

INSTALLATION MAP

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Panel Group: Azimuth Tilt: Sheet ____ / ____	Client:			Installer:			N S E W 
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IQ Gateway serial label number: \_\_\_\_\_

INSTALLATION MAP

To sheet: \_\_\_\_\_

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QUICK INSTALL GUIDE



# Install Enphase IQ8 Series Microinverters with Integrated MC4 Connectors

## Connectors

To install Enphase IQ Series Microinverters, read and follow all warnings and instructions in this guide and in the *Enphase IQ8 Series Microinverter Installation and Operation Manual* at: <https://enphase.com/contact/support>. Safety warnings are listed on the back page of this guide.

**IMPORTANT:** The Enphase IQ Series Microinverters include both AC and DC connectors integrated into the bulkhead. The AC port connects to an Enphase IQ Cable or Enphase Field Wireable Connector. The DC port has been evaluated by TUV for intermateability with Stäubli made MC4 connectors, whose cable coupler models are "PV-KST4/...-UR, PV-KBT4/...-UR, PV-KBT4-EVO2/...-UR, and PV-KST4-EVO2/...-UR". The DC port of the inverter must be mated with Stäubli made MC4 connectors.

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. Refer to local electrical codes and standards for grounding requirements of PV array and racking.

Enphase IQ8 Series Microinverters require the IQ Cable. An IQ Gateway is required to monitor performance of the IQ Microinverters. The Enphase IQ8 Series Microinverters work only with IQ Accessories.

**NOTE: 1)** After you log in to your Enphase Account from Enphase Installer App, scan the microinverter serial numbers (Standard 1D bar code) and connect to the IQ Gateway to track the system installation progress. Please ensure you are using the latest version of latest version of the Enphase Installer App 3.27 (3.27.0 and above).

**2)** Installer must check the manufacturing date of the products to ensure that the installation date is within one year of the manufactured date of the products. Contact your local distributor to validate the date code.

## PREPARATION

- A) Download the Enphase Installer App and open it to log in to your Enphase App Portal. With this app, scan microinverter serial numbers (Standard 1D bar code) and connect to the Enphase IQ Gateway to track system installation progress. To download, go to <https://enphase.com/installers/apps> or scan the below QR code:



Android iOS

- B) Refer to the following table and check PV module compatibility at: <https://enphase.com/en-gb/installers/microinverters/calculator>. You can check the intermateable cable coupler models of Stäubli made MC4 connectors at: <https://enphase.com/en-gb/support/staubli-mc4>

Model	DC connector	PV module* cell count
IQ8PLUS-72-M-INT	Stäubli MC4	Pair with 54 cell / 108 half-cell, 60 cell / 120 half-cell, 66 cell / 132 half-cell, or 72 cell / 144 half-cell
IQ8M-72-M-INT	Stäubli MC4	Pair with 54 cell / 108 half-cell, 60 cell / 120 half-cell, 66 cell / 132 half-cell, or 72 cell / 144 half-cell

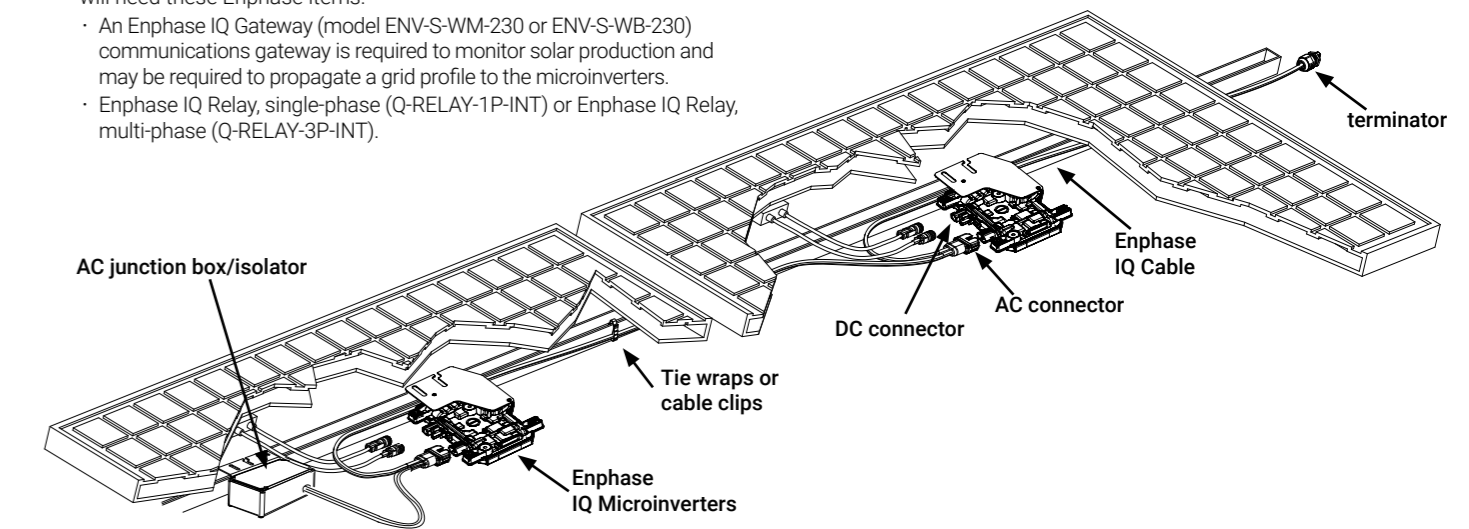
\*Enphase IQ Series Microinverters are compatible with bi-facial PV modules if the temperature adjusted electrical parameters (maximum power, voltage and current) of the modules, considering the electrical parameters including the Bifacial gain, are within the allowable microinverter input parameters range. In evaluating the amount of Bifacial gain, follow the recommendations of the module manufacturers.

