

INSTALLATION MAP

↑ To Sheet / A la hoja de: \_\_\_\_\_

Panel Group/Grupo de los paneles: Azimuth/Azimet: Tilt/Inclinación: Sheet/Hoja ____ of/de ____	Customer/Cliente:			Installer/Instalador:			N S E W N S E O 		
	1	2	3	4	5	6	7	8	9
A									
B									
C									
D									
E									
F									
G									
H									
J									
K									
L									
M									

To Sheet / A la hoja de: ↑

To Sheet / A la hoja de: ↓

Scan completed map and upload it to Enphase. Click “Add a New System” at <https://enlighten.enphaseenergy.com>. Use this map to build the virtual array in Enlighten’s Array Builder.

Escanee el mapa completo y cárguelo en Enphase. Haga clic en “Añadir nuevo sistema” en <https://enlighten.enphaseenergy.com>. Utilice este mapa para crear el conjunto de paneles virtual en el Creador de conjuntos de paneles de Enlighten.

Envoy Serial Number Label /  
Número de serie de Envoy



↓ To Sheet / A la hoja de: \_\_\_\_\_

Enphase Customer Support: [www.enphase.com/philippines](http://www.enphase.com/philippines)

QUICK INSTALL GUIDE - PHILIPPINES



# Install the Enphase IQ 7+ and IQ 7A Microinverter

To install Enphase IQ Series Microinverters, read and follow all warnings and instructions in this guide and in the *Enphase IQ 7+ and IQ 7A Microinverter Installation and Operation Manual* at: <http://www.enphase.com/philippines>. Safety warnings are listed on the back page of this guide.

The Enphase Microinverter models listed in this guide do not require grounding electrode conductors (GEC), equipment grounding conductors (EGC), or grounded conductor (neutral). The microinverter has a Class II double-insulated rating, which includes ground fault protection (GFP). To support GFP, use only PV modules equipped with DC cables labeled **PV Wire** or **PV Cable**.

**IMPORTANT:** Enphase IQ Series Microinverters require the Q Cable and are not compatible with previous Enphase cabling. An Envoy S (ENV-S-AM1-230-60) is required to monitor performance of the IQ Microinverters. The Q Accessories work only with Enphase IQ Series Microinverters.

## PREPARATION

A) Download the Enphase Installer Toolkit mobile app and open it to log in to your Enlighten account. With this app, you can scan microinverter serial numbers and connect to the Enphase Envoy S (ENV-S-AM1-230-60) to track system installation progress. To download, go to [enphase.com/toolkit](http://enphase.com/toolkit) or scan the QR code at right.



B) Refer to the following table and check PV module electrical compatibility at: [enphase.com/en-us/support/module-compatibility](http://enphase.com/en-us/support/module-compatibility).

Model	DC connector	PV module cell count
IQ7PLUS-72-2-US	MC4 type, locking	Pair with 60 cell / 120-half-cell or 72 cell / 144-half-cell
IQ7A-72-2-US	MC4 type, locking	Pair with 60 cell / 120-half-cell or 72 cell / 144-half-cell

C) In addition to the Enphase Microinverters, PV modules and racking, you will need these **Enphase items**:

- Enphase Envoy S (ENV-S-AM1-230-60) communications gateway is required to monitor solar production.
- Tie wraps or cable clips (Q-CLIP-100)
- Enphase Sealing Caps (Q-SEAL-10): for any unused connectors on the Enphase Q Cable
- Enphase Terminator (Q-TERM-10): one needed at the end of each AC cable segment
- Enphase Disconnect Tool (Q-DISC-10)
- Enphase Q Cable:

Cable model	Connector spacing*	PV module orientation	Connectors per box
Q-12-10-240	1.3m	Portrait (all)	240
Q-12-17-240	2.0m	Landscape (60-cell)	240
Q-12-20-200	2.3m	Landscape (72-cell)	200

\*Allows for 30cm of cable slack

D) Check that you have these other items:

- AC junction box.
- Tools: screwdrivers, wire cutter, voltmeter, torque wrench, sockets, and wrenches for mounting hardware

E) Protect your system with lightning and/or surge suppression devices. It is also important to have insurance that protects against lightning and electrical surges.

