

# 4th-generation Enphase Energy System

with IQ Battery 10C, IQ Combiner 6C,  
and IQ Meter Collar

--Chris Canfield (RSM) and Andrew Jamshidi (FAE)

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# The best just got better

## With the 4th-generation Enphase Energy System

### What's new

- More compact—fewer boxes, less wall space needed
- Faster install—with the all-new IQ Meter Collar
- Lower cost—with the elimination of the IQ System Controller
- Best warranty—15-year limited warranty on IQ Battery 10C, IQ Combiner 6C, and IQ Meter Collar

### Schedule

- 4/22: Pre-orders began. Channel now fully stocked and delivering
- Apr 29th: Sales training & design/installation training started
- June 2025: Enphase University Certification (online) made available
- June 21, 2025: 4th-generation EES shipments to distribution began (Over 20 MWH delivered to distributors)
- July 20, 2025: IQ Battery 10C-DOM shipments began

# Quick comparison: Enphase 10 kWh backup solutions

## 3rd-generation Enphase Energy System

- ① Meter main
- ② IQ Load Controller
- ③ Sub-panel
- ④ IQ System Controller 3
- ⑤ System Shutdown Switch
- ⑥ IQ Combiner 5C
- ⑦ IQ Battery 5P



## 4th-generation Enphase Energy System

- ① Meter main
- ② IQ Meter Collar
- ③ IQ Combiner 6C
- ④ IQ Battery 10C



# 4th-generation Enphase Energy System

## Presentation Agenda

IQ Battery 10C

IQ Combiner 6C

IQ Meter Collar

Installations



# 4th-generation Enphase Energy System

## IQ Battery 10C

# IQ Battery 10C

- Beautiful, new streamlined design
- 62% less wall space than two IQ Battery 5Ps
- Neutral-forming—eliminating the IQ System Controller

Battery capacity	10 kWh
Continuous power/current	7.08kW/29.5A
LRA support	90 A
L1/L2 load imbalance	Up to 24 A
Communication protocol	Wired (4-wire Enphase CTRL cable)
Operating modes	AI Optimization, backup, or self-consumption
Chemistry	Lithium iron phosphate (LFP)
Tested to UL 9540A	Yes
Installation	Wall bracket or floor pedestal
Maximum lifting weight	126 lbs per 5 kWh unit
Conduit entry	Left, right, rear
Ambient operating temp. (charging)	−4°F to 122°F
Ambient operating temp. (discharging)	−4°F to 131°F
Compatibility	IQ Series Microinverters* IQ Combiner 6C and IQ Meter Collar IQ Battery 5P (late 2025)
Field serviceable	Yes
Altitude	Up to 9842 ft. (3000 m)
Warranty	15-year limited warranty (6,000 cycles)



\* Note: Compatible with 3rd-party and legacy Enphase PV using the IQ Combiner 6C. Refer to the [compatibility matrix](#) for more details.



