



IQ System Controller 3M

The Enphase IQ System Controller 3M connects the home to grid power, the IQ Battery system, and solar PV. It integrates with the IQ Meter Collar to enable whole home backup solutions without any need for load relocation or rewiring.



IQ Series Microinverters

The high-powered smart grid-ready IQ Series Microinverters (IQ6, IQ7, and IQ8 Series) dramatically simplify the installation process.



IQ Combiner 5/5C

Consolidates PV interconnection equipment into a single enclosure and streamlines IQ Series Microinverters and IQ Gateway installation by providing a consistent, pre-wired solution for residential applications.



IQ Load Controller

Helps prioritize essential appliances during a grid outage to optimize energy consumption and prolong battery life.



IQ Battery 5P

Fully integrated AC battery system. Includes six field-replaceable IQ8D-BAT Microinverters.



IQ Meter Collar

Integrates the microgrid interconnection device (MID) and consumption metering, enabling whole-home backup while reducing expensive labor costs of load rewiring and avoiding wiring of Consumption Current Transformers (CTs).



10-year limited warranty

Easy to install

- Supports IQ Meter Collar, and enables easy whole home backup solution on homes with meter-main combo panels without load relocation and rewiring.
- Avoids service rewiring by connecting to breaker or lug kit on load panel and backfeeding power
- Includes neutral-forming transformer
- Mounts on single stud with centered brackets
- Provides conduit entry from the bottom, left, or right
- Includes color-coded wires for ease of wiring the System Shutdown Switch
- Integrates hold-down functionality to eliminate the need for hold-down kits and special breakers

Flexible

- Can be used for whole home backup
- IQ System Controller 3M integrates with IQ Battery 5P
- Supports 15.4 kVA of PV and 80 kWh of batteries or 30.7 kVA PV and 40 kWh of batteries

Safe and reliable

- System Shutdown Switch can be used to disconnect PV and battery
- System Shutdown Switch acts as a rapid shutdown initiator of grid-forming IQ8 PV Microinverters for the safety of maintenance technicians/first responders
- 10-year limited warranty

IQ System Controller 3M

| MODEL NUMBER | | SC200D111CMC1US01 | |
|---|--|--|-----------------------|
| SC200D111CMC1US01 | | IQ System Controller 3M streamlines the grid-independent capabilities of PV and storage installations. Supports IQ Battery 5P units up to 40 kWh (without PCS ¹) and 80 kWh (with PCS ¹) Supports IQ Meter Collar integration. Does not support generator integration | |
| WHAT'S IN THE BOX | | SC200D111CMC1US01 | |
| IQ System Controller 3M | | Includes neutral-forming transformer (NFT) and supports Enphase IQ Meter Collar (order separately) | |
| System Shutdown Switch | | Includes pre-wired red, black, orange, and purple 12 AWG wire (EP200G-NA-02-RSD) | |
| Wall-mounting bracket | | Screws provided in the accessories kit for mounting | |
| 4-pole circuit breaker | | Pre-installed quad breaker (BRK-20A40A-4P-240V), 20 A-40 A, 10 kAIC, Eaton BQC220240/ Siemens Q24020CT2 ² | |
| Accessories kit | | EP200G-LITKIT-R3M - IQ System Controller 3M literature kit, including labels, control headers, screws, filler plates, and quick install guide (QIG) | |
| ACCESSORIES AND REPLACEMENT PARTS | | SC200D111CMC1US01 | |
| CT-200-SPLIT | | 200 A split-core current transformers for metering (accuracy: ±2.5%) | |
| CT-200-CLAMP | | 200 A clamp-type current transformers for metering (accuracy: ±2.5%) | |
| CT-200-SOLID | | 200 A solid-core current transformers for metering (accuracy: ±0.5%) | |
| Main or load circuit breakers (order separately, as needed) | | <ul style="list-style-type: none">BRK-100A-2P-240V : 2-pole, 100 A, 25 kAIC, CSR2100N or CSR2100BRK-125A-2P-240V: 2-pole, 125 A, 25 kAIC, CSR2125NBRK-150A-2P-240V: 2-pole, 150 A, 25 kAIC, CSR2150NBRK-175A-2P-240V: 2-pole, 175 A, 25 kAIC, CSR2175NBRK-200A-2P-240V: 2-pole, 200 A, 25 kAIC, CSR2200N | |
| Distributed energy resource (DER) circuit breakers (order separately, as needed) | | <ul style="list-style-type: none">BRK-20A-2P-240V-B: 2-pole, 20 A, 10 kAIC, BR220B/BR220BRK-30A-2P-240V-B: 2-pole, 30 A, 10 kAIC, BR230BRK-40A-2P-240V-B: 2-pole, 40 A, 10 kAIC, BR240B/BR240BRK-60A-2P-240V: 2-pole, 60 A, 10 kAIC, BR260BRK-80A-2P-240V: 2-pole, 80 A, 10 kAIC, BR280 | |
| IQ Meter Collar | | MC-200-011-V01 | |
| EP200G-HNDL-R1 | | IQ System Controller installation lifting handle kit (order separately) | |
| CTRL-SC3-NA-01 | | Control cable, 500 ft. spool (order separately) | |
| ALTERNATE DER CIRCUIT BREAKERS | | SC200D111CMC1US01 | |
| GE/ABB | | THQL21xx (20/40/60/80 A) | |
| Siemens | | Q2xx (20/40/60/80 A) | |
| Siemens (quad breaker) | | Q24020CT2 (20/40 A) | |
| ELECTRICAL SPECIFICATIONS | | SC200D111CMC1US01 | |
| Nominal voltage/Range (L-L) | | 240 V~ ³ /±20% | |
| Nominal voltage/Range (L-N) | | 120 V~ ³ /±20% | |
| Voltage measurement accuracy | | ±1% V nominal (±1.2 V L-N and ±2.4 V L-L) | |
| Auxiliary (dry) contact for load control, excess PV control, and generator two-wire control | | 24 V, 1 A | |
| Nominal frequency/Range | | 60 Hz/56–63 Hz | |
| Frequency measurement accuracy | | ±0.1 Hz | |
| Internal busbar rating | | 200 A | |
| | | Back-fed breaker ^{4, 5} | Branch circuit |
| Maximum continuous input/output current | | 160 A | 3 × 64 A ⁶ |
| Maximum input/output overcurrent protection device | | 200 A | 3 × 80 A ⁶ |
| Short circuit interrupt rating | | 22 kA | 10 kA |

