



Enphase Energy System with IQ Battery 5P Owner's Guide



Corporate headquarters contact information

<https://www4.enphase.com/en-au/support>

Warranty

To ensure optimal performance and reliability and to meet warranty requirements, the Enphase Energy System must be installed according to the instructions in the quick install guide.

The Enphase Energy System equipment is intended to operate with an internet connection. Maintaining an internet connection is important, not only for updating software and firmware but also for measuring the health of the system. Failure to maintain an internet connection may have an impact on the warranty.

In addition, features like live status monitoring, energy and power monitoring, Storm Guard, and in-app control of appliances that have load control only work when the system has an active internet connection.

Visit [enphase.com/en-au/warranty](https://www4.enphase.com/en-au/warranty) for full terms and services.

Other information

Product information is subject to change without notice. All trademarks are recognized as the property of their respective owners. User documentation is updated frequently.

Check the Enphase website (<https://www4.enphase.com/en-au/support>) for the latest information.

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Audience

This manual is intended for use by owners of Enphase Energy Systems with IQ Battery 5P.

Environmental protection



Waste electrical products (including batteries) should not be disposed of with household waste. Refer to your local codes for disposal requirements.



ELECTRONIC DEVICES: DO NOT THROW AWAY.

Do not install or use the Enphase Energy System equipment if the equipment is damaged.

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Enphase Energy System with IQ Battery 5P



Enphase Energy System



System information

Key components



IQ Battery 5P

IQ Battery 5P stores energy and dispatches it when you need it. IQ Battery 5P is built on a distributed architecture platform. This modular design means you can quickly and easily expand your system as your needs grow.



IQ System Controller 3 INT

The IQ System Controller 3 INT connects the home to the utility grid, IQ Battery 5P, and rooftop solar. The IQ System Controller 3 INT seamlessly transitions the home energy system from grid power to backup power in the event of a utility grid failure.

It also includes the Enphase IQ Gateway, a network communication device that collects production and performance data from IQ Series Microinverters, IQ Battery 5P, and the IQ System Controller 3 INT.



IQ Microinverters

Under each solar panel lies an Enphase microinverter that converts DC power generated by the panel into AC energy your home can use.



Enphase App

The Enphase App is a mobile app where you can monitor and control your system status from wherever you are and know exactly how much energy your solar system is producing. You can generate reports on energy production by day, week, month, or year.

Component introduction

IQ System Controller 3 INT

The IQ System Controller 3 INT consolidates the interconnection equipment for your system and houses the following:

- Multiple PV branch and battery circuit breakers to ensure a streamlined installation and interconnection.
- IQ Gateway: This collects production and performance data from your Enphase Energy System and IQ Series Microinverters. It then transmits the data to the Enphase Cloud through Ethernet, Wi-Fi, or cellular network to make it visible in the Enphase App.
- Mobile Connect: This device reports the performance data from your microinverters, IQ System Controller 3 INT, and IQ Battery 5P units to the cloud through a cellular network in the absence of an Ethernet or Wi-Fi connection.

The IQ System Controller 3 INT also senses when the grid goes down and seamlessly transitions the home from grid power to backup power. During a grid outage, it safely disconnects the home from the utility grid and powers the backup loads using the IQ Battery 5P storage system and the PV system.



IQ Battery 5P

IQ Battery 5P is an AC-coupled storage system with an energy capacity of 5.0 kWh. It performs two critical functions in your system.

- The battery packs, internal to IQ Battery 5P, store energy for later use, such as during a power outage. IQ Battery 5P can supply up to 200% overload current, enabling it to start heavy appliances even during a power outage.
- The IQ Microinverters, internal to IQ Battery 5P, provide the voltage and frequency necessary for the operation of your solar while running off the grid. These microinverters convert your stored DC energy into usable AC electricity for your house. IQ Battery 5P also communicates with the IQ Gateway through wired communication.

Backup profiles in Enphase Energy Systems

Your home power supply can either be single-phase or three-phase.

- A single-phase power supply is a two-wire alternating current (AC) circuit with Line 1 and Neutral.
- A three-phase power supply is a four-wire AC circuit with Line 1, Line 2, Line 3, and Neutral. Each AC signal is 120 degrees apart.

A typical home power supply has a voltage of 220-240 V (L-N) and frequency of 50 Hz.

Partial home backup for single-phase home

Single-phase partial home backup is ideal for homeowners who want to power essential appliances in their single-phase home, day or night, during a grid outage. If you have a partial home backup configuration,

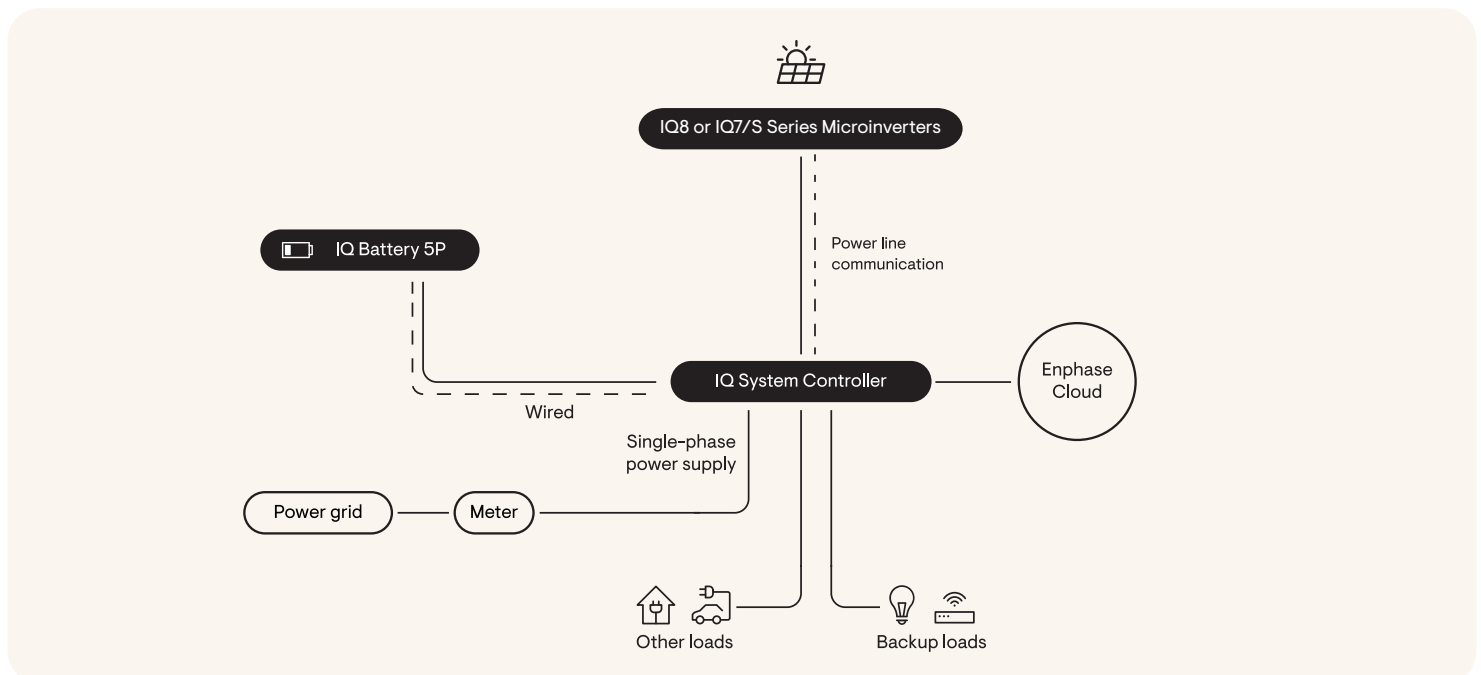
Enphase Energy Systems with IQ Battery 5P support the following backup configurations:

- **Partial home backup for single-phase home**
- **Whole home backup for single-phase home**
- **Single-phase backup for three-phase home**

Each system configuration has three configurable smart profiles.

- Self-Consumption profile
- Savings profile
- Full Backup profile

your Enphase Energy System has been sized to provide power for the appliances that you identified as “essential” in discussions with your installer.



