

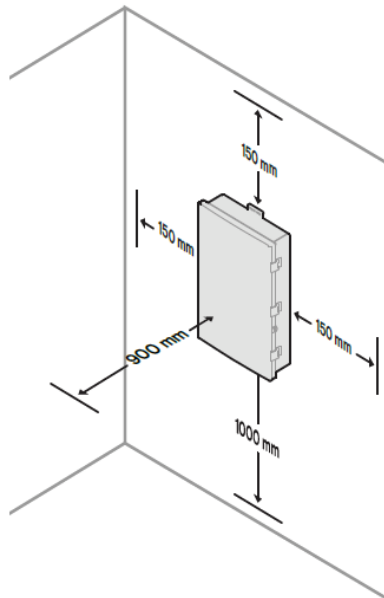
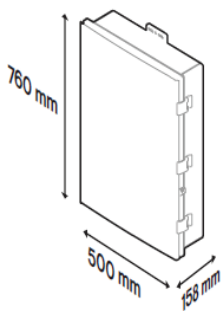


# IQ System Controller 3 INT

The IQ System Controller 3 INT connects the home to grid power, the IQ Battery storage system, and solar PV. It provides microgrid interconnect device (MID) functionality by automatically detecting and seamlessly transitioning the home energy system from grid power to backup power in the event of a grid failure. It consolidates interconnection equipment and communication gateway into a single enclosure and streamlines grid-independent capabilities of PV and storage installations by providing a consistent, pre-wired solution for residential applications.

## Mounting IQ System Controller 3 INT

Install IQ System Controller 3 INT with clearance at the left, right, top, bottom, and front.



### Reliable

- Durable IP55 enclosure
- 10-year limited warranty

### Smart

- Controls safe connectivity to the grid
- Detects grid outages automatically
- Provides seamless transition to backup
- Includes wired controls

### Simple

- Supports single-phase and three-phase configurations for solar and grid
- Supports conduit entry from the bottom, rear, left, and right
- Supports IQ8, IQ7, and S Series Microinverters
- Supports main circuit breaker up to 80 A



10-year limited warranty

# IQ System Controller 3 INT

MODEL NUMBER	
SC100G-M230ROW	IQ System Controller 3 INT includes a microgrid interconnect device (MID), Production and Consumption CTs, IQ Gateway, and Communications Kit. It streamlines grid-independent capabilities of PV and storage installations. Also includes a free-of-charge Shutdown Switch (SC-INT-SSD-KIT) to safely turn off the system and a free Enphase Mobile Connect CELLMODEM-M1-06-AT-05 (with a 5-year data plan) to ensure backup internet connectivity <sup>1</sup>
WHAT'S IN THE BOX	
IQ System Controller 3 INT	System controller unit with microgrid interconnect device
System Shutdown Switch	Switch to shut down the Enphase Energy System (EES)
Circuit breakers	4-pole PV breaker and 1-pole IQ Gateway reset breaker
Accessories kit	IQ System Controller 3 INT Quick Install Guide (QIG), breaker filler plate
Mobile Connect cellular modem	Cellular modem along with 5-year data plan to ensure backup internet connectivity
ACCESSORIES AND REPLACEMENT PARTS	
SC-IQG-PCBA-ROW	IQ Gateway board for field replacement
SC-ECB-PCBA-ROW	Embedded controller for field replacement
SC-PRB-PCBA-ROW	Power relay board for field replacement
SC-IOB-PCBA-ROW	Interface board or I/O board with dry contacts for field replacement
SC-MRA-SUB-ROW	Mains relay assembly for field replacement
CTRL-040-HDR-INT	Enphase control (CTRL) wiring headers for connecting via recommended cables <sup>2</sup> to IQ Battery 5P
CT-100-SOLID-ROW	100 A solid core current transformer with 1% accuracy for production and consumption monitoring For field replacement
CT-100-SPLIT-ROW	100 A split core current transformer with 1% accuracy and reduced form factor for consumption monitoring For field wiring of consumption monitoring when built-in current transformers in IQ System Controller 3 INT are disconnected
Circuit breakers (as needed)	DIN rail mounted. Not included, must order separately. Refer to the quick install guide for recommended brands.
SC-COV-SUB-ROW	Door with a solar shield for field replacement
SC-LAT-SUB-ROW	Door latches for field replacement
SC-INT-SSD-KIT	System Shutdown Switch for solar and battery systems. Turns off the system and prevents microgrid formation
CELLMODEM-M1-06-AT-05	Cellular modem to provide backup internet connectivity to Enphase Energy System
SC-INT-BRK-25A-4P	25 A 4-pole breaker to be used as a PV breaker
ELECTRICAL SPECIFICATIONS	
Minimum system sizing	2.27 kVA
Internal busbar rating	100 A
Nominal voltage/range	230/184–276 V (Line-to-Neutral) 400 V (Line-to-Line)
Feed-in type	Single-phase and three-phase
Voltage measurement accuracy	±1.8 VAC
Overvoltage category	Category III
Maximum input short circuit current (making and breaking)	5 kA
Auxiliary contact for load control and excess PV control	230 VAC RMS/24V DC, 1 A
Nominal frequency/range	50/47–52 Hz
Maximum continuous current rating	80 A per phase
Maximum input overcurrent protection device	80 A per phase, neutral
Maximum output overcurrent protection device	80 A per phase
Environment	B