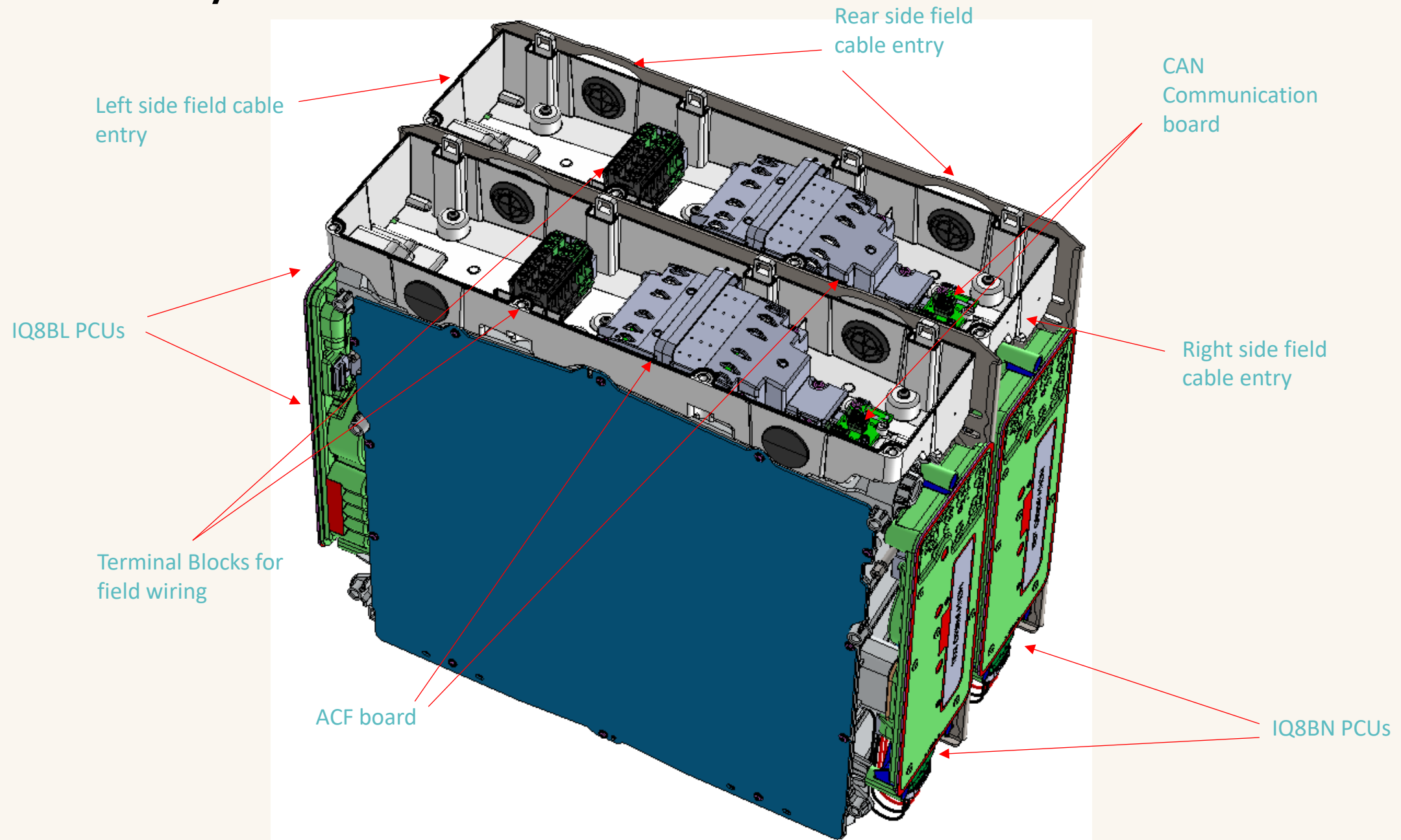
Enphase

15

year limited warranty

IQ Battery 10C has 2 battery units of 5 kWh each and a cover kit. Battery units and cover must be ordered separately. 2 x 5 kWh must be installed to successfully commission.