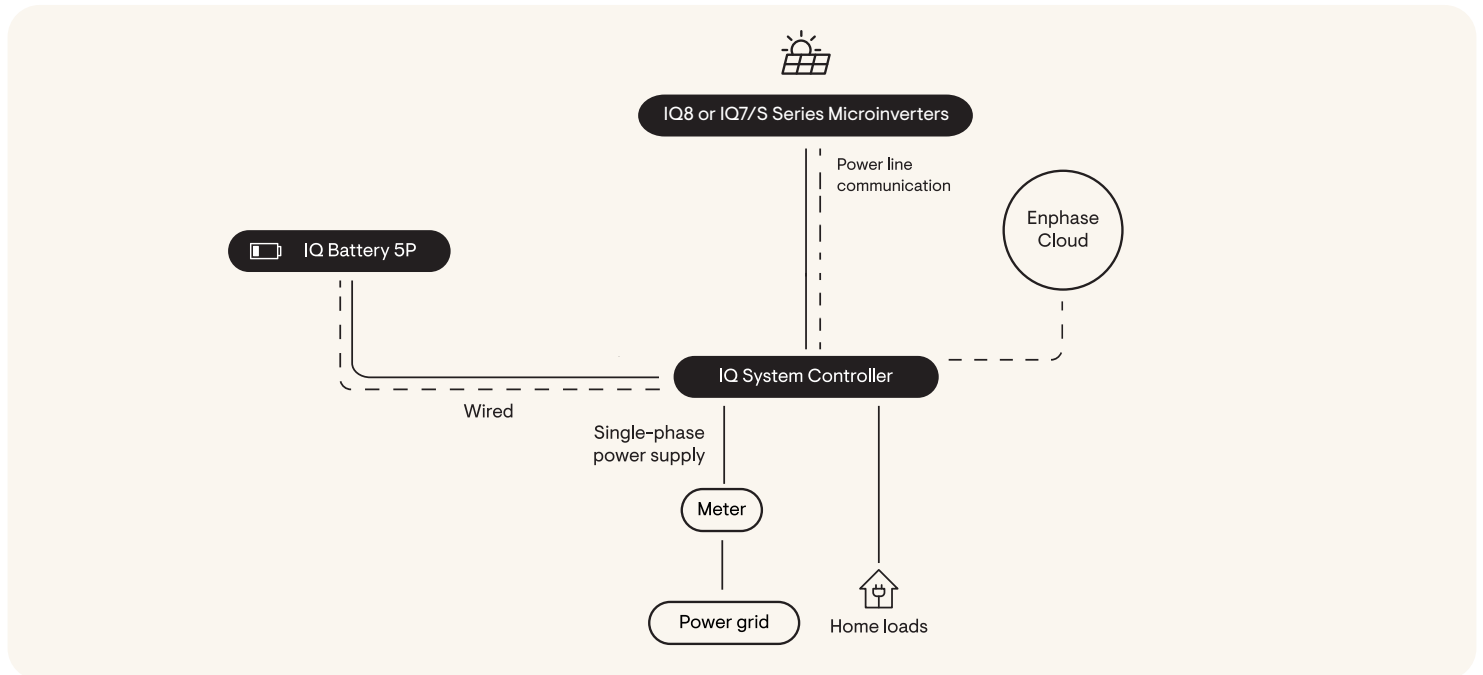
Whole home backup for single-phase home

Single-phase whole home backup is ideal for homeowners who want all-day whole home backup power for running appliances during a grid outage. The Enphase Energy System must be carefully sized to meet your single-phase home's specific energy needs.

Depending on your IQ Battery sizing, your Enphase Energy System may be able to sustain off-grid operation for extended periods.

Want to upgrade your system?

Thanks to the modular design of the Enphase Energy System, it is easy to add additional battery capacity as your needs grow over time. Contact your Enphase installer to learn more about how you can expand your system.



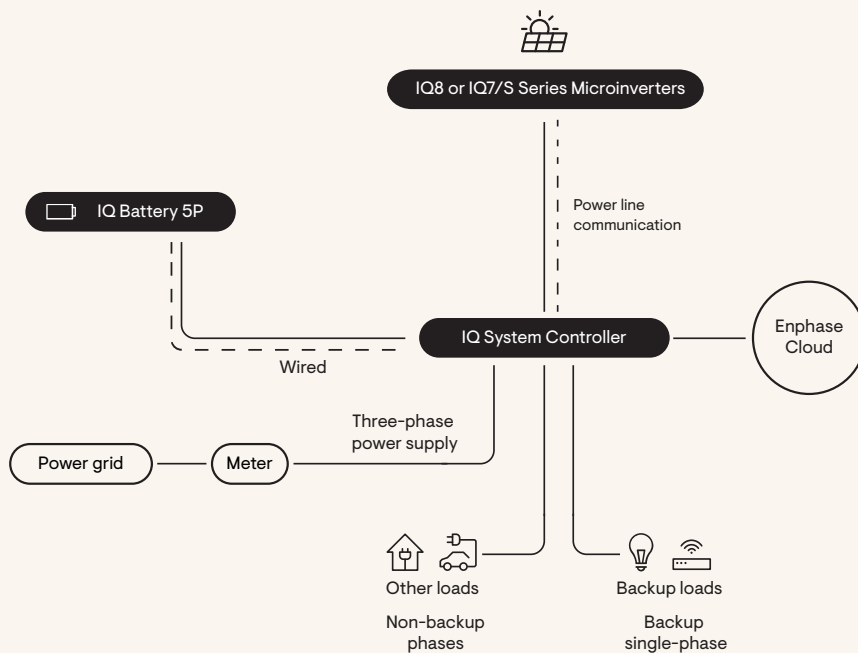
Single-phase backup for three-phase home

Single-phase backup for a three-phase home is ideal for homeowners that want backup power for running appliances on one phase (Line 1) of their three-phase home during a grid outage. The Enphase Energy System must be carefully sized to meet the energy needs of the single-phase backup.

Depending on your IQ Battery 5P sizing, your Enphase Energy System may be able to sustain off-grid operation on the phase for extended periods.

Want to upgrade your system?

Thanks to the modular design of the Enphase Energy System, it is easy to add additional battery capacity as your needs grow over time. Contact your Enphase installer to learn more about how you can expand your system.



System monitoring and management

Make, use, save, and export your own power right from the palm of your hand with the Enphase App. You can quickly and easily monitor and control your Enphase Energy System and modify system settings directly from the Enphase App.

NOTE: Internet connectivity for your Enphase Energy System is essential to ensure that status updates are available and accurate in the Enphase App.

Getting started

Instructions to activate your Enphase App account are sent to you at the email address you provided to your installer. Look for an email with the subject line “Activate Your Online Solar Monitoring Account.” from donotreply@enphaseenergy.com. You will also receive monthly emails from this address. Be sure to unblock this address from your spam or junk mail filters. Read the Enphase App terms of service at <https://enphase.com/en-au/legal/terms-of-service>.

Enphase App

The mobile application is available for both iOS and Android devices. You can install the latest version of Enphase App from the Apple App Store or Google Play Store.



