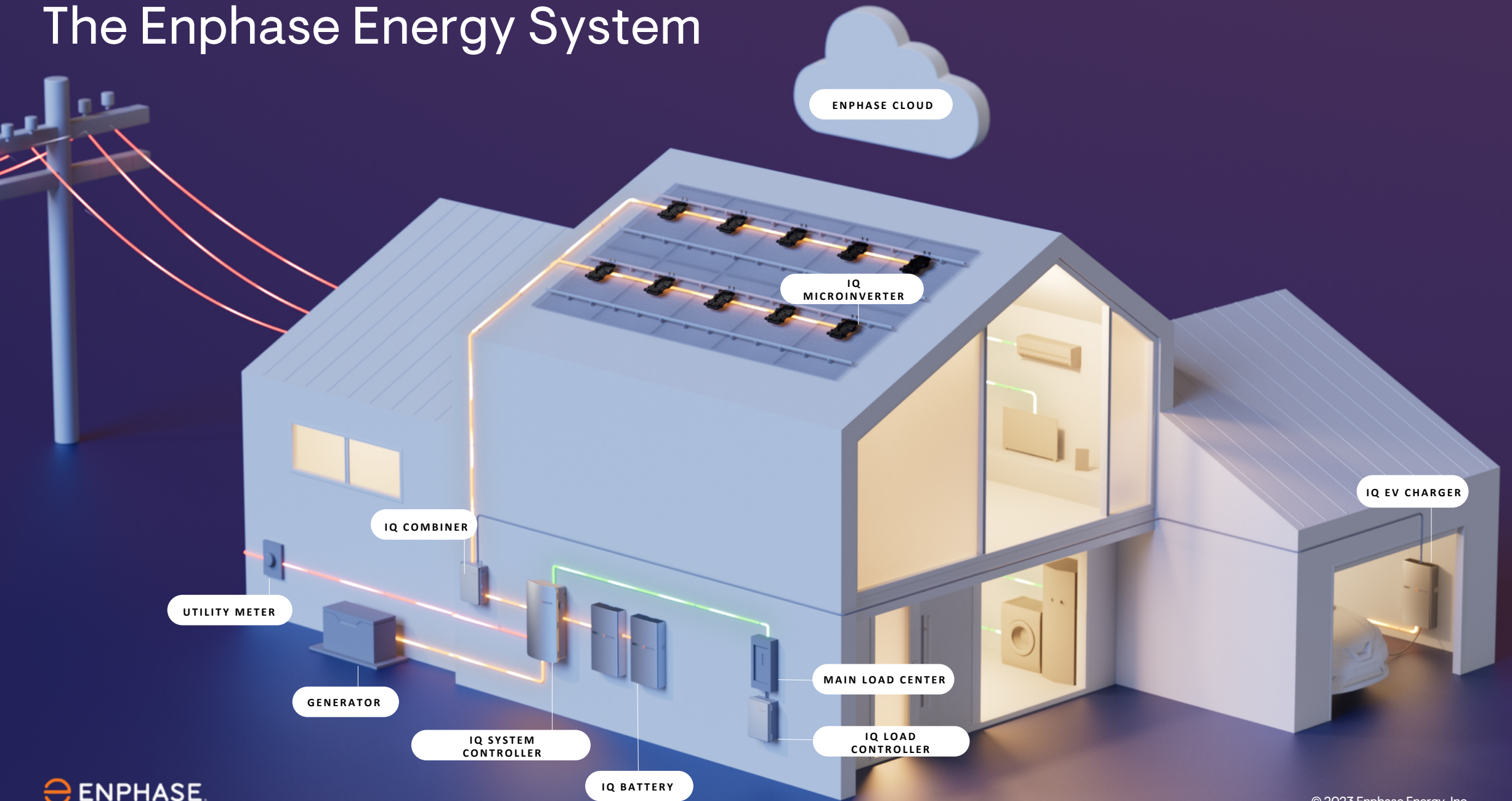


# Introduction to Enphase IQ Battery 5P

Enphase Sales Training



# The Enphase Energy System



# IQ Battery 5P features and benefits

## Features

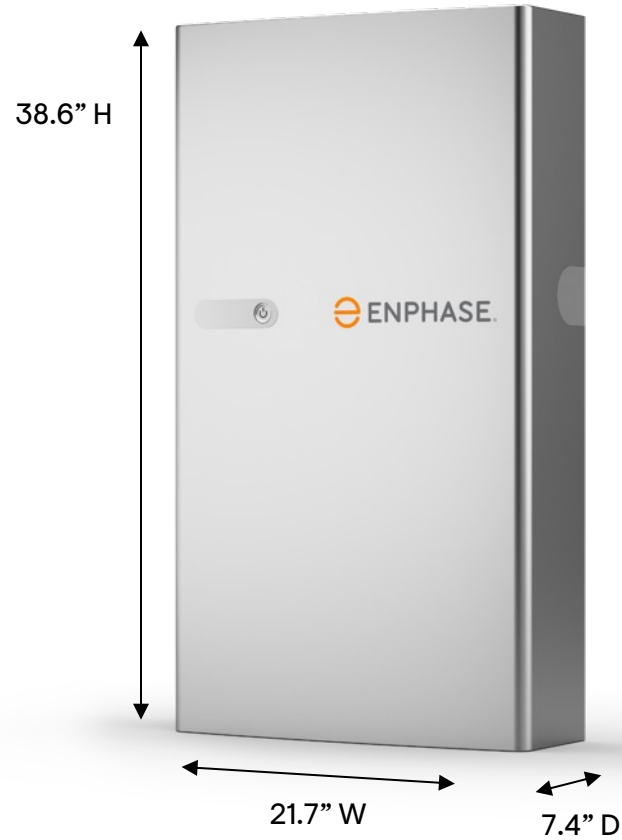
## Benefits

5 kWh modularity	Build the right size system for your homeowner's needs
3.84 kW continuous power 7.68 kW peak power	Start and run large appliances with fewer batteries Better economics with NEM 3.0
15-year warranty, 6000 cycles	Peace of mind, lower lifetime system cost
Wired communications	Commissioning time of less than 30 minutes, so you can get onto the next job quickly Improved reliability
Power Control Systems	Avoid main panel upgrade to save installation time and cost Install larger capacity systems of up to 80 kWh
Grid-tied and backup options	Simple and low-cost NEM 3.0 installations, or full backup
Multiple conduit entry points Left, right and rear	Greater flexibility and faster install, lower cost, and better aesthetics Minimum 3" spacing
LFP battery chemistry 9540A UL listing	Greater safety, lower degradation, and better thermal performance
Mounting options Wall and floor mount	Greater flexibility and faster install, better aesthetics Supports larger systems
Field replaceable parts	Lower service costs and resolve customer issues faster
Simplified packaging	Single package, reducing shipping costs and simplifying inventory for both installers and distributors



