

# Enphase IQ Meter Collar Product Overview + Best Practices

Massachusetts Technical Standards Working Group

Enphase Energy IQ Meter Collar on a meter main panel



# Quick comparison: 10 kWh of backup energy storage

#### 3rd-generation Enphase Energy System

- 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







## IQ Meter Collar Value

## Utility / Regulator

- Accelerated integration of DERs including solar, energy storage and EVSE
- Improved customer engagement and satisfaction
- Faster provision of grid services via, e.g., ConnectedSolutions to strengthen overall grid reliability
- Safety certification to UL 414 and UL 1741 SA/SB

#### Installer / Homeowner

- Reduced system + labor costs
- Cleaner installation, less boxes
- Quick and easy whole-home backup
- No need for costly sub-panel labor in partial backup systems
- Integrated meter CTs (+/- 0.5% accuracy)



# IQ Meter Collar

- Quick and easy whole-home backup
- No need for costly sub-panel labor in partial backup systems
- Integrated consumption CTs

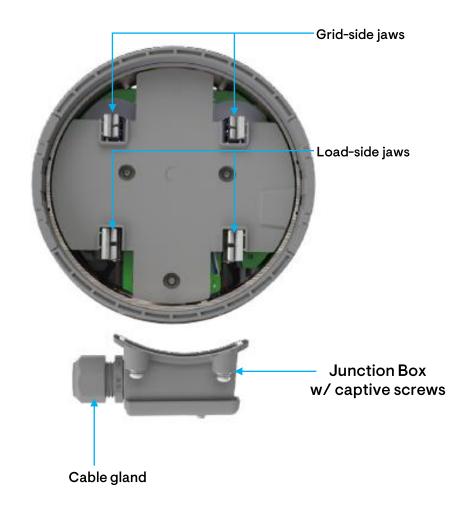
Meter socket compatibility	CL 200 (base); Form 2S (meter)
Opening and closing of MID	Automatic with manual override support
Current Rating	Up to 200 A
Supply Voltage	120/240 V split-phase
Safety certification	UL 414
Safety compliance	UL 1741 SA/SB
Fault tolerance	Redundant power from grid and batteries
Communication protocol	Wired (4-wire Enphase CTRL cable)
Flexible cable entry	½" NPT junction box Reversible for left or right entry
LED status indicators	State of MID, grid power, and fault states
Compatibility	IQ Battery 10C with IQ Combiner 6C IQ Battery 5P with IQ System Controller 3M
Warranty	15-year limited warranty

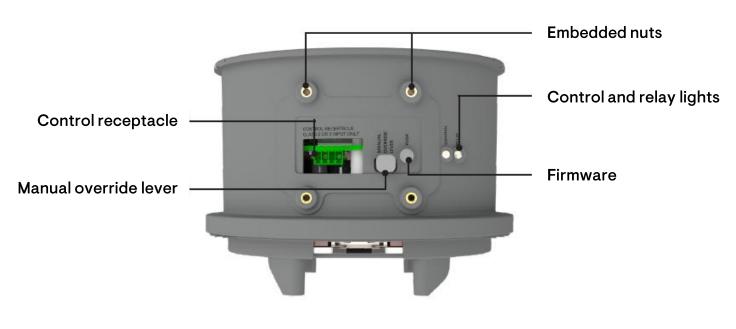




# IQ Meter Collar

SKU: MC-200-011-V01







## Best Practices / Lessons Learned

## **Onboarding**

- Dedicated email address to intake requests for new product evaluation
- Email address, required documentation (e.g., UL 414 NRTL certification), evaluation process clearly listed on website, tariffs, and / or metering guidelines (as applicable)
- EDCs develop operational + training procedures in tandem with OEMs

### <u>Installation</u>

- Approval for sites w Form 2S meter socket, <= 200A main breaker + meter socket</li>
- Xcel CO, JCP&L NJ allow contractors to complete MSA install
  - → EDCs see MSA on SLD in IX application, or if installing net meter
  - → AHJs have touchpoint thru permitting inspection





## Documentation

Product landing page

Data **Sheet** 

Quick Install Guide

**Utility Approvals** 

Installation demo video



## STATUTORY REQUIREMENTS

- MSAs included in omnibus energy bill, "An Act Promoting a Clean Energy Grid, Advancing Equity and Protecting Ratepayers," signed into law in 2024
- MA utilities required to create process to qualify MSAs and publish results w/in 60 days of new product request
- The law describes minimal product technical standards and allows different entities to install

#### Section 151

- (a) For the purposes of this section, "meter socket adapter" shall mean an electronic device that is installed between a residential electric meter and the meter socket, for the purpose of facilitating the deployment of customer-owned or customer-leased technology.
- (b) An electric company shall authorize the installation and operation of a meter socket adapter, whether the meter socket is owned by a residential customer or by a third-party, if the meter socket adapter:
  - (i) is qualified to be connected to the supply side of the service disconnect pursuant to the applicable provisions of the National Electric Code;
  - (ii) is approved or listed by a nationally recognized testing laboratory and is rated appropriately for the meter socket into which it is intended to be installed;
  - (iii) is certified to meet all applicable standards, as determined by a nationally recognized testing laboratory approved by the department; and
  - (iv) does not prevent access to the sealed meter socket compartment or the pull section of the service section of the electric meter or switchboard, as applicable.
- (c) A manufacturer of a meter socket adapter, a third-party, a residential customer or an electric company shall all be allowed to install, maintain or service a meter socket adapter or associated equipment.
- (d) An electric company shall approve or disapprove a request for approval of a specific model of meter socket adapter for installation in its service area not later than 60 days after a manufacturer, a third-party or a residential customer submits a request for approval of the specific model of meter socket adapter. An electric company shall provide public notice of all decisions approving a meter socket adapter, including by posting the information on the company's website. Should an electric company disapprove a specific model of meter socket adapter, the electric company shall provide an explanation to the requesting vendor providing the reasons the application was denied.
- (e) The department may adopt rules and regulations as necessary to implement the provisions of this section.