Enphase web application

You can access the Enphase App using your internet browser on your desktop or mobile device. Log into the Enphase App at <https://enlighten.enphaseenergy.com/>

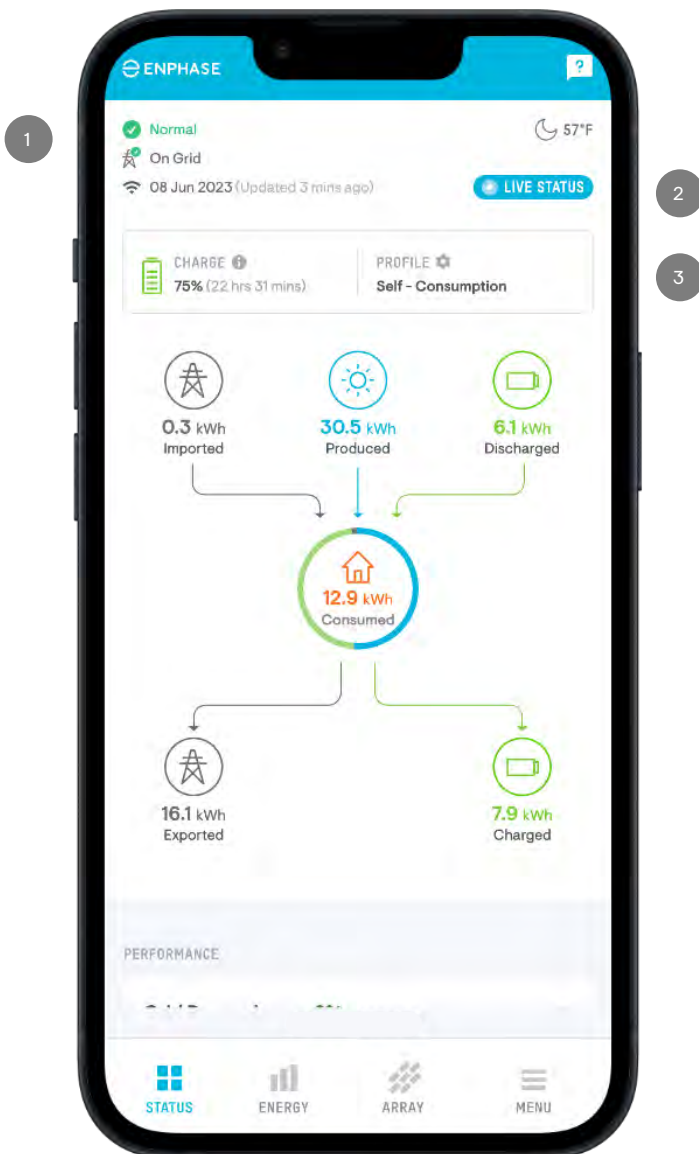


Setting your smart profile

Your Enphase Energy System features three preconfigured smart profiles that allow you to choose the operation that matches your energy management objectives. You can easily change your profile as your objectives change over time.

You can set your Enphase IQ Battery units to one of three different smart profiles:

- Self-Consumption profile
- Savings profile
- Full Backup profile



1 In the upper left corner of the Status section, you can see the **operating status** of your system and whether your system is **On Grid** or **Off Grid**.

2 Tap **LIVE STATUS** on the status page to see real-time energy flows for your system.

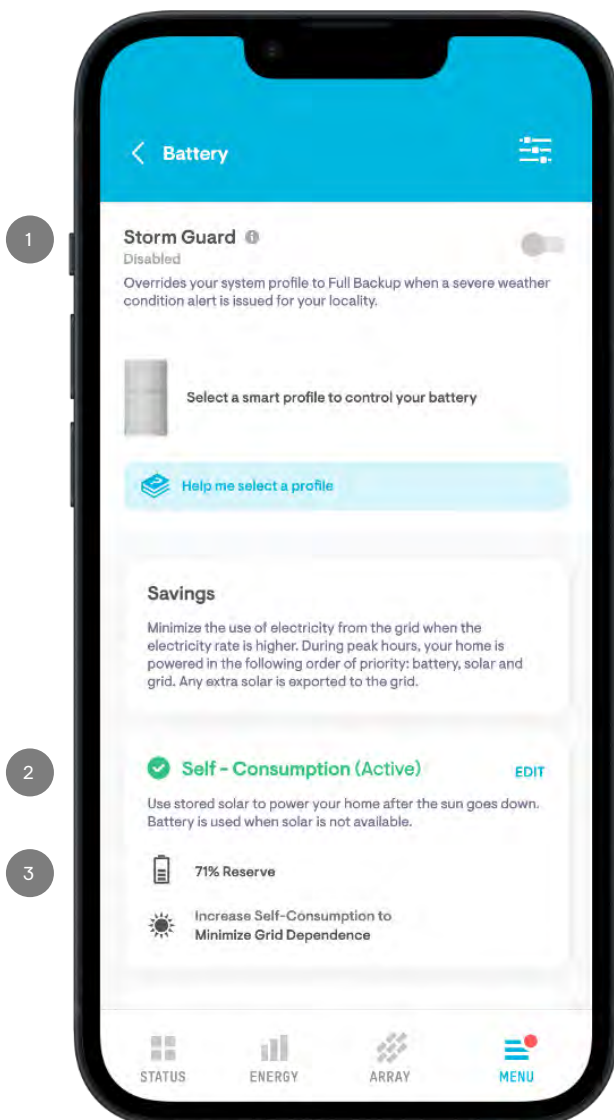
3 Your system's behavior is determined by the **smart profile** you enable.

Self-Consumption profile

Self-Consumption profile always prioritises your consumption or storage of your produced solar energy over exporting it to the grid. To complete Self-Consumption profile configuration, you must decide how much of your Enphase IQ Battery capacity will be held in reserve for backup power in case of a grid outage. This is referred to as your reserve capacity.

In jurisdictions where solar export is not allowed, your produced solar energy is never exported to the grid.

Instead, during daylight hours, your solar energy is used to power your home or charge your batteries, regardless of peak or off-peak hours.



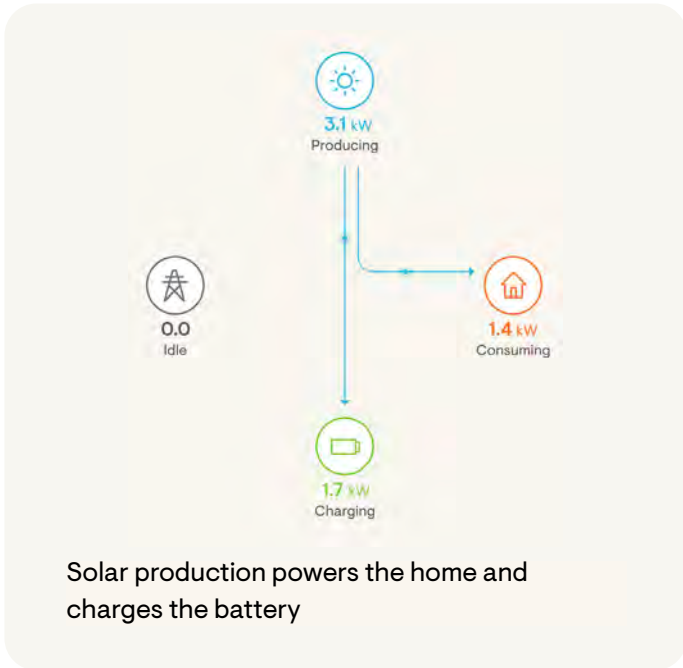
1 The Enphase App comes with the **Storm Guard** feature that monitors weather conditions in your area. You can toggle on Storm Guard to automatically switch your smart profile to Full Backup profile when severe weather conditions are detected. Storm Guard automatically reverts to Self-Consumption profile when the storm threat passes.

2 Select **Self-Consumption** profile if you wish to use as much as possible of your generated energy at home.

Self-Consumption profile is only available for Enphase Energy Systems that include compatible Enphase solar microinverters.

3 You can edit the **reserve capacity** of your IQ Batteries in Self-Consumption profile. The reserve capacity refers to the percentage of your battery's capacity that you want to reserve for outages. For example, if the reserve capacity is set to 30%, your IQ Batteries will not discharge below 30% unless there is an outage.

You can change your battery reserve capacity setting from the battery storage page on the Enphase App for any of the smart profile settings.



