

# IQ Battery 5P with FlexPhase

# Quick install guide

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MODEL
IQBATTERY-5P-3P-INT

VERSION 5.0 JUNE 2025

140-00405-05



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#### 1. Introduction

To install the Enphase IQ Battery 5P with FlexPhase, the top protective shield, and the bottom mounting bracket, read and follow all warnings and instructions in this guide. Safety warnings are listed at the end of this guide. These instructions are not meant to be a complete explanation of how to design and install an energy storage system. All installations must comply with national and local codes and standards. Only Enphase-certified installers shall install, troubleshoot, or replace IQ Battery 5P with FlexPhase.

The IQ Battery 5P with FlexPhase is an AC-coupled battery that can be flexibly used in both single-phase and three-phase applications with integrated IQ8T-BAT Microinverters and a battery management system (BMS).

For grid-tied operation, the system requires IQ Gateway Metered and Communications Kit 2 or IQ Combiner 2 EU 3P. For backup operation, the system requires IQ System Controller.

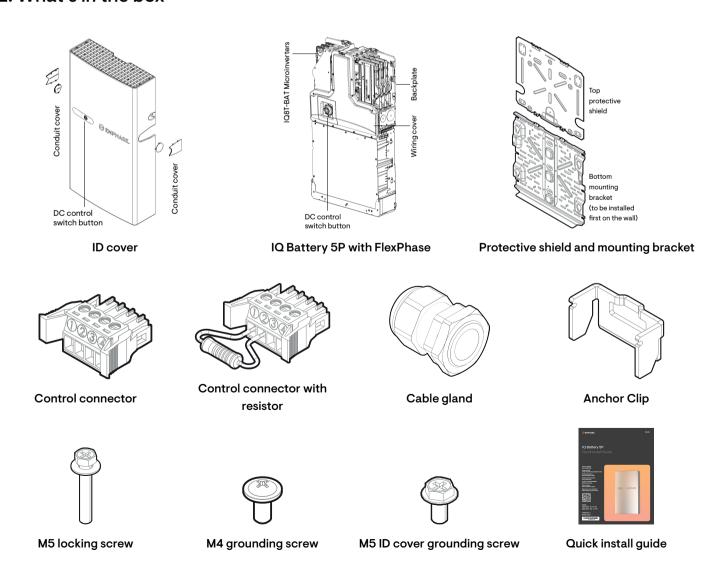
The IQ Battery 5P with FlexPhase can be configured as a single-phase or a three-phase battery. Depending on country/geography, Enphase now enables the installer to configure the continuous apparent power rating for all the batteries in a system depending on site/jurisdiction requirements. This configuration can be done in the Enphase Installer App while commissioning the batteries.

Once the power rating is configured and the IQ Battery 5P with FlexPhase is provisioned, the power rating cannot be modified for any battery at the site. Please get in touch with Enphase Support if you wish to change the power rating for the batteries post-provisioning.

#### 1.1 Battery configuration to comply with AS4777.2 in Australia and New Zealand

In Australia and New Zealand, if a power rating other than 3.84 kVA single-phase (model: IQBATTERY-5P-3P-INT-3.84-1P) or 3.84 kVA three-phase (model: IQBATTERY-5P-3P-INT-3.84-3P) is selected, the system must include a minimum of two batteries to be compliant with AS/NZS 4777.2:2020 Amd 2:2024.

#### 2. What's in the box



		What sim the bex
Description	Model number	Quantity
IQ Battery 5P with FlexPhase	IQBATTERY-5P-3P-INT	1
ID cover with two conduit covers	B305-CX-0550-O	1
Bottom mounting bracket and top protective shield	B05-WB-0543-O	1
M5 Locking screw	-	2
M4 Grounding screw	_	2
M5 ID cover grounding screw	-	2
Quick install guide (QIG)	-	1
Anchor Clip	_	2
Wall drill template	_	1
Cable ties	_	6
Control (CTRL) connector (one spare, one pre-installed)	-	2
Control (CTRL) connector with resistor (one spare, one pre-installed)	_	2
Control (CTRL) drain connector (one spare, one pre-installed)	-	2
Cable Glands M20	_	2
Cable Glands M25	_	2
Cable Glands M32	_	2
Patch label for power and current ratings	_	1

# 3. Product compatibility/additional items required

Item	Quantity		Source
Conduit with a diameter ranging from 19 mm to 32 mm (or) cable glands of up to M40 size for side entry of power cables	As required		Installer
Conduit with a diameter of 16 mm or cable glands up to M20 size for side entry of control communication cables	As required		Installer
Conduit up to 19 mm or cable glands up to M25 for rear entry of control communication cables or power cables	As required		Installer
Conduit fittings or cable glands, and tools must be IP55-rated when installed outdoors*	As required		Installer
Drill	1		Installer
4 mm pilot bit	1		Installer
Screwdriver	1		Installer
Wrench	1		Installer
Socket wrench	1		Installer
Torque wrench	1		Installer
Level gauge	1		Installer
Conductor stripper	1		Installer
Stud finder (if required)	1		Installer
Copper conductors - 2.5 mm <sup>2</sup> to 10 mm <sup>2</sup> (rated at 90°C)	As required		Installer
Control communication cable	As required		Enphase distributor/ Installer
Personal protective equipment for handling lithium batteries as required by local safety standards	As required		Installer
Protective equipment according to local safety standards	As required		Installer
M8 lag bolts or screws to install the bottom mounting bracket. Slots are 9.2 mm for the wall mount and 11.2 mm (inclined slots) for the pedestal. Check with a structural engineer and local standards for requirements	Single stud mounting (Min. 3)	Dual stud mounting (Min. 4)	Installer
M6 screws to fasten the top protective shield on the wall. Use standard screws only (head thickness <5 mm)	Single stud mounting (Min. 6)	Dual stud mounting (Min. 6)	Installer
Washers	As required		Installer

Item	Quantity	Source
IQ Battery 5P Lifting Handles. Includes one left-side and one right-side lifting handle (SKU: IQBATTERY-HNDL-5)	1	Enphase distributor/ Installer



NOTE: While using cable glands, install entry thread seal washers or O-rings.



**NOTE:** The Enphase IQ Battery 5P system requires an internet connection through the IQ Gateway Metered. Failure to maintain an internet connection may have an impact on the warranty. See <a href="http://enphase.com/warranty">http://enphase.com/warranty</a> for complete details.

For grid-tied operation, the IQ Battery 5P is connected to the IQ Gateway Metered via Communications Kit 2 and communicates using wired control communication cables. IQ Relay should be installed if required by local regulations.

For backup operation, the IQ Battery 5P is connected to the IQ System Controller using wired control communication cables.

The battery is tested and certified to operate only with suitable control cables. Scan the QR code/use the below link to find details on the tested and supported control communication cable for your country.



https://link.enphase.com/control-cable-table-eu



NOTE: The rated energy capacity of the battery is 5.0 kWh.

The following table lists the product compatibility matrix.

Product	IQ Battery 5P with FlexPhase – grid-tied	IQ Battery 5P with FlexPhase – backup
IQ7 Series/S Series <sup>1</sup>	Yes	Yes
IQ8 Series	Yes	Yes
String inverter	Yes	Yes
M Series	No <sup>1</sup>	No <sup>1</sup>
IQ7 + M Series	No <sup>1</sup>	No <sup>1</sup>
IQ7 + IQ8 Series	No <sup>1</sup>	No <sup>1</sup>
String + IQ7/IQ8 Series	No <sup>1</sup>	No <sup>1</sup>
AC battery	No	No
IQ Battery 3T/10T	No	No

Refer to the system planning guide for more information.

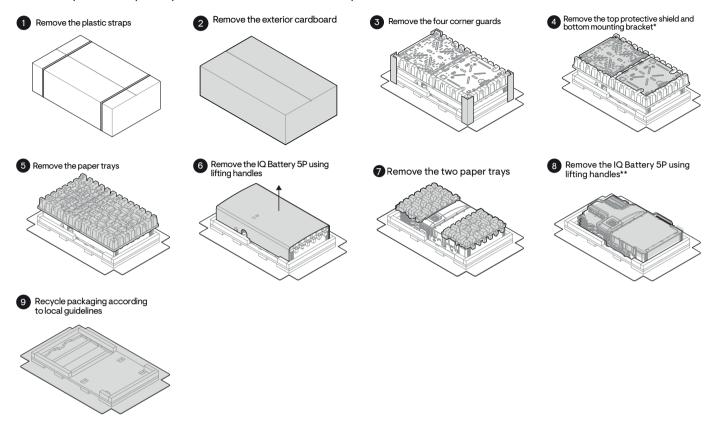
# 4. Unboxing IQ Battery 5P with FlexPhase

Before you unbox IQ Battery 5P, check the "Energize By" label on the shipping box to verify that the IQ Battery will be installed by the date shown. If the date has passed, contact your distributor to discuss the next steps.

Remove the upper packaging cover and follow the steps, as shown in the following images.



**WARNING:** Do not lift the IQ Battery 5P using microinverters or the plastic behind the microinverters. This may damage the unit permanently. Always use handles to lift the IQ Battery 5P.



Inspect the packaging and the IQ Battery for any signs of damage, such as cracks, dents, or electrolyte leaks. Do not install or use the IQ Battery if it has been dropped or damaged in any way. If the battery is damaged, contact your distributor for a replacement.



**NOTE:** \*Ensure to take out the accessories bag included in the IQ Battery packaging and store it securely for use during the installation of IQ Battery 5P.



NOTE: \*\*To install handles on the IQ Battery 5P, see Installing IQ Battery 5P with FlexPhase on page 20.



**WARNING:** Risk of injury and equipment damage. The total lifting weight, with handles attached, is 69.5 kg. Handles must be used while lifting the battery. Two-person manual lifting is allowed only if permitted by local laws. Otherwise, use mechanical lifting.



WARNING: Do not lift the packaging with the battery inside after the plastic straps are cut.

# 5. Mounting the product

#### 5.1 Plan a location for the IQ Batteries



The IQ Battery 5P housing is IP55-rated and can be installed indoors or outdoors.



Make sure the installed location can sustain the total weight of the IQ Batteries and mounting bracket. The total weight of IQ Battery 5P, including the IQ Battery 5P unit, cover, and wall-mount bracket, is 83 kg. The wall must contain blocked studs that can bear the battery weight or can be of masonry or another suitable structure.



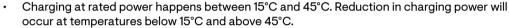
Make sure there are no pipes or electrical wires on the wall where you plan to drill.

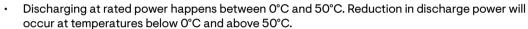


Follow local standards: Choose a well-ventilated location where the ambient temperature and humidity are within -20°C to 55°C and 5% to 95% relative humidity, non-condensing, out of direct sunlight. The optimum ambient temperature range for installation location is 0°C to 30°C.



