



# IQ7A and IQ7+ Microinverters

The high-powered smart grid-ready IQ7A and IQ7+ Microinverters dramatically simplify the installation process while achieving the highest system performance.



## IQ Gateway

The IQ Gateway is the platform for energy management and integrates with the IQ Microinverters and IQ Batteries to provide complete control and insights into the Enphase Energy System.



## IQ Relay 1P and 3P

Production and storage, circuit integrated, NS-protection device with PLC-Phase coupler (3P) and DC current injection monitoring\*.



## Q-DCC-2 Adapter Cable

Connect PV modules quickly and easily to IQ7 Series Microinverters using the included Q-DCC-2 adapter cable with plug-and-play MC4 connectors.



## IQ Cables

The IQ Cables allow quick and safe connection of the microinverters.

## Easy to install

- Lightweight and compact with plug-and-play connectors
- Power line communication (PLC) between components
- Familiar AC cabling architecture

## High productivity and reliability

- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Safer AC cabling methods

## Smart grid-ready

- Complies with the latest advanced grid support
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles



IQ7 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 10 years\*\*.

\* IQ Relay is required to protect the PV system from grid abnormalities.

\*\* 10-year warranty is valid, provided an internet-connected IQ Gateway is installed. Get in touch with the Enphase team for warranty extension options.

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IQ7A-7+-DSH-00777-1.0-EN-AU-2025-07-18

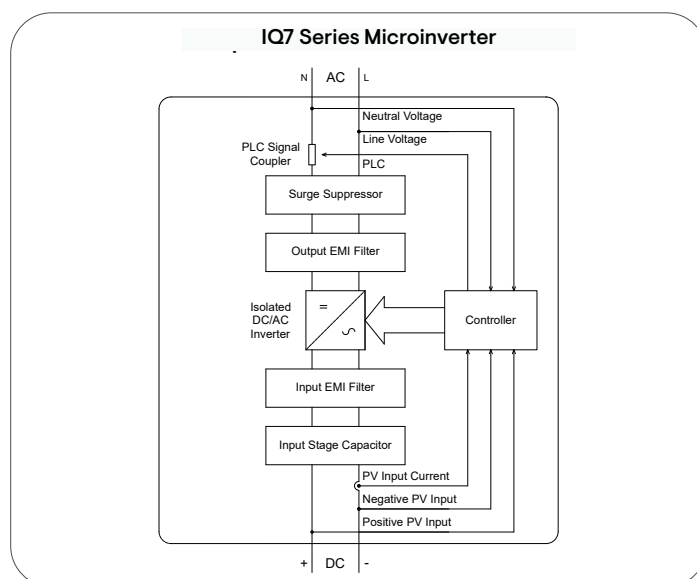
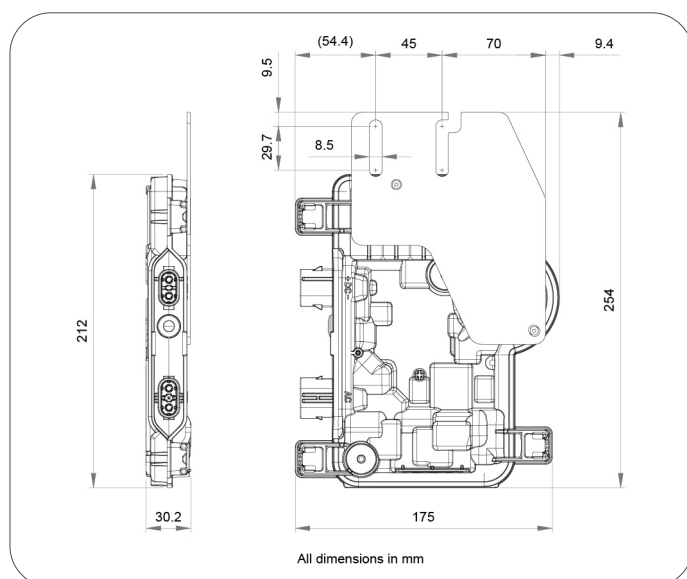
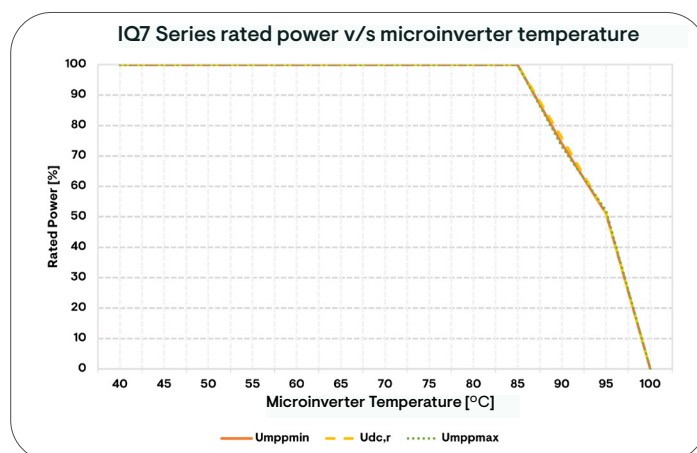
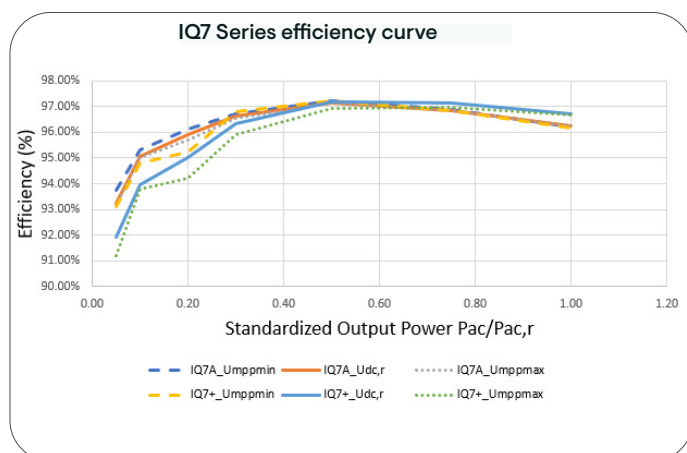
# IQ7A and IQ7+ Microinverters