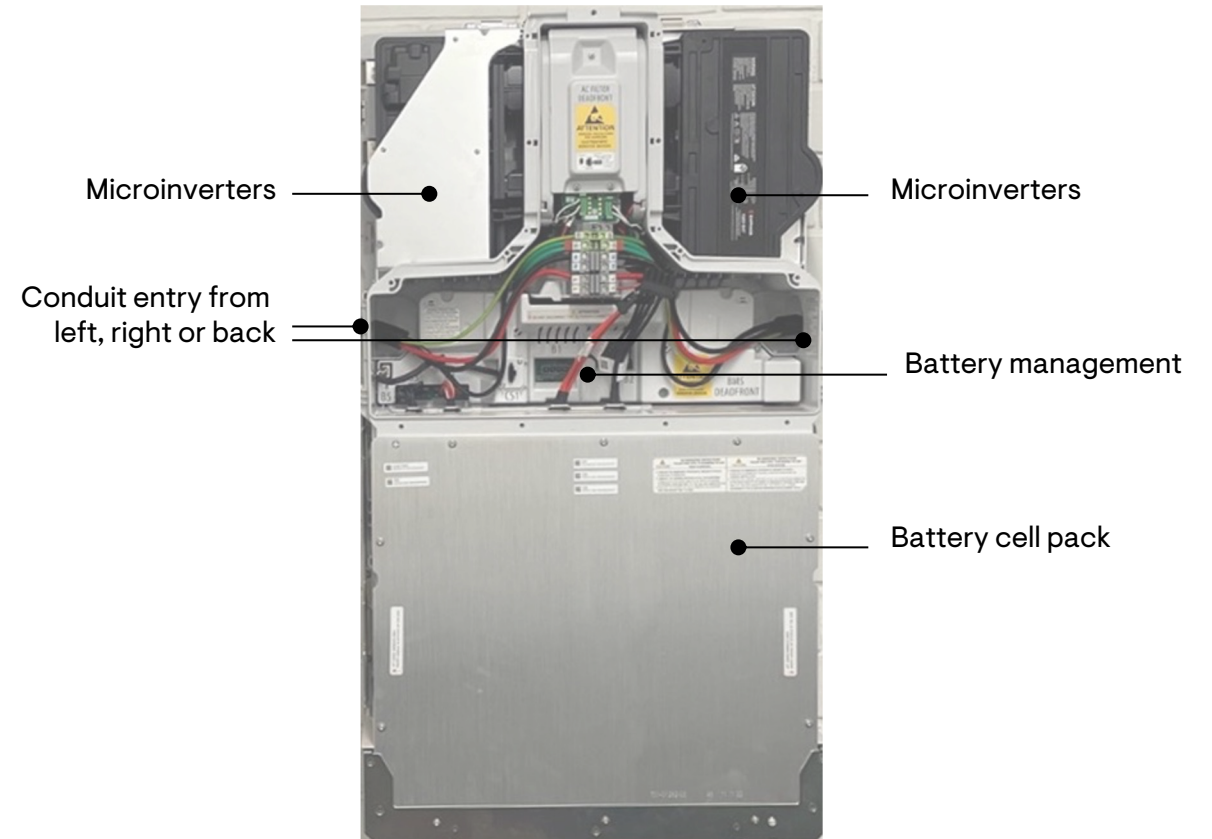


# IQ Battery 5P



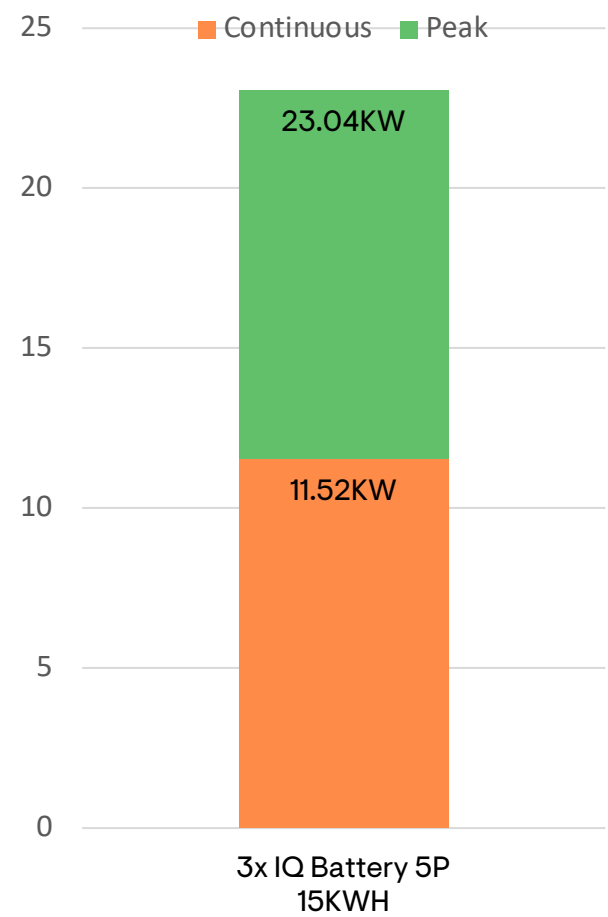
146 lbs  
Lifting weight

174 lbs  
Total installed weight



IQ Battery 5P data sheet: <https://enphase.com/download/iq-battery-5p-data-sheet>  
Compatibility matrix: <https://link.enphase.com/compatibility-matrix>

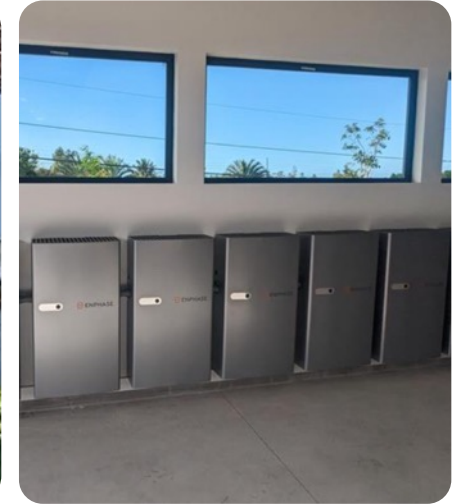
# Our Most Powerful Battery Yet!



AC	2 X 5P 10 KWH	3 X 5P 15 KWH
3 Ton	✓	✓
4 Ton	X	✓
5 Ton	X	✓

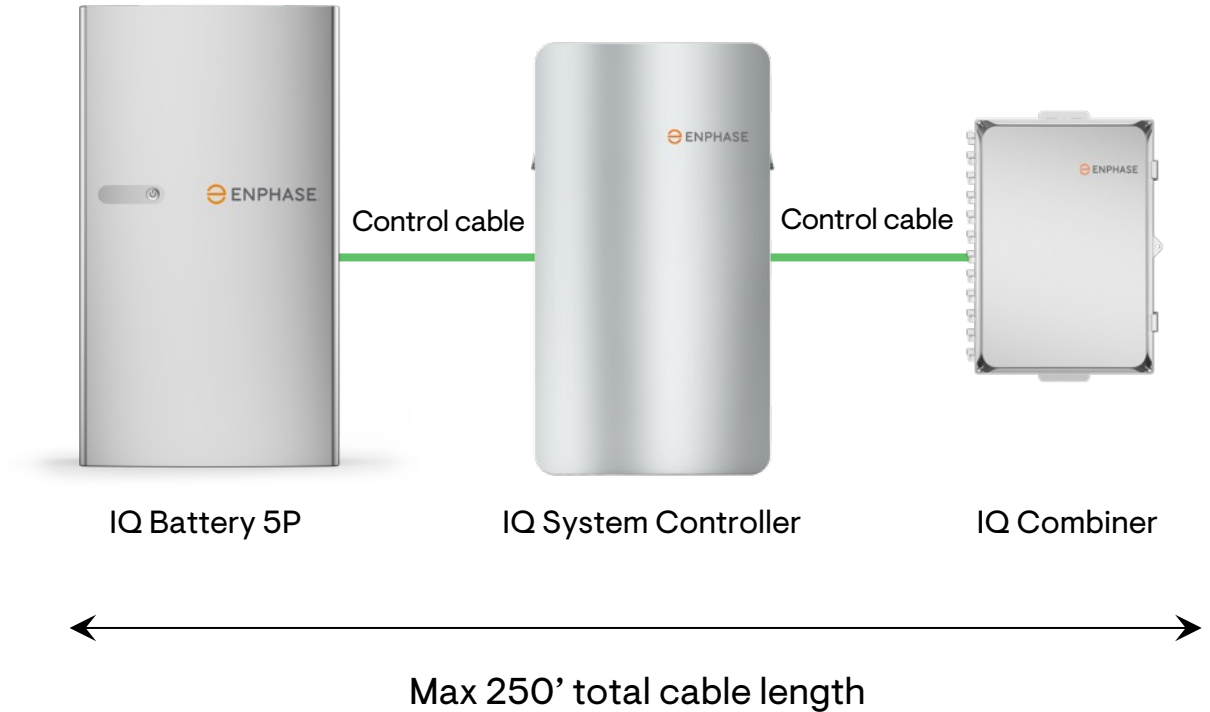


# Example Installs (Beta)



# Wired communications

- Faster commissioning
- Greater distances between components
- Improved reliability



IQ Battery 5P data sheet: <https://enphase.com/download/iq-battery-5p-data-sheet>

IQ System Controller 3/3G data sheet: <https://enphase.com/download/iq-system-controller-3-data-sheet>