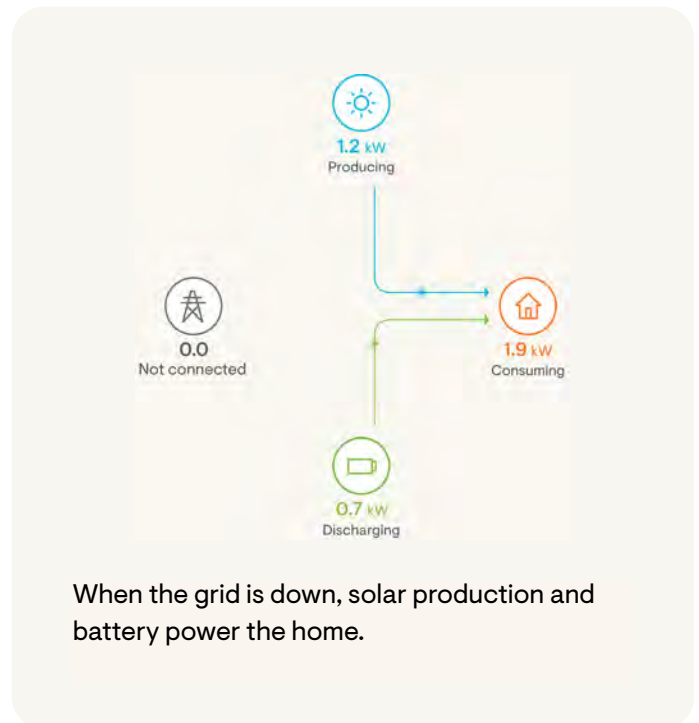
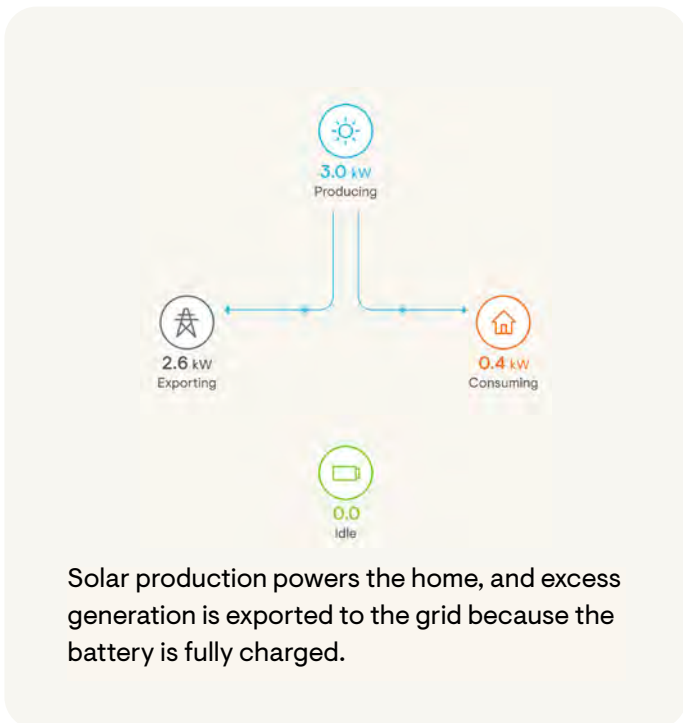
Operation in Self-Consumption profile

Normal operation in the Self-Consumption profile always prioritises the consumption or storage of solar production over export to the grid. In jurisdictions where export is not allowed (zero export regulations), energy is never exported to the grid.

During daylight hours, energy is used to power the home or charge the batteries, regardless of peak or off-peak hours.

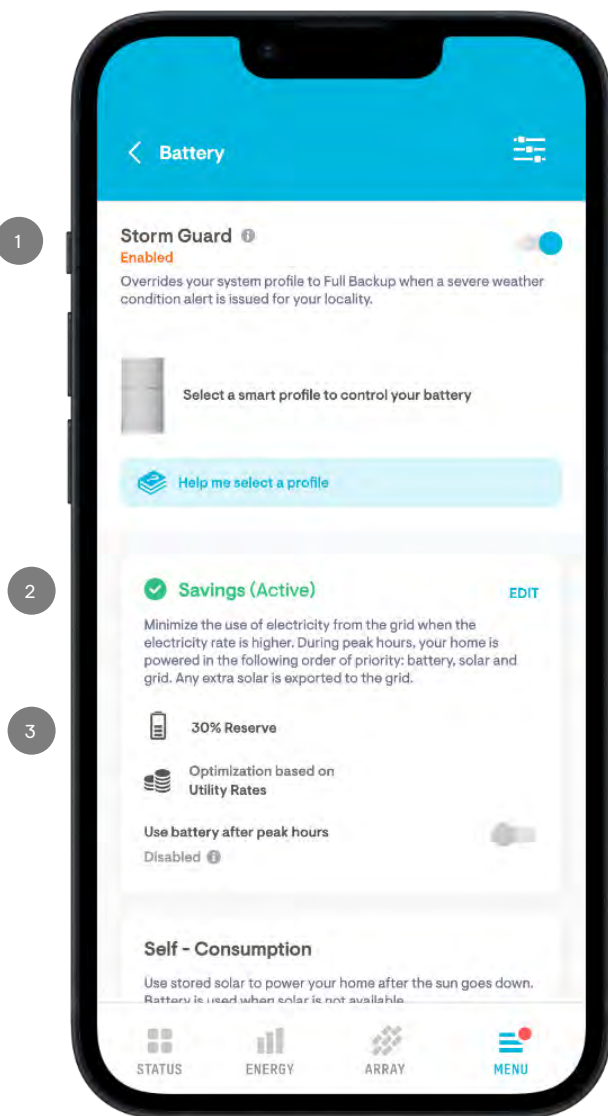
What happens when an outage occurs?

When an outage occurs, your batteries discharge to power your home.



Savings profile

Under a time-of-use (TOU) rate schedule, your utility charges you more for electricity during the hours when electricity demand is the highest (peak hours) and less during periods of low electricity demand (off-peak hours). When you discharge your batteries during peak billing hours, you avoid importing expensive electricity from the utility by consuming the energy discharged by your batteries. In addition, while batteries supply your home electricity demand, the solar energy produced is exported to the grid to maximise your savings.



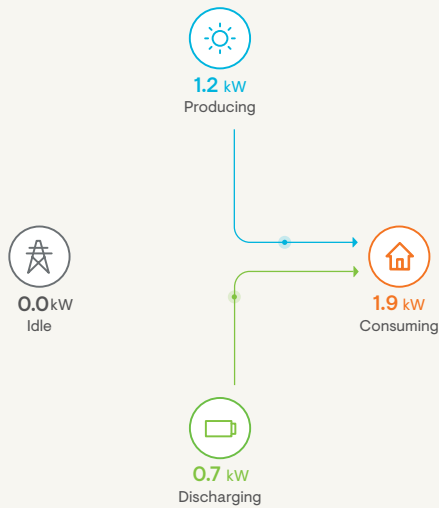
To complete the Savings profile configuration, you will need access to the details of the electric rate schedule for your utility account. You must also decide how much of your IQ Battery capacity will be held in reserve for backup power in case of a grid outage. This is referred to as your reserve capacity.

1 The Enphase App comes with the **Storm Guard** feature that monitors weather conditions in your area. You can toggle on Storm Guard to automatically switch your smart profile to Full Backup profile when severe weather conditions are detected. Storm Guard automatically reverts to Self-Consumption profile when the storm threat passes.

2 Select **Savings** profile if you wish to use your stored energy when electricity rates are highest.

3 You can edit the **reserve capacity** of your IQ Batteries in Savings profile. The reserve capacity refers to the percentage of your battery's capacity that you want to reserve for outages. For example, if the reserve capacity is set to 30%, your IQ Batteries will not discharge below 30% unless there is an outage.

You can change your battery reserve capacity setting from the battery storage page on the Enphase App for any of the smart profile settings.

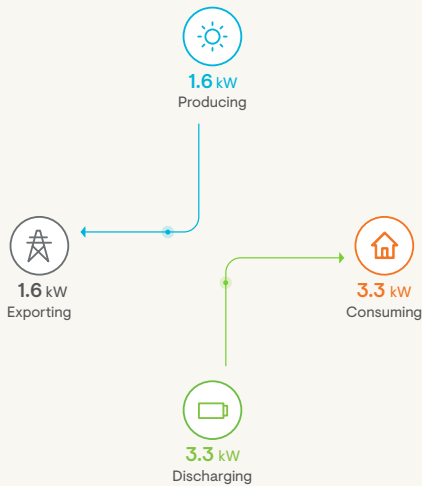


During peak hours, if the export tariff is less than the import tariff, power export is not profitable. Solar production and the battery power the home, minimising power import from the grid.