Installation in a location where the IQ Battery 5P is subject to higher or lower temperatures will result in reduced battery performance:







- Consider the dimensions of the IQ Batteries, easy access, height, and length of cable when selecting the location.
- L/N/PE terminal blocks can accommodate copper conductors of sizes ranging from 2.5 mm<sup>2</sup> to 6 mm<sup>2</sup> with/without ferrules and up to 10 mm<sup>2</sup> without ferrules. The installer must size cables appropriately based on local regulations and site conditions.



**NOTE:** The warning and information labels must be installed at an appropriate location on site, following local safety regulations such as VDE-AR-E 2510-2.



**WARNING:** IQ Battery 5P devices should NOT be installed on a flammable surface. When installing on a wooden wall, it is suggested to use a flame-retardant board between the wooden wall and IQ Battery 5P devices should NOT be installed on a flammable surface. When installing on a wooden wall, it is suggested to use a flame-retardant board between the wooden wall and IQ Battery 5P. Consult the regional building regulations for any additional requirements. Provide smoke alarms in the residence if required by local standards or building, fire, and installation codes.



This product must not be installed at altitudes above 2500 m.









#### IQ Battery 5P with FlexPhase in single-phase configuration:

Model name	Power (kVA)	Current (A)	Max number of units in a daisy chain 'X'	Recommen ded breaker rating for a single unit (A)	Maximum breaker rating for 'X' units	Recommen ded number of units per single- phase IQ Relay <sup>2</sup>
IQBATTERY-5P -3P- INT-1.65-1P	1.65	7.17	4	10	40	2
IQBATTERY-5P -3P- INT-2.50-1P	2.50	10.87	3	16	40	1
IQBATTERY-5P -3P- INT-3.00-1P	3.00	13.04	2	16	40	1
IQBATTERY-5P -3P- INT-3.68-1P	3.68	16	2	20	40	1
IQBATTERY-5P -3P- INT-3.84-1P	3.84	16.7	2	20	40	1

#### IQ Battery 5P with FlexPhase in three-phase configuration:

Model name	Power (kVA)	Current/ Phase (A)	Max number of units in a daisy chain 'X'	Recommen ded breaker rating for a single unit (A)	Maximum breaker rating for 'X' units (A)	Recommen ded number of units per single- phase IQ Relay <sup>2</sup>
IQBATTERY-5P -3P- INT-1.84-3P	1.84	2.67	10	6	32	8
IQBATTERY-5P -3P- INT-2.50-3P	2.50	3.62	7	6	32	6
IQBATTERY-5P -3P- INT-3.00-3P	3.00	4.35	6	6	32	5
IQBATTERY-5P -3P- INT-3.68-3P	3.68	5.33	5	10	40	4
IQBATTERY-5P -3P- INT-3.84-3P	3.84	5.56	5	10	40	4



**NOTE:** In certain regions, even after configuring the system at a derated nominal power rating specific to the model number, local regulations may still require breaker and wire sizing based on the maximum possible nominal power rating. Installers must always consult and comply with local electrical codes and regulations to ensure the correct sizing of breakers and wiring, thereby ensuring both safety and regulatory compliance.



**NOTE:** Follow all local standards and regulations while selecting the AC circuit breaker. Type B curve circuit breaker is recommended for use.



**NOTE:** The maximum conductor size compatible with IQ Battery 5P is 10 mm<sup>2</sup> (without ferrule) in 1-phase and 3-phase configurations. Follow all local standards and regulations while selecting the AC circuit breaker.

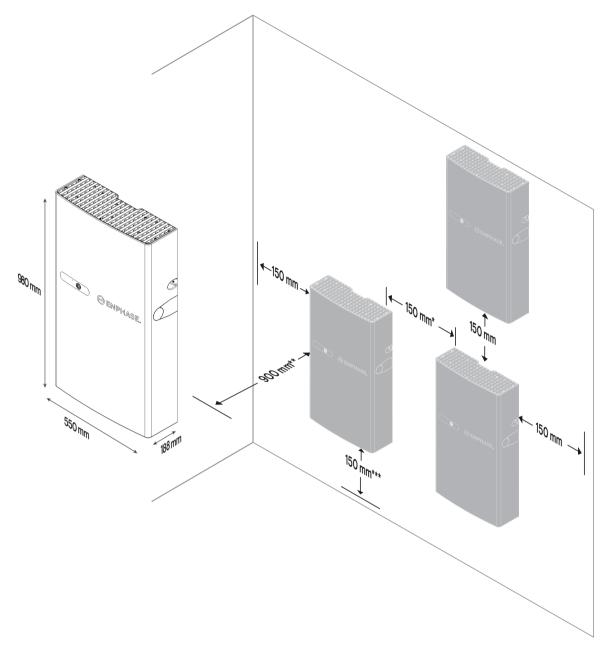


NOTE: The IQ Battery 5P is compatible with TNC-S, TNS, and TT earthing systems with voltages 400 VAC<sub>L-L</sub>/230 VAC<sub>L-N</sub>.

<sup>&</sup>lt;sup>2</sup> The use of an IQ Relay is applicable only in grid-tied system configurations and is not required for grid-agnostic systems. Additionally, IQ Relay requirements vary by region. Please ensure compliance by verifying local regulations before installation.

#### 5.2 Minimum clearance

The mounting instructions that follow are for the included wall-mount bracket only. This product must be installed with clearance at the left, right, top, bottom, and front of the product, as shown in the figure.



Keep IQ Battery 5P away from falling or moving objects, including motor vehicles.



**NOTE:** \*For IQ Batteries mounted side-by-side, the minimum distance between the covers of two units should be 76 mm. Installation handles cannot be used for clearance less than 150 mm, and installers need to consider adjusting the distance between batteries based on cable bending radius and local regulations.



NOTE: \*\*The minimum clearance to be maintained in front of the batteries is 250 mm.



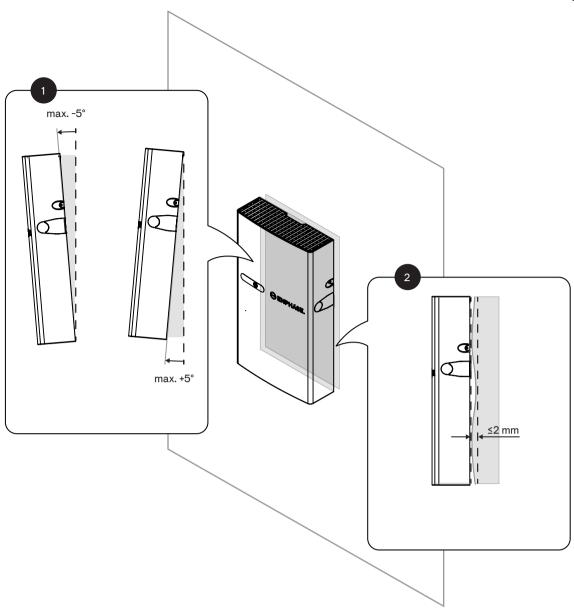
**NOTE:** \*\*\*If mounted in the path of a motor vehicle, Enphase recommends a minimum mounting height of 900 mm above the floor.



**NOTE:** The above instructions are for wall mounting of the battery. To floor mount the IQ Battery 5P, order the pedestal accessory (Order code: B05-PM-0550-O) and refer to the floor-mount instructions that come with that product.

#### 5.3 Mounting surface

- 1. Select a location where the tilt from vertical is less than 5°.
- 2. Make sure the mounting surface flatness is within 2 mm between boundary lines.





**NOTE:** If the variation of the flatness is more than 2 mm, the battery might not properly sit on the bottom mounting bracket through the keyholes. Use spacers or Unistruts if the variation is more than 2 mm.

#### 5.4 Install the bottom mounting bracket and the top protective shield

The bottom mounting bracket carries the weight of the IQ Battery 5P, and the top protective shield covers the back of the IQ Battery 5P.

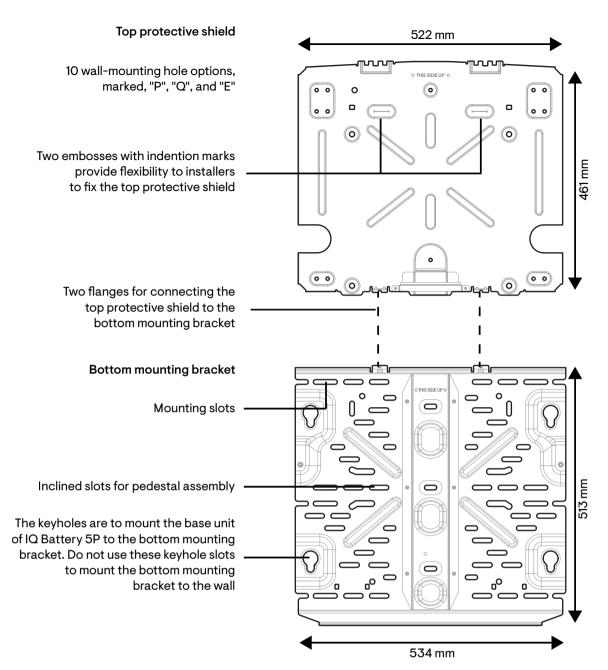


WARNING: Risk of injury and equipment damage. Do not mount an IQ Battery 5P on a bracket that is not properly mounted.

Use a minimum of six M6 screws for mounting the top protective shield to the wall. Use standard screws only (head thickness < 5 mm).

Use M8 screws/lag bolts (9.2 mm) with a washer (or masonry attachments for masonry wall) for each slot to attach the bottom mounting bracket.

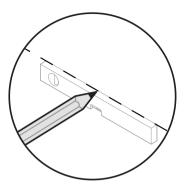
Install the bottom mounting bracket as per the following instructions. Make sure the bottom mounting bracket is firmly attached to the wall.



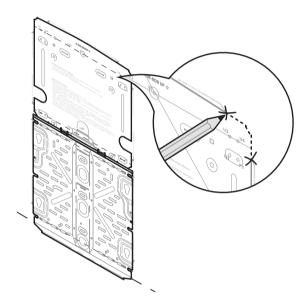
#### 5.4.1 Mounting on a masonry wall

Follow the instructions provided below for mounting IQ Battery 5P on a masonry wall. Make sure the bottom mounting bracket is firmly attached to the wall.

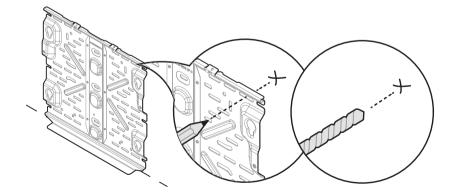
1. Starting at the installation position closest to the power source, mark a level line on the wall as a guide.



2. A drill template is included in the IQ Battery 5P packaging to simplify the marking of all necessary drilling points. Select the appropriate instructions from the template based on the type of mounting surface for installation.