(¹) Power control system.

² Factory-installed quad breaker (Siemens or Eaton). NFT pre-wired to 40 A terminal of the quad breaker. Figure 1 shows Siemens or Eaton factory-installed quad breakers with NFT pre-wired to 40 A.

³ "~" indicates alternating current (AC) supply.

⁴ Back-fed breaker can be in the electrical panel and/or in the Internal Point-of-Connection breaker spot.

⁵ Only CSR breaker can be used in the Internal Point-of-Connection breaker spot if required.

⁶ DER port can be used for PV or battery up to 64 A.

| ELECTRICAL SPECIFICATIONS | | SC200D111CMC1US01 |
|---|--|------------------------|
| Neutral-forming transformer (NFT) | <ul style="list-style-type: none"> • Breaker rating (pre-installed): 40 A between L1 and Neutral; 40 A between L2 and Neutral • Continuous rated power: 3,600 VA • Maximum continuous unbalance current: 30 A @ 120 V • Peak unbalanced current: 80 A @ 120 V for two seconds | |
| MECHANICAL DATA | | SC200D111CMC1US01 |
| Dimensions (W × H × D) | 50 cm × 91.6 cm × 24.6 cm (19.7 in × 36 in × 9.7 in) | |
| Weight | 40.2 kg (88.6 lb) | |
| Ambient temperature range | -40°C to 50°C (-40°F to 122°F) | |
| Cooling | Natural convection and a heat shield | |
| Enclosure environmental rating | Outdoor, NEMA type 3R, polycarbonate construction | |
| Maximum altitude | 2,500 meters (8,200 feet) | |
| WIRE SIZES | | SC200D111CMC1US01 |
| Connections (All lugs are rated to 90°C) | Main lugs and backup load lugs | Cu/Al: 6 AWG–300 kcmil |
| | CSR breaker bottom wiring lugs | Cu/Al: 2 AWG–300 kcmil |
| | IQ Combiner lugs, IQ Battery lugs, and additional IQ Battery or PV lugs | 14 AWG–2 AWG |
| | Neutral (large lugs) | Cu/Al: 6 AWG–300 kcmil |
| Neutral and ground bars | Large holes (5/16–24 UNF) | 14 AWG–1/0 AWG |
| | Small holes (10–32 UNF) | 14 AWG–6 AWG |
| COMPLIANCE | | SC200D111CMC1US01 |
| Grid compliance | IEEE 1547-2018, IEEE 1547.1 2020 (UL 1741 SB) | |
| Safety | UL 1741, UL 1741 SA, UL 1741 PCS CRD, UL 1998, UL 869A, UL 508, UL 50E, CSA 22.2 No. 107.1, ICC ES AC156 | |
| EMC | FCC 47 CFR Part 15 Class B | |
| WARRANTY | | SC200D111CMC1US01 |
| Limited warranty (restrictions apply) | Up to 10 years (EP200G-NA-02-RSD has a 5-year warranty) | |
| COMPATIBILITY | | SC200D111CMC1US01 |
| Battery | IQ Battery 5P (IQBATTERY-5P-1P-NA) | |
| Microinverters | IQ8, IQ7, IQ6 Series Microinverters | |
| IQ Combiner (or) IQ Gateway | IQ Combiner 5/5C (X-IQ-AM1-240-5C, X-IQ-AM1-240-5), IQ Combiner 4/4C ⁷ (X-IQ-AM1-240-4, X-IQ-AM1-240-4C, X2-IQ-AM1-240-4, X2-IQ-AM1-240-4C) IQ Combiner 3/3C ⁷ (X-IQ-AM1-240-3, X-IQ-AM1-240-3C, X-IQ-AM1-240-3-ES, X-IQ-AM1-240-3C-ES) IQ Gateway ⁷ (ENV-IQ-AM1-240, ENV2-IQ-AM1- 240) | |
| Communications Kit 2 | COMMS-KIT-02 ⁷ | |
| IQ Meter Collar | MC-200-011-V01 | |