Operation in Savings profile

During peak hours (often after sunset), if the export tariff is less than the import tariff, the energy sources that power your home are prioritised as follows:

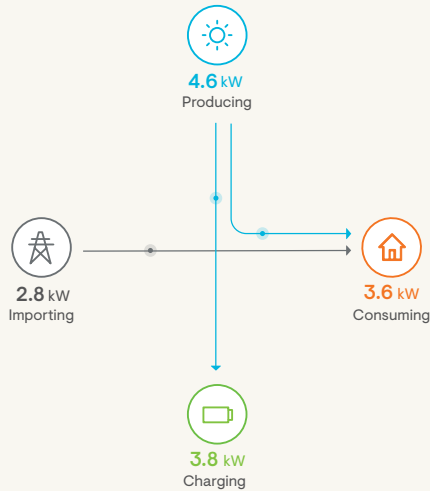
1. **Solar (if available)**
2. **Battery discharge**
3. **Grid import**



During peak hours, if the export tariff is equal to or higher than the import tariff, the battery powers the home, and the solar production is exported to the grid.

During peak hours (often after sunset), if the export tariff is equal to or greater than the import tariff, the energy sources that power your home are prioritised as follows:

1. **Battery discharge**
2. **Solar (if available)**
3. **Grid import**



During off-peak hours, the solar panels charge the battery before powering the home. Any excess power is exported to the grid. If your home needs more power than the solar panels can provide, power is used from the grid.

During daylight, off-peak hours, the solar production is prioritised to:

1. Charge your battery
2. Power your home
3. Export to the grid

Solar production is used to charge the batteries. If batteries are fully charged, solar production powers the home, and excess generation is exported to the grid.



When the grid is down, solar and battery power the home.

What happens when an outage occurs?

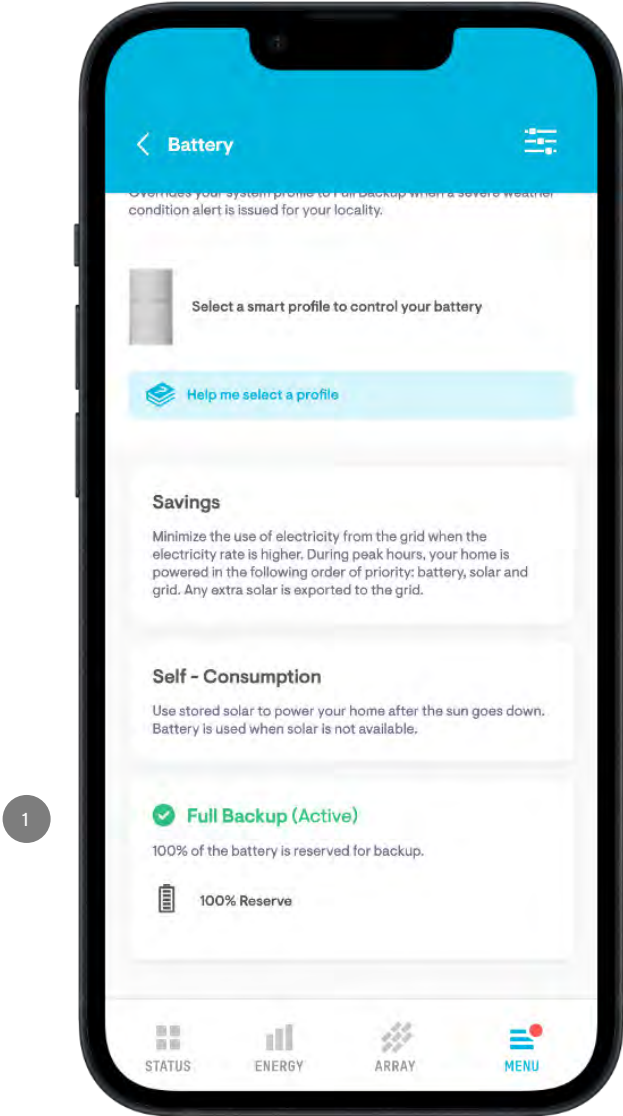
When an outage occurs, your batteries discharge to power your home.

Full Backup profile

When you enable the Full Backup profile, all your Enphase Energy System capacity is held in reserve in the event of a power outage. When this profile is set, the batteries do not charge and discharge when the grid is available.

Reserve capacity

NOTE: Reserve capacity is not adjustable in the Full Backup profile. This profile is often used in areas that experience frequent grid outages without a related storm event.



1

Select **Full Backup** profile to store 100% of your battery energy for use during a grid outage at home.



When the battery is fully charged, solar production and grid power the home.

Operation in Full Backup profile

This profile prepares your system for power outages by maintaining a full charge in the battery.

During daylight or off-peak hours, the solar production is prioritised to:

1. Charge your battery
2. Power your home
3. Export to the grid

After the battery is fully charged, electricity is imported from the grid when your home needs more power than the solar panels can provide.

When there is no sunlight, your home uses electricity from the grid.



When the grid is down and sunlight is not available, the battery powers the home.

What happens when an outage occurs?

When an outage occurs, your batteries discharge to power your home.

System care



The Enphase Energy System equipment is outdoor rated. However, it should not be immersed in water.



Do not block vents or store flammable, sparking, or explosive objects near the equipment.



Store all objects that could fall onto or collide with the unit away from the equipment.



Never rest anything on top of the equipment.



For a system installed indoors, a nearby smoke detector is recommended. For an outdoor installation, a smoke detector is not necessary.



Use a slightly damp (water only) or dry cloth to clean or dust the equipment as needed. Do not use cleaning solvents or harsh chemicals on the equipment.



Troubleshooting

System recovery after shutdown

Your system has experienced a shutdown if it is no longer providing power to your home. System shutdowns may be caused by the batteries becoming fully discharged during a power outage, by a large electrical load overloading the batteries, by a failure of the wired communication systems, or another equipment failure. Recovery steps following system shutdown vary depending on the cause of the shutdown.

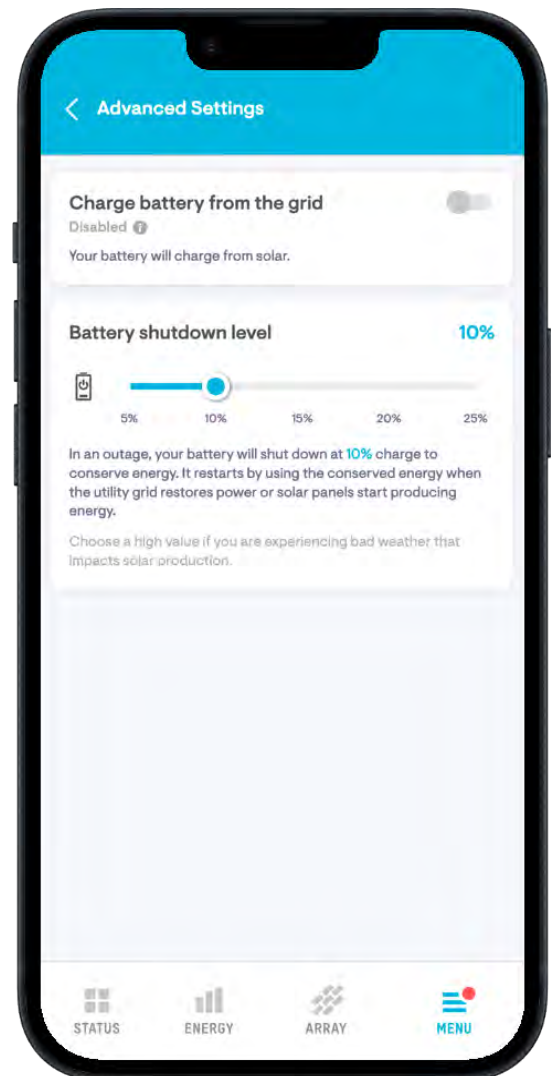
Shutdown due to battery depletion

The Enphase App allows you to configure the **Battery shutdown level** (default is 10%) for IQ Battery 5P. In an outage, the battery shuts down at this level to conserve energy.