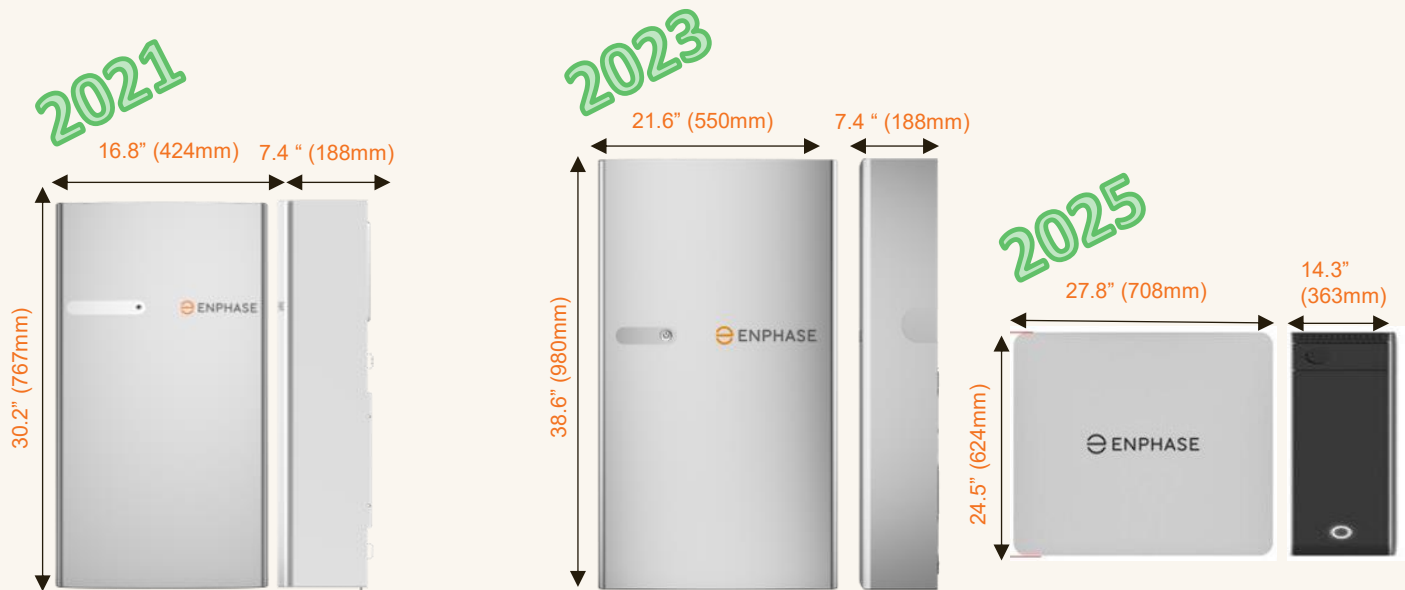
# IQ Battery 10C: Internals





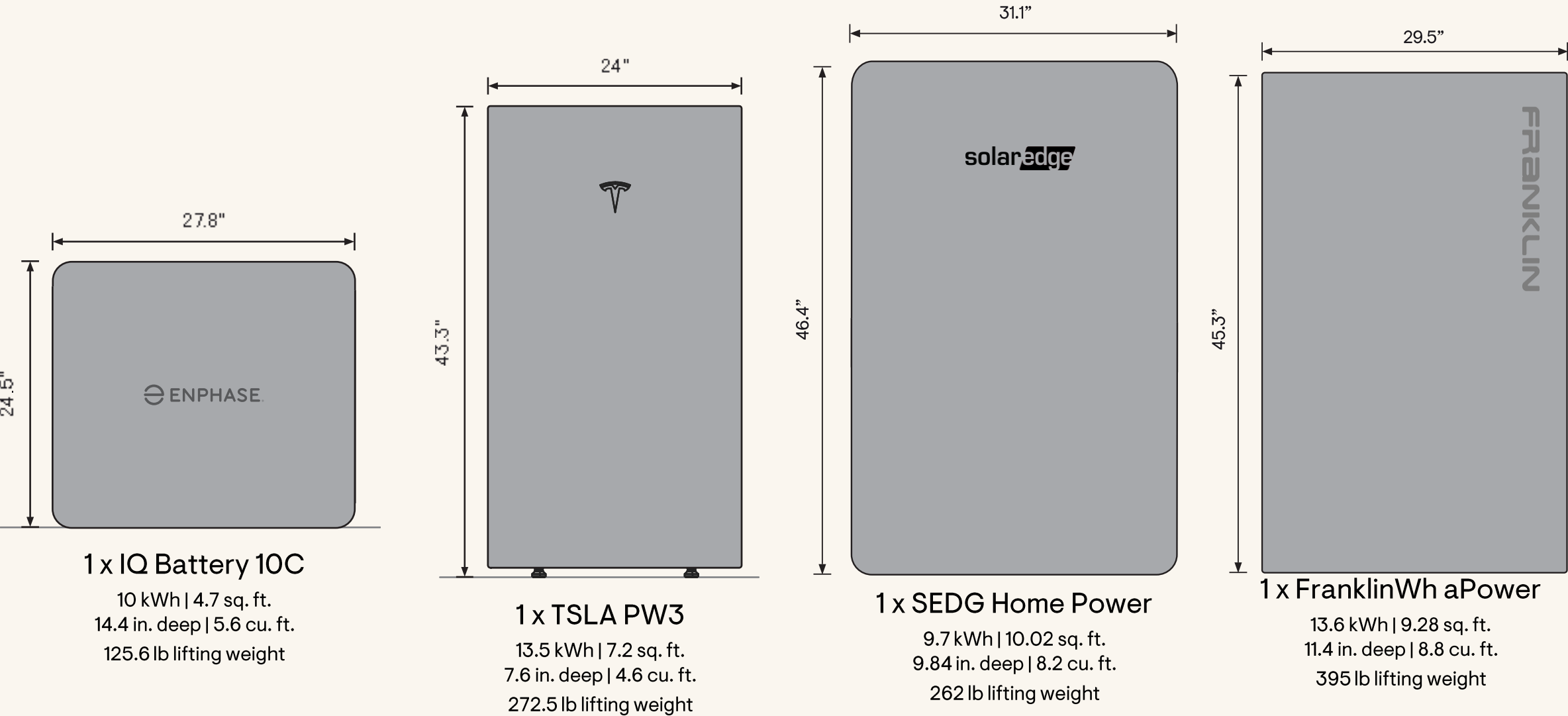


# Evolution of Enphase IQ Battery (R2 to present)



IQ Battery Specs	IQ Battery R2 (3T/10T)		IQ Battery R3 (5P)	IQ Battery 10C
	IQ Battery 3T	IQ Battery 10T		
Capacity (kWh) (Usable/Actual)	3.36 / 3.5	10.08 / 10.5	5/5	10 / 10
Power (kW)	1.28	3.84	3.84	7.08
C Rate	0.38/0.37	0.38/0.37	0.77	0.71
LRA (A)	N/A	N/A	48	90
Chemistry/Cell Capacity (Ah)/ Type	LFP/64/ Pouch	LFP/64/ Pouch	LFP/64/ Pouch	LFP/64/ Pouch
Warranty (Years, Retention Capacity, cycles)	15, 60%, 6000	15, 60%, 6000	15, 60%, 6000	15, 60%,6000
Mounting	Wall	Wall	Wall/Pedestal	Wall/Pedestal
Density (Wh/L)	57	56	49	62.5
Communication	Wireless	Wireless	Wired	Wired
Supported Grid Supplies	Split phase (L1-L2 240 V, L-N 120 V, 180°) –NA Single-phase (L-N, 230 V, 120°) - EMEA		Split phase (L1-L2 240 V, L-N 120 V, 180°), Single-phase (L1-L2 208 V, L-N 120 V, 120°), Single-phase (L1-L2 220 V, L-N 127 V, 120°)	Split phase (L1-L2 240 V, L-N 120 V, 180°) Coming soon: - Single-phase (L1-L2 208 V, L-N 120 V, 120°) - Single-phase (L1-L2 220 V, L-N 127 V, 120°)

# IQ Battery 10C vs Competition



*Optimized wall space compared to the competitor products*



# 4th-generation Enphase Energy System

## IQ Combiner 6C

# IQ Combiner 6C

- Aggregation and communication for the Enphase Energy System