| INPUT DATA (DC)                                           |                           | UNITS            | IQ7PLUS-72-M-INT                                                                                                                                                                                                                                                                                                                                                                                                 |  | IQ7A-72-M-INT<br>IQ7A-72-2-INT                                          |  |
|-----------------------------------------------------------|---------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|--|
| Typical module compatibility                              | –                         | –                | 60-cell/120 half-cell<br>66-cell/132 half-cell<br>72-cell/144 half-cell                                                                                                                                                                                                                                                                                                                                          |  | 60-cell/120 half-cell<br>66-cell/132 half-cell<br>72-cell/144 half-cell |  |
|                                                           |                           |                  | No enforced DC/AC ratio and maximum input power. Modules can be paired as long as the maximum input voltage is not exceeded and the maximum input current of the inverter at the lowest and highest temperatures is respected. See the compatibility calculator at <a href="https://enphase.com/en-au/installers/microinverters/calculator">https://enphase.com/en-au/installers/microinverters/calculator</a> . |  |                                                                         |  |
| Minimum/Maximum input voltage                             | $U_{dc,min}/U_{dc,max}$   | V                | 16/60                                                                                                                                                                                                                                                                                                                                                                                                            |  | 18/58                                                                   |  |
| Start-up input voltage                                    | $U_{dc,start}$            | V                | 22                                                                                                                                                                                                                                                                                                                                                                                                               |  | 33                                                                      |  |
| Rated input voltage                                       | $U_{dc,r}$                | V                | 36                                                                                                                                                                                                                                                                                                                                                                                                               |  | 40.5                                                                    |  |
| Minimum/Maximum MPP voltage                               | $U_{mpp,min}/U_{mpp,max}$ | V                | 27/45                                                                                                                                                                                                                                                                                                                                                                                                            |  | 38/43                                                                   |  |
| Minimum/Maximum operating voltage                         | $U_{op,min}/U_{op,max}$   | V                | 16/60                                                                                                                                                                                                                                                                                                                                                                                                            |  | 18/58                                                                   |  |
| Maximum input current                                     | $I_{dc,max}$              | A                | 12                                                                                                                                                                                                                                                                                                                                                                                                               |  | 10.2                                                                    |  |
| Maximum short-circuit DC input current                    | $I_{sc,max}$              | A                | 25                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                         |  |
| Max input PV power¹                                       | $P_{dc,max}$              | W                | 385                                                                                                                                                                                                                                                                                                                                                                                                              |  | 465                                                                     |  |
| OUTPUT DATA (AC)                                          |                           | UNITS            | IQ7PLUS-72-M-INT                                                                                                                                                                                                                                                                                                                                                                                                 |  | IQ7A-72-M-INT<br>IQ7A-72-2-INT                                          |  |
| Maximum apparent power                                    | $S_{ac,max}$              | VA               | 295                                                                                                                                                                                                                                                                                                                                                                                                              |  | 366                                                                     |  |
| Rated apparent power                                      | $S_{ac,r}$                | VA               | 290                                                                                                                                                                                                                                                                                                                                                                                                              |  | 349                                                                     |  |
| Nominal grid voltage                                      | $U_{ac,nom}$              | V                | 230                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                         |  |
| Minimum/Maximum grid voltage                              | $U_{ac,min}/U_{ac,max}$   | V                | 176/276                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                         |  |
| Maximum output current                                    | $I_{ac,max}$              | A                | 1.26                                                                                                                                                                                                                                                                                                                                                                                                             |  | 1.52                                                                    |  |
| Nominal frequency                                         | $f_{nom}$                 | Hz               | 50                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                         |  |
| Maximum output fault current                              | $I_{sc,r}$                | A <sub>rms</sub> | 2.13                                                                                                                                                                                                                                                                                                                                                                                                             |  | 2.52                                                                    |  |
| Minimum/Maximum frequency                                 | $f_{min}/f_{max}$         | Hz               | 45/55                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                         |  |
| Maximum units per single/<br>Multi-phase 20 A circuit     | –                         | –                | 13 (L+N)/39 (3L+N)                                                                                                                                                                                                                                                                                                                                                                                               |  | 11 (L+N)/33 (3L+N)                                                      |  |
| Maximum units per single/<br>Multi-phase IQ Cable section | –                         | –                | 13 (L+N)/21 (3L+N)<br>Centre feeding is best practice. These design limits should ensure voltage rise and line conductor resistance on the IQ Cable are maintained within acceptable limits.                                                                                                                                                                                                                     |  |                                                                         |  |
| Protective class (all ports)                              | –                         | –                | II                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                         |  |
| Total harmonic distortion                                 | –                         | %                | <5                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                         |  |
| Power factor setting                                      | –                         | –                | 1.0                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                         |  |
| Power factor range                                        | cosphi                    | –                | 0.8 leading ... 0.8 lagging                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                         |  |
| Inverter maximum efficiency                               | $\eta_{IS}$               | %                | 97.24                                                                                                                                                                                                                                                                                                                                                                                                            |  | 97.23                                                                   |  |
| European weighted efficiency                              | $\eta_{max}$              | %                | 96.50                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                         |  |
| Inverter topology                                         | –                         | –                | Isolated (HF Transformer)                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                         |  |
| Night-time power loss                                     | –                         | mW               | 50                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                         |  |
| MECHANICAL DATA                                           |                           |                  | IQ7PLUS-72-M-INT                                                                                                                                                                                                                                                                                                                                                                                                 |  | IQ7A-72-M-INT<br>IQ7A-72-2-INT                                          |  |
| Ambient air temperature range                             |                           |                  | -40°C to 65°C (-40°F to 149°F)                                                                                                                                                                                                                                                                                                                                                                                   |  | -40°C to 60°C (-40°F to 140°F)                                          |  |
| Relative humidity range                                   |                           |                  | 4% to 100% (condensing)                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                         |  |
| Overvoltage class AC port                                 |                           |                  | III                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                         |  |