- C) In addition to the PV modules, racking and Enphase microinverters you will need these Enphase items:
  - An Enphase IQ Gateway (model ENV-S-WM-230 or ENV-S-WB-230) communications gateway is required to monitor solar production and may be required to propagate a grid profile to the microinverters.
  - Enphase IQ Relay, single-phase (Q-RELAY-1P-INT) or Enphase IQ Relay, multi-phase (Q-RELAY-3P-INT).

- IQ RAW cable (single-phase : Q-25-RAW-300), (Multi-phase : Q-25-RAW-3P-300)
- Tie wraps or cable clips (ET-CLIP-100 - works with both multi-phase and single-phase cable)
- Enphase Sealing Caps (Q-SEAL-10): for any unused connectors on the Enphase IQ Cable
- Enphase Terminator (Q-TERM-R-10 for single-phase or Q-TERM-3P-10 for multi-phase): typically 1 Terminator (End feeding branch circuit) or 2 Terminator (Centre feeding branch circuit) required per branch circuit.
- Enphase Disconnect Tool (Q-DISC-3P-10)
- Enphase IQ Cable for single-phase or multi-phase:

Cable model	Connector spacing*	PV module orientation	Connectors per box
<b>Single-phase</b>			
Q-25-10-240	1.3m	Portrait (all)	240
Q-25-17-240	2.0m	Landscape (60-cell)	240
Q-25-20-200	2.3m	Landscape (72-cell)	200
<b>Multi-phase</b>			
Q-25-10-3P-200	1.3m	Portrait (all)	200
Q-25-17-3P-160	2.0m	Landscape (60-cell)	160
Q-25-20-3P-160	2.3m	Landscape (72-cell)	160

\*Allows for 30 cm of cable slack.



- D) Check that you have these other items:
- An AC junction box or AC isolator
  - Tools: screwdrivers, wire cutter, voltmeter, torque wrench, sockets, and wrenches for mounting hardware
  - Use crimp tool multi-contact PV-CZM-18100, -19100, or -22100 for single-phase Field Wireable connector
  - Screwdriver blade width 4 mm to 3.2 mm (1/8") (recommended tool to torque the screw on contact carrier and to disconnect multi-phase field wireable connector)
  - Optional: Field Wireable Connectors (Q-CONN-R-10M and Q-CONN-R-10F for single-phase IQ Cable or Q-CONN-3P-10M and Q-CONN-3P-10F for multi-phase IQ Cable)
- 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 circuit.

Breaker	Maximum* IQ Microinverters per AC branch circuit	
	IQ8+	IQ8M
20A Single-phase	12	11
20A Multi-phase	36 (12 per phase)	33 (11 per phase)
25A Multi-phase**	45 (15 per phase)	39 (13 per phase)

\* Refer to local regulations for OCPD sizing and to define the number of microinverters per branch in your area.  
\*\* This breaker option is not available in Europe

- G) Size the AC conductor to account for voltage rise. Select the correct conductor size based on the distance from the beginning of the Enphase IQ Cable to the breaker in the electrical panel. Refer to the Voltage Rise Technical Brief at <https://enphase.com/contact/support> for details.

**Best practice:** Centre-feed the branch to minimise voltage rise.

## INSTALLATION

### 1 Position the Enphase IQ Cable

- A) Plan each cable segment to allow connectors on the Enphase IQ Cable to align with each PV module. Allow extra length for slack, cable turns, and any obstructions.
- B) Mark the approximate centers of each PV module on the PV racking.
- C) Lay out the cabling along the installed racking for the AC branch circuit.
- D) Cut each segment of cable to meet your planned needs.

**WARNING:** When transitioning between rows, secure the cable to the rail to prevent cable or connector damage. Do not count on the connector to withstand tension.

### 2 Position the junction box/AC isolator

- A) Verify that AC voltage at the site is within range:

Microinverter models:	Single-phase service	
IQ8PLUS-72-M-INT	L1 to N	184 to 276 VAC*
IQ8M-72-M-INT	Multi-phase service	
	L1 to L2 to L3	319 to 478 VAC
	L1, L2, L3 to N	184 to 276 VAC*

\*Nominal voltage range can be extended beyond nominal if required by the utility.

- B) Install a junction box/AC isolator at a suitable location on the racking.
- C) Provide an AC connection from the junction box/AC isolator back to the electricity network connection using equipment and practices as required by local jurisdictions.
- D) For multi-phase installations, verify the IQ Cabling wiring colour codes are correctly junctioned: L1-Brown, L2-Black, L3-Grey, N-Blue.

### 3 Mount the microinverters

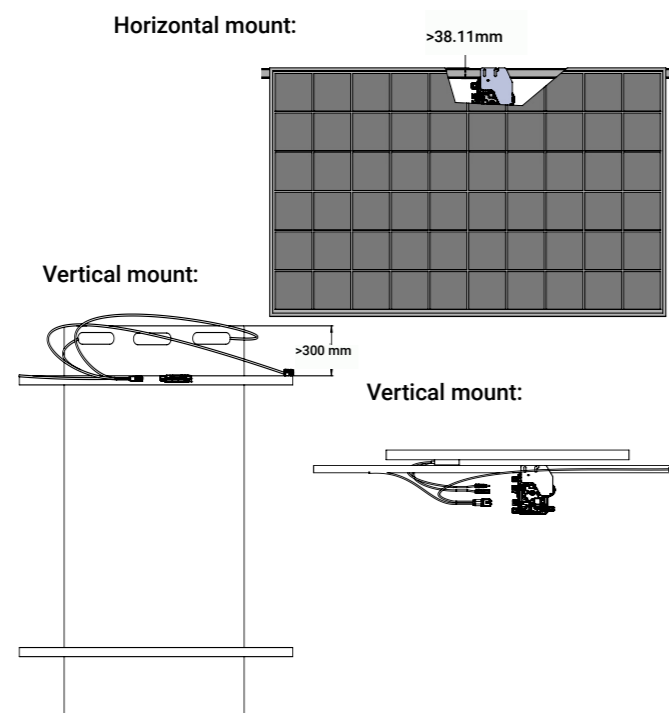
- A) The microinverters can be mounted beneath the modules either horizontal or vertical orientation to the module and must be mandatorily protected from direct exposure to rain, UV, and other harmful weather events. Please refer below image for clearance requirements during vertical mounting.
- B) Mount the microinverter horizontally bracket side up or vertical. Always place it under the PV module, protected from direct exposure to rain, sun, and other harmful weather events. Allow a minimum of 1.9 cm (3/4") between the roof and the microinverter. Also allow 1.3 cm (1/2") between the back of the PV module and the top of the microinverter.