- Integrates breakers for PV, battery, EV charger, and load control
- Factory-installed CTs and improved PLC communication

Interconnect	Using IQ Meter Collar
Integrated current transformers	PV and battery
EV charger current transformer	Optional, field installable
IQ Gateway and controller boards	Integrated, field serviceable
Communication protocol	Wired (4-wire Enphase CTRL cable)
Lugs to connect to main panel	Up to 100 A continuous
PV circuit breakers	4 x 20 A (3x 20 A + 1x 20-20 A for 5 circuits)
Battery circuit breakers	2 x 80 A
EV circuit breakers	1 x 60 A
Heavy loads or 3 <sup>rd</sup> party/legacy PV breaker*	1 x 80 A (Supports double-pole or quad)
Conduit entry	Top: Side-left and side-right predrilled Bottom, rear, left, right
Ambient operating temp.	-40°F to 115°F
Compatibility	IQ Series Microinverters* IQ Battery 10C IQ Battery 5P (late 2025)
Field serviceable	Yes
Altitude	Up to 9842 ft. (3000 m)
Warranty	15-year limited warranty
Cellular modem	5-year limited warranty; 5-year extensible data plan; AT&T and T-Mobile



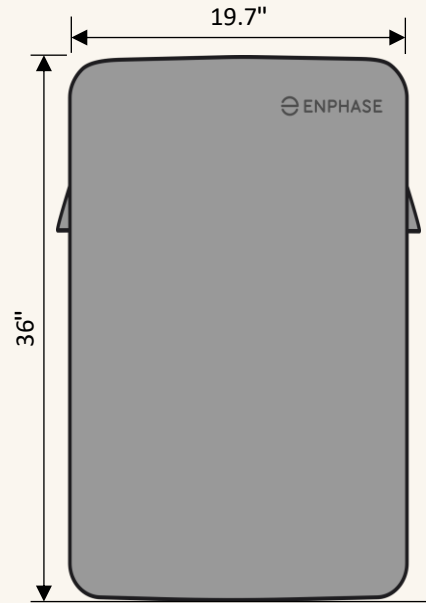
\*Note: Compatible with 3<sup>rd</sup>-party/legacy Enphase PV using the integrated load controller. Refer to the [compatibility matrix](#) for more details.



