

Q Cable and IQ Micro Accessories





The IQ Microinverter system uses the new Q Cable with only two conductors, resulting in a more lightweight and flexible product. This UL3003 listed DG (Distributed Generation) cabling system is purpose designed for the application, and uses the following new accessories, which are not compatible with earlier Enphase cabling systems.

Q CABLE TYPES / ORDERING OPTIONS

Model Number	Description	Connector Spacing	PV Module Orientation	Connector Count per Box
Q-12-10-240	Q Cable for 60/72 cell 1.0m portrait module pitch	1.3 m (4.2 ft)	Portrait	240
Q-12-17-240	Q Cable for 60 cell 1.7m landscape module pitch	2.0 m (6.5 ft)	Landscape (60-cell)	240
Q-12-20-200	Q Cable for 72 cell 2.0m landscape module pitch	2.3 m (7.5 ft)	Landscape (72-cell)	200
Q-12-RAW-300	Q Cable, 12 AWG, no connectors, 300m length		Not applicable	

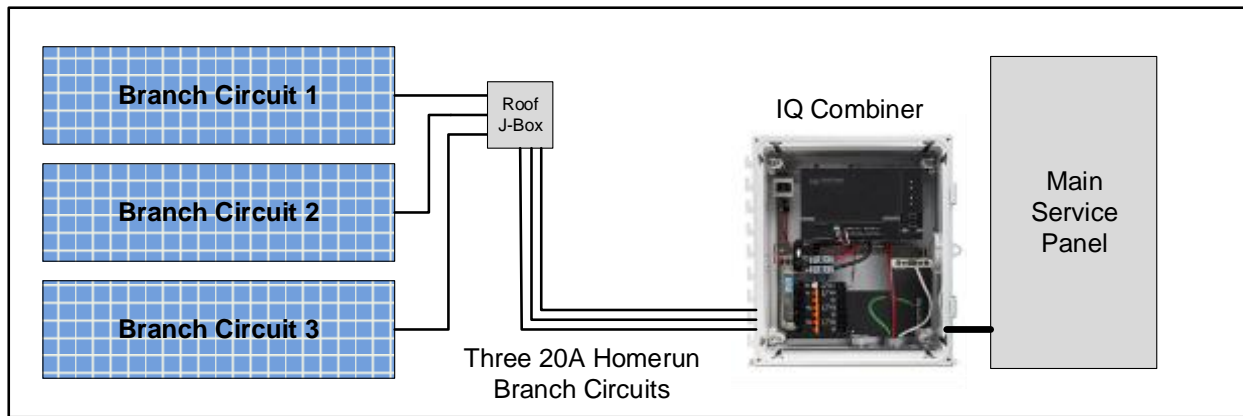
ENPHASE Q CABLE ACCESSORIES

Name	Model Number	Description
Q Aggregator	Q-BA-3-1P-60	Combines up to three microinverter AC branch circuits into one home run
Field Wireable Q Connector (male)	Q-CONN-10M	Make Q Cable connections to any Q Aggregator open connector or female Field Wireable Q Connector
Field Wireable Q Connector (female)	Q-CONN-10F	Make Q Cable connections to any Q Cable open connector or male Field Wireable Q Connector
Q Clip	Q-CLIP-100	Used to fasten cabling to the racking or to secure looped cabling
Q Cable Disconnect Tool	Q-DISC-10	Disconnect tool for Q Cable connectors, DC connectors, and AC module mount
Q Aggregator Sealing Caps (male)	Q-BA-CAP-10	Male sealing cap for unused Q Aggregator connectors
Q Sealing Caps (female)	Q-SEAL-10	Female sealing cap for unused Q Cable connectors
Q Cable Terminator	Q-TERM-10	Terminator cap for unused Q Cable ends
IQ Replacement DC Adaptor (MC4)	Q-DCC-2	IQ Micro replacement adaptor for MC4 DC connector
IQ Replacement DC Adaptor (UTX)	Q-DCC-5	IQ Micro replacement adaptor for UTX DC connector

	<p>Q CABLE TERMINATOR Terminator cap for unused cable ends, sold in packs of ten (Q-TERM-10)</p>		<p>Q SEALING CAPS Sealing caps for unused aggregator and cable connections (Q-BA-CAP-10 and Q-SEAL-10)</p>
	<p>Q CABLE DISCONNECT TOOL Plan to use at least one per installation, sold in packs of ten (Q-DISC-10)</p>		<p>Q CLIP Used to fasten cabling to the racking or to secure looped cabling, sold in packs of ten (Q-CLIP-100)</p>

When using the Q Aggregator for combining multiple branch circuits on the roof, the combined production circuit cannot be terminated on any of the 20 A circuit breakers within the IQ Combiner. It is still possible to use an IQ Combiner in a system that uses a Q Aggregator for purpose of housing the IQ Envoy, but in this scenario, the Q Aggregator combined output circuits must land at a separate breaker rated for the combined inverter output current in a separate subpanel. Keep in mind that Line 1 of the combined output circuit coming from the Q Aggregator must still pass through the production CT within the IQ Combiner, if the system will be equipped with such.