3. Place the bottom mounting bracket against the wall and mark the drill points. Remove the bottom mounting bracket and drill the holes in the wall.



4. Remove the bottom mounting bracket and drill the holes on the mounting surface.

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WARNING: Multiple risks. Make sure not to drill into or attach electric wiring or pipes to the wall.

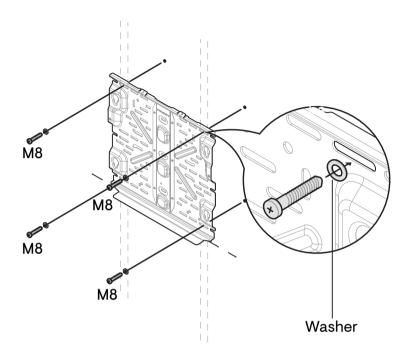


NOTE: Any one of the methods mentioned in this section can be used for mounting IQ Battery 5P on a masonry wall.

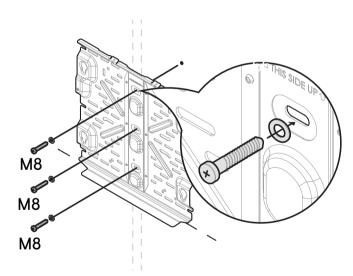


**NOTE:** Ensure that for wall-mounted installations, you utilize a dowel that is suitable in both size and length for the drilled holes before placing the mounting bracket on the wall and inserting the screws to secure the mounting bracket.

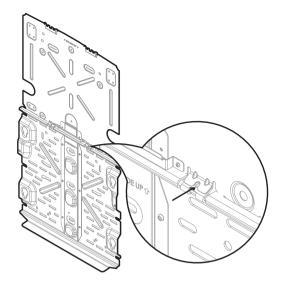
- 5. To mount the bottom mounting bracket, follow one of the following options:
  - For multiple vertical mounting slots: Position the bottom mounting bracket on the wall and fasten it using the mounting slots. Use a minimum of four M8 screws or lag bolts (symmetrically distributed) for multiple vertical mounting slots. Tighten all screws to the manufacturer's specified torque values.



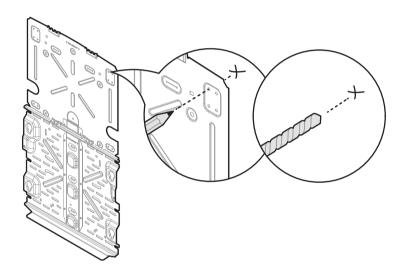
• For single mounting slots: Position the bottom mounting bracket on the wall and fasten it using the mounting slots. Use a minimum of three M8 screws or lag bolts (on the centerline) for single mounting slots. Tighten all screws to the manufacturer's specified torque values.



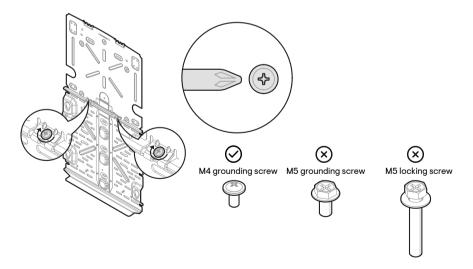
6. Position the flange of the top protective shield with the flange of the bottom mounting bracket and align the screw slot/hole.



7. Mark holes in the wall.

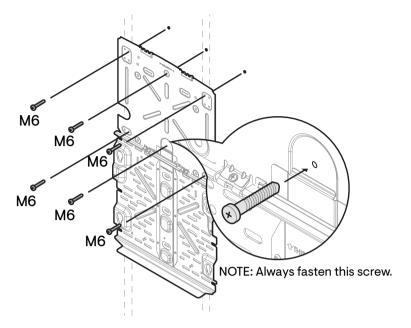


8. Remove the top protective shield and drill holes in the wall.



9. Fix the top protective shield to the bottom mounting bracket at the earth bonding flange.

10. Fasten the top protective shield using the mounting holes. Use a minimum of six M6 screws for dual stud mounting to fasten the top protective shield to the wall. Use standard screws only (head thickness <5 mm). Finally, fully tighten the M4 grounding screws between the two shields (torque to 1.5 N m).





WARNING: Multiple risks. Make sure not to drill into or attach electric wiring or pipes to the wall.



**NOTE:** The top protective shield is not a structural part and does not always need to be mounted to the studs. It can be fastened to the supporting wall with the pre-drilled holes if the studs are not aligned.



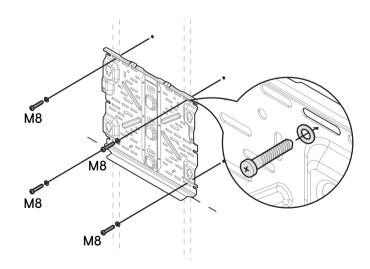
NOTE: Use an electric drive; do not use impact drives or impact drills to tighten the grounding screws.

#### 5.4.2 Mounting on studs

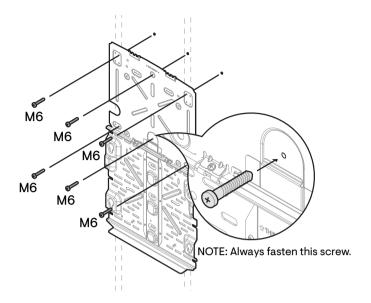
Follow the steps provided below to mount the IQ Battery on studs. If not applicable, proceed to Installing IQ Battery 5P with FlexPhase on page 20.

#### Mounting on multiple vertical studs (450 mm stud spacing)

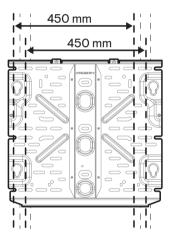
- 1. Follow steps 1 through 4 of Mounting on a masonry wall on page 14.
- 2. Position the bottom mounting bracket on the wall and fasten it using the mounting slots as shown in the following figure. Use a minimum of four M8 screws or lag bolts (symmetrically distributed) for dual stud mounting. Tighten all screws to the manufacturer's specified torque values.



- 3. Follow steps 6 through 9 of Mounting on a masonry wall on page 14.
- 4. Fasten the top protective shield using the mounting holes. Use a minimum of six M6 screws for dual stud mounting to fasten the top protective shield to the wall as shown in the following figure. Use standard screws only (head thickness <5 mm). Finally, fully tighten the M4 grounding screws between the two shields (torque to 1.5 N m).



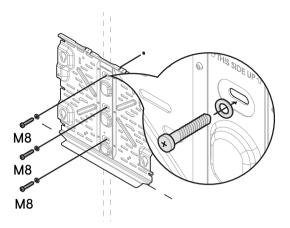
The bottom mounting bracket can accommodate a slight offset in stud positioning for the battery unit with pre-drilled holes/slots, as shown in the following figure.



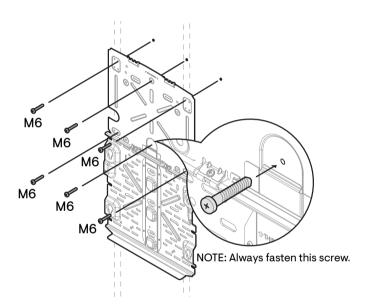
#### Mounting on a single vertical stud

1. Follow steps 1 through 4 of Mounting on a masonry wall on page 14.

2. Position the bottom mounting bracket on the wall and fasten it using the mounting slots as shown in the following figure. Use a minimum of three M8 screws or lag bolts (on the centerline) for single stud mounting. Tighten all screws to the manufacturer's specified torque values.

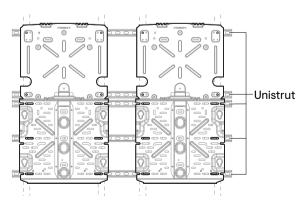


- 3. Follow steps 6 through 9 of Mounting on a masonry wall on page 14.
- 4. Fasten the top protective shield using the mounting holes. Use a minimum of six M6 screws for single-stud mounting to fasten the top protective shield to the wall as shown in the above image. Use standard screws only (head thickness <5 mm). Finally, fully tighten the M4 grounding screws (torque to 1.5 N m).



#### Mounting on a Unistrut

For mounting on multiple vertical studs with 600 mm stud spacing or on an uneven wall, use Unistrut.



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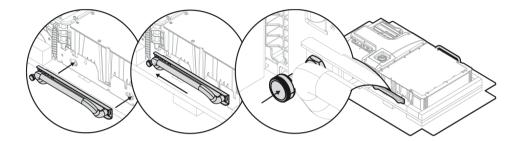
NOTE: Use an electric drive; do not use impact drives or impact drills to tighten the grounding screws.

# 6. Installing IQ Battery 5P with FlexPhase

#### 6.1 Prepare to install IQ Battery 5P on the bottom mounting bracket

Complete all the following steps before installing IQ Battery 5P on the wall.

1. Remove the ID cover from the packaging and keep it aside. Use the reusable lifting handles (sold separately) and check that the plungers on the handle are extended and ready to engage into the IQ Battery 5P slots.

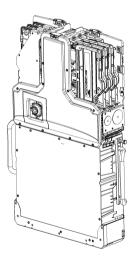


- 2. Align the left handle on the left side of IQ Battery 5P, insert it into the slots, and slide it toward the top of the IQ Battery 5P enclosure until the plunger locks into place. Check that the handle is secure.
- 3. Repeat on the other side with the right handle.



**WARNING:** Risk of injury and equipment damage. The total lifting weight with handles attached is 67.35 kg; lift according to local law. Handles must be used while lifting the battery. Two-person manual lifting is allowed only if permitted by local law. Otherwise, use mechanical lifting.

4. Two people together must lift the IQ Battery 5P unit from the packaging using the handles and place it in an upright position on the floor, taking support of the backplate or wiring cover.





**WARNING:** Do not lift the IQ Battery 5P using microinverters or the plastic behind the microinverters. This may damage the unit permanently.



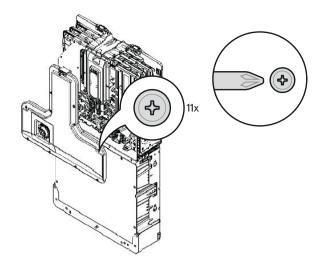
WARNING: Lift the IQ Battery 5P from the packaging using the handles and make sure the battery's front side is facing you.

5. Open the front wiring cover by unfastening the 11 captive screws from the wiring cover. Use a screwdriver or an electric drive; do not use impact drives/impact drills.

Check the red caution label (see step 8 in the Cable routing and closing the wiring cover section) on the unit for the specified torque value of captive screws.



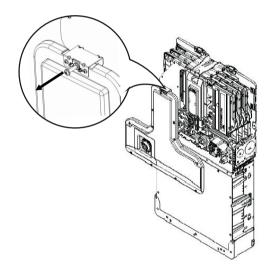
NOTE: Remove the top screw at the last to avoid damage to the wiring cover.



