



IQ System Controller 3 INT

The IQ System Controller 3 INT connects the home to the public electricity grid, the IQ Battery 5P storage system and IQ7 or IQ8 Series Microinverter circuits. It provides automatic transfer switch (ATS) functionality by automatically detecting and transitioning the home energy system from grid power to backup power in the event of a power cut. It consolidates interconnection equipment, IQ Gateway Metered, and IQ Relay functionality into a single enclosure and streamlines grid-independent capabilities of PV and storage installations by providing a consistent, pre-wired solution, including CTs.



IQ Series Microinverters

IQ Series 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

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 IQ8D-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.

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

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



IQ System Controller 3 INT

PRODUCT DETAILS

ORDER CODE: SC1006-M230R0W

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 (with a 5-year data plan) to ensure backup internet connectivity ¹
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ELECTRICAL SPECIFICATIONS

UNITS

Nominal voltage	V	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
Overtoltage category	–	Category III
Nominal frequency	Hz	50
Nominal frequency range	Hz	47–52
Maximum continuous current rating per phase	A	80
Maximum input overcurrent protection device per phase	A	80
Maximum output overcurrent protection device 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
On-grid to off-grid transition time	ms	<120
Operating modes	–	<ul style="list-style-type: none"> • 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

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
	mm ²	Small terminals	2.5 to 16

MECHANICAL DATA

Dimensions (H × W × D)	mm	760 × 500 × 158
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

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

NOTE: Refer to the IQ Gateway data sheet for details.

WHAT'S IN THE BOX

System Shutdown Switch	Switch to shut down the Enphase Energy System
Accessories kit	IQ System Controller 3 INT 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-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 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	Cellular modem to provide backup internet connectivity to Enphase Energy System

COMPATIBILITY

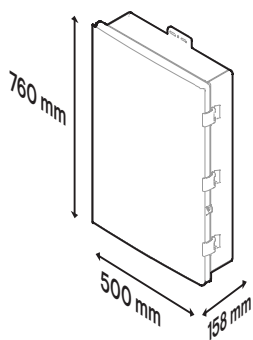
Battery	IQ Battery 5P (IQBATTERY-5P-1P-INT/IQBAT 5P-3P INT)
PV	IQ7 Series, IQ8 Series Microinverters or string inverter

COMMUNICATION INTERFACES

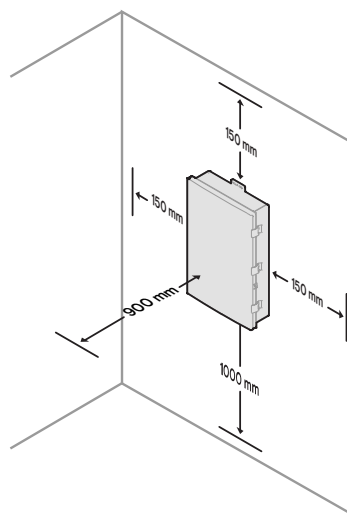
Communication	Wired control communication
Monitoring	Enphase Installer Platform and Enphase App monitoring options; API integration

STANDARDS

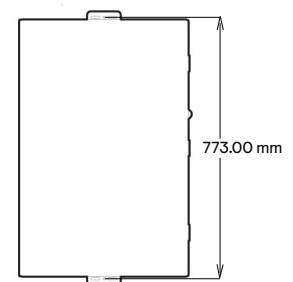
Safety	IEC 61439-1, IEC 61439-2, IEC 60947-6-1
EMC and radio equipment	EN 50065-1, EN 61000-6-2, EN 50065-2-2, EN 301 489-1, EN 61000-4-18
Performance	EN50549-1:2019, VDE-AR-N-4105, TOR Type A, NA/EEA-NE7-CH 2020
EC Declaration of Conformity	Electro Magnetic Compatibility (EMC) Directive 2014/30/EU, Low Voltage Directive (LVD) 2014/35/EU, Restriction of Hazardous Substances (RoHS), 2011/65/EU
Product labelling	CE



Overall product dimensions



Clearance dimensions for the product



Drilling dimension specification

Manufacturer:

Enphase Energy Inc., 47281 Bayside Pkwy., Fremont, CA, 94538, United States of America, PH: +1 (707) 763-4784

Importer:

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

Revision history

REVISION	DATE	DESCRIPTION
DSH-00490-1.0	June 2024	Preliminary release.