For vertical mount also maintain >30 cm (12") clearance from the edges of the PV module to protect the microinverter from direct exposure to rain, UV, and other harmful weather events.

**WARNING:** Install the microinverter under the PV module to avoid direct exposure to rain, UV, and other harmful weather events. Do not mount the microinverter upside down.

- C) Torque the mounting fasteners as follows. Do not over torque.

- 6 mm mounting hardware: 5 N m
- 8 mm mounting hardware: 9 N m
- When using mounting hardware, use the manufacturer's recommended torque value



### 4 Create an installation map

Create a paper installation map to record microinverter serial numbers and position in the array.

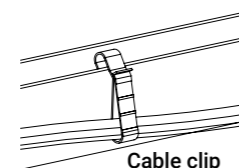
- A) Peel the removable serial number label from each microinverter and affix it to the respective location on the paper installation map.
- B) Peel the label from the IQ Gateway and affix it to the installation map.
- C) Always keep a copy of the installation map for your records.



Affix serial number labels

### 5 Manage the cabling

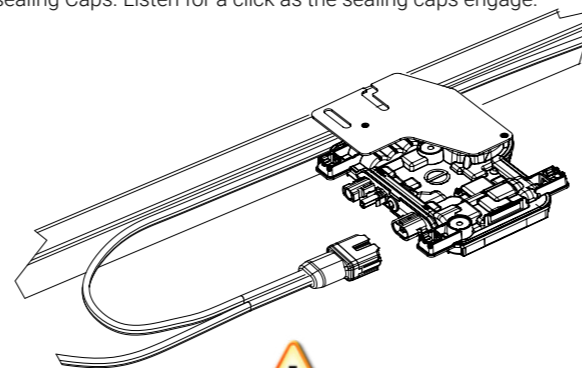
- A) Use cable clips or tie wraps to attach the cable to the racking. The cable must be supported at least every 30 cm.
- B) Dress any excess cabling in loops so that it does not contact the roof. Do not form loops smaller than 12 cm in diameter.



Cable clip

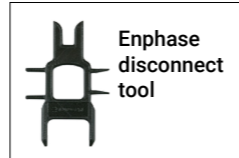
### 6 Connect the microinverters

- A) Connect the microinverter. Listen for a click as the connectors engage.
- B) Cover any unused connectors on the AC cable with Enphase sealing Caps. Listen for a click as the sealing caps engage.



**WARNING:** Install sealing caps on all unused AC connectors as these connectors become live when the system is energised. Sealing caps are required for protection against moisture ingress.

To remove a sealing cap or AC connector, you must use an Enphase disconnect tool.



Enphase disconnect tool

### 7 Terminate the Unused End of the Cable

Single-phase IQ Cable	Multi-phase IQ Cable
<p>A) Remove 13 mm of the cable sheath from the conductors. Use the terminator body loop to measure.</p>	<p>A) Remove 20 mm of the cable sheath from the conductors.</p>
<p>B) Slide the hex nut onto the cable. The grommet inside the terminator body must remain in place.</p>	<p>B) Slide the hex nut onto the cable. The grommet inside the terminator body must remain in place.</p>
<p>C) Insert the cable into the terminator body so that the two wires land on opposite sides of the internal separator.</p>	<p>C) Insert the cable into the terminator body so that the four wires land on separate sides of the internal separator.</p>
<p>D) Insert a screwdriver into the slot on the top of the terminator to hold it in place. Hold the terminator body stationary with the screwdriver and turn only the hex nut to prevent the conductors from twisting out of the separator. Torque the nut to 7.0 Nm.</p>	<p>D) Bend the wires down into the recesses of the terminator body and trim as needed. Place the cap over the terminator body. Insert a screwdriver into the slot on the terminator cap to hold it in place. Rotate the hex nut with your hand or a wrench until the latching mechanism meets the base. Do not over torque.</p>
<p>E) Attach the terminated cable end to the PV racking with a cable clip or tie wrap so that the cable and terminator do not touch the roof.</p>	<p>E) Attach the terminated cable end to the PV racking with a cable clip or tie wrap so that the cable and terminator do not touch the roof.</p>

**WARNING:** The terminator can not be re-used. If you unscrew the nut, you must discard the terminator.

### 8 Complete installation of the junction box/AC isolator

- A) Connect the Enphase IQ Cable into the junction box/AC isolator.



**WARNING:** To prevent irreversible damage to the system confirm colour codes at connections before energising the AC Supply. Failure to comply voids the warranty.

- B) Note that the IQ Cable uses the following wiring colour code:

Single-phase	Multi-phase
Brown – L1 Blue – N	Brown – L1 Black – L2 Grey – L3 Blue – N

**NOTE:** The multi-phase IQ Cable internally rotates L1, L2, and L3 to provide balanced 400 VAC (multi-phase), thus alternating phases between microinverters.

