# QD Cable and accessories

The **Enphase QD Cable** and accessories are integral parts of the IQ8 Commercial Microinverter based PV system for grid-tied, three-phase 208 V PV applications.

The QD Cable works with the Enphase IQ8 Commercial Microinverter and provides self-phase balancing and neutral sensing for phase loss protection.



#### Reliable

- · Neutral sensing for phase loss protection
- · Locking-type connectors
- Rated for outdoor, wet environments, sunlight resistance, and oil resistance

#### Easy

- · Self-phase balancing
- · Lightweight and simple for fast installation
- · Modularly expandable
- Reduction in balance-of-system costs and installation time
- Phase ID marked on QD Cable connectors for easy identification (C1: L1-L2, C2: L2-L3, and C3: L3-L1 sequentially)
- Separate center feeding connector in all AC branch circuit cabling SKUs for maintaining <1% voltage rise with easy plug-and-play installations

#### Field Wireable QD Connectors

- Easily connect QD Cables on the roof without complex wiring
- · Available as male and female connector types
- UL Listed



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#### **CONDUCTOR SPECIFICATIONS** QD Cable 4 conductors 12 AWG Outer diameter 11.5 mm 600 V (connector rating up to 277 VAC) Voltage rating Certification UL3003 (raw cable), UL 9703 (cable assemblies), and DG cable Max. AC conductor resistance (20°C) 12 AWG 5.43 Ω/km $(\Omega/km)$ FT4 Flame test rating Compliance RoHS, OIL RES I, CE, UV resistant, and combined UL for the United States Conductor type THHN/THWN-2 dry/wet

#### **QD CABLE TYPES**

| Connectorized models | Size/Max. nominal voltage | Connector spacing | PV module orientation | Connector count per box |
|----------------------|---------------------------|-------------------|-----------------------|-------------------------|
| QD-12-13-120         | 12 AWG / 277 VAC          | 1.4 m (4.6 ft)    | Portrait              | 120                     |
| QD-12-20-120         | 12 AWG / 277 VAC          | 2.4 m (7.9 ft)    | Landscape             | 120                     |
| QD-12-25-108         | 12 AWG / 277 VAC          | 4.6 m (15.1 ft)   | Landscape             | 108                     |

#### **QD CABLE ACCESSORIES**

| Name                                 | Model number  | Description  |
|--------------------------------------|---------------|--|
| Raw QD Cable                         | QD-12-RAW-300 | 300 m (984.2 ft) of 12 AWG cable with no connectors  |
| Field Wireable QD Connector (male)   | QD-CONN-10M   | Male field-wireable AC connector for Raw QD Cable; pack of 10 connectors   |
| Field Wireable QD Connector (female) | QD-CONN-10F   | Female field-wireable AC connector for Raw QD Cable; pack of 10 connectors   |
| QD Disconnect Tool                   | QD-DISC-10    | QD Disconnect Tool for QD Cable connectors, DC connectors, and AC Module mount; pack of 10 connectors              |
| QD Sealing Caps (female)             | QD-SEAL-10    | One required to cover each unused connector on the cabling; pack of 10 connectors                                  |
| QD Cable Clip                        | ET-CLIP-100   | Used to fasten cabling to the racking or to secure looped cabling; pack of 10 connectors                           |
| QD Terminator                        | QD-TERM-10    | Terminator for unused cable ends; pack of 10 terminators   |
| QD Center Tap Adapter Cable          | QD-LINKFW-10  | Center tap adapter cable for center feeding of AC branch circuit when using QD-12-42-63; pack of 10 adapter cables |

|     | Field Wireable QD Connector (male)   | Field Wireable QD Connector (female)   |  |
|-----|--|--|--|
|     | Male field-wireable AC connector;<br>sold in packs of ten<br>(QD-CONN-10M)                                   | Female field-wireable AC connector; sold in packs of ten (QD-CONN-10F)   |  |
|     | QD Terminator  | QD Sealing Caps  |  |
|     | Terminator cap for unused cable ends; sold in packs of ten; center feed requires two per branch (QD-TERM-10) | Female sealing caps for unused cable connections; sold in packs of ten (QD-SEAL-10)                                    |  |
| 4 1 | QD Disconnect Tool   | QD Cable Clip  |  |
| *** | Plan to use at least one per<br>installation; sold in packs of ten<br>(QD-DISC-10)                           | Used to fasten cabling to the racking<br>or to secure looped cabling; sold in<br>packs of one hundred<br>(ET-CLIP-100) |  |
|     | QD Center Tap Adapter Cable  |  |  |

connected to male Field Wireable QD Connectors for cable extension.

Use one cable per branch circuit for IQ8 Commercial installations. The center tap adapter cable is 300 mm long

with a 4-pole QD female connector on one side, which should be connected only to the center tapping connector of an AC branch circuit cable. The female Field Wireable QD Connector on the other side can be



# Revision history

| REVISION           | DATE          | DESCRIPTION      |  |
|--------------------|---------------|------------------|--|
| DSH-00251-1.0      | November 2023 | Initial release. |  |
| Previous releases. |               |                  |  |

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