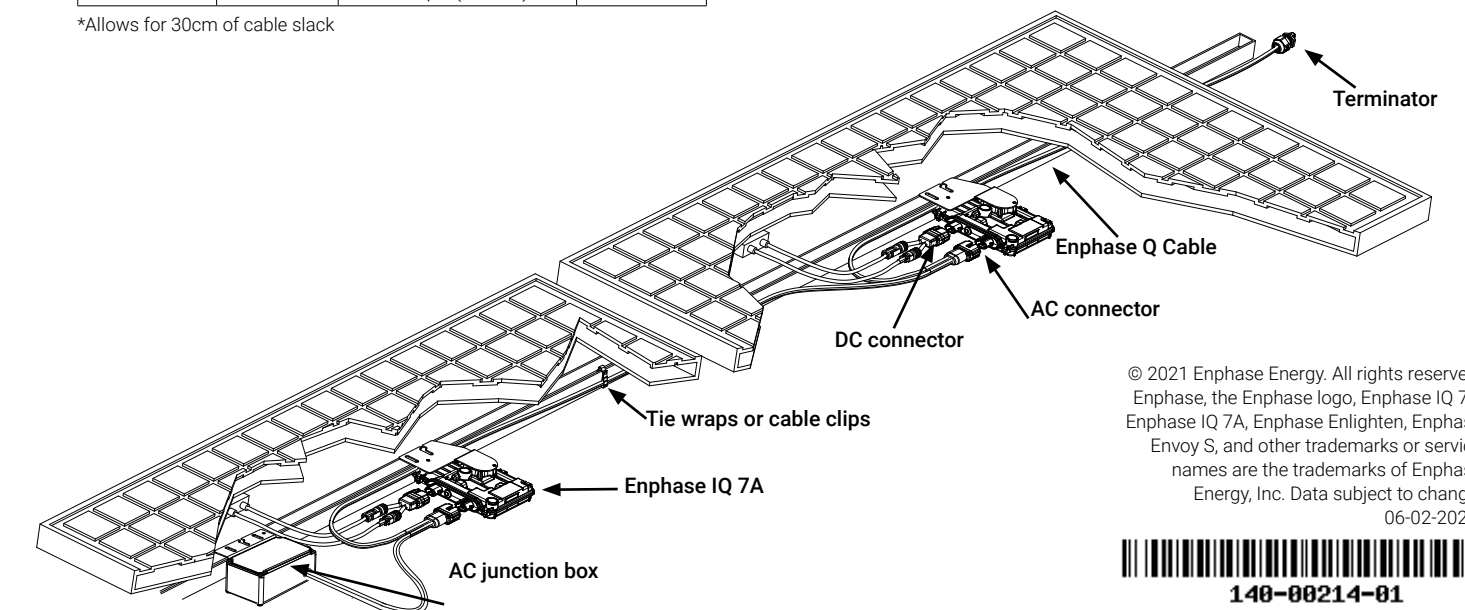
F) Plan your AC branch circuits to meet the following limits for maximum number of microinverters per branch when protected with a 20-amp over-current protection device (OCPD).

Maximum* IQ Micros per AC branch circuit	IQ 7+ Micros (240V single phase)
	<b>12</b>
	IQ 7A Micros (240V single phase)
<b>10</b>	

\*Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

G) Size the AC wire gauge to account for voltage rise. Select the correct wire size based on the distance from the beginning of the Enphase Q Cable to the breaker in the load center. Design for a voltage rise total of less than 2% for these sections. Refer to the Voltage Rise Technical Brief at <http://www.enphase.com/philippines> for more information.

**Best practice:** Center-feed the branch circuit to minimize voltage rise in a fully-populated branch.



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