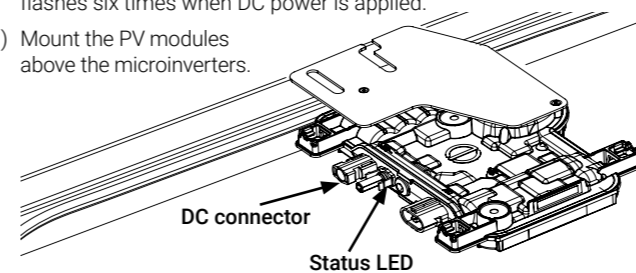
**NOTE:** Minimise the number of unused multi-phase IQ Cable connectors with multi-phase systems. When cable connectors are left unused on a multi-phase system, it creates a phase imbalance on the branch circuit. If multiple cable connectors are skipped over multiple branch circuits, the imbalance can multiply.

### 9 Connect the PV modules



**DANGER!** Electric shock hazard. The DC conductors of this PV system are ungrounded and may be energised.

- A) Connect the DC leads of each PV module to the DC input connectors of the microinverter.
- B) Check the LED on the connector side of the microinverter. The LED flashes six times when DC power is applied.
- C) Mount the PV modules above the microinverters.



### 10 Energise the System

- A) Turn ON the AC disconnect or circuit breaker for the branch circuit.
- B) Turn ON the main utility-grid AC circuit breaker. Your system will ramp up to full producing power **after a six-minute wait time.**
- C) Check the LED on the connector side of the microinverter:

LED	Indicates
Flashing green	Normal operation. AC grid function is normal and there is communication with the IQ Gateway. IQ8 Microinverter's LED will be Flashing green only after provisioning
Flashing orange	The AC grid is normal but there is no communication with the IQ Gateway.
Flashing red	The AC grid is either not present or not within specification.
Solid red	There is an active "DC Resistance Low, Power Off" condition. To reset, refer to the <b>Enphase IQ Gateway Installation and Operation Manual</b> at: <a href="https://www4.enphase.com/sites/default/files/downloads/support/IQ_Gateway-MAN-EN-INTL.pdf">https://www4.enphase.com/sites/default/files/downloads/support/IQ_Gateway-MAN-EN-INTL.pdf</a> . If problem persists, measure resistance between PV+ to GND and then PV- to GND on PV module and then inverter. Anything less than ~7 kohm will trip DCR. Usually the value is in Megaohms on inverter or PV module. Swap out faulty PV module or microinverter.

## ACTIVATE MONITORING AND SELECT GRID PROFILE

After you have installed the microinverters, follow the procedures in the **Enphase IQ Gateway Quick Install Guide** to activate system monitoring, set up grid management functions, and complete the installation.

- Connect the IQ Gateway, detect devices, and select grid profile
- Connect to Enphase Installer Portal, register the system, and build the virtual array

## SAFETY

### IMPORTANT SAFETY INSTRUCTIONS

SAVE THIS INFORMATION. This guide contains important instructions to follow during installation of the Enphase IQ8+ and IQ8M Microinverters.

	<b>WARNING:</b> Hot surface.
	<b>WARNING:</b> Refer to safety instructions.
	<b>DANGER:</b> Risk of electric shock.
	<b>Refer to manual</b>
	<b>Double-insulated</b>

#### Safety symbols

	<b>DANGER:</b> Indicates a hazardous situation, which if not avoided, will result in death or serious injury.
	<b>WARNING:</b> Indicates a situation where failure to follow instructions may be a safety hazard or cause equipment malfunction. Use extreme caution and follow instructions carefully.
	<b>WARNING:</b> Indicates a situation where failure to follow instructions may result in burn injury.
	<b>NOTE:</b> Indicates information particularly important for optimal system operation.

#### General safety

	<b>DANGER:</b> Risk of electric shock. Do not use Enphase equipment in a manner not specified by the manufacturer. Doing so may cause death or injury to persons, or damage to equipment.
	<b>DANGER:</b> Risk of electric shock. Be aware that installation of this equipment includes risk of electric shock.
	<b>DANGER:</b> Risk of electric shock. The DC conductors of this photovoltaic system are ungrounded and may be energised.
	<b>DANGER:</b> Risk of electric shock. Always de-energise the AC branch circuit before servicing. Never disconnect the DC connectors under load.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Only use electrical system components approved for wet locations.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Only qualified personnel should troubleshoot, install, or replace Enphase microinverters, IQ Cable and accessories.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Ensure that all AC and DC wiring is correct and that none of the AC or DC wires are pinched or damaged. Ensure that all AC junction boxes are properly closed.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Do not exceed the maximum number of microinverters in an AC branch circuit as listed in this guide. You must protect each microinverter AC branch circuit with a 20A (single-phase and multi-phase) or 25A (multi-phase) maximum breaker or fuse, as appropriate.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Only qualified personnel may connect the Enphase microinverter to the utility grid.
	<b>DANGER:</b> Risk of electric shock when solid red light is flashing from the microinverter's LED.
	<b>WARNING:</b> Risk of equipment damage. Enphase plug and socket connectors must only be connected to matching plug and socket connectors.
	<b>WARNING:</b> Before installing or using the Enphase microinverter, read all instructions and cautionary markings in the technical description, on the Enphase microinverter system, and on the photovoltaic (PV) equipment.
	<b>WARNING:</b> Do not connect Enphase microinverters to the grid or energise the AC circuit(s) until you have completed all of the installation procedures and have received prior approval from the electrical utility company.

