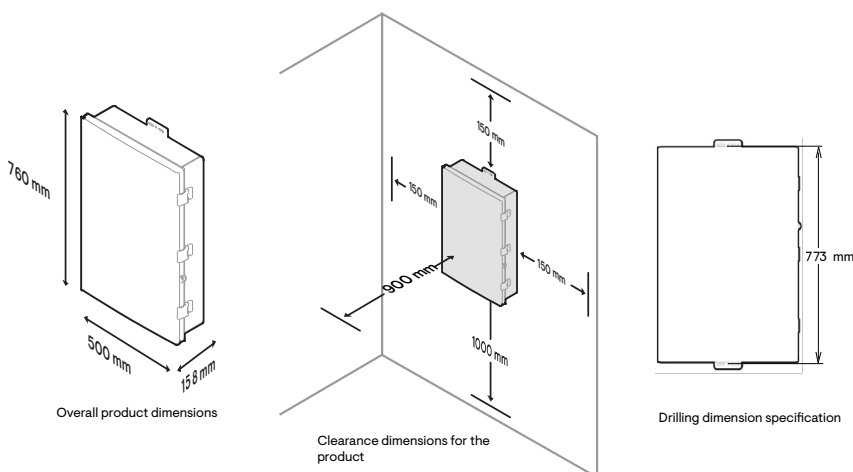


IQ System Controller 3 INT

The IQ System Controller 3 INT connects homes to the public grid, IQ Battery 5P, and IQ7 or IQ8 Microinverters. It features an automatic transfer switch (ATS) that switches from grid to backup power during outages. The system consolidates interconnection equipment, IQ Gateway Metered, and IQ Relay functionalities into one enclosure, enhancing grid-independent capabilities with a pre-wired solution, including CTs.



Key specifications	SC100G-M230ROW
Nominal voltage	230 VAC (Line-to-Neutral) 400 VAC (Line-to-Line)
Maximum continuous grid current per phase	80 A
Maximum PV/IQ Battery current per phase	80 A
Maximum backup load current per phase	80 A
Supported Earthing systems	TN-C-S, TN-S, TT
Backup operation	Three-phase/Single-phase
Dimensions (H × W × D)	760 × 500 × 158 mm
Weight	15.2 kg
Enclosure environmental rating	Outdoor, IP55, polycarbonate construction



Simple

- Supports three-phase and single-phase configurations for solar and grid
- Supports conduit entry from the bottom, rear, left, and right
- Supports IQ7 and IQ8 Microinverters
- Supports main circuit breaker up to 80 A
- Pre-wired CTs on PV and grid terminals for ease of wiring
- Field replaceable components
- Integrated IQ Gateway board, Production CT, Consumption CT and IQ Relay functionality

Reliable

- Durable IP55 enclosure
- 10-year limited warranty

Smart

- Controls safe connectivity to the grid
- Detects power cuts automatically
- Provides near seamless transition to backup
- Uses wired communication for fast and consistent connection
- Installs and commissions easily
- Offers homeowners remote monitoring and control from the Enphase App

Product details	Order code: SC100G-M230ROW		
Description	IQ System Controller 3 INT includes an automatic transfer switch (ATS), Integrated IQ Gateway, Production and Consumption CTs, IQ Relay functionalities, and a Mobile Connect device. It streamlines the grid-independent capabilities of PV and storage installations. Also includes a System Shutdown Switch (SC-INT-SSD-KIT) to safely turn off the system and an Enphase Mobile Connect CELLMODEM-M1-06-AT-05 or CELLMODEM-07-INT-05 (with a 5-year data plan) to ensure backup internet connectivity. ¹		
Electrical specifications	Units		
Nominal voltage	VAC	230 (Line-to-Neutral), 400 (Line-to-Line)	
Nominal voltage range	VAC	184–276 (Line-to-Neutral), 320–480 (Line-to-Line)	
Feed-in type	—	Three-phase/Single-phase	
Voltage measurement accuracy	VAC	±1.8	
Overvoltage category	—	Category III	
Nominal frequency	Hz	50	
Nominal frequency range	Hz	47–52	
Maximum continuous grid current per phase	A	80	
Maximum PV/IQ Battery current per phase	A	80	
Maximum backup load current per phase	A	80	
Environment	—	B	
Backup operation	—	Three-phase/Single-phase	
Maximum overcurrent protection device rating for IQ Gateway	A	16; installed and pre-wired along with IQ System Controller 3	
Load transition time ²	ms	0	
Maximum power quality variation time ²	ms	30	
Maximum grid isolation time ³	ms	120	
Operating modes	—	Self-Consumption: Use stored solar to power your home after the sun goes down. The battery is used when the solar is not available Full Backup: 100% of the battery is reserved for backup	
Supported Earthing systems	—	TN-C-S, TN-S, TT	
Auxiliary contact for load control and excess PV control	—	2 × Type NO and 2 × Type NC, 230 VAC RMS/24 VDC, 1 A	
Conductor sizes	Units		
Connections (all terminals are rated to 90°C)	mm ²	Main terminals and backup load terminals	2.5 to 35
Neutral and ground bars	mm ²	Large terminals	2.5 to 35
		Small terminals	2.5 to 16
Mechanical data	Units		
Dimensions (H × W × D)	mm	760 × 500 × 158	