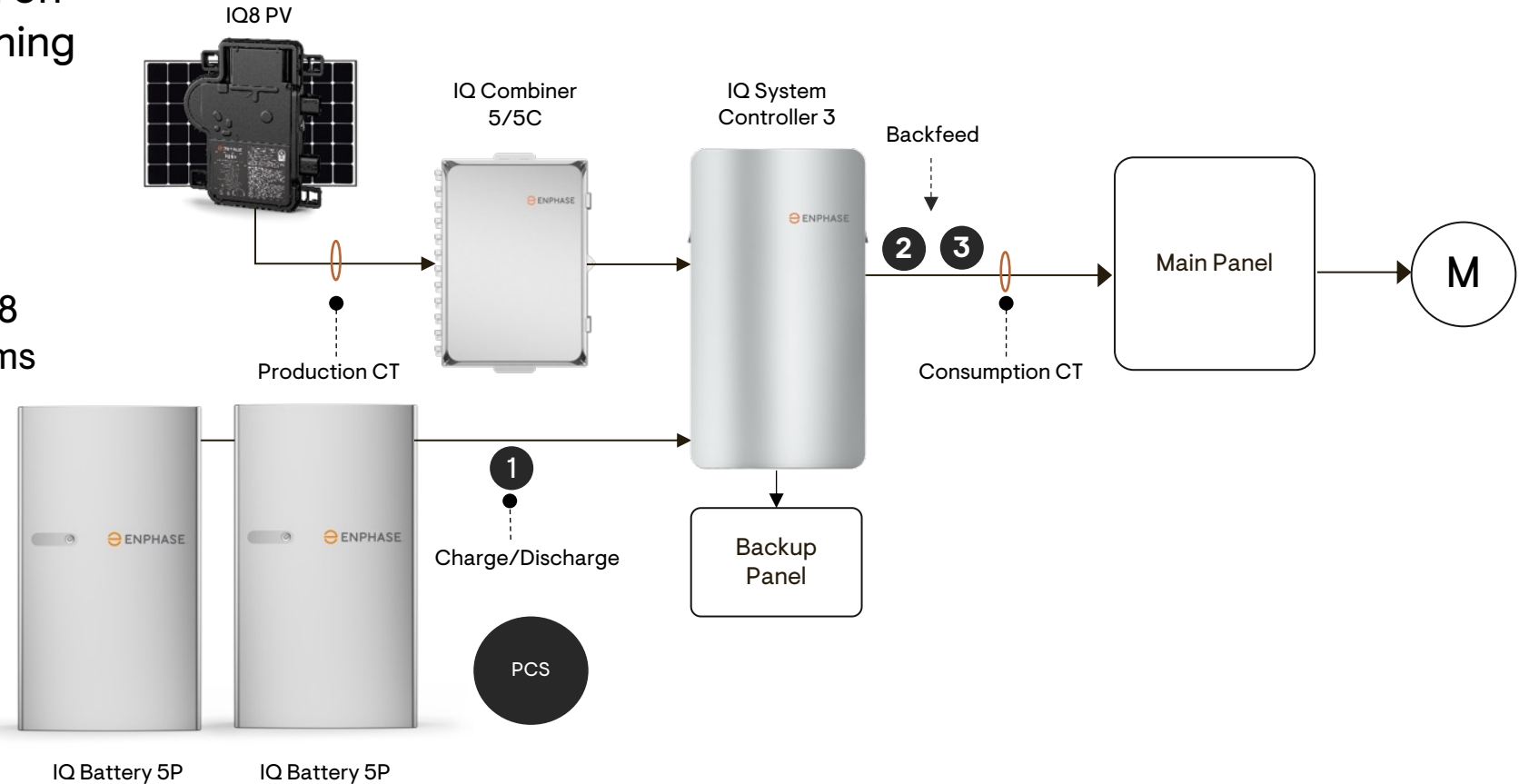
IQ Combiner 5/5C data sheet: <https://enphase.com/download/iq-combiner-5-data-sheet>

Compatibility matrix: <https://link.enphase.com/compatibility-matrix>

# Power Control Systems

PCS is a UL-certified software system that can control current/power at specific places in the system based on limits configured during commissioning

1. Doubles maximum battery capacity supported by the system
2. Avoids main panel upgrades with IQ8 solar-only and backup power systems
3. Aggregate power export limiting to comply with utility requirements



IQ Battery 5P data sheet: <https://enphase.com/download/iq-battery-5p-data-sheet>

IQ System Controller 3/3G data sheet: <https://enphase.com/download/iq-system-controller-3-data-sheet>

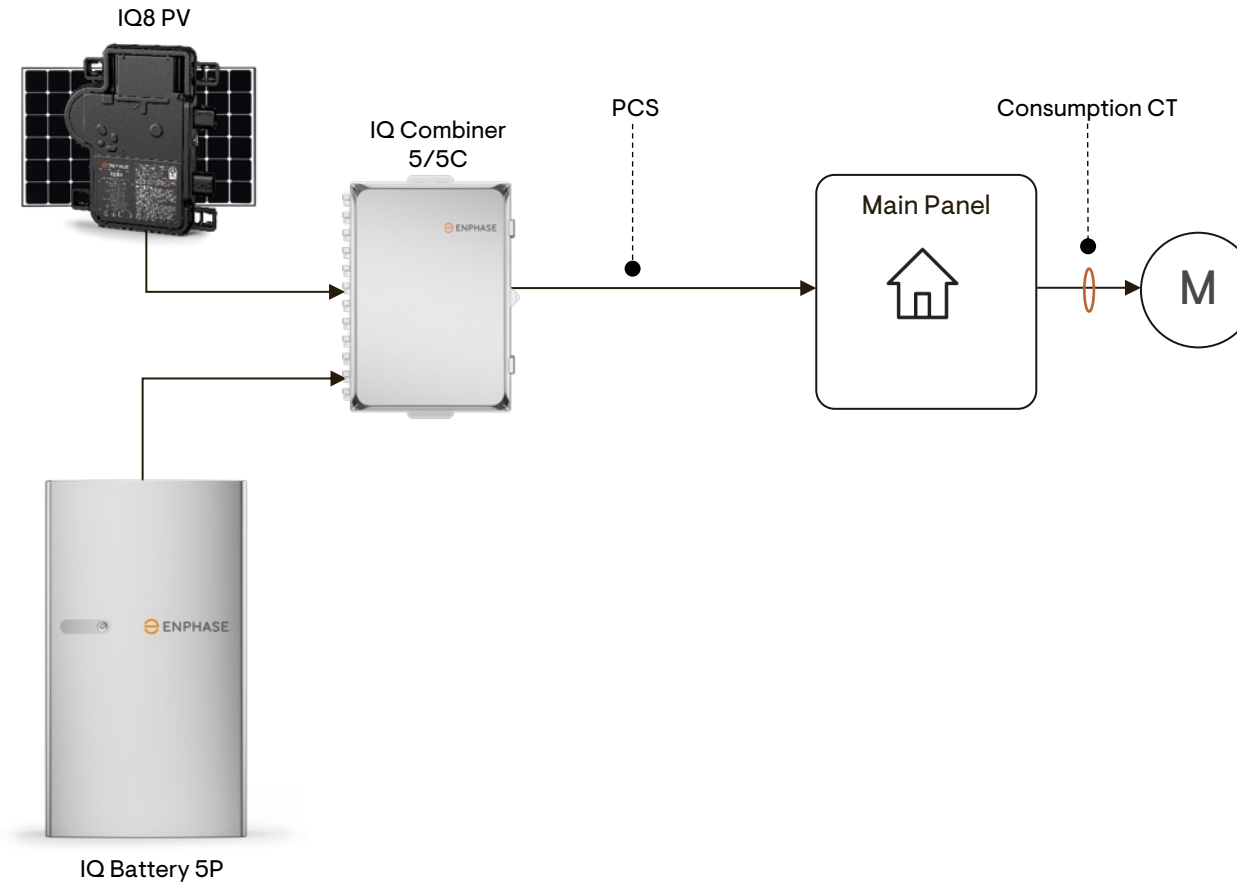
IQ Combiner 5/5C data sheet: <https://enphase.com/download/iq-combiner-5-data-sheet>