Conceptual Schematic of IQ Combiner Installation



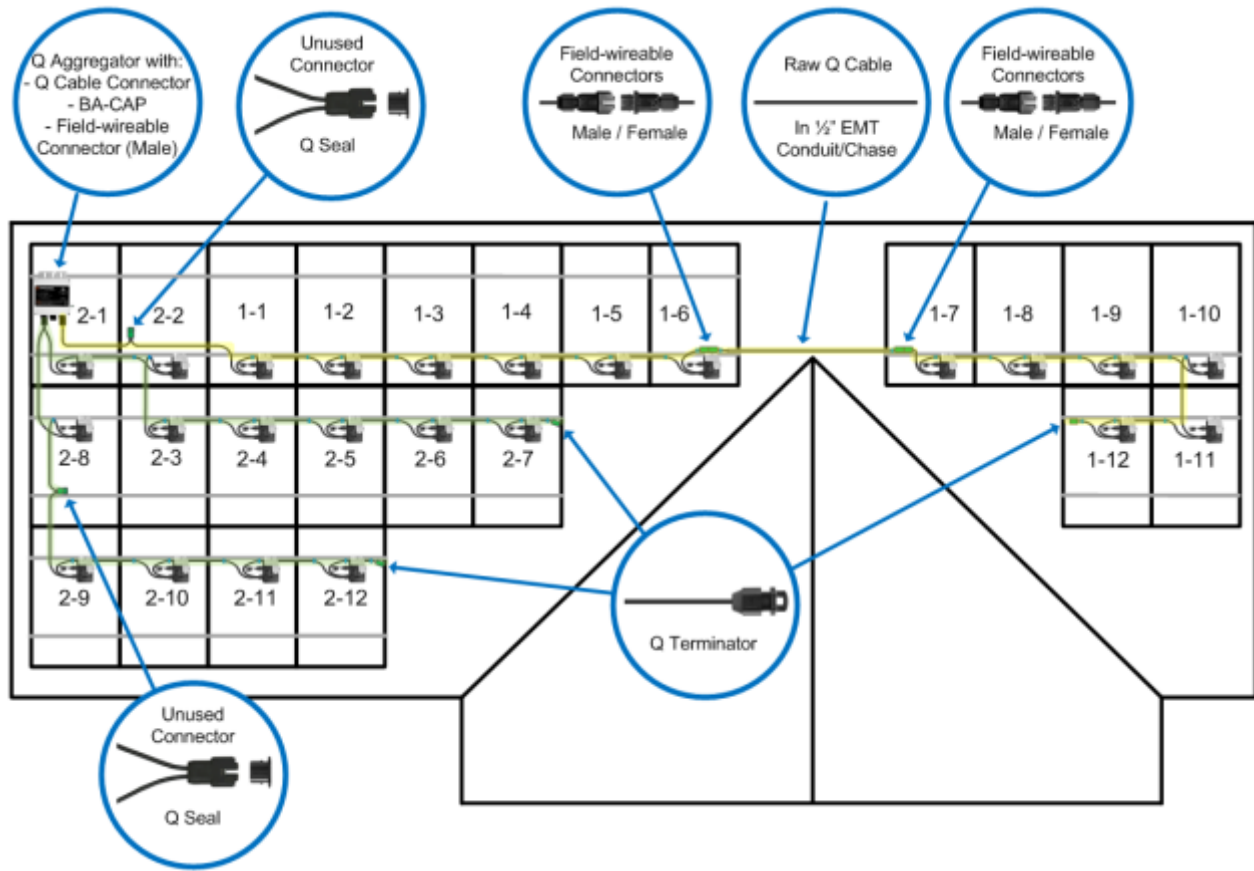
IQ System Design with Q Aggregator

The IQ Microinverter system introduces a new rooftop mounted, single-phase Q Aggregator (Q-BA-3-1P-60), which enables plug and play termination and combining up to three microinverter AC branch circuits at a single location. The Q Aggregator offers additional design options and can help to lower balance of system installation costs for many projects.

Q AGGREGATOR SPECIFICATIONS	
Model number	Q-BA-3-1P-60
Dimensions	190 mm (W) x 227 mm (D) x 80 mm (H) [7.5 in (W) x 9 in (D) x 3.2 in (H)]
Enclosure rating	NEMA3 (up to 45° from horizontal)
Temperature range	-40° C to +55° C (-40° F to +122° F)
Compliance	UL1703, EN62109, UL6703A



Scenario 3: 24 Module, Two Strings of 12, Terminated at Q Aggregator



Bill of Materials for Scenario: 24 Modules, Two Strings of 12 Terminated at Q Aggregator

QTY	Part Number	Description
24	IQ6PLUS-72-2-US	Enphase IQ 6+ Microinverter, compatible with 60- and 72-cell PV modules, 290VA peak power, MC4 DC connectors, female AC connector
27 of 240	Q-12-10-240	Q Cable for 60/72 cell 1.0m portrait module pitch. Connector pitch is 1.3m. 240 Male connectors plus two bonus link connectors
x ft of 938	Q-12-RAW-300	Q Cable, 12 AWG, no connectors, 300m (984ft) length
2 of 10	Q-SEAL-10	Female sealing cap for unused Q Cable connectors. Pack of 10
3 of 10	Q-TERM-10	Q Terminator for Q Cable ends. Center feed requires two per branch. Pack of 10
2 of 10	Q-CONN-10F	Female Field Wireable Q Connector for Q Cable. Pack of 10 connector bodies with 25 Female MC4 tool crimpable terminals
2 of 10	Q-CONN-10M	Male Field Wireable Q Connector for Q Cable. Pack of 10 connector bodies with 25 Male MC4 tool crimpable terminals
47 of 100	Q-CLIP-100	Q Cable rail mount cable management clip. Pack of 100
1 of 10	Q-DISC-10	Disconnect tool for Q Cable connectors, MC and Amphenol DC connectors, and AC module mount. Pack of 10
1	Q-BA-3-1P-60	Single-phase branch aggregator, One to three female inputs, 60A max 2L+PE output. Includes one Q-BA-CAP
1 of 10	Q-BA-CAP-10	Male sealing cap for Q Aggregator and microinverter AC bulkhead. Pack of 10
1	ENV-IQ-AM1-240 M	Enphase IQ Envoy, single phase, metered. Revenue grade accuracy (ANSI C12.20 +/- 0.5%) with calibrated solid-core CT