1. Enphase requires Wi-Fi or Ethernet as a primary mode of interconnectivity for any system with IQ Battery 5P.

2. The tested and supported control cable make and models are Electra EAS7302PHV/EAS7502PHV and LAPP 1270802.

## ELECTRICAL SPECIFICATIONS

Maximum overcurrent protection device rating for PV	25 A per branch circuit for PV. Includes 25 A, 4-pole MCB for 1-phase or 3-phase PV connection
Maximum overcurrent protection device rating for storage	80 A (20 A over current protection for each IQ Battery 5P, up to four IQ Battery 5P can be daisy chained)
Backup operation	Single-phase
Maximum overcurrent protection device rating for IQ Gateway	16 A; installed and pre-wired along with IQ System Controller 3 INT
Operating modes	Supports: <ul style="list-style-type: none"><li>• Self-Consumption: Use stored solar to power your home after the sun goes down. The battery is used when the solar is not available</li><li>• Savings mode: Minimize the use of electricity from the grid when the electricity rate is higher</li><li>• Full Backup: 100% of the battery is reserved for backup</li></ul>

## COMPLIANCE

Safety	AS/NZS IEC 61439-2, IEC 60947-6-1
EMC and radio equipment	RCM, IEC 61000-6-1, IEC 61000-6-3, EN 55024, EN 300 328, EN 300 440, EN 301 489-1, EN 301 489-17, EN 301 489-52, EN 301 511, EN 301 893, EN 301 908-1
Performance	AS/NZS4777.2:2020 + A1

## WIRE SIZES

Connections (all lugs are rated to 90°C)	Main lugs and backup load lugs	Cu: 2.5 mm <sup>2</sup> to 35 mm <sup>2</sup>
Neutral and ground bars	Large holes	2.5 mm <sup>2</sup> to 35 mm <sup>2</sup>
	Small holes	2.5 mm <sup>2</sup> to 16 mm <sup>2</sup>

## MECHANICAL DATA

Dimensions (W×H×D)	500 mm × 760 mm × 158 mm
Weight	15.2 kg
Circuit breaker space (DIN rail)	DER side: Space for 10 single pole breakers Mains and backup side: Space for nine single pole breakers
Mounting options	Wall mount
Ambient temperature range	-40°C to 50°C
Operating humidity (RH)	Up to 100%, condensing
Cooling	Natural convection, solar shield
Enclosure environmental rating	Outdoor, IP55, polycarbonate construction
Altitude	Up to 2000 m

## COMPATIBILITY

Battery	IQ Battery 5P (IQBATTERY-5P-IP-ROW)
Microinverters	IQ8 Series, IQ7 Series, or S Series

## WARRANTY

Limited warranty (restrictions apply)	Up to 10 years (SC-INT-SSD-KIT and CELLMODEM-M1-06-AT-05 have a 5-year warranty)
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### Manufacturer

Enphase Energy Inc., 47281 Bayside Pkwy.,  
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### Importer

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# Revision history

REVISION	DATE	DESCRIPTION
DSH-00008-3.0	February 2024	Updated “Electrical specifications” and “Compliance” sections.
DSH-00008-2.0	July 2023	<ul style="list-style-type: none"><li>• Added new sections “What’s in the box” and “Compatibility”.</li><li>• Updated the sections “Electrical specifications” and “Accessories and replacement parts”.</li></ul>
DSH-00008-1.0	May 2023	Initial release.