#### General safety, continued

	<b>WARNING:</b> When the PV array is exposed to light, DC voltage is supplied to the Microinverter.
	<b>WARNING:</b> Incorrect phase wiring can cause irreversible damage to the microinverter installation. Check all wiring before energising.
	<b>NOTE:</b> To ensure optimal reliability and to meet warranty requirements, install the Enphase microinverters and Enphase IQ Cable according to the instructions in this guide.
	<b>NOTE:</b> Provide support for the Enphase IQ Cable at least every 30 cm.
	<b>NOTE:</b> Perform all electrical installations in accordance with all applicable local electrical codes.
	<b>NOTE:</b> The AC and DC connectors on the cabling are rated as a disconnect only when used with an Enphase microinverter.
	<b>NOTE:</b> Protection against lightning and resulting voltage surge must be in accordance with local standards.

#### Microinverter safety

	<b>DANGER:</b> Risk of electric shock. Risk of fire. Do not attempt to repair the Enphase microinverter; it contains no user-serviceable parts. If it fails, contact Enphase customer service to obtain an RMA (return merchandise authorisation) number and start the replacement process. Tampering with or opening the Enphase microinverter will void the warranty.
	<b>DANGER:</b> Risk of fire. The DC conductors of the PV module must be labeled "PV Wire" or "PV Cable" when paired with the Enphase microinverter.
	<b>WARNING:</b> You must match the DC operating voltage range of the PV module with the allowable input voltage range of the Enphase microinverter.
	<b>WARNING:</b> The maximum open circuit voltage of the PV module must not exceed the specified maximum input DC voltage of the Enphase microinverter. Refer to the Enphase Compatibility Calculator at: <a href="https://enphase.com/en-gb/installers/microinverters/calculator">https://enphase.com/en-gb/installers/microinverters/calculator</a> . To verify PV module electrical compatibility with microinverter. Use IQ8 Series microinverters only with compatible PV modules as per Enphase compatibility calculator. Using electrically incompatible PV module voids Enphase warranty.

	<b>WARNING:</b> Risk of equipment damage. Install the microinverter under the PV module to avoid direct exposure to rain, UV, and other harmful weather events. Always install the microinverter bracket side up. Do not mount the microinverter upside down. Do not expose the AC or DC connectors (on the Enphase IQ Cable connection, PV module, or the microinverter) to rain or condensation before plugging in the connectors.
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	<b>WARNING:</b> Risk of equipment damage. The Enphase microinverter is not protected from damage due to moisture trapped in cabling systems. Never Never plug microinverters into cables that have been left disconnected and exposed to wet conditions. This voids the Enphase warranty.
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	<b>WARNING:</b> Risk of equipment damage. The Enphase microinverter functions only with a standard, compatible PV module with appropriate fill factor, voltage, and current ratings. Unsupported devices include smart PV modules, fuel cells, wind or water turbines, DC generators, and non-Enphase batteries, etc. These devices do not behave like standard PV modules, so operation and compliance is not guaranteed. These devices may also damage the Enphase microinverter by exceeding its electrical rating, making the system potentially unsafe.
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	<b>WARNING:</b> Risk of skin burn. The chassis of the Enphase microinverter is the heat sink. Under normal operating conditions, the temperature could be 20°C above ambient, but under extreme conditions the microinverter can reach a temperature of 90°C. To reduce risk of burns, use caution when working with microinverters.
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	<b>NOTE:</b> The Enphase microinverter has field-adjustable voltage and frequency trip points that may need to be set, depending upon local requirements. Only an authorised installer with the permission and following requirements of the local electrical authorities should make adjustments.
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Enphase IQ Cable safety	
	<b>DANGER:</b> Risk of electric shock. Do not install the Enphase IQ Cable terminator while power is connected.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. When stripping the sheath from the Enphase IQ Cable, make sure the conductors are not damaged. If the exposed wires are damaged, the system may not function properly.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Do not leave AC connectors on the Enphase IQ Cable uncovered for an extended period. You must cover any unused connector with a sealing cap.
	<b>DANGER:</b> Risk of electric shock. Risk of fire. Make sure protective sealing caps have been installed on all unused AC connectors. Unused AC connectors are live when the system is energised.
	<b>WARNING:</b> Use the terminator only once. If you open the terminator following installation, the latching mechanism is destroyed. Do not reuse the terminator. If the latching mechanism is defective, do not use the terminator. Do not circumvent or manipulate the latching mechanism.
	<b>WARNING:</b> When installing the Enphase IQ Cable, secure any loose cable to minimise tripping hazard
	<b>NOTE:</b> When looping the Enphase IQ Cable, do not form loops smaller than 12 cm in diameter.
	<b>NOTE:</b> If you need to remove a sealing cap, you must use the Enphase disconnect tool.
	<b>NOTE:</b> When installing the Enphase IQ Cable and accessories, adhere to the following: <ul style="list-style-type: none"> <li>• Do not expose the terminator or cable connections to directed, pressurised liquid (water jets, etc.)</li> <li>• Do not expose the terminator or cable connections to continuous immersion.</li> <li>• Do not expose the terminator or cable connections to continuous tension (e.g., tension due to pulling or bending the cable near the connection).</li> <li>• Use only the connectors and cables provided.</li> <li>• Do not allow contamination or debris in the connectors.</li> <li>• Use the terminator and cable connections only when all parts are present and intact.</li> <li>• Do not install or use in potentially explosive environments.</li> <li>• Do not allow the terminator to come into contact with open flame.</li> <li>• Fit the terminator using only the prescribed tools and in the prescribed manner.</li> <li>• Use the terminator to seal the conductor end of the Enphase IQ Cable; no other method is allowed.</li> </ul>

#### DC Cable safety


	<b>NOTE:</b> Ensure proper routing of PV Module DC cable using the clips to prevent the leads from resting on the roof. Do Not Wrap extra DC Cable around microinverter.
	<b>NOTE:</b> Avoid direct exposure to sunlight.
	<b>NOTE:</b> Avoid sharp edges on racking.
	<b>NOTE:</b> Avoid cable touching rough surfaces or moving parts within racking system.
	<b>NOTE:</b> Avoid overly tight bending radii. Minimum bend radii for the DC Cable is 8xOD or R55mm.
	<b>NOTE:</b> Avoid overly tightly sized cable clips for routing.