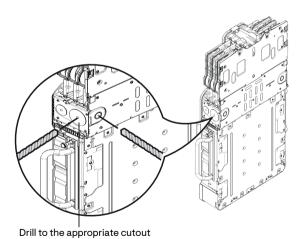
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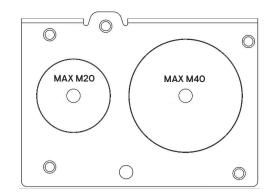
**DANGER:** Risk of electric shock. The DC control switch must be switched OFF before performing this step.

6. To remove the wiring cover, pull out the top screw and then lift it gently to remove. When fixing the wiring cover back, pull out the screw and then place the hook from the top and align it.



7. Drill the appropriate cutout on either the back or side of the unit or both based on configurations.







**NOTE:** Before mounting the unit on the wall, drill the appropriate cutout. Drilling the cutouts after mounting the unit to the wall can lead to internal component damage, which is not covered by the warranty.



WARNING: Ensure that the drilling machine does not touch any internal components or walls.



WARNING: Clean the debris from inside the battery unit after drilling.

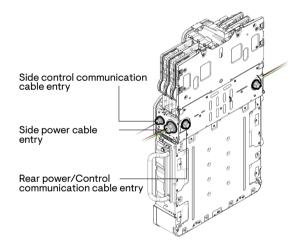


**WARNING:** Risk of equipment damage. For rear cable entry, wall drilling should be done before mounting the IQ Battery 5P on the wall.

8. IQ Battery 5P can have the field cable entry from the back, left, or right side. Finalize the side from where the field cable enters and leaves IQ Battery 5P.

Opening on one side can either be used for only entry or exit of the cables. For example, if the cable is entering on the left side, then the cable outlet for the next IQ Battery 5P in the circuit should always be on the right side and vice-versa.

Install cable glands on the sides where cable entry is planned before mounting the units on the wall. Use the following figure to decide the cutout for all the units.



Refer to the following table for the sizes of conduits and cable glands corresponding to the different entry points in the IQ Battery.

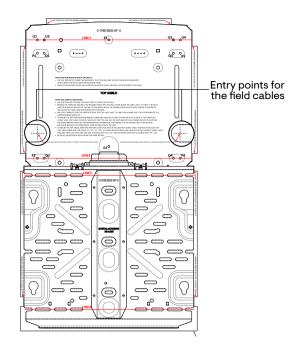
Cable entry point	Control communication cable	Power cable
Side		Conduit with a diameter ranging from 19 mm to 32 mm (or) cable glands up to M40 size
Rear	Conduit with a diameter ranging from 13 mm to 19 mm or cable glands up to M25 size	

For manufacturer-recommended instructions for conduit installation, see Installing conduit and field wiring on page 27.

# 6.2 Cable entry instructions for the rear side

To connect the cables using the rear entry of the IQ Battery unit, follow these steps:

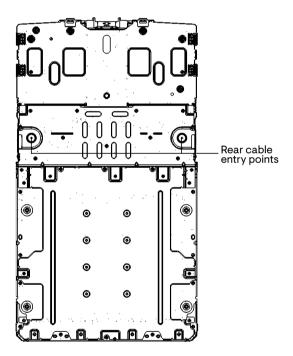
- 1. Affix the drill template that comes with the IQ Battery 5P unit inside the packaging box onto the wall at the designated installation location.
- 2. The center marks shown as "+" on the drill template (see the following figure) serve as entry points for the field cables into the IQ Battery unit from the rear. Drill holes at these center marks based on the conduit size must be used.



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NOTE: Clear the dirt and debris from the holes and wall brackets after drilling.

3. After drilling the holes to secure the bottom mounting bracket and the top shield (as mentioned in Mounting on a masonry wall on page 14), proceed to drill the necessary holes at the center of the cable gland entries located at the rear side of the main battery unit for attaching the conduits based on the required conduit size. Refer to the following figure for the specific location where the holes should be drilled on the battery unit to secure the conduits.

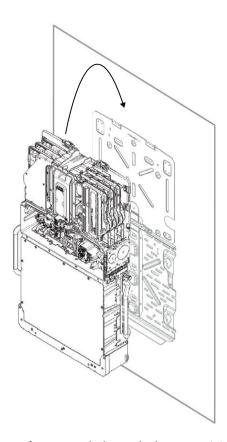


4. Install the cable glands and mount the unit on the wall.

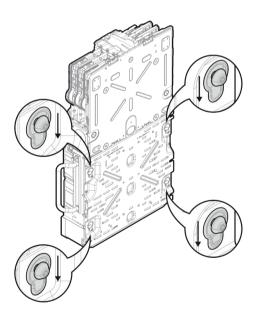


**NOTE:** The rear entry of the unit is intended for either power cable or control communication cable entry, but not both simultaneously. When the power cable is utilized with the rear entry, the control communication cables should be inserted using the side entries, and vice versa.

5. Bring the IQ Battery 5P unit to the bracket mounted on the wall.

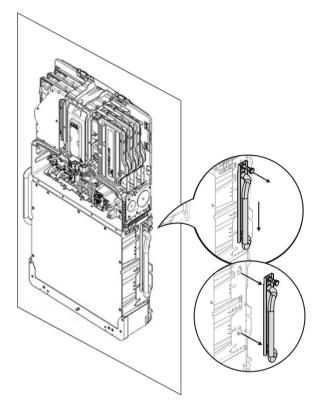


6. Hold the IQ Battery 5P straight, align, and insert four mount bolts on the battery unit into the bottom mounting bracket keyholes and slide it down.

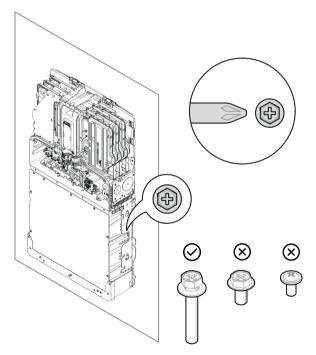


NOTE: Use lift assist to avoid any mishap during lifting.

7. To remove the installation handles, pull the plunger outward to unlock them. Then, slide the handle down and pull it away from the unit to remove it.

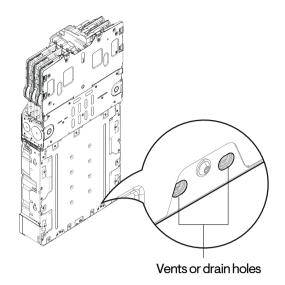


8. Secure the battery unit on the bottom mounting bracket using two M5 locking screws. Torque to 5.6 N m. This is required to comply with seismic requirements.



NOTE: Use a screwdriver or electric drive; do not use impact drives or impact drills while tightening locking screws.

NOTE: It is recommended to use a screwdriver extension bit to reach the screw head.

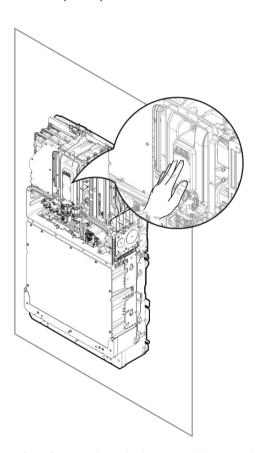


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**WARNING:** The vent or drain holes provided at the back of the unit serve the dual purpose of natural ventilation and condensation drainage. Blocking these holes can affect the functionality of the product.

# 6.3 Installation of Anchor Clip

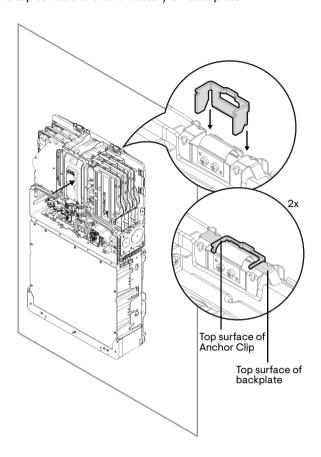
1. Push against the wiring cover and hold the IQ Battery 5P top section as close to the wall as possible to insert Anchor Clips.



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WARNING: Risk of equipment damage. Refrain from pushing the battery while using the power control units for support.

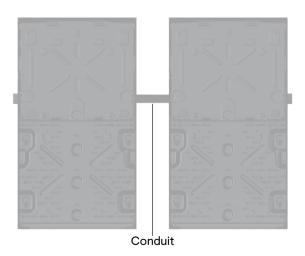
2. Install two Anchor Clips to secure the top section of the IQ Battery 5P to the wall. Slide the Anchor Clip downwards until the top surface of the clip coincides with the top surface of the IQ Battery 5P backplate.



# 7. Wiring

# 7.1 Installing conduit and field wiring

1. To install a single IQ Battery 5P unit, insert the conduit in the cutouts drilled previously.



**NOTE:** Use a sealing gasket while fixing the conduit fitting or cable gland to improve ingress protection.

When adding additional IQ Battery 5P units to an existing IQ Battery 5P site, disconnect B1 and B2 (DC connectors), on the adjacent existing IQ Battery 5P units. For more information, see Cable routing and closing the wiring cover on page 36.

- 2. For multiple units, insert the conduit on the side nearest to the AC circuit breaker. Follow these steps to install conduits between units:
  - a. Mount one IQ Battery 5P on the wall.
  - b. Connect the rigid conduit.
  - c. Adjust the conduit in the first unit and mount the second IQ Battery 5P.
  - d. Repeat steps a, b, and c for each additional unit.

**NOTE:** After installation, check the level of IQ Battery 5P units to ensure that batteries are properly seated in the bottom mounting bracket slots.

3. Starting from the unit closest to the AC circuit breaker, pass the power and CTRL connector through the conduit and make the two ends of conductors available on the unit and AC circuit breaker side.

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NOTE: It is recommended to conduct periodic wiring inspections in accordance with local regulations.

Refer to the following table for the strip length and cable size for power and control communication cables.

Terminal	Cable size in mm <sup>2</sup> (min. to max.)	Strip length in mm	Recommended torque in N m
Line (grey)			
Neutral (blue)	2.5 to 10 <sup>4</sup>	10 to 12	NA <sup>5</sup>
PE (green) <sup>3</sup>			
CTRL	0.5 to 1.5 <sup>6</sup>	8	0.2

#### 7.2 Wiring the battery for use in a single-phase configuration

Connect the power cables (L, N, and PE for single-phase configuration) to the AC terminal block. Connect the control communication cables to the CTRL connectors.

To connect more than one IQ Battery 5P, connect power cables and control communication cables between the units. The power and control communication cables will exit the right side of one unit, pass through the conduit between the units, and enter another unit from the left side. Repeat the steps for all the IQ Battery 5P units.

 $\langle \mathcal{A} \rangle$ 

NOTE: Power and control communication cables have separate conduit entries on the sides.