Compatibility matrix: <https://link.enphase.com/compatibility-matrix>



# Solar + Battery without Backup

Grid-tied for NEM 3.0



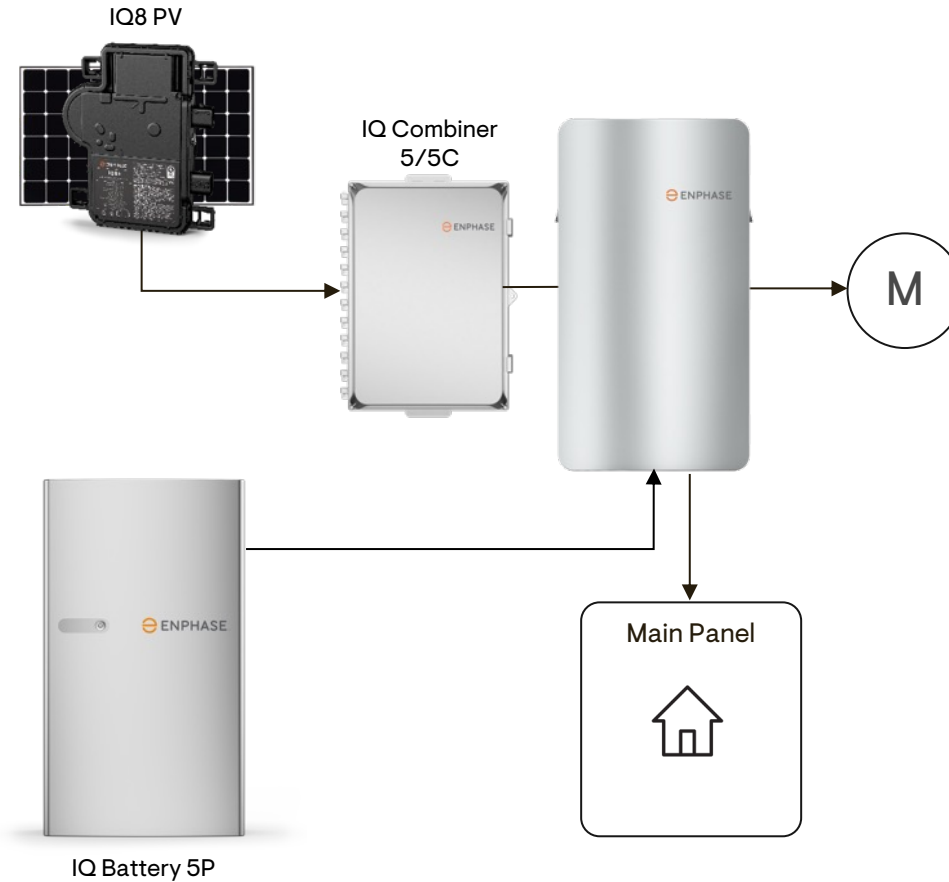
IQ Battery 5P data sheet: <https://enphase.com/download/iq-battery-5p-data-sheet>

IQ System Controller 3/3G data sheet: <https://enphase.com/download/iq-system-controller-3-data-sheet>

IQ Combiner 5/5C data sheet: <https://enphase.com/download/iq-combiner-5-data-sheet>

Compatibility matrix: <https://link.enphase.com/compatibility-matrix>

# Solar + Battery with Backup



IQ Battery 5P data sheet: <https://enphase.com/download/iq-battery-5p-data-sheet>

IQ System Controller 3/3G data sheet: <https://enphase.com/download/iq-system-controller-3-data-sheet>

IQ Combiner 5/5C data sheet: <https://enphase.com/download/iq-combiner-5-data-sheet>

Compatibility matrix: <https://link.enphase.com/compatibility-matrix>

# IQ Battery 5P pedestal mount

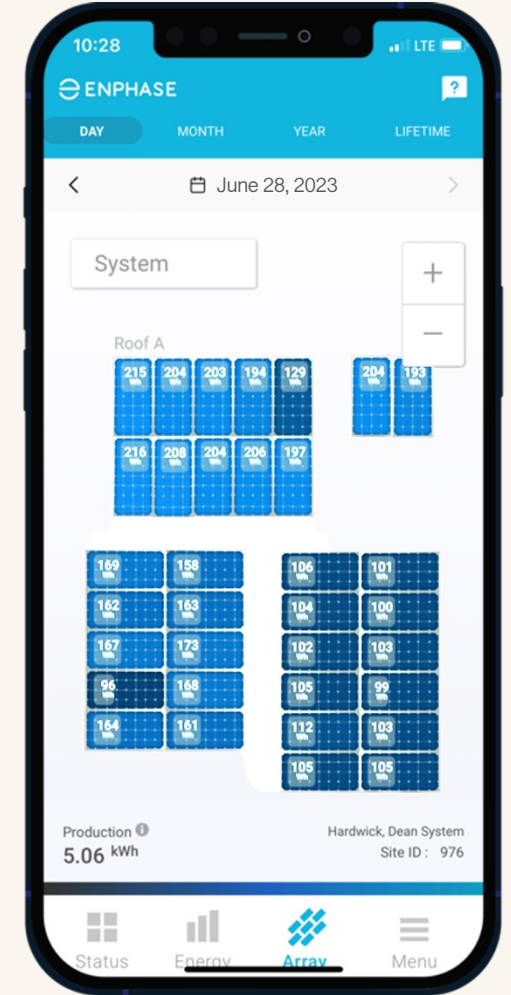
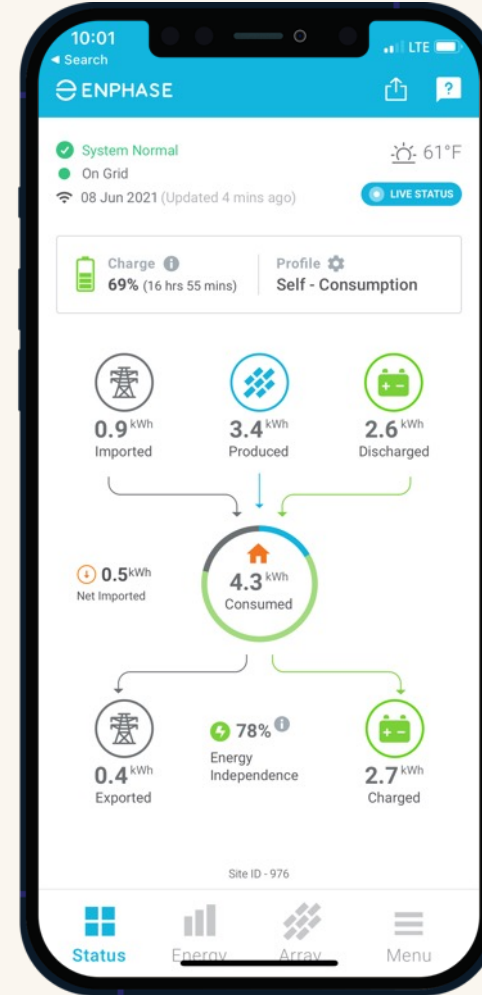
Option to anchor battery to the floor provides more flexibility for installation locations



# Power at your fingertips

Manage your whole energy system with just one app

- Monitor individual solar panel performance
- Visibility of every device in your Enphase Energy System
- Automatically manage multiple large electrical loads for improved resilience





# Conclusion

- 5 kWh modularity so you can build the right size system for your homeowner's needs
- Double the peak and continuous power so you can start large appliances with fewer batteries
- 15-year warranty and 6000 cycles for lower lifetime cost
- Wired communication for fast commissioning times and improved reliability