# IQ Combiner 6C

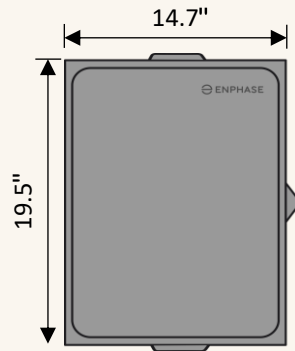
One less box on the wall

51% less wall space than combined IQ System Controller 3 and IQ Combiner 5C



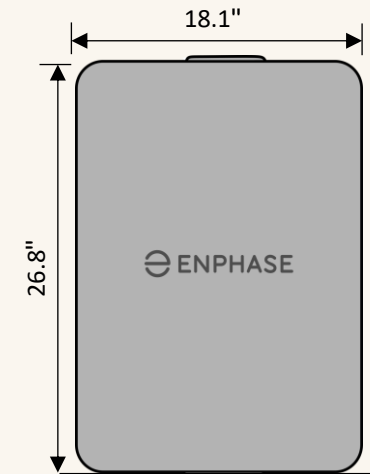
IQ System Controller 3

Depth: 9.7 in  
Wall space: 4.92 sq ft  
Lifting weight: 87 lbs.



IQ Combiner 5C

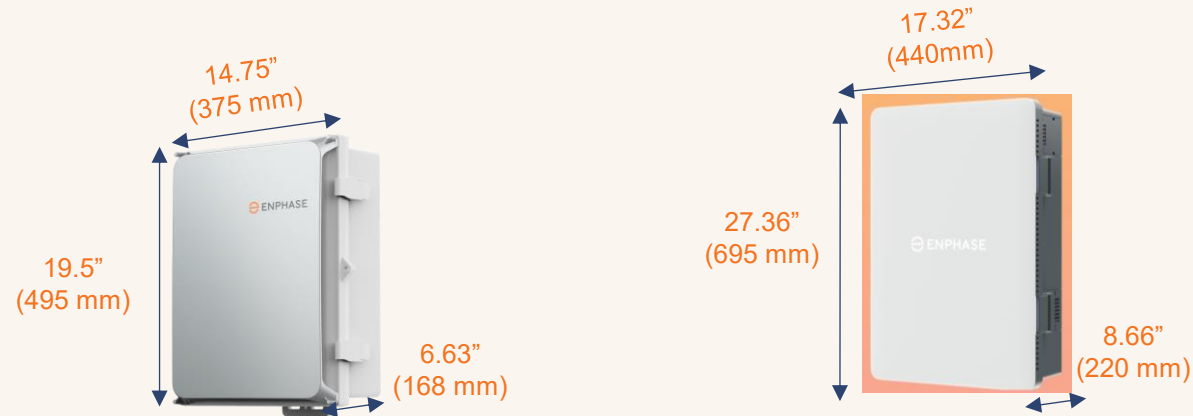
Depth: 6.63 in  
Wall space: 1.99 sq ft  
Lifting weight: 16.5 lbs.



IQ Combiner 6C

Depth: 8.7 in  
Wall space: 3.36 sq ft  
Lifting weight: 40 lbs.

