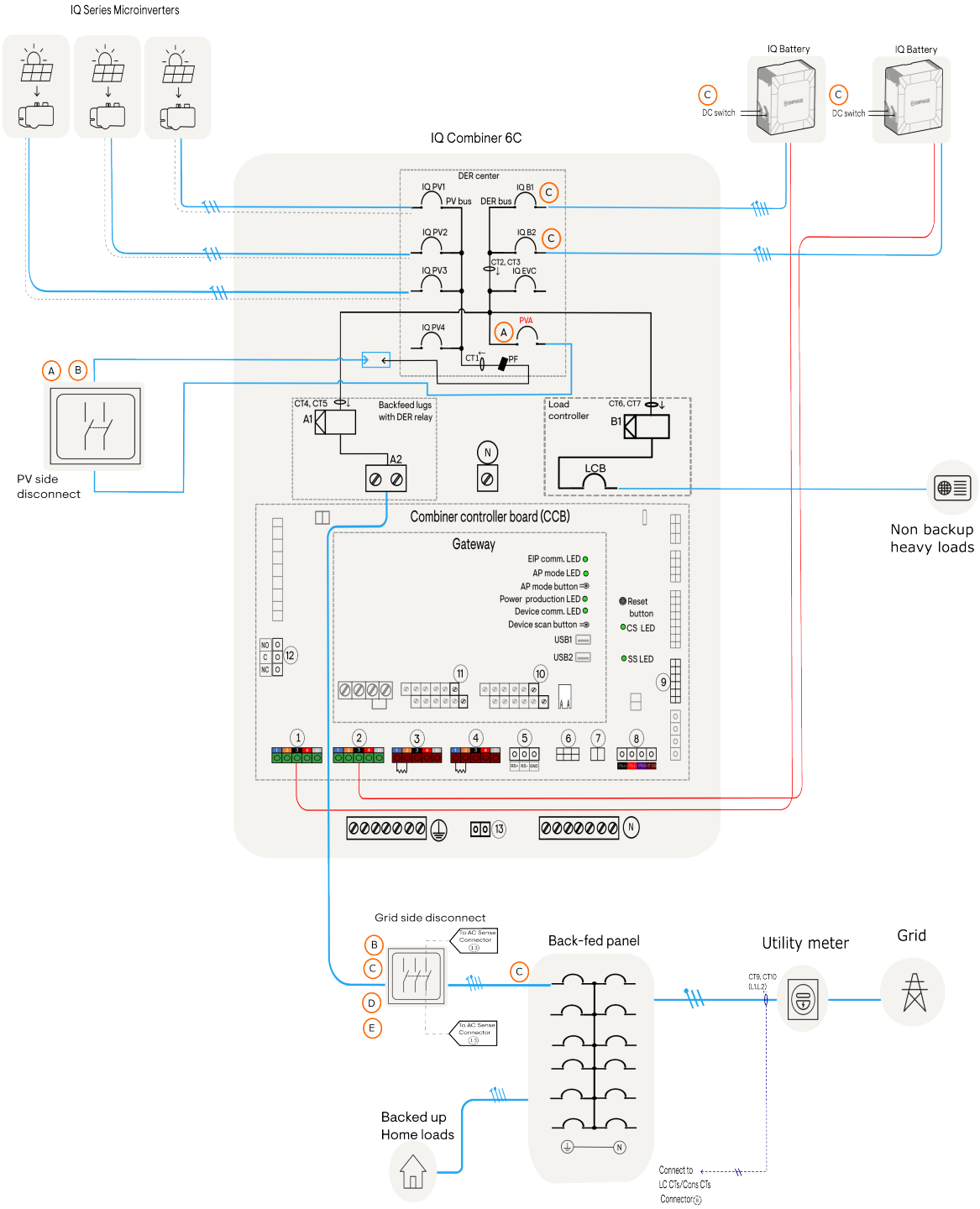
NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.2.3 Configuration 3: IQ Combiner 6C indoors, IQ Battery 10C units indoors, back-fed panel indoors

Location of IQ Combiner 6C	Indoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Indoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC Code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Back-fed breaker	PV-side disconnect	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No	Yes	No
B	PV Rapid Shutdown (2023 NEC 690.12)	No	No	No	No	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes	No	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	No	No	No	No	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	No	Yes

In this configuration EV charger cannot be used in the EVSE space, however, the EV charger can be connected to the integrated load controller space.