**NOTE:** The colors shown for field cables are only for representation purposes. Follow color codes for field wiring as per local regulations.



NOTE: A maximum of two batteries can be connected per branch circuit.



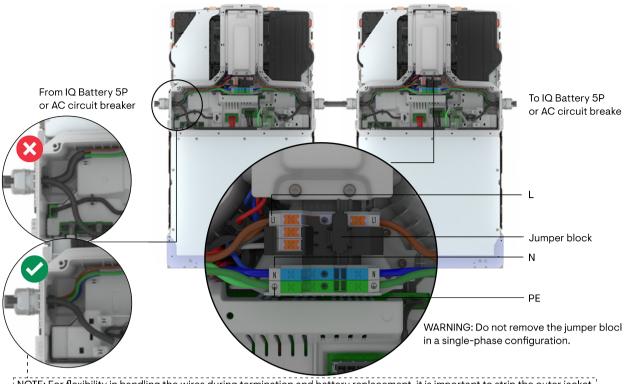
**NOTE:** The terminals are compatible to be used with solid core and flexible core cables. Flexible core cables can be used without ferrules as well.

Ensure that the cable size used for the PE terminal is at least  $10 \text{ mm}^2$ .

<sup>4</sup> Terminal blocks can accommodate copper conductors of sizes ranging from 2.5 mm<sup>2</sup> to 6 mm<sup>2</sup> with/without ferrules and up to 10 mm<sup>2</sup> without ferrules.

<sup>&</sup>lt;sup>5</sup> Push-type terminals are used.

<sup>&</sup>lt;sup>6</sup> For control communications cable details, see https://link.enphase.com/control-cable-table-eu-

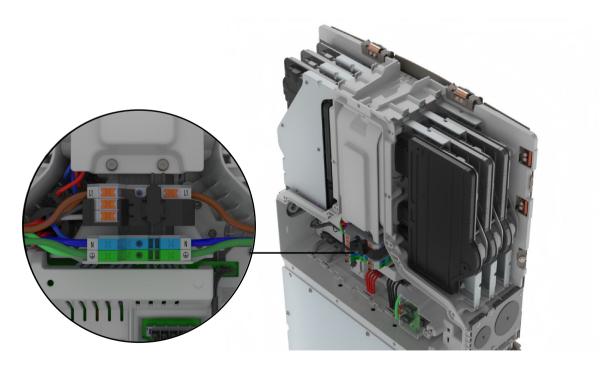


NOTE: For flexibility in handling the wires during termination and battery replacement, it is important to strip the outer jacket off the field cables as they enter the IQ Battery 5P through the cable glands.

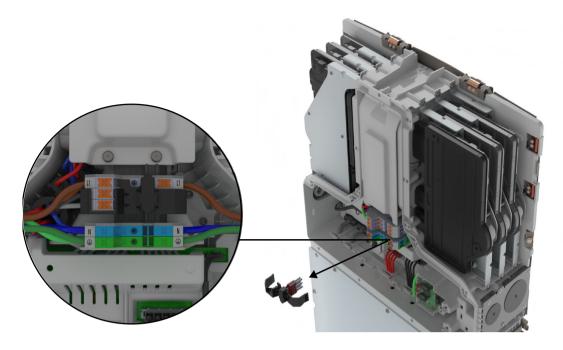
# 7.3 Converting IQ Battery 5P with FlexPhase from single-phase to three-phase configuration

The IQ Battery 5P with FlexPhase is shipped with the jumper block pre-installed on the AC terminals making it a single-phase battery by default. To utilize the battery in three-phase configurations, simply pull out/remove the jumper block from the AC terminals.

The following figure shows the single-phase configuration with a jumper block installed.



Remove the jumper block to use the unit in a three-phase configuration, as follows.



### 7.4 Wiring the battery for use in a three-phase configuration

Connect the power cables (L1, L2, L3, N, and PE for three-phase configuration) on the AC terminal block. Connect the control communication cables to the control (CTRL) connectors.

To connect more than one IQ Battery 5P, connect power cables and control communication cables between the units. The power and control communication cables will exit the right side of one unit, pass through the conduit between the units, and enter another unit from the left side. Repeat the steps for all the IQ Battery 5P units.



**NOTE:** The colors shown for field cables are only for representation purposes. Follow local regulations for field wiring identification standards.



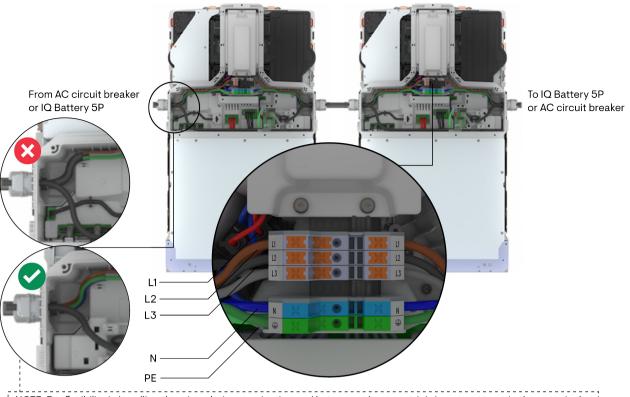
**NOTE:** Power and control communication cables have separate conduit entries.



**NOTE:** The terminals are compatible to be used with solid core and flexible core cables. Flexible core cables can be used without ferrules as well.



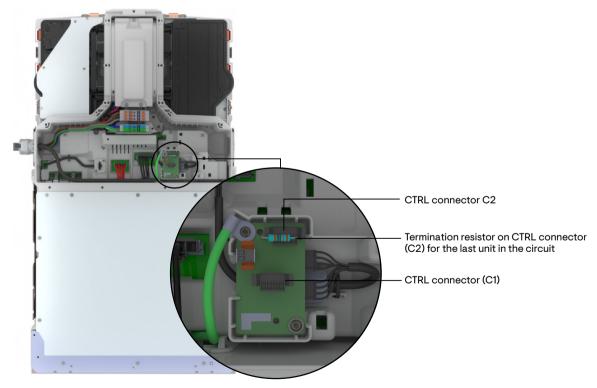
**NOTE:** The IQ Battery 5P with FlexPhase when used in three-phase installations requires the phase rotation to be in the right (clockwise) direction. When performing the phase check, ensure that the L1-L2-L3 terminals indicate a right-phase rotation.



NOTE: For flexibility in handling the wires during termination and battery replacement, it is important to strip the outer jacket off the field cables as they enter the IQ Battery 5P through the cable glands.

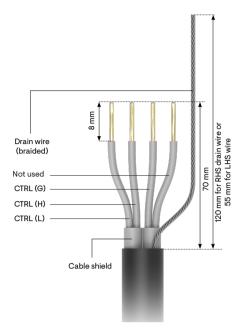
# 7.5 Control communication board wiring

1. The control communication board for the IQ Battery 5P is located below the AC connection terminal block and adjacent to the (B2) battery terminal. Two control (CTRL) connectors and one drain connector are provided for the control communication cable connection.



NOTE: The CTRL connector C2 must be terminated with a termination resistor for the last IQ Battery 5P unit in a circuit.

2. Follow the jacket stripping length as shown in the following image. Keep the terminating resistor only on the devices that are on the two ends of the control communication bus, and remove the resistor from the rest of the devices. For more information, see Control communication wiring between system components on page 33.

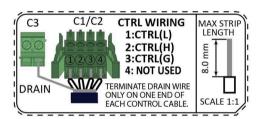




**NOTE:** The drain wire of each length of the control cable should only be terminated at one end.



**NOTE:** CTRL connectors (C1/C2) are identical and can be used interchangeably for IN and OUT connections.





**WARNING:** Risk of communications loss. While attaching CTRL connectors, ensure that the control communication cable conductors are not exposed.

Scan for the tested and supported control communication cable details.



https://link.enphase.com/control-cable-table-eu

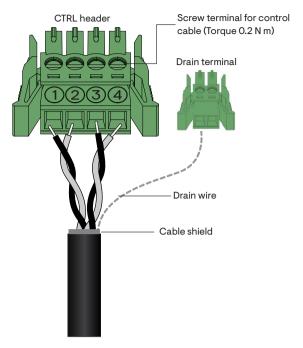


**NOTE:** Use an automatic wire-stripper tool like the one shown in the image below to strip the jacket of the control communication cable.



3. To ensure proper control communication cable connection between Communications Kit 2 and IQ Batteries, follow the guidelines outlined below while connecting the cable to the headers.

Ensure that both ends of the control communication cable twisted pair wires are inserted into the header. Confirm this by performing a continuity check between CTRL header screw terminals on both ends of the control communication cable section.





**WARNING:** Failure to follow wiring guidance will result in the system being unable to detect devices, leading to commissioning and operation failures.



**NOTE:** Before pulling the cable through the conduit, perform continuity checks.

### 7.6 Control communication wiring between system components

This section provides guidelines for control communication wiring between system components. The system components may differ depending on the configuration in which the system is utilized (refer to the table below).

Grid-tied configuration	Backup configuration
IQ Battery 5P	IQ Battery 5P
Communications Kit 2 INT	IQ System Controller 3 INT

Ensure the following guidelines are followed to avoid failures during system commissioning:

- · The position of the header with termination resistor, wiring order, and drain wire termination location needs to be identified.
- · Each component at the end of the control wiring network should have one header with a termination resistor installed.



NOTE: The drain wire should be terminated only at one end of each control wiring section or length.

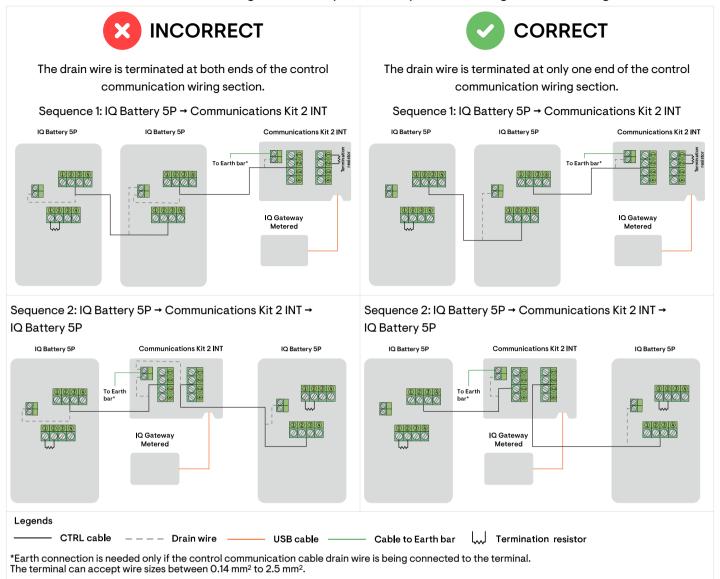


**NOTE:** To ensure optimal system performance, the total length of control communication wiring across the system must not exceed 100 m.