⁷IQ Combiner 4/4C, IQ Combiner 3/3C, and the IQ Gateway require a COMMS-KIT-02 sold separately to enable communication with the IQ Battery 5P, IQ System Controller 3M, and the IQ Meter Collar. IQ Combiner 5/5C does not require an additional COMMS-KIT-02 to be bought and can directly communicate with the IQ Battery 5P, IQ System Controller 3M, and the IQ Meter Collar.

Figure 1: Installing DER breakers for IQ8 system

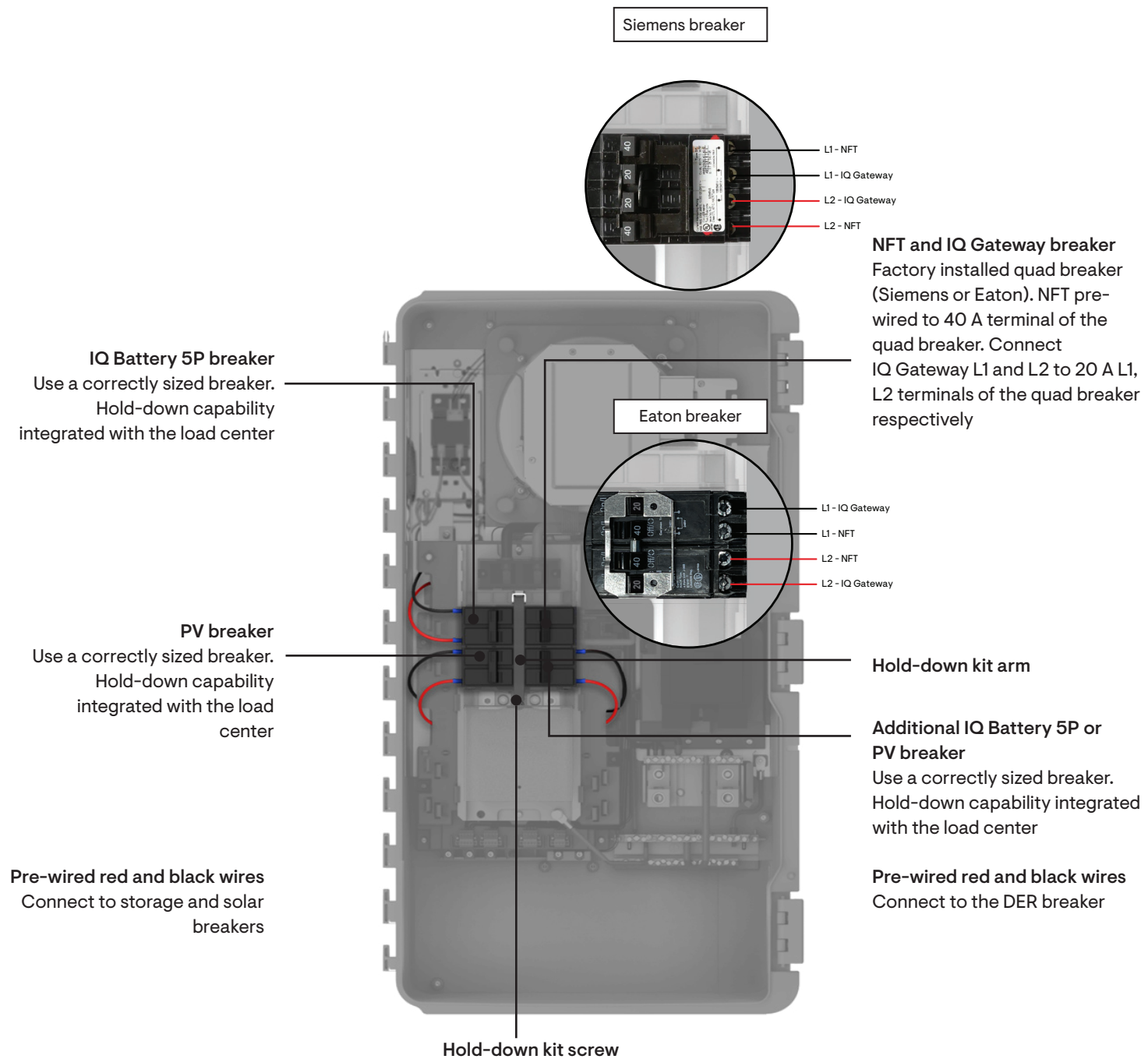
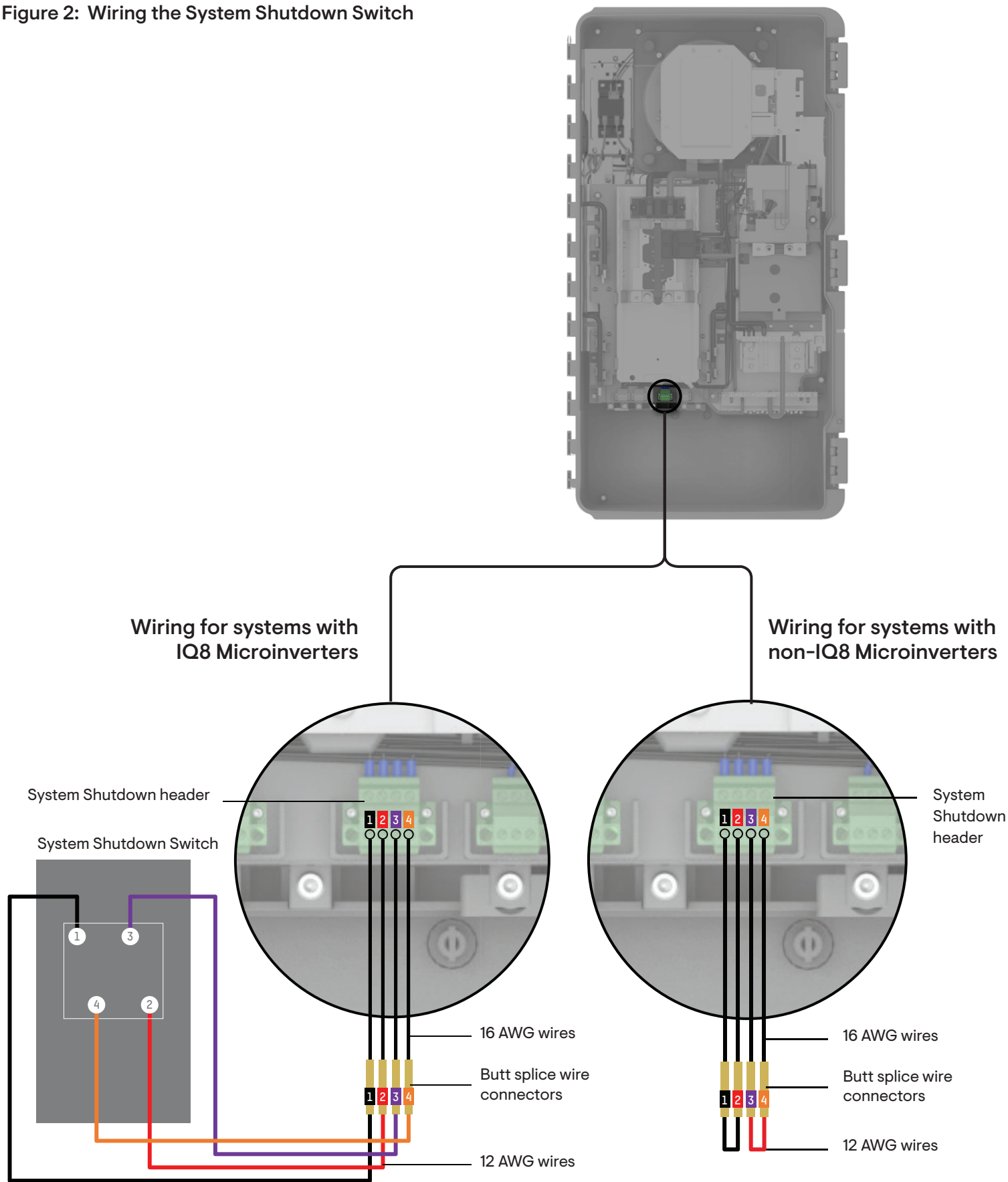


Figure 2: Wiring the System Shutdown Switch



Revision history

| REVISION | DATE | DESCRIPTION |
|---------------|----------------|---|
| DSH-00484-3.0 | February 2025 | Initial release, removed preliminary tag. |
| DSH-00484-2.0 | November 2024 | Updated the "What's in the box" section. |
| DSH-00484-1.0 | September 2024 | Preliminary release. |