# IQ Combiner 5/5C vs IQ Combiner 6C



Specifications	IQ Combiner 5/5C	IQ Combiner 6C
Gateway	IQ Gateway IEEE-compliant	USB Powered IQ Gateway
Supported grid supplies	Split phase (L1-L2 240 V, L-N 120 V, 180°), Single-phase (L1-L2 208 V, L-N 120 V, 120°), Single-phase (L1-L2 220 V, L-N 127 V, 120°)	
Configurations Supported	Grid-tied PV, Grid-tied PV + Bat (split phase, Q3'24 single-phase 208V)	Grid tied PV + Battery Grid forming PV+ Battery
DERs Breakers	80 A total (60 A max rating) 4x 2-pole for PV/Battery	PV: 4x 2-pole total 80 A branch circuits or 1x 100A Battery: 2x 2-pole 80 A each, EVSE: 1x 2-pole 80 A
DER Cont. current	64 A	160 A
PV/Battery Current monitoring	Prod: ANSI C12.20 Class 0.5 Consumption: +/-2.5% ,Rope CTs (Q3'24)	Prod/Battery: ANSI C12.20 Class 0.5 Consumption: +/-2.5%, EVSE: +/- 2.5%
Wi-Fi/BT/Eth	2.4/5 GHz Wi-Fi, Eth, BT	2.4/5 GHz Wi-Fi, Eth, RS 485, BT
Cell Modem	CELLMODEM-M1-06-SP-05	CELLMODEM-07-NA
Compatibility	PV – IQ6/IQ7 /IQ8 L-L PLC, Built in COMMS-KIT-02 for IQ Battery 5P , IQ Battery 3T/10T with COMMS-KIT-01	PV – IQ6/IQ7 /IQ8 L-L PLC Built-in CTRL ports for IQ Battery 5CN/10CN & IQ Collar
Hold Down Kit Support	Yes (Preinstalled) <sup>1</sup>	Yes (Preinstalled)
Breaker support	Eaton BR/Siemens/GE/ABB	Eaton BR/Siemens/GE/ABB
Warranty	5 years	15 years

# Cell Modem 07

Mobile Connect CELLMODEM-07 provides seamless high-speed cellular connectivity for the Enphase Energy System, enabling easy monitoring and management.

- 4G CAT4 modem, provides higher bandwidth and better network quality
- Single SKU (CELLMODEM-07-NA-05) supports both AT&T and T-Mobile
- Software automatically selects the best network based on site conditions
- Includes a 5-year data plan with 6-hour reporting out of the box
- Supports systems with up to 96 microinverters and 80 kWh of batteries
- Supports systems with greater than 96 microinverters with an add-on data pack\*

AVAILABLE JUNE 2025



# 4th-generation Enphase Energy System

## IQ Meter Collar



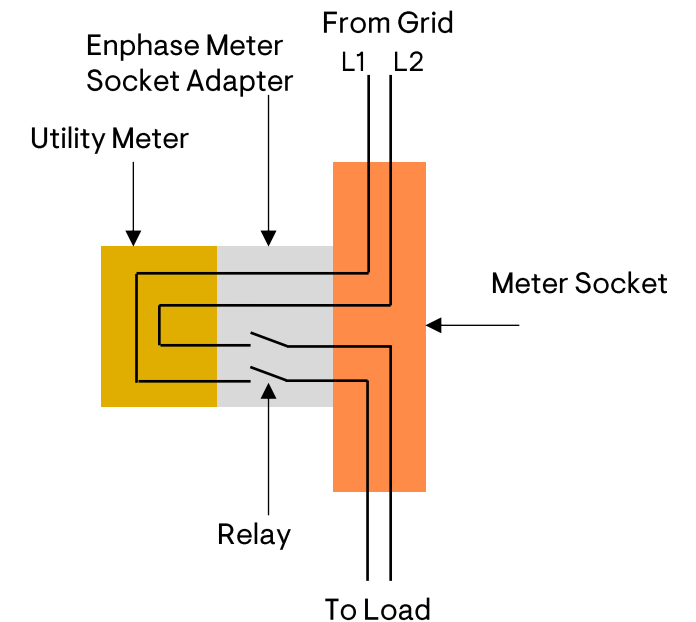
# IQ Meter Collar

## INTRODUCTION

Enphase Energy is set to launch the IQ Meter Collar, a meter socket adapter designed to simplify whole-home backup by isolating the home from the grid.