**NOTE:** If local regulations allow, the same conduits can be used for routing the power and control communication wires with Enphase-recommended control communication cables (Order code: CTRL-BL-EU-01).

# 7.6.1 Control communication wiring between system components in a grid-tied configuration



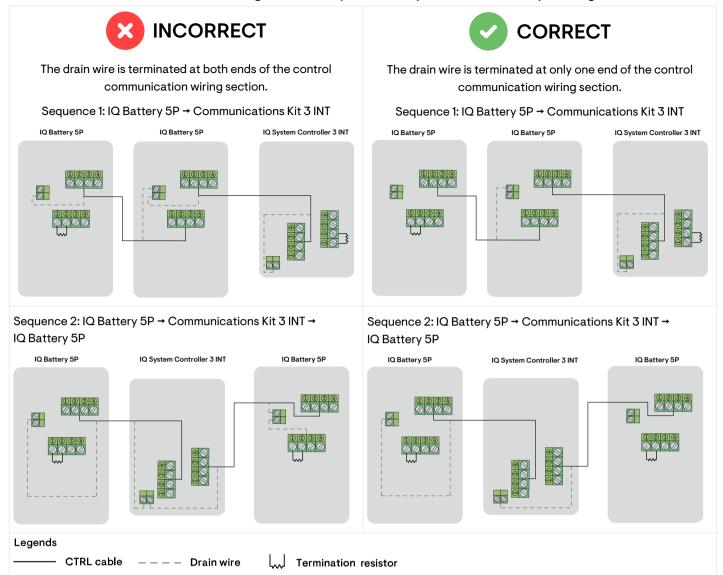
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**NOTE:** Earth connection is needed only if the control communication cable drain wire is connected to the terminal. The terminal can accept wire sizes between 0.14 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.

Here is a table providing termination resistor locations for the above sequences.

Control communication wiring sequence	Termination resistor location
Sequence 1	<ul><li>First IQ Battery 5P in the battery circuit</li><li>Communications Kit 2</li></ul>
Sequence 2	<ul><li>First IQ Battery 5P</li><li>Last IQ Battery 5P</li></ul>

# 7.6.2 Control communication wiring between system components in backup configuration

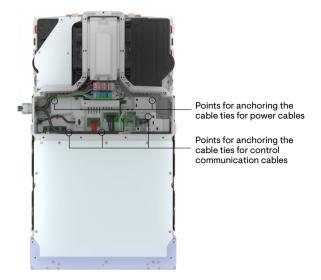


Here is a table providing termination resistor locations for the above sequences.

Control communication wiring sequence	Termination resistor location
Sequence 1	<ul> <li>First IQ Battery 5P in the battery circuit</li> <li>IQ System Controller 3 INT</li> </ul>
Sequence 2	<ul><li>First IQ Battery 5P</li><li>Last IQ Battery 5P</li></ul>

#### 7.7 Cable routing and closing the wiring cover

1. Route the conductors between the conduit and terminal blocks using anchoring points, as shown in the following figure.





WARNING: Make sure the drain wires do not come in contact with any live connection.



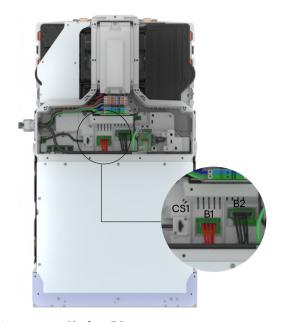
**NOTE:** Cable ties can be found in the accessories kit included in the packaging box. Secure the cables at the suggested points as shown in the preceding image to reduce stress on the terminal blocks, ensure correct routing, prevent wires from disconnecting at the terminals, and allow easy access for the wiring cover assembly.

- 2. After all wires in the field wiring compartment are connected and secured, make sure there are no exposed conductors.
- 3. Make sure the IQ Battery 5P unit that is farthest from the Communications Kit 2 has a cutout only on one side, and all other sides are covered.
- 4. Apply AC power to the IQ Battery 5P circuits. Using a voltmeter, make sure the voltage between L and N on the terminal blocks of each IQ Battery 5P unit measures 230 VAC (195-253 V).

Using a voltage tester, such as the DUSPOL, check the phase rotation at the terminals of the battery. The DUSPOL voltage tester has L and R indicators. Place the L1 probe of the tester on the L1 terminal of the battery and the L2 probe on the L2 terminal. The R indicator will illuminate if the phase rotation between the two connected line terminals is correct. Check all battery terminals: L1-L2, L2-L3, and L3-L1. The R indicator should illuminate for all checks. The DUSPOL voltage tester is shown below.



- 5. If the voltage is within the range required by local codes, turn off the AC power supply.
- 6. Connect the following connectors to the BMS board:
  - B1: Battery DC positive connector termination
  - B2: Battery DC negative connector termination
  - · CS1: Control switch intermediate connector termination





NOTE: Make sure the B1 connector is connected before B2.

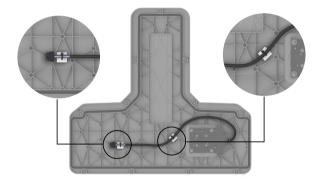


NOTE: Connect CS1 at last to avoid damage to the wiring cover.



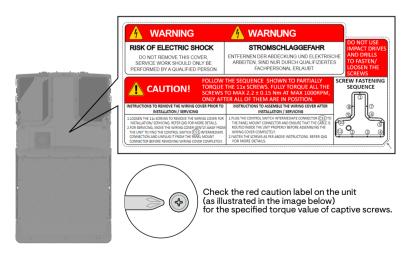
WARNING: Ensure that all the connectors are latched properly and pull them lightly to ensure they are locked in place.

7. Cut two cable ties and insert the connector on CS1 in the BMS board.



NOTE: When mounting the wiring cover, pull the top screw outwards and then place the hook onto the base unit. After alignment tighten the screws.

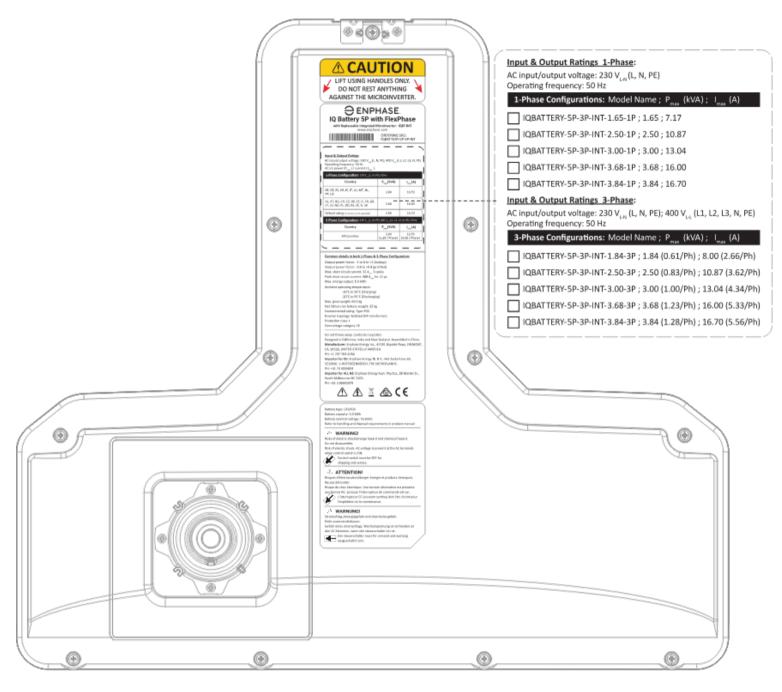
8. Fasten the 11 captive screws at the wiring cover as shown. Use a screwdriver or electric drive; do not use impact drives or impact drills.



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**NOTE:** Ensure no cables are pinched when installing the wiring cover.

- 9. Paste the patch label for power and current ratings over the input and output ratings section of the main label as indicated below.
- 10. Use a permanent marker to tick in the check box for the selected model number having configured power and current rating.



# 8. Energizing and configuring the system

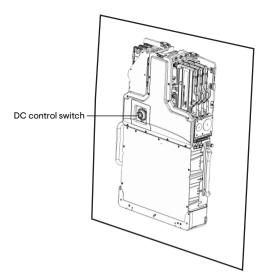


**WARNING:** Before energizing, make sure that all IQ Batteries in the system are properly installed, microinverters are properly inserted, and conductors are terminated.



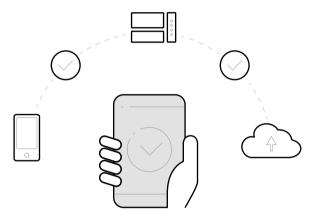
**WARNING:** Do not leave the DC control switch in the ON position without the AC power supply available. This depletes the battery and may lead to a condition where the battery cannot be turned ON or commissioned.

- 1. Apply AC power to the IQ Battery 5P circuits. The LED flashes green once and switches off. After 15-20 seconds, it starts flashing in a red triple-flash pattern.
- 2. Press the DC control switch on the battery and then wait until the LED starts flashing yellow.



IQ Battery 5P is now ready for commissioning, and you can start the Enphase Installer App workflow.

3. Use the Enphase Installer App to commission the IQ Battery units. Once connected to the IQ Gateway, refer to the Enphase Installer App help topics for more information.



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**NOTE:** Upon completing the commissioning steps using the Enphase Installer App, the battery will begin a calibration process by charging from the available PV and the grid. This calibration process may take up to 24 hours. During calibration, the system will prioritize battery charging and will not supply power to home loads.

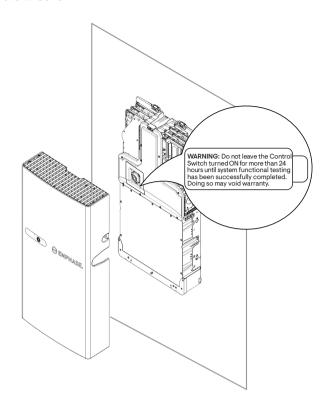
# 9. Installing the battery cover

1. Ensure the wiring cover(s) for all IQ Batteries in the system are closed and secured.

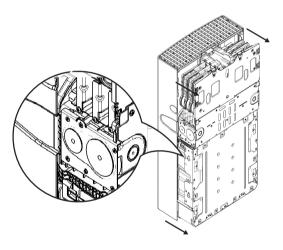


WARNING: Risk of equipment damage. Make sure no wires are pinched before placing the cover.

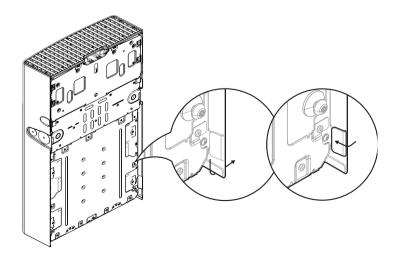
2. Peel off this sticker before installing the ID cover.