When the Enphase App indicates that your battery is at the configured **Battery shutdown level** or low state of charge, your battery shuts down and restarts automatically using the conserved energy when solar power is available during the daytime or when the utility grid restores power.

This works with IQ7, IQ8, or S Series Microinverters. If you have IQ8 Series Microinverters, the system automatically replenishes your batteries during the outage when solar production is greater than what your home is consuming using Sunlight Jump Start.

To facilitate system restarts and recharge, turn off all appliances and circuits, and the system automatically recovers when solar production is available. If solar production is available and the batteries do not recover, go to [page 27](#) to restart the batteries by cycling the DC switches on the IQ Battery 5P unit.



Shutdown due to a large electrical load

If the Enphase App indicates that the charge of your IQ Battery 5P storage system is greater than the state of charge configured as your battery shutdown level, a large electrical load (or more than one simultaneous load) may have caused your microgrid to collapse.

If the shutdown occurred quickly after a large appliance or motor started up, this is the most probable scenario. Air conditioners and electric dryers are two examples of appliances that require a great deal of power to start.

If you suspect that a specific load or a combination of loads is overloading the batteries, you must immediately shut off the load(s) and allow the batteries to restart automatically.

Watch the video about best practices.

<https://youtu.be/4WMhtPMSaZc>

Managing loads to prevent system shutdowns

Well pumps, sump pumps, pressure pumps, and AC electric motors can be some of the most challenging loads to run. This is due to the large start-up power surge requirements.

One challenge with pumps is that they often turn on when other large loads are also running. For example, during cooking, it is common to run large electric loads like ovens while also using a lot of water in the kitchen.

Although your Enphase Energy System may not be sized to run both loads at the same time, it can supply up to 200% overload current to be able to start large loads such as the oven and the pump together. However, if the system is unable to start both loads, one option would be to shut off the oven long enough to allow the pump to start up. After the pump is started, it may be possible to turn the oven back on.

As your needs and energy consumption change over time with, for example, the introduction of new appliances or the addition of new members of your household, you may wish to verify that your system is sized to handle your new energy demands.

You can better understand what is required for large loads by accessing LIVE STATUS in the Enphase App to see how much power your home consumes during outages.



Follow all the safety measures described throughout this manual. Use the following troubleshooting steps if the system does not operate correctly.

If the loads causing the overload condition are turned off immediately after the overload occurs, the system restarts within five minutes.

Check if the LED lights on the IQ Gateway (likely inside the IQ System Controller 3 INT) are flashing or lit solid. If they are flashing, the system is in the process of restarting.



WARNING: Risk of electric shock. Do not attempt to repair the Enphase IQ System Controller 3 INT, Enphase IQ Battery, or any Enphase equipment. They contain no user-serviceable parts.

If you believe the equipment has failed, contact your installer to obtain an RMA (return merchandise authorisation) number and start the replacement process.

Shutdown due to communications system failure

This is a very unusual failure scenario because the Enphase Energy System does not shut down on communication loss between components.

If your Enphase App shows wired communications failure between system components such as IQ Batteries, the IQ System Controller 3 INT, or IQ Gateway, give the system up to 15 to 20 minutes to recover on its own. The Enphase Energy System reconnects automatically and recovers from wired communications failures.

If more than 20 minutes have elapsed and you do not see communication established, contact Enphase Support. In the event of a power outage, you can also follow the instructions on [page 27](#) to toggle the DC switch on an IQ Battery 5P to force a restart.

For information about troubleshooting IQ Gateway communication, see [page 25](#).

Shutdown due to System Shutdown Switch activation

The System Shutdown Switch (SSD) is used together with PV and battery breakers to disconnect all PV panels and IQ battery 5P units from the home to ensure the safety of maintenance technicians.

If the SSD switch is activated, you must follow these steps to resume operation:

1. Turn the SSD switch to the ON position.
2. Turn the PV breakers in IQ System Controller 3 INT to the ON position.
3. Turn the IQ Battery 5P breakers in IQ System Controller 3 INT to the ON position.
4. Press the DC switch on all IQ Battery 5P units to turn them ON.

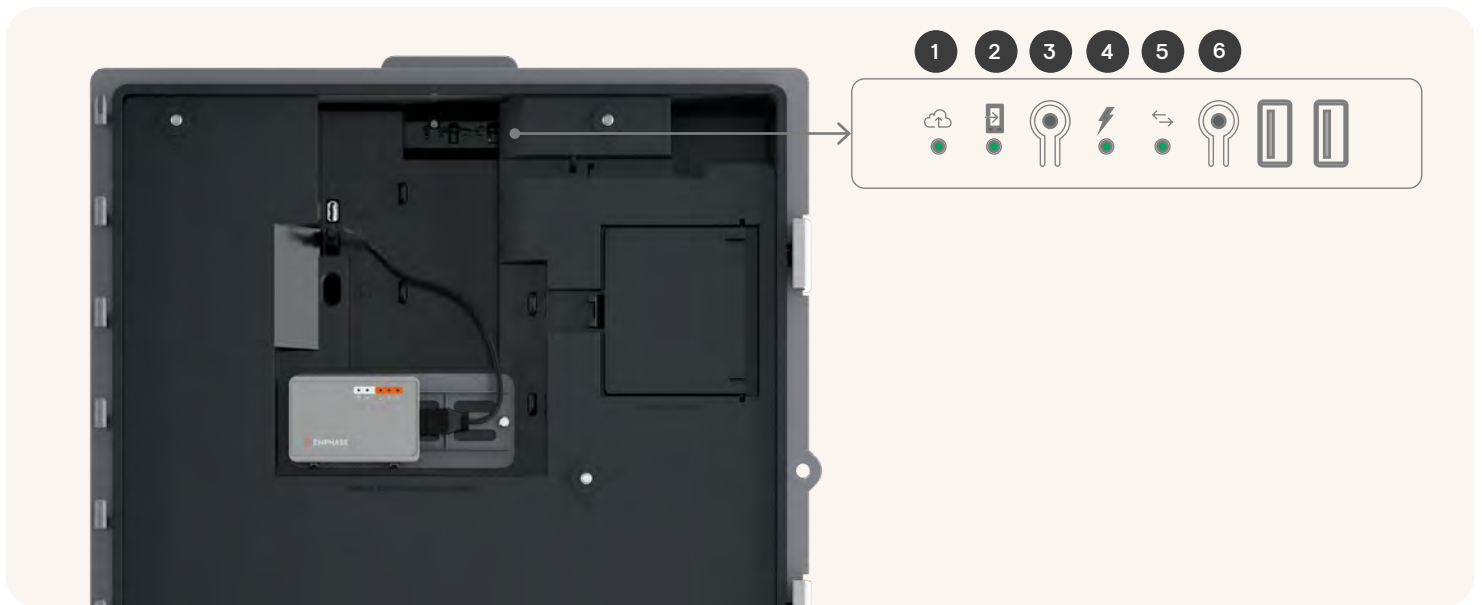
System shutdown using manual override switch

In the event of an emergency, follow the instructions on the manual override switch cover to enable or disable manual override mode.

When you enable manual override mode, your system bypasses the IQ Batteries and PV. The system operates with power only from the utility grid in this mode. You should perform these steps only in the event of an emergency or if you have been instructed to do so by Enphase Support.

IQ Gateway LEDs and buttons in IQ System Controller 3 INT

IQ System Controller 3 INT has an integrated IQ Gateway. You can see the IQ Gateway LEDs and buttons on top of the IQ System Controller 3 INT unit as shown below.



1

Network communications LED

Green when IQ Gateway is connected to the Enphase App.

2

Access point (AP) mode LED

Green when IQ Gateway's AP Wi-Fi network is available.

3

AP mode button

Press to enable IQ Gateway's AP mode for connecting with a mobile device.

4

Power production LED

Green when microinverters are producing power.

5

Device communications LED

Green when devices are communicating with IQ Gateway.

6

Device scan button

Press to start/stop a 15-minute scan for devices over the power line.