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Enphase Customer Support: <http://enphase.com/contact/support>

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Panel Group / Groupe de modules / Gruppo di moduli / Modulgruppe / Modulegroep: Azimuth / Azimut: Tilt / Inclinaison / Inclinazione / Neigungswinkel / Helling: sheet / page / foglio / Blatt / pagina _____ / _____		Client / Cliente / Kunde / Cliënt:			Installer / Installateur / Installatore:		N S E W / N S E O N S O W / N Z O W 
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IQ Gateway serial label / étiquette de numéro de série / etichetta di serie IQ Gateway / Serien Nummer / Label seriennummer: \_\_\_\_\_

ENPHASE.COM

INSTALLATION MAP / PLAN D'INSTALLATION  
MAPPA INSTALLAZIONE / INSTALLATIONSPLAN  
INSTALLATIE KAART

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## Installation des Enphase IQ8 Series Microinverter avec connecteurs MC4 intégrés

Pour installer les micro-onduleurs de la série Enphase IQ™, lisez et suivez tous les avertissements et toutes les instructions de ce guide et du *Manuel d'installation et d'utilisation du Enphase IQ8 Series Microinverter* à l'adresse : <https://enphase.com/contact/support>. Les avertissements de sécurité sont énumérés sur le verso de ce guide.

**IMPORTANT: Les Enphase IQ8 Series Microinverters incluent des connecteurs AC et DC intégrés à leur cloison. Le port AC se connecte à un Enphase IQ Cable ou à un connecteur confectionnable de site Enphase. Le port DC a été évalué par TUV pour sa compatibilité avec les connecteurs MC4 fabriqués par Stäubli, dont les modèles de coupleurs de câbles sont les suivants : « PV-KST4/...-UR, PV-KBT4/...-UR, PV-KBT4-EV02/...-UR et PV-KST4-EV02/...-UR ». Le port CC de l'onduleur doit être couplé avec des connecteurs MC4 fabriqués par Stäubli.**

Le micro-onduleur dispose d'une double isolation de classe II et comprend un dispositif de protection contre les défauts de terre. Pour prendre en charge le dispositif de protection contre les défauts, utilisez uniquement des modules photovoltaïques équipés de câbles DC étiquetés Fil PV ou Câble PV. Reportez-vous aux codes et normes électriques locaux pour connaître les exigences de mise à la terre des panneaux photovoltaïques et des rayonnages.

Les Enphase IQ8 Series Microinverters nécessitent le IQ Cable. Un IQ Gateway est requis pour surveiller les performances des IQ Microinverters. Les Enphase IQ8 Series Microinverters fonctionnent uniquement avec les IQ Accessoires.

**REMARQUE :** 1) Après vous être connecté à votre compte Enphase Installer Portal depuis l'application Enphase Installer, scannez les numéros de série du micro-onduleur (Code barres 1D standard) et connectez-vous au dispositif IQ Gateway pour suivre la progression de l'installation du système. Veuillez vous assurer que vous utilisez la dernière version de l' Enphase Installer App 3.27 (3.27.0 et supérieur)  
2) L'installateur doit vérifier la date de fabrication des produits pour s'assurer que la date d'installation se situe dans l'année suivant la date de fabrication des produits. Contactez votre distributeur local pour valider le code de date.

### PRÉPARATION

A) Téléchargez l'application Enphase Installer et démarrez-la pour vous connecter à votre compte Enphase Installer Portal. Avec cette application, scannez les numéros de série des micro-onduleurs (Code barres 1D standard) et connectez-vous au système Enphase IQ Gateway pour suivre l'évolution de l'installation du système. Pour télécharger, rendez-vous sur <https://enphase.com/installers/apps> ou scannez le code QR ci-dessous.



Android iOS

B) Consultez le tableau suivant et vérifiez la compatibilité des modules PV sur la page : <https://enphase.com/fr-fr/installers/microinverters/calculator>. Vous pouvez accéder aux modèles de coupleurs de câbles interconnectables pour les connecteurs MC4 fabriqués par Stäubli à l'adresse suivante : <https://enphase.com/en-gb/support/staubli-mc4>

Modèle	Connecteur CC	Nombre de cellules du module PV*
IQ8PLUS-72-M-INT IQ8M-72-M-INT	MC4 Stäubli	Paire avec 54 cellules / 108 demi-cellules, 60 cellules / 120 demi-cellules, 66 cellules / 132 demi-cellules, ou 72 cellules / 144 demi-cellules

\* Les Enphase IQ Series Microinverters sont compatibles avec les modules PV bifaciaux si, compte tenu des paramètres électriques, y compris le gain bifacial, les paramètres électriques ajustés en fonction de la température (puissance, tension et courant maximum) des modules se situent dans la plage des paramètres d'entrée admissibles du micro-onduleur.