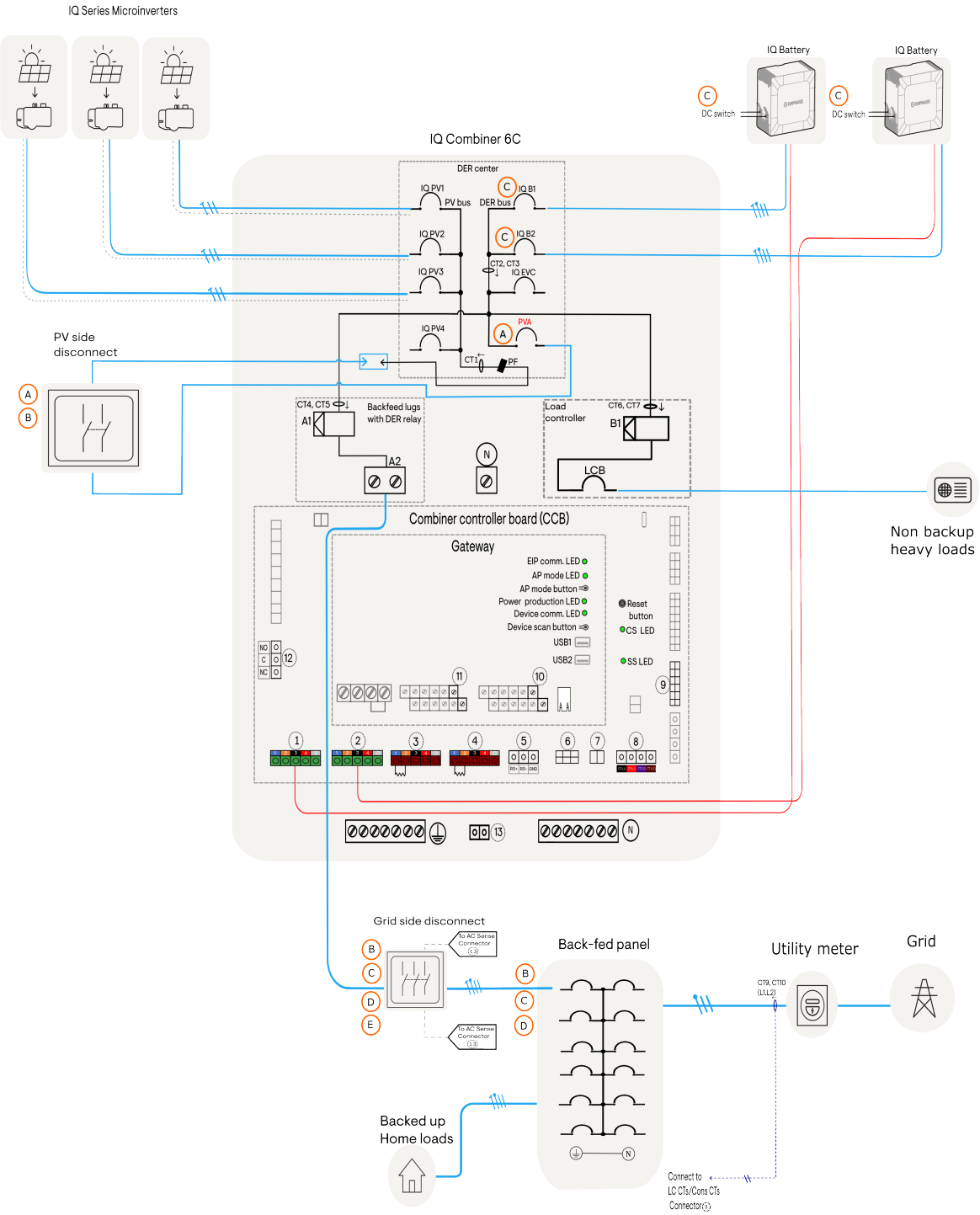
NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

15.2.4 Configuration 4: IQ Combiner 6C indoors, IQ Battery 10C units indoors, back-fed panel outdoors

Location of IQ Combiner 6C	Indoors
Location IQ Battery 10C	Indoors
Location of back-fed panel	Outdoors

Reference notation on single-line diagram	Initiators/ Disconnect per NEC code or utility requirements	PV aggregate breaker	Battery breakers in IQ Combiner 6C	Battery DC switches on IQ Battery 10C	Back-fed breaker	PV-side disconnect	Grid-side disconnect
A	PV System disconnecting means (2023 NEC 690.13)	Yes	No	No	No	Yes	No
B	PV Rapid Shutdown (2023 NEC 690.12)	No	No	No	Yes	Yes	Yes
C	ESS disconnecting means (2023 NEC 706.15)	No	Yes	Yes	Yes	No	Yes
D	ESS emergency shutdown (2023 NEC 706.15B)	No	No	No	Yes	No	Yes
E	Visible break for the DER system (Only if required by AHJ or utility)	No	No	No	No	No	Yes



NOTE: For notations, refer to Legends in the Appendix section.