## Enphase Gen 3 Grid Tied Battery configurations and pricing

Quantity of 5 kWh Batteries	Encharge continuos power capacity (kWac)	Encharge energy capacity (kWh)	Maximum surge power capacity (kWac) 10 seconds	Installed Price	Federal Tax Credit (30%)	Net Cost After Tax Credit
1 (1x Encharge 5)	3.84	5.00	6.14	\$5,000	\$1,500	\$3,500
2	7.68	10.00	12.28	\$10,000	\$3,000	\$7,000
3	11.5	15.0	18.4	\$15,000	\$4,500	\$10,500
4 (4 x Encharge 5)	15.36	20.00	24.56	\$20,000	\$6,000	\$14,000
5	19.20	25.00	30.70	\$25,000	\$7,500	\$17,500
6	23.04	30.00	36.84	\$30,000	\$9,000	\$21,000
7 (7 x Encharge 5)	26.88	35.00	42.98	\$35,000	\$10,500	\$24,500
8	30.7	40.0	49.1	\$40,000	\$12,000	\$28,000
9	34.56	45.00	55.26	\$45,000	\$13,500	\$31,500
10 (10x Encharge 5)	38.40	50.00	61.40	\$50,000	\$15,000	\$35,000

## Enphase Gen 3 Backup Battery configurations and pricing

Quantity of 5 kWh Batteries	Encharge continuous power capacity (kWac)	Encharge energy capacity (kWh)	Maximum surge power capacity (kWac) 10 seconds	Installed Price	Federal Tax Credit (30%)	Net Cost After Tax Credit
1 (1x Encharge 5)	3.84	5.00	6.14	\$12,000	\$3,600	\$8,400
2	7.68	10.00	12.28	\$17,000	\$5,100	\$11,900
3	11.5	15.0	18.4	\$22,000	\$6,600	\$15,400
4 (4 x Encharge 5)	15.36	20.00	24.56	\$27,000	\$8,100	\$18,900
5	19.20	25.00	30.70	\$32,000	\$9,600	\$22,400
6	23.04	30.00	36.84	\$37,000	\$11,100	\$25,900
7 (7 x Encharge 5)	26.88	35.00	42.98	\$42,000	\$12,600	\$29,400
8	30.7	40.0	49.1	\$47,000	\$14,100	\$32,900
9	34.56	45.00	55.26	\$52,000	\$15,600	\$36,400
10 (10x Encharge 5)	38.40	50.00	61.40	\$57,000	\$17,100	\$39,900

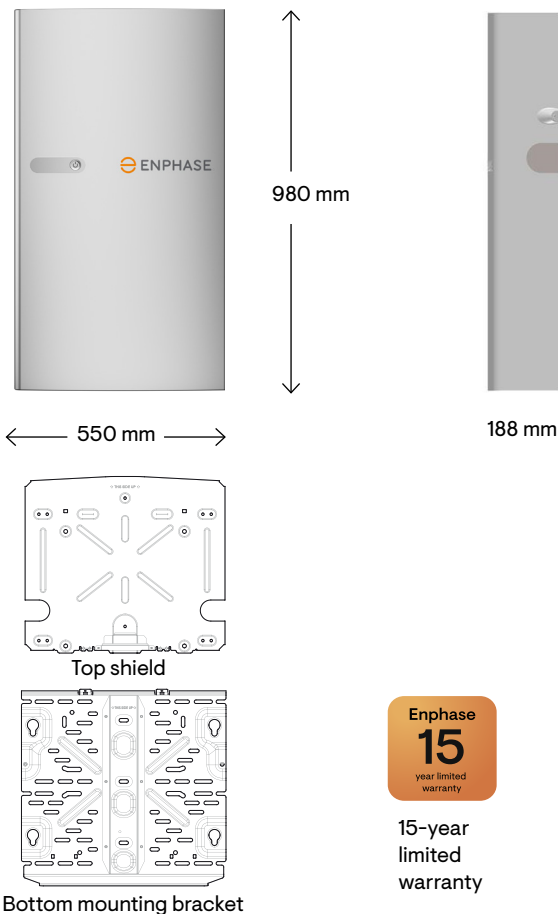




# IQ Battery 5P

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 the customer needs.

## Dimensions



15-year  
limited  
warranty



LISTED



UL 9540A  
Certified

## Powerful

- Provides 3.84 kVA continuous and 7.68 kVA peak power
- Doubles the available power per kWh of prior generations of IQ Battery 5P
- 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-NA	The IQ Battery 5P system with integrated IQ Microinverters and battery management system (BMS) with battery controller.
WHAT'S IN THE BOX	
IQ Battery 5P unit	IQ Battery 5P unit (B05-T02-US00-1-3)
ID cover and conduit cover	IQ Battery 5P cover with two conduit covers for left-side and right-side of the unit
Bottom mounting bracket and top shield	Bottom mounting bracket for mounting bracket on the wall. One top shield required for UL9540A
M5 seismic screws	Two M5 seismic screws for securing battery unit on bottom bracket
M4 grounding screws	Two M4 grounding screws to secure top shield on bottom wall-mount bracket
M5 ID cover grounding screws	Two M5 ID Cover grounding screws for EMI/EMC requirement
Cable ties	Six cable ties for securing field cables to the unit
CTRL connector	Spare CTRL connector without resistor for CTRL wiring
CTRL connector with resistor	Spare CTRL connector with resistor for CTRL wiring
Quick Install Guide (QIG)	QIG for instructions on IQ Battery unit installation
OPTIONAL ACCESSORIES AND REPLACEMENT PARTS	
IQ8D-BAT-RMA	IQ8D-BAT Microinverter for field replacement
B05-T02-US00-1-3-RMA	IQ Battery 5P Battery unit for field replacement
B05-CX-0550-O	IQ Battery 5P cover for field replacement
B05-PI-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 wall-mount 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-BMSNA-0490-O	IQ Battery 5P BMS board for field replacement
B05-CANB-063-O	IQ Battery 5P control communication board for field replacement
B05-NICS-0524-O, B05-NUCS-0524-O	IQ Battery 5P control switch preinstalled on the wiring cover for field replacement
OUTPUT (AC)	
@240 VAC <sup>1</sup>	
Rated (continuous) output power	3.84 kVA
Peak output power	7.68 kVA (3 seconds), 6.14 kVA (10 seconds)
Nominal voltage/Range	240/211-264 VAC
Nominal frequency/Range	60/57-63 Hz
Rated output current (@240 VAC)	16 A
Peak output current (@240 VAC)	32 A (3 seconds), 25.6 A (10 seconds)
Power factor (adjustable)	0.85 leading...0.85 lagging
Maximum output overcurrent protection	20 A per unit
Interconnection	Single-phase
AC round-trip efficiency <sup>2</sup>	90%
Chemistry	Lithium iron phosphate (LFP)
Altitude	Up to 2,500 meters (8,202 feet)
Mounting	Wall-mount or pedestal-mount (sold separately)

<sup>1</sup>Supported in both grid-connected and backup/off-grid operation

<sup>2</sup> AC to the battery to AC at 50% power rating

# IQ Battery 5P

BATTERY	
Total capacity	5.0 kWh
Usable capacity	5.0 kWh
DC round-trip efficiency	96%
Nominal DC voltage	76.8 V
Maximum DC voltage	86.4 V
Ambient operating temperature range (charging)	-20°C to 50°C (-4°F to 122°F) non-condensing
Ambient operating temperature range (discharging)	-20°C to 55°C (-4°F to 131°F) non-condensing
Optimum operating temperature range	0°C to 30°C (32°F to 86°F)
Chemistry	Lithium iron phosphate (LFP)
MECHANICAL DATA	
Dimensions (HxWxD)	980 mm x 550 mm x 188 mm (38.6 in x 21.7 in x 7.4 in)
Lifting weight	66.3 kg (146.1 lbs)
Total installed weight	78.9 kg (174 lbs)
Enclosure	Outdoor-NEMA 3R
IQ8D-BAT Microinverter enclosure	NEMA type 6
Cooling	Natural convection
FEATURES AND COMPLIANCE	
Compatibility	Compatible with IQ and M Series Microinverters, IQ System Controller 3/3G, IQ Combiner 5/5C, IQ Gateway for grid-tied and backup operation
Communication	Wired control communication
Services	Backup, Self-Consumption, TOU, and NEM Integrity
Monitoring	Enphase Installer Platform and Enphase App monitoring options; API integration
Compliance	CA Rule 21 (UL 1741-SA), IEEE 1547:2018 (UL 1741-SB, 3rd Ed.) CAN/CSA C22.2 No. 107.1-16 UL 9540, UL 9540A, UN 38.3, UL 1998, UL 991, NEMA Type 3R, AC156 EMI: 47 CFR, Part 15, Class B, ICES 003 Cell Module: UL 1973, UN 38.3 Inverters: UL 62109-1, IEC 62109-2
LIMITED WARRANTY	
Limited warranty	>60% capacity, up to 15 years or 6,000 cycles <sup>3</sup>

<sup>3</sup>Whichever occurs first. Restrictions apply

# Revision history

REVISION	DATE	DESCRIPTION
DSH-00010-1.0	May 2023	Initial release



The provider of this Limited Warranty is Enphase Energy, Inc., 47281 Bayside Parkway Fremont, CA 94538 United States (“Enphase”).