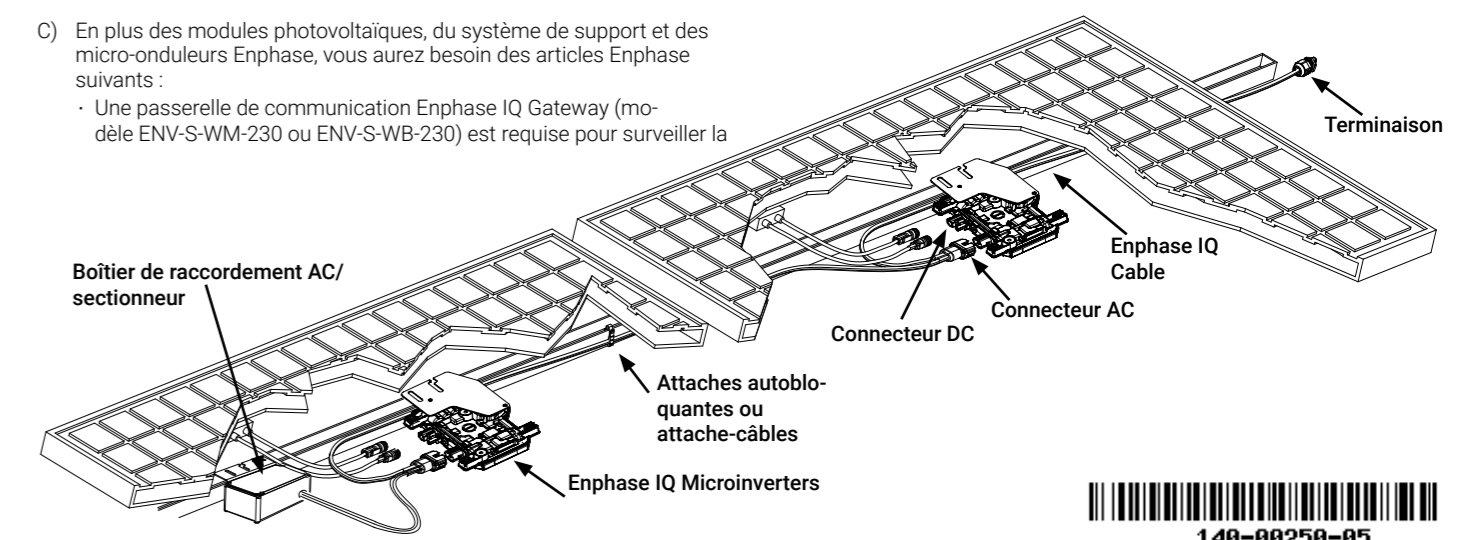
C) En plus des modules photovoltaïques, du système de support et des micro-onduleurs Enphase, vous aurez besoin des articles Enphase suivants :  
· Une passerelle de communication Enphase IQ Gateway (modèle ENV-S-WM-230 ou ENV-S-WB-230) est requise pour surveiller la

production solaire et peut être requise pour propager un profil réseau aux micro-onduleurs.


- Modèle Enphase IQ Relay, monophasé (Q-RELAY-1P-INT) ou Enphase IQ Relay, polyphasé (Q-RELAY-3P-INT).
- IQ Cable RAW (monophasé : Q-25-RAW-300 ; polyphasé : Q-25-RAW-3P-300)
- Attaches autobloquantes ou attache-câbles (ET-CLIP-100, fonctionnant à la fois avec un câble polyphasé et monophasé)
- Bouchons d'étanchéité Enphase (Q-SEAL-10) : pour les connecteurs inutilisés sur le Enphase IQ Cable
- Terminaison Enphase (Q-TERM-R-10 pour monophasé ou Q-TERM-3P-10 pour polyphasé) : typiquement 1 terminaison (circuit de dérivation d'alimentation en extrémité) ou 2 terminaisons (circuit de dérivation à alimentation centrale) pour chaque circuit de dérivation.
- Outil de déconnexion Enphase (Q-DISC-3P-10)
- Enphase IQ Cable pour monophasé ou polyphasé :

Modèle de câble	Espacement des connecteurs*	Orientations des modules PV	Connecteurs par boîte
<b>Monophasé</b>			
Q-25-10-240	1,3 m	Portrait (tous)	240
Q-25-17-240	2,0 m	Paysage (60 cellules)	240
Q-25-20-200	2,3m	Paysage (72 cellules)	200
<b>Polyphasé</b>			
Q-25-10-3P-200	1,3 m	Portrait (tous)	200
Q-25-17-3P-160	2,0 m	Paysage (60 cellules)	160
Q-25-20-3P-160	2,3m	Paysage (72 cellules)	160

\* Laisser 30 cm de mou.





Panel Group / Groupe de modules / Gruppo di moduli / Modulgruppe / Modulegroep: Azimuth / Azimut: Tilt / Inclinaison / Inclinazione / Neigungswinkel / Helling: sheet / page / foglio / Blatt / pagina _____ / _____		Client / Cliente / Kunde / Cliënt:			Installer / Installateur / Installatore:		N S E W / N S E O N S O W / N Z O W 
	1	2	3	4	5	6	7
A							
B							
C							
D							
E							
F							
G							
H							
J							
K							

To sheet / Vers la page / Al foglio / Zu Blatt / Naar pagina: \_\_\_\_\_ ↑

To sheet / Vers la page / Al foglio / Zu Blatt: \_\_\_\_\_ →

IQ Gateway serial label /  
étiquette de numéro de série /  
etichette di serie IQ Gateway /  
Serien Nummer / Label serienummer:



ENPHASE.COM

INSTALLATION MAP / PLAN D'INSTALLATION  
MAPPA INSTALLAZIONE / INSTALLATIONSPLAN  
INSTALLATIE KAART

## Installatie van Enphase IQ8 Series Microinverters met geïntegreerde MC4-connectoren

Om de microinverters uit de Enphase IQ Series te installeren, leest u en houdt u zich aan alle waarschuwingen en instructies in deze gids en in de *Installatie- en bedieningshandleiding voor Enphase IQ8 Series Microinverters* die u kunt vinden op: <https://enphase.com/contact/support>. Op de achterste pagina van deze handleiding staan de veiligheids waarschuwingen.