## OVERALL VALUE PROPOSITION

- **Versatile Compatibility:** Fits most US homes with Form 2S, up to 200A meter sockets
- **Simple and Safe Installation:** No exposed live terminals; isolated low-energy cable
- **Enhanced Thermal Management:** Heat spreader and cooling fan for extreme conditions
- **Robust Design:** Redundant power supplies ensure failsafe operation
- **Proven Reliability:** Qualified like Enphase microinverters
- **Extended Warranty:** 15-year warranty for peace of mind



# IQ Meter Collar: Key Features and Benefits



Feature	Benefit/Value to Customers
Integrates the microgrid interconnection device	Seamless grid and backup power transition
Connects directly to the IQ Combiner 6C	No IQ System Controller needed, simplifying setup and reducing costs
Eliminates the need for Consumption CTs	Reduced components for lower installation costs and quicker setup
Works with Form 2S meter sockets up to 200 A	Wide compatibility with various residential electrical systems
UL 414 SB safety compliant and UL1741 SA/SB compliant	Ensures high safety and reliability standards
Fault tolerance with redundant power, both from grid and batteries	Continuous power supply, even during faults
Works with IQ Battery 5P and IQ Battery 10C	Flexible and scalable energy storage options
Remote commissioning prevents truck roll after installation by utility	Lower operational costs with fewer on-site visits
Wired CTRL communication for reliable system operation	Stable and dependable component communication
Enhanced thermal design minimizes use of fan for cooling	Efficient heat dissipation, reducing wear and tear
Override button to bypass microgrid enables flexible installation workflows	Adaptable and customizable installation processes
Ability to manually move the MID relay state when unit is not powered	Provides additional flexibility and control during installation
Dual LEDs to indicate state of MID relay, grid power, and common fault states	Immediate visual feedback simplifies monitoring
15-year limited warranty with 20-year design life	Long-term reliability and high performance

# Utilities allowing IQ Meter Collar under their meter

Coordinate utility meter installation into IQ Meter Collar

#	State	Utility
1	Arizona	Arizona Public Service (APS)
2	Arizona	Hohokam Irrigation and Power
3	Arizona	Salt River Project (SRP)
4	Arizona	Sulphur Springs Valley Electric Cooperative
5	Arizona	Trico Electric Cooperative
6	Arizona	Tucson Electric Power (TEP)
7	Colorado	Estes Park Utilities
8	Colorado	Fort Collins Light & Power*
9	Colorado	Holy Cross Energy
10	Colorado	La Plata Electric Association (LPEA)
11	Colorado	Poudre Valley Rural Electric Association
12	Florida	Orlando Utilities Commission (OUC)*
13	Michigan	Traverse City Light and Power
14	New Mexico	Los Alamos Department of Public Utilities
15	Ohio	Buckeye Rural Electrical Cooperative
16	Ohio	City of Westerville*
17	Ohio	Village of Yellow Springs
18	Oregon	Central Electric Cooperative
19	Texas	Bluebonnet Electric Cooperative
20	Vermont	Burlington Electric Department
21	Vermont	Green Mountain Power
22	Vermont	Vermont Electric Coop
23	CO, WY, MT, SD	Black Hills Energy

\* Ring Type Meter Base Only

[Website Link](#)

Case-by-case approvals:

- 1. Nebraska Public Power District, NE
- 2. City of Highland Light and Power located in Highland, IL
- 3. Eau Clair Utility, WI



Allowed installation method example



# Utilities reviewing IQ Meter Collar under their meter

State	Utility
California	PG&E
California	SCE
California	SDGE
California	SMUD (Sacramento Muni Utility District)
Colorado	CORE
Colorado	Xcel Energy
Hawaii	Hawaiian Electric Company (HECO)
Illinois	Commonwealth Edison (ComEd)
Kansas	Evergy
Maine	Versant Power
Missouri	Evergy
Montana	Flathead Electric Cooperative
Nevada	NV Energy

State	Utility
New Jersey	Jersey Central Power and Light (First Energy Corp)
New Jersey	Atlantic City Electric
New Jersey	PSEG NJ (Public Service Electric and Gas Company)
Pennsylvania	PPL Electric Utilities
Rhode Island	Road Island Energy
South Dakota	West River Electric Association
Texas	Austin Energy
Utah	Dixie Power
Utah	Kaysville City Power
Utah	Rocky Mountain Power
Vermont	Lyndonville Electrical
Washington	Tacoma Public Utilities
Wisconsin	Eau Claire Energy Coop
Wisconsin	Sturgeon Bay Utilities
Wyoming	Rocky Mountain Power
CA, OR, WA	Pacific Power

# Flexible installation with IQ Meter Collar on a meter pan

## Avoid utility restrictions with a meter pan

- Use if the utility has not approved the IQ Meter Collar
- Use if the gas meter is too close to the meter

## How it works

- Use off-the-shelf standard components:
  - Meter pan with form 2S meter socket (e.g., Eaton UTRS213CE ringless meter pan)<sup>1</sup>
  - Meter socket jumper cover (e.g., Tesco No. 277-4)<sup>1</sup>
- IQ Meter Collar on meter pan is a meter disconnect under NEC 230.82<sup>2</sup>



<sup>1</sup> Contact Enphase for recommended ringless meter pans and jumper covers

<sup>2</sup> Follow local and national codes and standards. Authority Having Jurisdiction (AHJ) interpretation may govern grounding and bonding requirements.