1. **Limited Warranty.** This Limited Warranty is effective for Covered Products (defined below) that are activated on or after April 3, 2023, unless a newer limited warranty is subsequently posted which applies to your Covered Product’s date of activation. Always check <https://enphase.com/en-us/warranty> for the correct limited warranty governing your Covered Product. Subject to the terms of this Limited Warranty, Enphase warrants to the Covered Owner (defined below) that the products listed in the table below and installed for use at the original end user location (the “**Original Location**”) (each a “**Covered Product**”), will be free from defects in workmanship and materials (“**Workmanship Warranty**”) for the applicable limited warranty period set forth below (each, a “**Limited Warranty Period**”), provided that the Original Location is located within the following territories (the “**Territory**”):

**The United States and Puerto Rico (all other United States territories are excluded).**

This Limited Warranty is valid only (a) when the Covered Products are sold by Enphase itself or by an Enphase-authorized reseller and (b) to the extent permitted by the applicable laws of the Territory mentioned above.

<u>Products</u>	<u>Limited Warranty Period</u>
<b>Enphase IQ Battery 5P (“IQ Battery Product”)</b> with SKU: IQBATTERY-5P-1P-NA	The Limited Warranty Period begins on the Activation Date (defined below) and ends on the earlier of (a) 15 years from the Activation Date or (b) 6,000 discharged cycles.
<b>IQ System Controller 3/3G</b> with SKUs: SC200D111C240US01 SC200G111C240US01  <b>System Shutdown Switch</b> with SKU: EP200G-NA-02-RSD	10 years from the Activation Date ( <u>excluding</u> System Shutdown Switch, which has a Limited Warranty Period of 5 years from the Activation Date)
<b>IQ Combiner 5/5C</b> with SKUs: X-IQ-AM1-240-5C X-IQ-AM1-240-5	5 years from the Activation Date
<b>IQ Load Controller</b> with SKU: EP-NA-LK02-040	5 years from the Activation Date
<b>Mobile Connect</b> with SKUs: CELLMODEM-M1 CELLMODEM-M1-06-SP-05 CELLMODEM-M1-06-AT-05	5 years from the Activation Date

2. **Activation Date.** As used in this Limited Warranty, “**Activation Date**” means the following:
  - a. For Covered Products that are IQ Battery Products (each a “Covered IQ Battery Product”) only: The earlier of (i) the “Energize by” date indicated on the IQ Battery Product packaging or (ii) the date the IQ Battery Product is activated at the Original Location via the Enphase Installer Portal and the Covered Owner has received “permission to operate” by the authorities having jurisdiction.
  - b. For all other Covered Products: The date the Covered Product is activated at the Original Location via the Enphase Installer Portal and the Covered Owner has received “permission to operate” by the authorities having jurisdiction.
3. **Additional Warranties for Covered IQ Battery Products.** During the Limited Warranty Period, the Covered IQ Battery Product will maintain the ability to store and discharge an energy capacity of at least sixty percent (60%) of the Covered

IQ Battery Product nameplate rating when installed and used in accordance with the Quick Install Guide and the Product data sheet (the “**Product Documentation**”). The Product Documentation can be found at <https://enphase.com/installers/resources/documentation>.

4. **Registration.** Subject to Section 5 (Registration Exclusions), this Limited Warranty is also conditioned on the Covered Owner registering the Covered Product within forty-five (45) days from the date of first installation (the “**Registration**”) by either (a) completing and returning the registration card (found at the end of this Limited Warranty) to the address set forth in this Section; (b) registering on-line at [www.enphase.com/register-my-product](http://www.enphase.com/register-my-product); or (c) registering through the Enphase App.

**Return Registration Card to:**

Enphase Energy, Inc.  
Attn: Product Registration NA  
Customer Service  
1819 S. Cobalt Point Way  
Meridian, ID 83642  
United States of America

5. **Registration Exclusions.** IF THE COVERED OWNER IS A RESIDENT OF CALIFORNIA, CONNECTICUT, OR ANY OTHER STATE THAT FORBIDS THE RETURN OF A REGISTRATION CARD AS A CONDITION PRECEDENT TO WARRANTY COVERAGE, THEN THE REGISTRATION REQUIREMENTS DESCRIBED IN SECTION 4 ABOVE SHALL NOT APPLY.
6. **Continuous Connectivity.** The Covered Products should be continuously connected to the internet during the applicable Warranty Period, except when interrupted by causes outside of the Covered Owner’s reasonable control. This will help ensure that potential defects in the Covered Product can be diagnosed remotely and that the Covered Product can receive over-the-air firmware updates.
7. **Transferee.** For the purposes of this Limited Warranty, the “**Covered Owner**” shall mean the person or entity that purchases and installs (or has installed) the Covered Product from Enphase or an Enphase-authorized reseller at the Original Location. In addition, Covered Owner shall include subsequent transferees (each, a “**Transferee**”) as long as (a) the Covered Product remains at the Original Location, (b) the Transferee submits to Enphase a “Change of Ownership Form,” (c) the Transferee pays the applicable transfer fee (“**Transfer Fee**”) set forth in the Change of Ownership Form within thirty (30) days from the date of transfer to the Transferee, and (d) if applicable, the Transferee complies with the Registration requirement in Section 4. The submission of a Change of Ownership Form is required for continued Limited Warranty coverage. The Transfer Fee is subject to reasonable adjustment from time to time (as determined at Enphase’s discretion). The Change of Ownership Form and payment instructions for the Transfer Fee are available at <https://enphase.com/en-us/support/how-to-transfer-ownership>.
8. **How to Obtain Warranty Service.**
- a. To obtain warranty service for a Covered Product, the Covered Owner must comply with the Return Merchandise Authorization (RMA) Procedure available at <https://enphase.com/en-us/support/return-merchandise-authorization-procedure>. Unless Enphase specifically instructs the Covered Owner otherwise, the Covered Owner must return the allegedly defective Covered Product to Enphase in the original packaging or equivalent. If the allegedly defective Covered Product is not received by Enphase within sixty (60) days of Enphase providing an RMA number to Covered Owner, pursuant to the RMA Procedure, Enphase will invoice the Covered Owner, and the Covered Owner will pay, the then-current list price for such new Covered Product or replacement product. We recommend that Covered Owners use a tracking service for their protection. The RMA Procedure allows Covered Owners to generate a prepaid mailing label for the return.
- b. If a Covered Owner returns a Covered Product to Enphase (i) without an RMA from Enphase or (ii) without all parts included in the original package, Enphase retains the right to either (A) refuse delivery of such return; or (B) charge a restocking fee equal to the higher of fifteen percent (15%) of the original Covered Owner’s purchase price of the Covered Product or the retail value of the missing parts. We recommend that Covered Owners use a tracking service for their protection.
- c. By returning a Covered Product, Covered Owner hereby acknowledges that ownership of the Covered Product is transferred to Enphase upon Enphase’s receipt of the Covered Product. If the returned product is covered under this Limited Warranty, Enphase will bear the cost of shipping the repaired or replacement product to the Covered Owner (or to the installer authorized by Covered Owner to replace the Covered Product) at the Original Location.

Any product returned to Enphase that Enphase determines is not covered under this Limited Warranty, or that is returned to Enphase without a valid RMA, may be rejected, and returned at the Covered Owner's cost (subject to prepayment), or kept for thirty (30) days for pick-up by the Covered Owner, and then disposed of in Enphase's sole discretion without further liability or obligation to Covered Owner.

- d. Once a returned product is received and inspected, Enphase will notify Covered Owner (or the installer authorized by Covered Owner to replace the Covered Product) that Enphase has received the returned product.