¹ Enphase requires Wi-Fi or Ethernet as a primary mode of interconnectivity for any system with IQ Battery 5P. Refer to the IQ Gateway data sheet for details.

² This refers to load disruption during grid blackout. When transitioning to backup, the total power of the IQ Battery installed needs to be greater than the loads present. Load disruption time may vary based on other grid conditions. Contact Enphase Support for more details.

³ Refers to the time from which grid outage happens to the time when grid(ATS/MID) relays open up.

Mechanical data	Units	
Weight	kg	15.2
Circuit breaker space (DIN rail)	—	PV and battery storage side: Space for 10 single-pole breakers Mains and backup side: Space for 8 single-pole breakers
Mounting options	—	Wall mount
Ambient temperature range	°C	-40 to 50
Operating humidity (non-condensing)	%	Up to 100
Cooling	—	Natural convection
Enclosure environmental rating	—	Outdoor, IP55, polycarbonate construction
Altitude	m	<2000

Limited warranty		
IQ System Controller		10 years
System Shutdown Switch		5 years
Mobile Connect		5 years

What's in the box	
System Shutdown Switch	Switch to shut down the Enphase Energy System
Accessories kit	Quick install guide (QIG), circuit breaker filler plates, and wiring kit
Mobile Connect	Cellular modem along with a 5-year data plan to ensure backup internet connectivity
IQ System Controller 3 INT	System controller unit with automatic transfer switch (ATS), IQ Gateway, and IQ Relay functionality

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-SUB-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 to IQ Battery 5P
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, prevents microgrid formation, and brings the circuit down to touch-safe voltage for safe service
CELLMODEM-M1-06-AT-05 or CELLMODEM-07-INT-05	Cellular modem to provide backup internet connectivity to Enphase Energy System

Compatibility	
Battery	IQ Battery 5P (IQBATTERY-5P-1P-INT/IQBATTERY-5P-3P-INT)
PV	IQ7 Series, IQ8 Series Microinverters or string inverter

Communication interfaces	
Communication	Wired control communication
Monitoring	Enphase Installer Platform and Enphase App monitoring options; API integration
Standards	
Safety	IEC 61439-2, IEC 60947-6-1, VDE-AR-E 2510-2
EMC and radio equipment	EN 50065-1, EN 61000-6-2, EN 50065-2-2, EN 301 489-1
Performance	VDE-AR-N-4105, TOR Type A, NA/EEA-NE7-CH 2020
EC Declaration of Conformity	Electro Magnetic Compatibility (EMC) Directive 2014/30/EU, Low Voltage Directive (LVD) 2014/35/EU, Restriction of Hazardous Substances (RoHS), 2011/65/EU
Product labelling	CE

Manufacturer:

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Importer:

Enphase Energy NL B.V., Het Zuiderkruis 65, 5215MV, 's-Hertogenbosch, The Netherlands, PH: +31 73 3035859

Components of the Enphase Energy System



Microinverters

Microinverters pack more power into less space than other rooftop solar systems and make rooftop solar more productive, reliable, smart, and safe.



IQ Battery 5P with FlexPhase

IQ Battery 5P's all-in-one AC-coupled storage system is powerful, reliable, simple, and safe. It has a total usable energy capacity of 5.0 kWh and includes embedded IQ8T-BAT Microinverters for reliable operation.



Mobile Connect cellular modem

Mobile Connect cellular modem provides plug-and-play connectivity to the Enphase Installer Platform. It is preconfigured for data service and becomes activated when connected to the IQ System Controller 3 INT.



Revision history

Revision	Date	Description
DSH-00490-4.0	January 2025	Editorial updates.
DSH-00490-3.0	November 2024	Updated load disruption time information.
DSH-00490-2.0	October 2024	Updated Mobile Connect cell modem information.
DSH-00490-1.0	July 2024	Preliminary release.