IQ Gateway communications troubleshooting

If the IQ Gateway has stopped reporting to the Enphase App, see this webpage for more information

<https://support.enphase.com/s/article/Reconnecting-your-Envoy-S-or-IQ-Envoy>.

If the IQ Gateway is not powered or has failed, the IQ Battery 5P units do not discharge while the system is on grid and may shut down after a prolonged loss of communication with the Gateway if the system is off grid. If the IQ Gateway fails, contact your installer to submit a warranty claim for replacement (where applicable).

Does the Enphase App show that the IQ Gateway is not reporting, and is the left-most LED (Network communications LED) on the IQ Gateway lit red?

The Network communications LED (left-most LED) in the IQ Gateway in the IQ System Controller 3 INT is lit solid green when connected to Enphase App.

If the Network communications LED is not solid green, then you may need to reconnect the IQ Gateway to the Enphase App using Wi-Fi, hard-wired Ethernet, or a cellular network.

Check that the IQ Gateway breaker inside the IQ System Controller 3 INT is in the ON position. If not, flip it ON. For more information on IQ Gateway LEDs and buttons in IQ System Controller 3 INT, see [page 24](#).

For more information on how to access monitoring when there is no connectivity, visit

<https://support.enphase.com/s/article/Connecting-to-your-system-without-cell-connectivity>

IQ System Controller 3 INT LEDs



LED 1

<p>==== OFF Not operating</p>	<p>— — — — FLASHING BLUE Operational; cannot detect any IQ Battery</p>
<p>— — — — FLASHING GREEN Switched ON; booting</p>	<p>———— SOLID BLUE Operational; cannot detect at least one IQ Battery</p>
<p>———— SOLID GREEN Operational</p>	<p>———— SOLID YELLOW Off-grid</p>
<p>———— SOLID RED Error</p>	<p>— — — — FLASHING YELLOW Performing state of charge recovery</p>
<p>— — — — FLASHING RED Firmware upgrade</p>	

LED 2

<p>==== OFF Not operating</p>	<p>———— SOLID BLUE Off-grid</p>
<p>— — — — FLASHING GREEN Switched ON; booting</p>	<p>— — — — FLASHING BLUE Synchronizing to grid</p>
<p>———— SOLID GREEN Operational; on-grid</p>	<p>———— SOLID RED In rapid shutdown or manual override mode</p>

Reset the IQ Battery 5P using DC switch

In the unlikely event that a battery does not automatically recover from an overload or failure scenario and must be reset, you can use the DC switch in front of the IQ battery 5P unit. To reset the DC switch, turn it OFF, wait for 30 seconds, and turn it ON.

The following images show a DC switch on the IQ Battery 5P unit.



When to contact Enphase Support

If your system is not operating properly or has shut down unexpectedly, contact Enphase Support for guidance at <https://www4.enphase.com/en-au/support>.

Your support agent will ask for details on the status LEDs in your system. Be prepared to provide information about the IQ Battery 5P storage system LED indicators and the IQ System Controller 3 INT (IQ Gateway) LED indicators.

You can check and record the color of all the LEDs on the front of the IQ Battery 5P batteries using the following table. If the IQ Battery 5P lights are solid or pulsing green or blue, the batteries are operating.

IQ Battery 5P LED state

DURING INSTALLATION AND COMMISSIONING

FLASHING BLUE

After booting up, when IQ Battery has paired with an IQ Gateway and is awaiting a three-way handshake to confirm that it is an Enphase device

FLASHING GREEN


After passing the three-way handshake with the IQ Gateway


DURING OPERATION

 RAPIDLY FLASHING YELLOW
Starting up/establishing communications


 RED FLASHES IN SEQUENCES OF 2
Error


 RED FLASHES IN SEQUENCE OF 3
DC switch OFF


 RED ONE-SECOND FLASH
Rapid Shutdown mode


 SLOWLY FLASHING BLUE
Discharging

 SLOWLY FLASHING YELLOW
Sleep mode activated

 SLOWLY FLASHING GREEN
Charging

 SOLID BLUE OR GREEN
Idle. Color transitions from blue to green as the state of charge increases. You can check the Enphase App for charge status.

 SOLID YELLOW
Not operating due to high temperature

 OFF
Not operating

Safety information

Read this first

This manual describes the safe use of the Enphase Energy System with the IQ Battery 5P units for a system owner. Do not remove the dead fronts (plastic guards inside the enclosure) from the IQ System Controller 3 INT. See the [Safety Datasheet](#) for safe handling.

Safety and advisory symbols

To reduce the risk of electric shock and to ensure the safe installation and operation of the Enphase Energy System, the following safety symbols appear throughout this document to indicate dangerous conditions and important safety instructions.



DANGER!

This indicates a hazardous situation, which, if not avoided, will result in death or serious injury. Use extreme caution and follow instructions carefully.



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 important for optimal system operation. Follow instructions carefully.

Safety instructions



A battery can present a risk of electrical shock, fire, or explosion from vented gases. Only qualified electricians should install, troubleshoot, or replace the Enphase Energy System equipment or wiring.



If the Enphase Storage equipment generates smoke, remove AC power from the Enphase Energy System, and turn the DC switch on the IQ Battery 5P units to the OFF position, following the instructions in the manual.



In case of fire, use a standard or carbon dioxide fire extinguisher or another appropriate extinguisher to put out the fire.



Do not dispose of the IQ Battery 5P units in a fire or by burning.




Do not allow or place flammable, sparking, or explosive items near the Enphase Storage system equipment.





During use, when stored, or during transport, keep the IQ Battery 5P unit in an area that is well ventilated, where the ambient temperature is between -15°C to 55°C (5°F to 131°F).





Risk of electric shock. In areas where flooding is possible, install the Enphase Energy System equipment at a height that prevents water ingress.


 Do not attempt to repair the Enphase Energy System equipment; it contains no user-serviceable parts. Do not open the IQ Battery 5P unit under the cover. Doing so will void the warranty. If the Enphase Energy System equipment fails, contact your solar installation professional or Enphase at <https://enphase.com/en-au/contact>.


 The IQ Battery 5P unit is designed for stationary installation only. It is not designed for mobile applications such as installation on vehicles and trailers and should not be used in such applications.


 Risk of equipment damage. During use, storage, transport, or installation, always keep the Enphase Energy System equipment in an upright (top side up) position.

 Do not install or use the Enphase Energy System equipment if it has been damaged in any way.

 Do not place beverages or liquid containers on top of the Enphase Energy System equipment. Do not immerse Enphase Energy System equipment in liquids or flooding.


 Protection against lightning and resulting voltage surge must be in accordance with local standards.


 Using unapproved attachments or accessories could result in damage or injury.


 Enphase IQ System Controller 3 INT and IQ Battery 5P are intended to operate with an internet connection. A Wi-Fi or Ethernet primary internet connection is required in addition to cellular modem connectivity to ensure consistent connectivity.


During use, storage, and transport, keep the Enphase Storage equipment:

- Properly ventilated
- Away from heat, sparks, and direct sunlight
- Away from excessive dust, corrosive and explosive gases, oil, and 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
- At an elevation of fewer than 2500 meters (8200 feet) above sea-level
- In a location compliant with fire safety regulations (has a smoke detector)
- In a location compliant with local building codes and standards

 To ensure optimal reliability and to meet warranty requirements, Enphase Energy System equipment must be installed and/or stored according to the instructions in Enphase Energy System equipment guides.

 Read this entire document before using Enphase Energy Systems.

 Do not sit on, place objects on, or insert objects into the Enphase Energy System equipment.

 The IQ Gateway inside the IQ System Controller 3 INT must properly be fitted with Enphase Production CT and Consumption CTs.

An in-built IQ Gateway of the IQ System Controller 3 INT is required for the operation of the IQ Battery 5P units. Earlier versions of the Enphase gateway are incompatible with IQ Battery 5P units.