#### **9. Remedies.**

- a. During the applicable Limited Warranty Period, if Enphase confirms the existence of a defect that is covered by the Workmanship Warranty, Enphase will, at Enphase's option, either (i) repair or replace the Covered Product free of charge, or (ii) refund the Covered Owner the actual purchase price for the Covered Product less reasonable depreciation based on use at the time the Covered Owner notifies Enphase of the defect. Enphase will not elect to issue a refund unless (A) Enphase is unable to provide a replacement and repair is not commercially practicable or cannot be timely made, or (B) Covered Owner is willing to accept such a refund. In the event of a defect, to the extent permitted by law, these are the Covered Owner's sole and exclusive remedies.
- b. During the applicable Limited Warranty Period, if Enphase establishes the existence of a defect that is covered by the Limited Capacity Retention Warranty, Enphase will, at Enphase's option, either (i) repair or replace the Covered IQ Battery Product free of charge, (ii) refund the Covered Owner the actual purchase price for the IQ Battery Covered Product less reasonable depreciation based on use at the time the Covered Owner notifies Enphase of the defect. Enphase will not elect to issue a refund or a credit unless (A) Enphase is unable to provide a replacement and repair is not commercially practicable or cannot be timely made, or (B) Covered Owner is willing to accept such a refund.
- c. If Enphase repairs or replaces the Covered Product, (i) Enphase will, at its option, use new and/or reconditioned parts or products of original or improved design, and (ii) the Limited Warranty will continue to apply to the repaired or replacement product for the remainder of the original Limited Warranty Period or ninety (90) days from the date Covered Owner receives the repaired or replacement product, whichever is later.
- d. If Enphase issues a refund or a credit, as applicable (rather than providing a repaired or replacement Covered Product), such refund or credit, as applicable, will be processed and paid within four (4) weeks of Enphase's receipt of the Covered Product.

#### **10. Limited Warranty Limitations and Exclusions.**

- a. This Limited Warranty does not include any cost of labor or other costs related to (i) un-installing Covered Product; (ii) re-installing a repaired or replacement product, or (iii) the removal, installation or troubleshooting of the Covered Owner's electrical systems.
- b. The Limited Warranty does not cover, and Enphase will not be responsible for, shipping damage or any other damage caused by mishandling of products by the freight carrier.
- c. This Limited Warranty does not apply to, and Enphase will not be responsible for, any defect in or damage to any products:
  - i. that have been misused, abused, neglected, tampered with, altered, or otherwise damaged, either internally or externally;
  - ii. that have been improperly installed, operated, handled or used, including use under conditions for which the product was not designed, installed or used in an unsuitable environment, or used in a manner contrary to the Product Documentation, or applicable laws or regulations;
  - iii. that have been subjected to fire, water, generalized corrosion, biological infestations, acts of nature, or input voltage that creates operating conditions beyond the maximum or minimum limits listed in the applicable Product Documentation, including high input voltage from generators or lightning strikes;
  - iv. that have been subjected to damage caused by third party components not provided by Enphase and used with the Covered Products or any damage to the Covered Products caused by service performed by anyone who is not a representative of Enphase;
  - v. if the original identification markings (including trademark or serial number) of such products have been defaced, altered, or removed (other than by fading through regular wear and tear);
  - vi. if the Grid Profile (utility approved operating parameters) of the Covered Product has been altered, and such alteration causes the product to malfunction, fail, or fail to optimally perform; or

- vii. if the Covered Product is not using the most up-to-date firmware made available by Enphase and the applicable defect could have been avoided if such firmware were being used
  - d. This Limited Warranty does not apply to, and the term “Covered Product” shall not include any third-party products that may be installed with the Covered Products at the Original Location.
  - e. The Limited Warranty does not cover cosmetic, technical or design defects, or shortcomings which do not materially influence or affect energy storage or degrade form, fit, or function of the Covered Products; noise or vibrations that are not excessive or uncharacteristic and do not impact the Covered Product’s Performance; or any defects or parts requiring replacement due to ordinary wear and tear, corrosion, rust or stains, scratches, dents on the casing or paintwork of the Covered Product. In addition, the Limited Warranty does not apply to, and the term “Covered Product” shall not include any third-party products that may be installed with the Covered Products at the Original Location.
  - f. For the avoidance of doubt, software programs installed in the Covered Products and the recovery and reinstallation of such software programs and data are not covered under this Limited Warranty. Enphase does not warrant that the operations of the Covered Product will be uninterrupted or error-free. No Enphase employee or authorized reseller is authorized to make any modification, extension, or addition to this Limited Warranty. If any term of this Limited Warranty is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.
  - g. Covered Products are 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 Covered Products. 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 Covered Product in such circumstances.
- 11. Assignment.** Enphase expressly reserves the right to novate or assign its rights and obligations under this Limited Warranty to a third party with the demonstrated expertise and requisite resources needed to effectively discharge the obligations hereunder.
- 12. Disclaimer of Warranties.** THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY ENPHASE AND, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES AND CONDITIONS (INCLUDING WARRANTIES AND CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR WARRANTIES AS TO THE ACCURACY, SUFFICIENCY OR SUITABILITY OF ANY TECHNICAL OR OTHER INFORMATION PROVIDED IN MANUALS OR OTHER DOCUMENTATION) SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY.
- THE GRANT OF THIS LIMITED WARRANTY BY ENPHASE IS CONDITIONED UPON AGREEMENT BY THE COVERED OWNER TO THE TERMS, CONDITIONS AND REQUIREMENTS HEREIN. SOME STATES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, SO THE ABOVE LIMITATION MAY NOT APPLY TO THE COVERED OWNER. THIS LIMITED WARRANTY GIVES THE COVERED OWNER SPECIFIC LEGAL RIGHTS, AND THE COVERED OWNER MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.
- 13. Limitation of Liability.** EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, IN NO EVENT WILL ENPHASE BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, COSTS OR EXPENSES HOWEVER ARISING, WHETHER IN CONTRACT OR TORT, INCLUDING WITHOUT LIMITATION ANY ECONOMIC LOSSES OF ANY KIND, ANY LOSS OR DAMAGE TO PROPERTY, OR ANY PERSONAL INJURY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO COVERED OWNER.
- 14. Governing Law.** This Limited Warranty shall be governed by the laws of the State of California, USA, without giving effect to any conflict of laws principles that may require the application of the law of another jurisdiction.