<sup>1</sup> Installer should not exceed the small-scale technology certificate (STC) limit on PV module wattage for claiming the STC. Pairing PV modules with wattage above the limit may result in additional clipping losses. See the compatibility calculator at <https://enphase.com/en-au/installers/microinverters/calculator>.

| MECHANICAL DATA                      | IQ7PLUS-72-M-INT                                                                                                                        | IQ7A-72-M-INT<br>IQ7A-72-2-INT |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| AC connector type                    | Enphase IQ Cabling (refer to the IQ Cable and accessories data sheet)                                                                   |                                |
| DC connector type                    | Staubli MC4                                                                                                                             |                                |
| Dimensions (H × W × D)               | 212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2") (without mounting brackets)                                                              |                                |
| Weight (with mounting plate)         | 1.08 kg (2.38 lb)                                                                                                                       |                                |
| Altitude                             | <2600 m                                                                                                                                 |                                |
| Cooling                              | Natural convection-no fans                                                                                                              |                                |
| Enclosure                            | Class II double-insulated, corrosion-resistant polymeric enclosure                                                                      |                                |
| IP rating                            | Outdoor-IP67                                                                                                                            |                                |
| Calorific value                      | 37.5 MJ/unit                                                                                                                            |                                |
| COMPLIANCE                           | IQ7PLUS-72-M-INT                                                                                                                        | IQ7A-72-M-INT<br>IQ7A-72-2-INT |
| Grid compliance                      | AS/NZS4777.2:2020 + A2                                                                                                                  |                                |
| Safety                               | EN IEC 62109-1, EN IEC 62109-2                                                                                                          |                                |
| EMC                                  | EN IEC 61000-3-2, 61000-3-3, 61000-6-2, 61000-6-3, EN IEC 50065-1, 50065-2-1                                                            |                                |
| Product labelling                    | CE and RCM                                                                                                                              |                                |
| Advanced grid functions <sup>3</sup> | Power export limiting (PEL), Phase imbalance management (PIM), Loss of phase detection (LOP), Power factor control Q (U), cos (phi) (P) |                                |
| Microinverter communication          | Powerline communication (PLC) 110–120 kHz (Class B), Narrowband 200 Hz                                                                  |                                |

<sup>3</sup> Some of these functions require IQ Gateway Metered with current transformers and/or IQ Relay installed.



Assembled in China, India, and Mexico.

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# Revision history

| REVISION           | DATE      | DESCRIPTION                                                                    |
|--------------------|-----------|--------------------------------------------------------------------------------|
| DSH-00777-1.0      | July 2025 | Updated the compliance standard from AS/NZS 4777.2 to AS/NZS 4777.2:2020 + A2. |
| Previous releases. |           |                                                                                |