**BELANGRIJK:** De Enphase IQ Series Microinverters bevatten connectoren voor gelijk- en wisselstroom die in het schot zijn geïntegreerd. De wisselstroomaansluiting maakt verbinding met een Enphase IQ Cable of een Enphase Field Wireable-connector. De DC-poort is door TUV geëvalueerd op geschiktheid voor door Stäubli gemaakte MC4-connectoren, met kabelkoppelingsmodellen "PV-KST4/...-UR, PV-KBT4/...-UR, PV-KBT4-EVO2/...-UR en PV-KST4-EVO2/...-UR". De DC-poort van de omvormer moet worden gekoppeld aan door Stäubli gemaakte MC4-connectoren.

De micro-omvormer heeft een dubbele isolatie van klasse II, inclusief aardlekbeveiliging (GPF, Ground Fault Protection). Gebruik alleen zonnepaneel-modules die zijn uitgerust met gelijkstroomkabels met label PV-draad of PV-kabel, om GFP te ondersteunen. Raadpleeg de plaatselijke elektrische voorschriften en normen voor de aardingvereisten van de zonnepanelen en de hardware.

Voor de Enphase IQ8 Series Microinverters is de IQ Cable vereist. Er is een IQ Gateway nodig om de prestaties van de IQ Microinverters te bewaken. De Enphase IQ8 Series Microinverters werken alleen met IQ Accessoires

**OPMERKING:** 1) Nadat u zich hebt aangemeld bij uw Enphase Installer Portal-account vanuit de Enphase Installer-app, scant u de serienummers van de micro-omvormer (Standaard 1D barcode) en maakt u verbinding met de IQ Gateway om de voortgang van de systeeminstallatie te volgen. Zorg ervoor dat u de nieuwste versie van de Enphase Installer App 3.27 (3.27.0 en hoger). 2) De installateur moet de productiedatum van de producten controleren om er zeker van te zijn dat de installatiedatum binnen één jaar na de productiedatum van de producten ligt. Neem contact op met uw plaatselijke distributeur om de datumcode te valideren.

### VOORBEREIDING

A) Download de Enphase Installer App en open de app om u aan te melden bij uw Enphase Installer Portal-account. Met deze app scant u de serienummers van de micro-omvormer (Standaard 1D barcode) en maakt u verbinding met de Enphase IQ Gateway om de voortgang van de systeeminstallatie te volgen. Ga om te downloaden naar <https://enphase.com/installers/apps> of scan de QR-code aan de rechterkant.



Android iOS

B) Raadpleeg de volgende tabel en controleer compatibiliteit van de zonnepaneelmodules op: <https://enphase.com/nl-nl/installers/microinverters/calculator> U kunt de onderling uitwisselbare kabelkoppelingsmodellen van door Stäubli gemaakte MC4-connectoren bekijken op: <https://enphase.com/en-gl/support/staubli-mc4>

Model	Gelijkstroomaansluiting	Aantal cellen van de zonnepaneelmodule*
IQ8PLUS-72-M-INT IQ8M-72-M-INT	Stäubli MC4	Koppelen met 54 cellen / 108 halfcellen, 60 cellen/ 120 half-cel, 66-cel / 132 half-cel, of 72 cellen / 144 halve cellen

\*Microinverters uit de Enphase IQ-serie zijn compatibel met tweezijdige PV-modules als de temperatuurgecorrigeerde elektrische parameters (maximaal vermogen, spanning en stroom) van de modules binnen het toegestane bereik van de micro-omvormer ingangsparameters zijn, rekening houdend met de elektrische parameters, waaronder de tweezijdige opbrengst.

C) Naast de PV-modules, rekken en microinverters van Enphase hebt u de volgende Enphase-artikelen nodig:

- Er is een Enphase IQ Gateway (model ENV-S-WM-230 of ENV-S-WB-230) communicatiegateway nodig om de productie van zonne-energie te bewaken en deze kan ook nodig zijn om een netwerkprofiel aan de micro-omvormer door te geven.
- Enphase IQ Relay, eenfasig (Q-RELAY-1P-INT) of Enphase IQ Relay, meerfasig (Q-RELAY-3P-INT).

- IQ RAW-kabel (monofasig: Q-25-RAW-300), (meerfasig: Q-25-RAW-3P-300)
- Kabelbinders of kabelklemmen (ET-CLIP-100 - werkt met zowel meerfasige als eenfasige kabel)
- Enphase Sealing Caps (Q-SEAL-10): voor ongebruikte aansluitingen op de Enphase IQ Cable
- Enphase Terminator (Q-TERM-R-10 voor monofasig of Q-TERM-3P-10 voor meerfasig): gewoonlijk 1 Terminator (stroomcircuit voor eindvoeding) of 2 Terminator (stroomcircuit voor gecentreerde voeding) vereist per stroomcircuit.
- Ontkoppelingsgereedschap van Enphase (Q-DISC-3P-10)
- Enphase IQ Cable voor eenfasig of meerfasig:

Kabelmodel	Afstand tussen aansluitingen*	Stand PV-module	Aansluitingen per doos
<b>Monofasig</b>			
Q-25-10-240	1,3m	Staannd (alle)	240
Q-25-17-240	2,0m	Liggend (60 cellen)	240
Q-25-20-200	2,3m	Liggend (72 cellen)	200
<b>Meerfasig</b>			
Q-25-10-3P-200	1,3m	Staannd (alle)	200
Q-25-17-3P-160	2,0m	Liggend (60 cellen)	160
Q-25-20-3P-160	2,3m	Liggend (72 cellen)	160

\*Zorgt voor 30 cm extra kabel.