NOTE: Grid side disconnect requires a three-pole disconnect with the third pole connected to the AC-sense or a double-pole disconnect with auxiliary contacts connected to the AC-sense of IQ Combiner 6C.

16. Closing the IQ Combiner

1. Re-install the dead front with the Mobile Connect on the enclosure.
2. Turn off the DER breaker(s).
3. Reinstall the IQ Combiner door.

17. Energizing the IQ Combiner

1. Turn on the back feed breaker in the main panel connected to the IQ Combiner 6C.
2. Log into the Enphase Installer App on your mobile device and ensure the latest version of IQ Gateway software is available.
3. On the IQ Gateway (inside the combiner), if the AP mode LED is not lit, press the AP mode button.
4. On your mobile device, go to **Settings** and join the Wi-Fi network **IQ Gateway_nnnnnn**(where “nnnnnn” equals the final six digits of the IQ Gateway serial number).
5. For a short period (5-10 minutes), you must keep your mobile device near the IQ Combiner. Follow the on-screen instructions while the update takes place.
6. Once the update is finished and the PV system is installed, the IQ Gateway is ready for site commissioning.

18. Appendix

18.1 3-Pole Visible blade disconnect models

Generally available models of 3-pole outdoor visible blade disconnect for PV disconnect or Grid side disconnect.

Model number	Maximum Amp rating
GNF321RA/TGN3321R	30 A
GNF322RA/TGN3322R	60 A
GNF323R/TGN3323R	100 A

NOTE: Ensure the third pole wire is appropriately sized to fit into the AC sense header.

NOTE: Use an inline splice connector if the wire in the disconnect exceeds the applicable wire gauges for the AC sense header.

18.2 2-Pole Visible blade disconnect models

Generally available models of 2-pole outdoor visible blade disconnect for PV disconnect.

Model number	Maximum Amp rating
GNF221RA/DT221URH-N	30 A
DT222URH-N	60 A
TG3223R/DT223URH-N	100 A

18.3 Legends

Legends

A1: DER relay
A2: Backfeed Lugs
B1: Load Control relay
LCB: upto 1 x 80A for load controller breaker
PVA: Preinstalled 60A PV Aggregate(PVA) breaker as Rapid Shutdown Device (RSD)
PV1,PV2,PV3,PV4: upto 5 x 20A for PV breakers
IQB1,IQB2: upto 2 x 80A for IQ Battery (IQB) Breaker
IQ EVC: upto 1 x 60A for 1 x IQ EV Charger (IQEVC) Breaker
PF: PLC ferrite(PF) at PV Aggregate (L2)
USB1: Mobile connect connection
USB2: Factory wired connection to Gateway

CT1: Integrated revenue grade PV CT(L2)
CT2,CT3: Integrated revenue grade battery CTs (L1,L2)
CT4,CT5: Integrated Backfeed CTs(L1,L2)
CT6, CT7: Integrated Load Control CTs(L1,L2)
CT8: Install EVSE CT as needed, wire EVSE CT(L2) to gateway
CT9,CT10: Install consumption CTs (L1,L2) as needed , wire to Load/Consumption CT connector

Connectors	
1	IQ Battery control Header-1
2	IQ Battery control Header-2
3	IQ Collar control Header
4	Spare control Header (Not to be used)
5	RS485
6	Ride Through(RT) Power Supply Accessory
7	Rope CT-Power Supply
8	Load/Consumption CT connector
9	Load relay connector
10	NO dry contact relay
11	EVSE CT
12	NO/NC dry contact relay
13	AC sense


Branch circuit breaker


All unmarked connections are intended for factory use only


Latching relay


Ethernet connection


Insulated in-line splice connector. (for connecting PV disconnect on the PV aggregate breaker feed-in)

Field wired ground conductor

Field wired Neutral conductor

Field wired ungrounded conductor

Single line representation of field wired conductors

Control wiring between system components

19. Safety information

IMPORTANT SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

Follow these important instructions during the installation and maintenance of the IQ Combiner 6C.