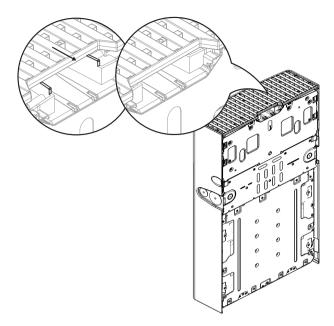
3. Slide on the IQ Battery 5P cover in the indicated direction such that the tab of the cover in the highlighted region rests and slides on the latch in the IQ Battery 5P chassis.



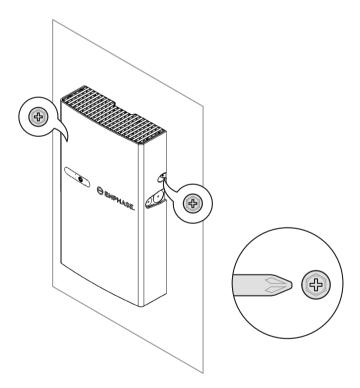
4. Before releasing the IQ Battery 5P cover, pull out the lower edges while sliding in the cover and make sure the tabs are locked to the back plate.



5. Push in the top portion of the cover as shown and make sure that the cover is locked in place.

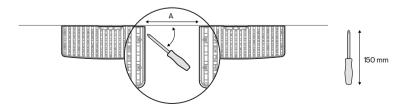


6. Fasten the cover to the backplate using two M5 ID cover grounding screws (torque to 3.1 N m) to fix the cover firmly in place and to comply with EMI and EMC requirements.



NOTE: Use a screwdriver or electric drive; do not use impact drives or impact drills.

If the spacing 'A' between the units is <165 mm, a screwdriver of a maximum length of 150 mm should be used to fasten the cover to the backplate.



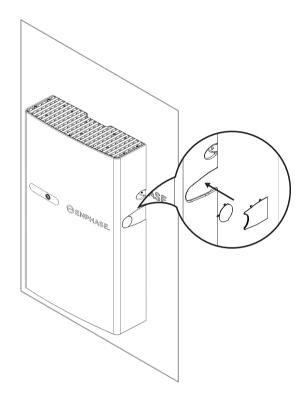


NOTE: The screw is accessible at an angle to the wall.

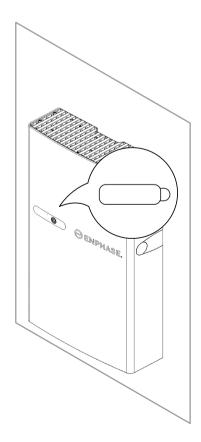
7. After installing the cover, the conduit covers should be installed to cover the opening in the IQ Battery 5P cover on the side.

If a conduit(s) or cable gland(s) is installed, conduit cover(s) are not necessary on that side. If no conduit(s) or cable gland(s) is installed, then the conduit cover should be installed to cover the openings in the IQ Battery 5P cover on the other side.

First, place the smaller control communication cable conduit cover in position, then proceed to attach the larger power cable conduit cover. Make sure to securely snap all the cover latches onto the IQ Battery 5P cover.



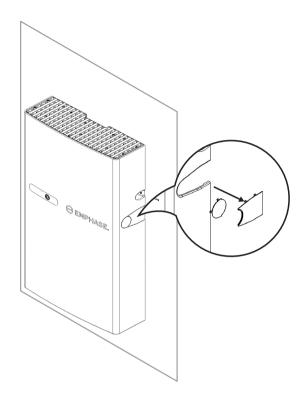
8. Peel off the sticker after the installation is complete.



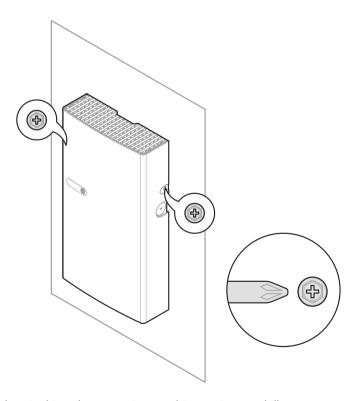
# 10. Disassembling the battery cover

Refer to these instructions when you need to remove the cover. This is not a step required for installing or commissioning the IQ Battery 5P.

1. Remove the conduit covers from both sides of the IQ Battery 5P cover.



2. Remove the two M5 ID cover grounding screws, which are used to fix the cover to the backplate.

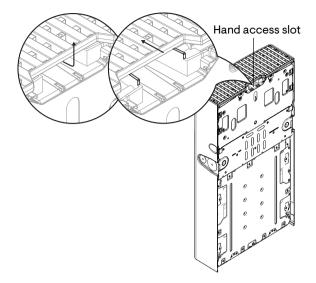


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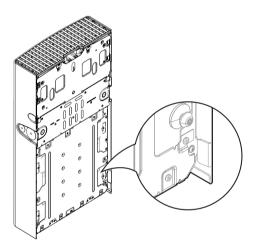
NOTE: Use a screwdriver or electric drive; do not use impact drives or impact drills.

3. Using the hand access slot, pull the top plastic grill slightly, as shown in step 3.

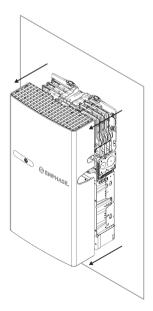
Unlock the top plastic cover from the ribs, as shown in step 4. Make sure the cover is slightly inclined after this step.



4. Pull out the lower portion of the cover to unlock the angular tabs and move it slightly away from the wall.



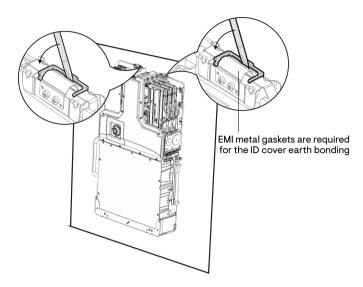
5. Pull the cover off in the indicated direction.



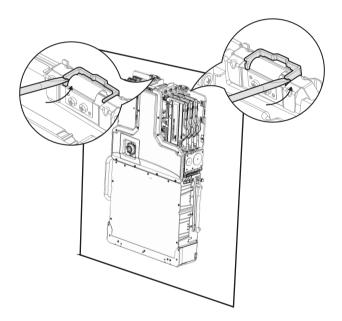
## 11. Disengaging the Anchor Clip

Refer to these instructions when you need to remove the Anchor Clip. This is not a required step prior to commissioning.

To disengage the Anchor Clip, lift it using a flat-head screwdriver or nose pliers. Installers need to carefully insert the tool into the back slot, as shown below, and pull the clip upwards.



Alternatively, Anchor Clips can also be lifted by using the front slots on either side of the clip using a flat-head screwdriver.





**WARNING:** Ensure not to touch or damage the EMI metal gaskets while removing the clips. EMI metal gaskets are delicate and need to be handled carefully.

# 12. Operation

#### 12.1 LED overview

After being commissioned, the LED flashes yellow while each IQ Battery 5P boots up. If the LED rapidly flashes green for more than two minutes, the battery is in trickle charge mode and will remain so until it reaches a minimum state of charge (up to 30 minutes).

After the IQ Battery 5P is booted up, the LED becomes blue or green, depending on the charge level. If the LED flashes yellow after one hour or changes to a flashing red state, contact Enphase Support.

LED colour	State	Description
	Solid yellow	Not operating due to high temperature. See Troubleshooting on page 47.

		Sporation
LED colour	State	Description
	Yellow single flash	No communication with IQ Gateway.
	Yellow double flash	Battery controller update in progress.
	Yellow triple flash	BMS update in progress.
	Yellow one-second flash	PCU update in progress.
	Soft pulse yellow	Sleep mode.
	Soft pulse blue	Discharging.
	Soft pulse green	Charging.
	Red single flash	Upgrade fail.
	Red double flash	IQ Battery 5P is in an error state. Contact Enphase Support to troubleshoot the issue.
	Red triple flashes	The DC control switch is OFF, and AC from the external source is present.
	Soft pulse red	The DC control switch is ON, and AC from the external source is NOT present.
	Blue triple flash	SoC preserve mode under ELS condition.
	Solid green	Battery capacity is between 75%-100%.
	Green blue	Battery capacity is between 50%-75%.
	Blue green	Battery capacity is between 25%-50%.
	Solid blue	Battery capacity is between 0%-25%.
	Off	BMU shutdown at low SoC with no charging source available.

### 12.2 Operation modes

The IQ Battery 5P supports two modes of operation:

- 1. Self-Consumption mode: This mode is configurable with or without the IQ System Controller in the system. In this mode, when the grid is available, the battery charges when there is excess solar power production and discharges to support the electric loads whenever the solar power is insufficient.
  - $During \ a \ grid \ outage \ (only \ with \ the \ IQ \ System \ Controller), \ the \ IQ \ Battery \ 5P \ supports \ the \ loads \ in \ backup \ operation.$
- 2. Full backup mode: This mode is configurable only when the IQ System Controller is present in the system. In this mode, the battery supports load only when there is a grid outage.

For more information on the operation modes, refer to the Storage system owner's guide.

#### 12.3 P-Q diagram

A diagram depicting active power (P) in correlation to the reactive power (Q) is shown in the following image for the IQ Battery within the operating voltage range. It shows the maximum P-Q capability of the IQ Battery with 2.5% active power accuracy and

2% reactive power accuracy. The IQ Battery can either absorb or inject reactive power, when necessary, as long as the current and voltage values do not exceed the specified limits.

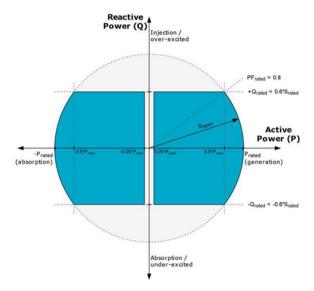


Figure 1: IQ8T-BAT Microinverter grid-tied/on-grid operating region

Depending on the country's supply guidelines, you can find a modified diagram with the same or reduced P and Q values.

### 12.4 Troubleshooting

If the IQ Battery is not operating correctly, follow these troubleshooting steps. If the issue persists, contact Enphase Support.

- 1. If the IQ Battery does not operate, check the temperature in the room and increase cooling and/or ventilation as required. Check that the bottom, top, and sides of IQ Battery 5P have at least 15 cm (6 in) clearance from the wall.
- 2. If the IQ Battery 5P LED is off, turn off the circuit breaker for the branch circuit, wait for at least one minute, and turn it back on.



**NOTE:** IQ Battery 5P has multiple field-replaceable parts. These must be replaced by trained service personnel. Contact Enphase Support before replacing any part.



**NOTE:** During a brownout or blackout, IQ Battery 5P with FlexPhase powers down automatically. This is normal. When power is restored, it automatically starts up again.

- 3. If you do not see IQ Battery 5P information in the Enphase App, check that the IQ Gateway and the internet connection are working.
- 4. If the issue persists, contact Enphase Support.