# 4th-generation Enphase Energy System

## Helpful Links and Roadmap

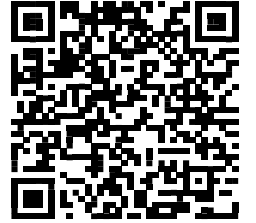


# Useful downloads and online training

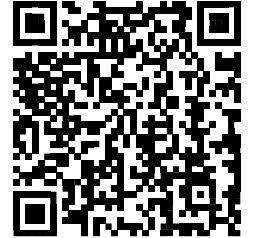
Product	Link to documents
IQ Battery 10C	<a href="#">Data sheet</a> <a href="#">Quick install guide</a> <a href="#">Safety data sheet</a> <a href="#">Certificate of compliance</a> <a href="#">Warranty</a> <a href="#">New York state listing</a>
IQ Combiner 6C	<a href="#">Data sheet</a> <a href="#">Quick install guide</a>
IQ Meter Collar	<a href="#">Data sheet</a> <a href="#">Quick install guide</a>
System	<a href="#">Compatibility matrix</a>
Training	<a href="#">Webinars</a> <a href="#">Enphase University coursework (certification for commissioning)</a> <a href="#">Enphase Training YouTube Channel</a>

## Register for a live webinar

Introduction to the 4th-generation Enphase Energy System



4th-generation Installation Webinar



## Training on YouTube

Visit the Enphase training YouTube channel for the latest how-to videos



## Training on University

Visit the Enphase University for Certification



# Upcoming features

Timeframe	Feature
August end	<p>System expansion – Support for CA NEM Multi-Tariff (MT)interconnections</p> <ul style="list-style-type: none"> <li>Existing PV ( Enphase or 3<sup>rd</sup> party) can be connected to the load controller breaker.</li> <li>The new system will operate in zero export mode to maintain NEM integrity.</li> <li>The existing system can export to the grid.</li> <li>Batteries do not charge from existing PV. Existing PV exports to the grid to maximize NEM credits.</li> </ul> <p>Note: The existing PV will be disconnected when the system is off-grid.</p>
	<p>Partial home backup systems with consumption CTs fully supported.</p> <p>These systems now support:</p> <ul style="list-style-type: none"> <li>Whole home consumption monitoring using the additional consumption CTs.</li> <li>Battery supports non-backup loads while the system is grid-connected.</li> </ul>
	<p>IQ Battery 10C ordering SKU with 56.8% domestic content</p>
September end	<p>System expansion – support for existing non-NEM 1/2 PV</p> <ul style="list-style-type: none"> <li>Existing PV ( Enphase or 3<sup>rd</sup> party) can be connected to the load controller breaker.</li> <li>Batteries will charge from existing PV.</li> </ul> <p>Note: The existing PV will be disconnected when the system is off-grid.</p>
October end	<p>Existing PV systems are supported when the system is off-grid</p> <ul style="list-style-type: none"> <li>Existing PV ( Enphase or 3<sup>rd</sup> party) can be connected to the load controller breaker.</li> <li>The new system can be battery-only or battery + PV</li> <li>Existing PV will be used to charge batteries while the system is off-grid</li> </ul> <p>Note: Existing PV is automatically shed during grid transitions, high SoC, or when it does not respond to frequency-based control. The battery nameplate will determine the amount of external PV allowed on the system. Details coming soon.</p>
In planning – target end of year	<p>IQ Battery 5P support in IQ Battery 10C + IQ Combiner 6C-based systems.</p>
	<p>Support for a remote, field-wired, off-the-shelf switch for system shutdown in IQ Combiner 6C.</p> <ul style="list-style-type: none"> <li>NEC 690.15 Rapid shutdown for PV</li> <li>NEC 2023 706.15 Emergency shutdown for ESS</li> </ul>
	<p>Portable generator integration</p>



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