19.1 Safety and advisory symbols

DANGER: This indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING: This indicates a situation where failure to follow instructions may be a safety hazard or cause equipment malfunction. Use extreme caution and follow instructions carefully.

NOTE: This indicates information particularly important for optimal system operation. Follow instructions carefully.

19.2 Safety instructions

DANGER: Risk of electric shock. Risk of fire. Do not attempt to repair the IQ Combiner 6C; it contains no user-serviceable parts within the dead front. Tampering with the IQ Combiner 6C will void the warranty. If the IQ Combiner 6C fails, contact Enphase Support for assistance (https://enphase.com/en-us/support/contact).

DANGER: Risk of electrocution! Do not install CTs when current flows in the sensed circuit. Always install CT wires in the terminal blocks before energizing the sensed circuit.

DANGER: Risk of electric shock. Do not use Enphase equipment in a manner not specified by the manufacturer. Doing so may cause death or injury to persons or damage to equipment.

DANGER: Risk of electric shock. Be aware that installation of this equipment includes the risk of electric shock. Do not install the IQ Combiner 6C without first removing AC power from the Enphase system. Ensure the power coming from the microinverters is de-energized before servicing or installing.

DANGER: Risk of electric shock. Risk of fire. Only qualified personnel should troubleshoot, install, or replace the IQ Combiner 6C.

DANGER: Risk of electric shock. Improper servicing of the IQ Combiner 6C or its components may result in a risk of shock, fire, or explosion. To reduce these risks, disconnect all wiring before attempting any maintenance or cleaning.

DANGER: Risk of electric shock. Always de-energize the AC branch circuit before servicing. While connectors are rated for disconnecting under load, it is a best practice to de-energize before disconnecting.

DANGER: Risk of electric shock. Risk of fire. Only use electrical system components approved for wet locations.

DANGER: Risk of electric shock. Risk of fire. Ensure that all wiring is correct and that none of the wires are pinched or damaged.

DANGER: Risk of electric shock. Risk of fire. Do not work alone. Someone should be in the range of your voice or close enough to come to your aid when you work with or near electrical equipment. Remove rings, bracelets, necklaces, watches, etc., when working with batteries, photovoltaic modules, or other electrical equipment.

DANGER: Risk of electric shock. Risk of fire. Ensure the circuit breaker(s) are turned off before making any connections. Thoroughly check all the wiring before turning on the power.

WARNING: Risk of electric shock. To maintain the warranty, do not modify the dead front other than to remove filler plates, as needed.

WARNING: Before installing or using the IQ Combiner 6C, read all instructions and cautionary markings in the technical description and on the equipment.

WARNING: Only use the circuit breakers in the IQ Combiner 6C as specified in the instructions. Do not connect load circuits to breakers designated for solar and batteries.

19.3 FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device, according to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and the receiver.

-Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.

This Class B digital apparatus complies with Industry Canada ICES-003.

WARNING: The IQ Combiner 6C has a pre-installed heat shield attached to the enclosure door. Do not remove the heat shield.

WARNING: This product is intended for operation in an environment having a maximum ambient temperature of 46°C (115°F).

WARNING: Bonding between conduit connections is not automatic and must be provided as part of the installation.

- **NOTE:** Carry out all wiring in compliance with applicable local electrical codes, the Canadian Electrical Code, Part I, or the National Electrical Code (NEC), ANSI/NFPA 70
- **NOTE:** Protection against lightning and resulting voltage surges must be in accordance with local standards.
- **NOTE:** Using unapproved attachments or accessories could result in damage or injury.
- **NOTE:** Install the IQ Combiner 6C in the field with 90°C or higher copper conductors sized per local code requirements and voltage drop/rise considerations.
- **NOTE:** Use Class 1 wiring methods for field wiring connections to terminals of a Class 2 circuit. Select the wire gauge used based on the protection provided by the circuit breaker(s)/fuses. Overcurrent protection must be installed as part of the system installation.
- **NOTE:** To ensure optimal reliability and to meet warranty requirements, the IQ Combiner 6C must be installed according to the instructions in this guide.

Revision history

Revision	Date	Description
140-00248-01	March 2025	Initial release.

Enphase Support: https://enphase.com/contact/support.

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140-00248-01-EN-2025-03-25
Applicable regions: North America

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