#### 12.5 Shutdown procedure

- 1. Isolate the AC power by de-energizing the AC power supply to the IQ Batteries.
- 2. Using a multimeter, confirm that no AC power is present.
- 3. Ensure the DC switch is in the OFF position using the following steps:
  - · If the IQ Battery 5P LED is OFF, the DC switch is OFF, and the IQ Battery 5P is in shutdown mode.
  - If the IQ Battery 5P LED (any color) is ON, press the DC switch once to turn it OFF and place IQ Battery 5P in shutdown mode.

#### Limitation of use

Your IQ Battery 5P unit is not intended for use as a primary or backup power source for life-support systems, other medical equipment, or any other use where product failure could lead to injury, loss of life, or catastrophic property damage. Enphase disclaims any and all liability arising out of any such use of your IQ Battery 5P unit.

Further, Enphase reserves the right to refuse to provide support in connection with any such use and disclaims any and all liability arising out of Enphase's provision of, or refusal to provide, support for your IQ Battery 5P device in such circumstances.

## 13. Safety

#### IMPORTANT SAFETY INSTRUCTIONS, SAVE THESE INSTRUCTIONS.

This guide contains important instructions that you must follow during the installation and maintenance of the Enphase IQ Battery. Failing to follow any of these instructions may void the warranty (enphase.com/warranty). For more information, refer to the Safety data sheet.

### 13.1 In case of fire or other emergency

#### In all cases:

- If safe to do so, switch off the AC circuit breaker for the IQ Battery 5P circuit, and if an isolator switch is present, switch off the AC isolator for the IQ Battery 5P circuit.
- Contact the fire department or other required emergency response team.
- Evacuate the area.
- Contact Enphase Support.

#### In case of fire:

When safe, use a fire extinguisher. Suitable types are A, B, and C dry chemical fire extinguishers. Additional extinguishing media include carbon dioxide or alcoholresistant foams.

#### In case of flooding:

- Stay out of the water if any part of the IQ Battery or wiring is submerged.
- If possible, protect the system by finding and stopping the source of the water and pumping it away.
- If water has contacted the battery, call your installer to arrange an inspection. If you are sure that water has never contacted the battery, let the area dry completely before use.

In case of unusual noise, smell, or smoke:

- Ensure nothing is in contact with the IQ Battery or in the venting area of the IQ Battery.
- Ventilate the room.

In case of electrolyte exposure:

The Enphase IQ Battery 5P has a lithium iron phosphate (LFP) battery that contains organic electrolytes and is sealed in a protective case. The leaked electrolyte is toxic and highly flammable. The leaked electrolyte is colorless and has a sweet odor. Electrolyte fluid tends to evaporate quickly, leaving behind a white, grainy substance. If an odor is obvious, proceed to the following steps:



**DANGER: DO NOT TOUCH OR INGEST ANY LIQUID** SUSPECTED TO BE BATTERY ELECTROLYTE.

- 1. Evacuate personnel to a safe area and keep unauthorized personnel away.
- 2. Isolate the spill area to a minimum distance of 75 feet (25 m).
- Eliminate all ignition sources (no smoking, sparks, flames, or hot equipment) in the immediate area around the spill.
- 4. Do not touch or walk through spilled material.
- 5. Avoid breathing vapors. Ensure adequate ventilation.
- 6. Use personal protective equipment.
- 7. Contact Enphase Support or 1800 006 374.

Emergency telephone number (ChemTel): +01 (813) 248-0585

### 13.2 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.

## 13.3 Safety instructions



DANGER: Risk of electric shock. Risk of fire. Only qualified electricians should install, troubleshoot, or replace the IQ Battery.



DANGER: Risk of fire or explosion. Only qualified personnel using personal protective equipment (PPE) should transport or handle the IQ Battery.



DANGER: Risk of explosion. Do not dispose of the IQ Battery in a fire or by burning. The IQ Battery can explode.



**DANGER:** Risk of fire or explosion. This product is designed for stationary installation only and should be used accordingly. It is not designed for mobile applications such as installation on vehicles and trailers, and should not be used in such applications.



DANGER: Risk of fire. During use, when stored, or during transport, keep the IQ Battery in an area that is wellventilated and protected from the elements, where the ambient temperature and humidity are within -20°C to 55°C (-4°F to 131°F) and 5% to 95% RH, non-condensing, preferably out of direct sunlight. Do not install the IQ Battery at elevations over 2500 m (8202 ft) above sea level.



DANGER: Risk of fire. If the IQ Battery generates smoke, remove AC power from the Enphase system and turn the DC control switch to the off position so that charging/ discharging stops.



**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. Do not install the IQ Battery without first removing AC power from the photovoltaic system. Disconnect the power coming from the photovoltaics before servicing or installing.



**DANGER:** Risk of electric shock. Always de-energize the AC branch circuit during an emergency and/or before servicing the IQ Battery.



**DANGER:** Risk of electric shock. Risk of high short-circuit current. Observe the following precautions when working on batteries:

- · Remove watches, rings, or other metal objects.
- · Use tools with insulated handles.
- · Wear insulating gloves and boots.
- · Do not lay tools or metal parts on top of batteries.



**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.



**DANGER:** Risk of fire. Do not allow or place flammable, sparking, or explosive items near the IQ Battery.



**DANGER:** Risk of electric shock. In areas where flooding is possible, install the IQ Battery at a height that prevents water ingress.



**DANGER:** Risk of electric shock. AC voltage is present at the output when the DC switch is on.



**DANGER:** Risk of electric shock. Branch circuit protection must be off before switching DC power on or off.



**DANGER:** Risk of electric shock. The DC switch must be in the OFF position for shipping and service.



**WARNING:** Risks of electric shock, energy hazard, and chemical hazard. Do not disassemble.



**WARNING:** Risk of equipment damage. During use, storage, transport, or installation, always keep the IQ Battery in an upright position.



**WARNING:** You must install the IQ Battery only on a suitable wall using an Enphase wall-mount bracket.



**WARNING:** Before installing or using the IQ Battery, read all instructions and cautionary markings in this guide and on the equipment.



**WARNING:** Do not install or use the IQ Battery if it has been damaged in any way.



**WARNING:** Do not sit on, step on, place objects on, or insert objects into the IQ Battery.



**WARNING:** Do not place beverages or liquid containers on top of the IQ Battery. Do not expose the IQ Battery to liquids or flooding.



WARNING: When placing the IQ Battery in storage, ensure to follow the shutdown procedure and confirm that AC power is not present and that the DC switch is in the OFF position. While in storage, damage to the battery can occur from over-discharge. If the battery state of charge falls to 0%, the IQ Battery can be damaged or destroyed. Because of this, the IQ Battery must only be stored for a limited amount of time.

- The IQ Battery must be installed and energized by the "Must Energize By" date on the shipping box label.
- The IQ Battery must have a charge state of no more than 30% when placed in storage. To do this, the IQ Battery must be placed in Sleep Mode.
- If the IQ Battery has already been installed, it must be placed into Sleep Mode prior to uninstalling. A

battery in Sleep Mode can be stored for a maximum of two months after being placed into Sleep Mode.



**NOTE:** Perform installation and wiring, including protection against lightning and resulting voltage surges, in accordance with all applicable local electrical codes and standards.



**NOTE:** Using unapproved attachments or accessories could result in damage or injury.



**NOTE:** Install properly rated overcurrent protection as part of the system installation.



**NOTE:** Use a G99-type tested third-party network protection relay for IQ Battery 5P units with a system size above 17 kW per phase.



**NOTE:** To ensure optimal reliability and to meet warranty requirements, the IQ Battery units must be installed and/or stored according to the instructions in this guide.



**NOTE:** The Enphase IQ Battery is intended to operate with an internet connection. Failure to maintain an internet connection may have an impact on the warranty. See Limited Warranty for the complete terms and services (enphase.com/warranty).



**NOTE:** When replacing an Enphase IQ Battery, you must replace it with an IQ Battery of the same type with the same AC current rating.



**NOTE:** When disconnected and stored, no automatic charge of the battery is possible.



**NOTE:** Mount the IQ Battery properly. Ensure that the mounting location is structurally suited to bearing the weight of the IQ Battery.



**NOTE:** During use, storage, and transport, keep the IQ Battery:

- Properly ventilated.
- Away from the water, other liquids, heat, sparks, and direct sunlight.
- Away from excessive dust, corrosive and explosive gases like ammonia, and oil smoke.
- Away from direct exposure to gas exhaust, such as from motor vehicles.
- Free of vibrations.
- Away from falling or moving objects, including motor vehicles. If mounted in the path of a motor vehicle, we recommend a 900 mm minimum mounting height.
- At an elevation of less than 2,500 m above sea level.
- · In a location compliant with fire safety regulations.
- In a location compliant with local building codes and



**NOTE:** Conditions for the IQ Battery 5P installation site also apply to storage conditions.

#### Compliance with EU Directives

This product complies with the following EU Directives and can be used in the European Union without any restrictions.

- Battery Directive 2006/66/EC
- Electro Magnetic Compatibility (EMC) directive 2014/30/EU
- Low Voltage Directive (LVD) 2014/35/EU
  - Restriction of Hazardous Substances (RoHS) 2011/65/EU

The full text of the EU Declaration of Conformity (DoC) is available at <a href="https://enphase.com/en-gb/installers/resources/documentation">https://enphase.com/en-gb/installers/resources/documentation</a>.

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#### **Environmental protection**



ELECTRONIC DEVICE: DO NOT THROW AWAY. Waste electrical products should not be disposed of with household waste.

Proper disposal of batteries is required. Refer to your local codes for disposal requirements.

#### Note for third-party products

Any third-party manufacturer or importer product(s) used to install or commission Enphase product(s) shall comply with the applicable EU Directive(s) and requirements in the European Economic Area (EEA). It is the responsibility of the installer to confirm that all such products are labeled correctly and have the required compliant supporting documentation.

## 14. Revision history

Revision	Date	Description
140-00405-05	June 2025	Updated "What's in the box" and "Cable routing and closing the wiring cover" sections for the launch in Australia and New Zealand.
140-00405-04	February 2025	<ul> <li>Added notes to the "Mounting on a masonry wall" and "Energizing and configuring the system" sections.</li> <li>Updated the "Wiring" section with label information.</li> <li>Updated the "Cable routing and closing the wiring cover" section.</li> <li>Updated the "LED overview" section.</li> </ul>
140-00405-03	December 2024	Editorial updates.
140-00405-02	October 2024	<ul> <li>Updated wiring images.</li> <li>Updated "What's in the box" section.</li> <li>Added compatible earthing systems for the IQ Battery note.</li> </ul>
140-00405-01	August 2024	Initial release.

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

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140-00405-05-EN-2025-06-11 Applicable regions: Europe

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