## 15. Arbitration.

- a. **Please read the following arbitration agreement in this Section (“Arbitration Agreement”) carefully. It requires Covered Owner (“you”) to arbitrate disputes with ENPHASE and limits the manner in which you can seek relief from Enphase (“us”).**
- b. **Applicability of Arbitration Agreement.** You agree that any dispute or claim relating in any way to your access or use of the Covered Products, or to any aspect of your relationship with Enphase, will be resolved by binding arbitration, rather than in court, except that (i) you may assert claims in small claims court if your claims qualify; and (ii) you or Enphase may seek equitable relief in court for infringement or other misuse of intellectual property rights (such as trademarks, trade dress, domain names, trade secrets, copyrights, and patents).
- c. **Arbitration Rules and Forum.** For any dispute with Enphase in connection with this Limited Warranty, Covered Owner agrees to first contact Enphase at the email address identified below and attempt to resolve the dispute with us informally. If the dispute has not been resolved after sixty (60) days, both parties agree to resolve such dispute through binding arbitration under the Optional Expedited Arbitration Procedures then in effect for the Judicial Arbitration and Mediation Services (“JAMS”). JAMS may be contacted at [www.jamsadr.com](http://www.jamsadr.com). The existence, content and result of the arbitration shall be held in confidence by all participants. The arbitration will be conducted by a single arbitrator selected by agreement of the parties or, failing such agreement, appointed in accordance with the JAMS rules. The arbitration shall be conducted in English and in Santa Clara County, California. If JAMS is not available to arbitrate, the parties will select an alternative arbitral forum. If the arbitrator finds that Covered Owner cannot afford to pay JAMS’s filing, administrative, hearing and/or other fees and cannot obtain a waiver from JAMS, Enphase will pay them for Covered Owner. In addition, Enphase will reimburse all such JAMS’s filing, administrative, hearing and/or other fees for claims totaling less than \$10,000 unless the arbitrator determines the claims are frivolous. Any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction. The arbitrator shall have exclusive authority to (i) determine the scope and enforceability of this Arbitration Agreement, and (ii) resolve any dispute related to the interpretation, applicability, enforceability, or formation of this Arbitration Agreement including, but not limited to any claim that all or any part of this Arbitration Agreement is void or voidable. The arbitration will decide the rights and liabilities, if any, of the parties. The arbitration proceeding will not be consolidated with any other matters or joined with any other cases or parties. The arbitrator shall have the authority to grant motions dispositive of all or part of any claim. The arbitrator shall have the authority to award monetary damages and to grant any non-monetary remedy or relief available to an individual under applicable law, the arbitral forum’s rules, and the Limited Warranty. The arbitrator shall issue a written award and statement of decision describing the essential findings and conclusions on which the award is based, including the calculation of any damages awarded. The arbitrator has the same authority to award relief on an individual basis that a judge in a court of law would have. The award of the arbitrator is final and binding upon the parties.
- d. **Waiver of Jury Trial.** YOU AND ENPHASE HEREBY WAIVE ANY CONSTITUTIONAL AND STATUTORY RIGHTS TO SUE IN COURT AND HAVE A TRIAL IN FRONT OF A JUDGE OR A JURY. You and ENPHASE are instead electing that all claims and disputes shall be resolved by arbitration under this Arbitration Agreement, except as specified in sections above. An arbitrator can award on an individual basis the same damages and relief as a court and must follow this Agreement as a court would. However, there is no judge or jury in arbitration, and court review of an arbitration award is subject to very limited review.
- e. **Waiver of Class or Other Non-Individualized Relief.** ALL CLAIMS AND DISPUTES WITHIN THE SCOPE OF THIS ARBITRATION AGREEMENT MUST BE ARBITRATED ON AN INDIVIDUAL BASIS AND NOT ON A CLASS OR COLLECTIVE BASIS, ONLY INDIVIDUAL RELIEF IS AVAILABLE, AND CLAIMS OF MORE THAN ONE COVERED OWNER CANNOT BE ARBITRATED OR CONSOLIDATED WITH THOSE OF ANY OTHER COVERED OWNER. If a decision is issued stating that applicable law precludes enforcement of any of this subsection’s limitations as to a given claim for relief, then such claim must be severed from the arbitration and brought into the State or Federal Courts located in San Francisco, California. All other claims shall be arbitrated.
- f. **30-Day Right to Opt Out.** You have the right to opt out of the provisions of this Arbitration Agreement by sending written notice of your decision to opt out to Enphase Energy, Inc., 47281 Bayside Parkway, Fremont, California, 94538, attention: General Counsel, within thirty (30) days after first becoming subject to this Arbitration Agreement. You may also opt-out of the provisions of this Arbitration Agreement by sending written notice of your decision to the following email address: [legal@enphaseenergy.com](mailto:legal@enphaseenergy.com). Your notice must include your name and address, and an unequivocal statement that you want to opt out of this Arbitration Agreement. If you opt out of this Arbitration Agreement, all other parts of this Agreement will continue to apply to you. Opting out of this Arbitration Agreement has no effect on any other arbitration agreements that you may currently have, or may enter in the future, with us.

- g. **Severability.** Except as provided above, if any part or parts of this Arbitration Agreement are found under the law to be invalid or unenforceable, then such specific part or parts shall be of no force and effect and shall be severed and the remainder of the Arbitration Agreement shall continue in full force and effect.
- h. **Survival of Agreement.** This Arbitration Agreement will survive the termination of your relationship with Enphase.

**16. Customer Support Contact Information.**

Phone number: (877) 797-4743  
Email: <https://support.enphase.com/s/contact-us>  
Web Page: <https://support.enphase.com/s/>

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# Product Registration Form



Failure to complete and return this Product Registration Form does not diminish your warranty rights.

Please return this form to:

Enphase Energy, Inc.  
Attn: Product Registration NA  
Customer Service  
1819 S. Cobalt Point Way  
Meridian, ID 83642  
United States of America

(or, you may register on-line at <https://enphase.com/en-us/product-registration-en-us>)

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

E-mail \_\_\_\_\_

Phone Number (Area Code) \_\_\_\_\_

## Contact Address

Street Address: \_\_\_\_\_

Street Address (line 2) \_\_\_\_\_

City \_\_\_\_\_

State/Province \_\_\_\_\_ Zip Code \_\_\_\_\_

Address of installation: same as Contact Address? Yes /

No (If, "Yes", Enphase will use Contact Address as Address of Installation)

## Address of Installation

Street Address: \_\_\_\_\_

Street Address (line 2) \_\_\_\_\_

City \_\_\_\_\_

State/Province \_\_\_\_\_ Zip Code \_\_\_\_\_

## Installer Information

Installer Name \_\_\_\_\_

Installer Contact Info \_\_\_\_\_

E-mail \_\_\_\_\_

Phone Number (Area Code) \_\_\_\_\_

## Product Information

Product SKU (e.g.: IQ7-60-2-US) \_\_\_\_\_

Number of Units Installed \_\_\_\_\_

Serial Numbers of Units installed \_\_\_\_\_

Purchased from \_\_\_\_\_

Purchase Date (MM/DD/YY) \_\_\_\_\_

Installation Date (MM/DD/YY) \_\_\_\_\_

Permitted to Operate Date (MM/DD/YY) \_\_\_\_\_

☐ I agree to receive critical product information about the registered products at the email and/or contact

provided above. Do you want us to send you product announcements and special offers? Yes / No

## Enphase Encharge Gen 3 - 5 Kilowatt hour battery to Solar Inverter Ratio

No. of IQ Battery 5P units	IQ Battery energy capacity(kWh)	IQ Battery rated continuous output power (kWA)	PV array rated continuous output power (kWA)	IQ6	IQ6+	IQ7	IQ7+	IQ7X	IQ7A	M215	M250
1	4.96	3.84	5.76	25	20	24	19	18	16	26	24
2	9.92	7.68	11.52	50	41	48	39	36	33	53	48
3	14.88	11.52	17.28	75	61	72	59	54	49	80	72
4	19.84	15.36	23.04	100	82	96	79	73	66	106	96
5	24.8	19.20	28.80	125	102	120	99	91	82	133	120
6	29.76	23.04	34.56	150	123	144	119	109	99	160	144
7	34.72	26.88	40.32	175	143	168	138	128	115	186	168
8	39.68	30.72	46.08	200	164	192	158	146	132	213	192



### Enphase Ensemble compared to Tesla Power Wall

Feature (EE vs TPW)	Enphase Ensemble	Tesla Power Wall	Explanation
Scalability (Building Blocks)	3.3kWh or 10kWh	13.2kWh	Enphase building blocks provide a simple expandable system including expandable PV system
PV Resiliency	Based on Micro Inverter	Based on String Inverter	String inverter are known for lower cost but provide a single point of failure but Enphase Microinverters provide a truly distributed architecture and even if 1 inverter would fail, the Enphase system would still be in operation and have access to all the energy vs a string inverter failure would cause 100% system failure and 1-2week outage deepening on service response.
Storage Resiliency	Based on Micro Inverter	Based on String Inverter	
All in one solution	Yes	No	Enphase provides an all in one PV & Storage solution combined with best in class customer support.
Inverter warranty	25 yrs.	10 yrs.	Inverter Warranty is based on 25yr Warranty
Storage warranty	15 yrs.	10 yrs.	Storage Warranty is based on 15 yr.
PV safety	AC	DC	Enphase uses all in one AC coupled solution PV and Storage
Battery Chemistry Safety	LFP	NMC	Enphase LFP is known to be safer chemistry / Cobalt (NMC) based batteries are known to be lower in price but have safety concerns like potential explosion if punctured or damaged. Lithium iron phosphate batteries are known to be the most stable and safe of the various lithium batteries.
Efficiency	96%	92%	Enphase's modular 'building block' batteries <sup>[71]</sup> are more efficient than the Tesla Powerwall . The Enphase AC Battery also includes an inverter inside the casing and works with all existing solar systems or alternatively, in homes without solar.