Revision history

REVISION	DATE	DESCRIPTION
USG-00018-2.0	September 2023	Updated the "Operation in Savings profile" section
USG-00018-1.0	August 2023	Initial release

USG-00018-2.0

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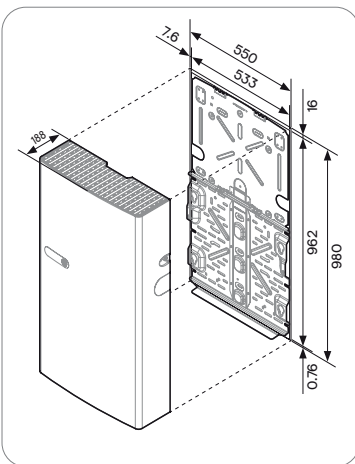




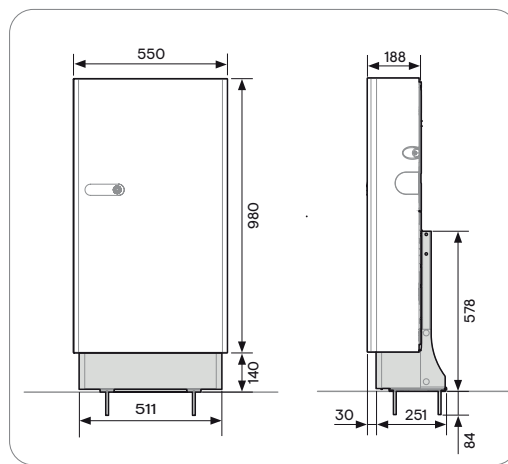
IQ Battery 5P

The IQ Battery 5P all-in-one AC-coupled system is powerful, reliable, simple, and safe. It has a total usable energy capacity of 5.0 kWh and includes six embedded grid-forming microinverters with a 3.84 kVA continuous power rating. It provides backup capability, and installers can quickly design the right system size to meet customer needs.

Dimensions in mm



Wall-mounted



Floor-mounted with pedestal



Powerful

- Provides 3.84 kVA continuous and 7.68 kVA peak power
- Includes six embedded IQ8D-BAT Microinverters

Reliable

- 15-year limited warranty
- Cools passively with no moving parts or fans
- Uses wired communication for fast and consistent connection
- Updates software and firmware remotely

Simple

- Fully integrated AC battery system
- Installs and commissions easily
- Supports Backup, Self-Consumption, and time-of-use (TOU) modes
- Offers homeowners remote monitoring and control from the Enphase App
- Field replaceable components

Safe

- Tested to meet UL 9540A, the highest industry standard for battery safety
- Uses lithium iron phosphate (LFP) chemistry for maximum safety and longevity

IQ Battery 5P

MODEL NUMBER	
IQBATTERY-5P-1P-ROW	The IQ Battery 5P system with integrated IQ Microinverters and battery management system (BMS) with battery controller
WHAT'S IN THE BOX (FOR EACH IQ BATTERY 5P)	
IQ Battery 5P unit	IQ Battery 5P unit (B05-T02-ROW00-1-2)
ID cover and conduit cover	IQ Battery 5P cover with two conduit covers for the left and right sides of the unit
Bottom mounting bracket and top shield	Bottom mounting bracket for mounting the battery on the wall and one top shield
M5 seismic screws	Two M5 seismic screws for securing the battery unit on the bottom mounting bracket
M4 grounding screws	Two M4 grounding screws for securing the top shield on the bottom mounting bracket
M5 ID cover grounding screws	Two M5 ID cover grounding screws for the EMI/EMC requirement
Cable ties	Six cable ties for securing field cables to the unit
Control (CTRL) connector	Spare CTRL connector without resistor for CTRL wiring
Control (CTRL) connector with resistor	Spare CTRL connector with resistor for CTRL wiring
Quick Install Guide (QIG)	QIG for IQ Battery unit installation instructions
ACCESSORIES AND REPLACEMENT PARTS	
IQ8D-BAT-RMA	IQ8D-BAT Microinverter for field replacement
B05-T02-ROW00-1-2-RMA	IQ Battery 5P Battery unit for field replacement
B05-CX-0550-O	IQ Battery 5P cover for field replacement
B05-PM-0550-O	IQ Battery 5P pedestal mount
B05-CP-096-O	IQ Battery 5P conduit plates for field replacement. Includes one left-side and one right-side conduit plate
B05-WB-0543-O	IQ Battery 5P wall bracket for field replacement. Includes one bottom mounting bracket and one top shield
IQBATTERY-HNDL-5	IQ Battery 5P lifting handles. Includes one left-side and one right-side lifting handle
B05-ACFB-080-O	IQ Battery 5P AC filter board for field replacement
B05-BMSRA-0490-O	IQ Battery 5P BMS board for field replacement
B05-CANBR-063-O	IQ Battery 5P control communication board for field replacement
B05-RICS-0524-O, B05-RUCS-0524-O	IQ Battery 5P control switch is preinstalled on the wiring cover for field replacement
OUTPUT FOR EACH IQ BATTERY 5P (AC)	
	@230 VAC ¹
Rated output apparent power	3.84 kVA
Peak output power	7.68 kVA (3 seconds), 6.14 kVA (10 seconds)
Nominal voltage/Range	230/211–264 VAC
Nominal frequency/Range	50/47–53 Hz
Rated output current	16.7 A
Peak output current	33.4 A (3 seconds), 26.7 A (10 seconds)
Power factor (grid-tied)	0.8 leading...0.8 lagging
Power factor (off-grid)	1.0 leading...1.0 lagging
Maximum short circuit current	32 A _{rms} 3 cycles
Peak short circuit current	488 A _{rms} for 12 μs
Maximum output overcurrent protection	20 A per unit
Inverter topology	Isolated (HF transformer)
Interconnection	Single-phase
Protection class	I
Overvoltage category	III
AC round-trip efficiency ²	90%

¹Supported in both grid-connected and backup/off-grid operations.

²AC to the battery to AC at 50% power rating at 25°C.

IQ Battery 5P

BATTERY FOR EACH IQ BATTERY 5P

Usable capacity ³	5.0 kWh
DC round-trip efficiency	96%
Nominal DC voltage	76.8 V
Ambient operating temperature (charging)	-20°C to 50°C non-condensing
Ambient operating temperature (discharging)	-20°C to 55°C non-condensing
Optimum operating temperature range	0°C to 30°C
Chemistry	Lithium iron phosphate (LFP)

MECHANICAL DATA FOR EACH IQ BATTERY 5P

Dimensions (HxWxD)	980 mm x 550 mm x 188 mm
Lifting weight	66.3 kg
Total installed weight	78.9 kg
Enclosure	Outdoor-IP55
IQ8D-BAT Microinverter enclosure	Outdoor-IP67
Cooling	Natural convection
Altitude	Up to 2,000 m
Mounting	Wall-mount or pedestal-mount (sold separately)

FEATURES AND COMPLIANCE

Compatibility	Compatible with IQ Series and S Series Microinverters. The IQ System Controller 3 INT is required for grid-tied and backup operation
Communication	Wired control communication
Services	Backup, Self-Consumption, and TOU
Monitoring	Enphase Installer Platform and Enphase App monitoring options; API integration
Compliance	Performance: AS/NZS 4777.2:2020 + A1 Safety: AS IEC 62040.1, EN IEC 62109-1, EN IEC 62109-2, AS IEC 62619, UN 38.3 EMC: EN 50065-2-2, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-11, IEC 61000-6-2

LIMITED WARRANTY

Limited warranty	>60% capacity, up to 15 years or 6,000 cycles ⁴
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³Usable capacity is the maximum kWh of discharge capacity from the battery across all system operating modes.

Reserved capacity is the partial battery capacity reserved for off-grid usage, and is not available while the system is grid-connected. It is a user-settable value and can be set via the Enphase App. Very low state-of-charge (VLS) is the battery shutdown level or the capacity at which the battery stops operating. It is a user-settable value that can be set via the capacity of the battery below the VLS level is used to automatically restart during daylight hours to recharge the batteries with solar power.

⁴Whichever occurs first. Restrictions apply.

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Assembled in China

Revision history

REVISION	DATE	DESCRIPTION
DSH-00020-2.0	October 2023	<ul style="list-style-type: none">• Added battery isometric view on the first page• Editorial updates
DSH-00020-1.0	May 2023	Initial release