

To sheet: _____

| | | | | | | | |
|--|---------|---|---|------------|---|-------------|---|
| Panel Group: Azimuth: Tilt: Sheet ____ / ____ | Client: | | | Installer: | | N S E W | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| A | | | | | | | |
| B | | | | | | | |
| C | | | | | | | |
| D | | | | | | | |
| E | | | | | | | |
| F | | | | | | | |
| G | | | | | | | |
| H | | | | | | | |
| I | | | | | | | |
| J | | | | | | | |

IQ Gateway serial label number:

INSTALLATION MAP

To sheet: _____

Compliance with EU Directives

This product complies with the following EU Directives and can be used in the European Union without any restrictions.

- Electro Magnetic Compatibility (EMC) directive 2014/30/EU
- Low Voltage Directive (LVD) 2014/35/EU
- Restriction of Hazardous Substances (RoHS) 2011/65/EU

The full text of the EU declaration of conformity (DoC) is available at the following internet address: <https://enphase.com/en-gb/installers/resources/documentation>.

Manufacturer:

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Importer:

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Revision history

| REVISION | DATE | DESCRIPTION |
|--------------|---------------|--|
| 140-00161-07 | November 2023 | • Added European region Quick Install Guide information. • Added Turkish QIG. |
| 140-00161-06 | June 2023 | Editorial updates. |
| | | Previous releases |

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Enphase Support: <https://enphase.com/contact/support>

Install the Enphase IQ7A Microinverter

To install Enphase IQ7A Microinverters, read and follow all warnings and instructions in this guide and the Enphase IQ7A Microinverter Installation and Operation Manual at <https://enphase.com/contact/support>. Safety warnings are listed at the end of this guide.

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 PV array and racking grounding requirements.

IMPORTANT: IQ Microinverters require the IQ Cable and are incompatible with previous Enphase cabling. An IQ Gateway is required to monitor the performance of the IQ Microinverters. The IQ accessories work only with IQ Microinverters.

NOTE: The 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 Installer Platform account. With this app, you can scan microinverter serial numbers and connect to the IQ Gateway to track the system installation progress. To download, go to <https://enphase.com/en-gb/installers/apps> or scan the QR code.

B) Refer to the following table and check PV module compatibility at UK: <https://enphase.com/en-gb/installers/microinverters/calculator> ANZ: <https://enphase.com/en-au/installers/microinverters/calculator>

| Model | DC Connector adapter cable | PV module cell count |
|---------------|----------------------------|--|
| IQ7A-72-2-INT | Stäubli MC4 | 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:

- An IQ Gateway communications gateway is required to monitor solar production and may be required to propagate a grid profile to the microinverters. If you are in the European region, refer to the [IQ Gateway Quick Install Guide](#) in IQ Gateway Standard & Line Filter Kit or IQ Gateway Metered & Line Filter Kit; for other regions, refer to the [IQ Gateway Quick Install guide](#) in IQ Gateway Standard or IQ Gateway Metered.
- NOTE:** Depending on your region, IQ Series Microinverters may not produce until an IQ Gateway is installed and configured with the appropriate grid profile. See the [IQ Gateway Quick Install Guide](#) for details.
- IQ Relay, single-phase (Q-RELAY-1P-INT) or IQ Relay, multi-phase (Q-RELAY-3P-INT). For the Italy region, use IQ Relay (Q-RELAY-2-3P-ITA) for both single-phase and multi-phase application.
- Tie wraps or cable clips (ET-CLIP-100 - works with both multi-phase and single-phase cable)
- The multi-phase IQ Relay also provides phase coupling to allow microinverters on all phases to communicate with the IQ Gateway. Use a Phase Coupler (LPC-01) for the multi-phase system for phase coupling if IQ Relay is not installed in the multi-phase system.
- IQ Sealing Caps (Q-SEAL-10): for any unused connectors on the IQ Cable.
- IQ Terminator (Q-TERM-R-10 for single-phase or Q-TERM-3P-10 for multi-phase): one for each AC cable segment end.
- IQ Disconnect Tool (Q-DISC-10).
- IQ Cable for single-phase or multi-phase:

| Cable model | Connector spacing* | PV module orientation | Connectors per box |
|-------------|--------------------|-----------------------|--------------------|
| Q-25-10-240 | 1.3 m | Portrait (all) | 240 |

| | | | |
|-------------|-------|---------------------------------|-----|
| Q-25-17-240 | 2.0 m | Landscape (60-cell and 96-cell) | 240 |
| Q-25-20-200 | 2.3 m | Landscape (72-cell) | 200 |

| Multi-phase | | | |
|----------------|-------|---------------------------------|-----|
| Q-25-10-3P-200 | 1.3 m | Portrait (all) | 200 |
| Q-25-17-3P-160 | 2.0 m | Landscape (60-cell and 96-cell) | 160 |
| Q-25-20-3P-160 | 2.3 m | 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.
 - IQ 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): Optional male and female connectors for single-phase connections.

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.

Note for installations in South Africa only: For the warranty to be valid in South Africa, Enphase requires that you protect your system with a lightning and/or surge protection device (SPD) as a part of the installation. We recommend that the SPD meets the following electrical requirements.

| Electrical characteristics | | Value |
|---|---------|-------|
| Clamping voltage of L-N, L-G, N-G @5 kA (8/20 μs) | Up-5 kA | 600 V |

F) Plan your AC branch circuits to meet the following limits for a maximum number of microinverters per branch when protected with a 20 A overcurrent protection device (OCPD). For multi-phase installations, use a 3-pole 25 A OCPD.

| Maximum* IQ7A Microinverters per AC branch circuit | |
|--|--|
| Single-phase | 10 (20 A OCPD) |
| Multi-phase | 30 (20 A OCPD) 39 (25 A OCPD only in ANZ) |

* Limits may vary. Refer to the 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 IQ Cable to the breaker in the load center.

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



