

Q.HOME SMART

Q.TRON AC / Q.PEAK DUO AC | Q.HOME COMBINER | Q.HOME CORE G3 | Q.HOME HUB G3 | Q.OMMAND



qcells

Our Long Haul Commitment to U.S. Manufacturing



Qcells is committed to U.S. manufacturing, as demonstrated by its \$2.8 billion investment in establishing an integrated solar supply chain across its Dalton and Cartersville facilities in Georgia, USA. From ingot, wafer and cell production to finished solar modules assembly, Qcells is forging new paths in local manufacturing to service important markets nationwide.

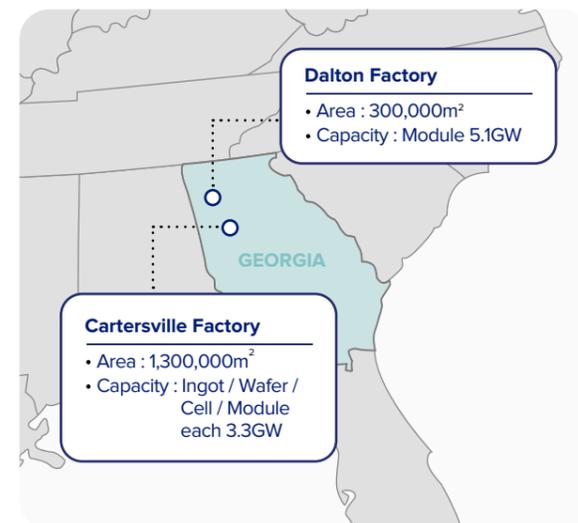


No.1 Market Share and Brand

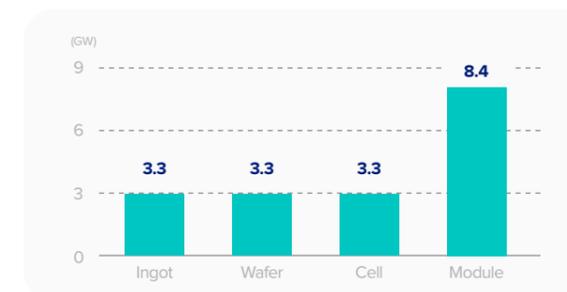


- Market leader in residential (since 2018) and commercial (since 2019) solar module segments. (U.S. Wood Mackenzie US Distributed Solar Leaderboard)
- Ranked No.1 Solar Panel Brand by SolarReviews for two consecutive years.
- EUPD Research Top Brand PV (U.S.) for three consecutive years.

Solar Manufacturing Hub



Complete Solar Supply Chain



- Invested over \$2.8 billion to establish an integrated solar supply chain in the U.S.
- New Georgia facility to manufacture 3.3GW of ingots, wafers, cells and finished modules respectively.
- Total solar module production capacity in the U.S. to reach 8.4GW.

Complete Energy Solutions



- Qcells offers homeowners a growing suite of complete energy solutions, providing peace of mind and sustainable energy security.
- Qcells extends total accessibility to affordable and smart energy solutions.



The Industry's First Complete Residential Solution by One Leading Brand

Q.HOME SMART comprises of Q.TRON AC / Q.PEAK DUO AC, Q.HOME COMBINER, Q.HOME CORE G3, Q.HOME HUB G3 and Q.OMMAND. The residential solution redefines the solar landscape as it represents a complete AC coupled solution provided and warranted by a single manufacturer. It's a step forward in product innovation and sets new sustainability benchmarks for the industry.

THE Q.HOME SMART LOGO EXPLAINED



qcells
Q.HOME SMART

- A circle comprising five sections**
 5 Products Full Package Complete
- Residential home icon**
 Residential
- The curves represent harmony and cohesion**
 Combine Connection

A Powerful System Built to Perform



Q.TRON AC / Q.PEAK DUO AC

- Designed and built by Qcells in the U.S., with an embedded microinverter manufactured in Detroit, Michigan
- Module-level monitoring & control
- Streamlined installation
- 25-year product and performance warranty for both module and embedded microinverter
- Includes domestic content*

Q.HOME COMBINER

- Flexible connection, Wi-Fi/Ethernet/Cellular
- Robust, NRTL certified NEMA type 3R enclosure
- Streamlined, pre-installed revenue grade production meter
- Consolidates 4 AC branch circuits into a single output

Q.HOME CORE G3

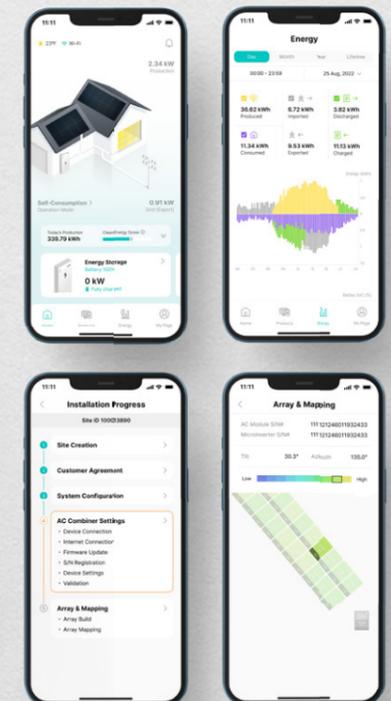
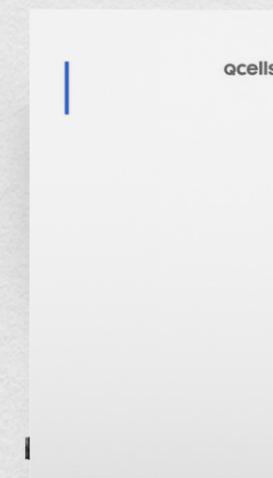
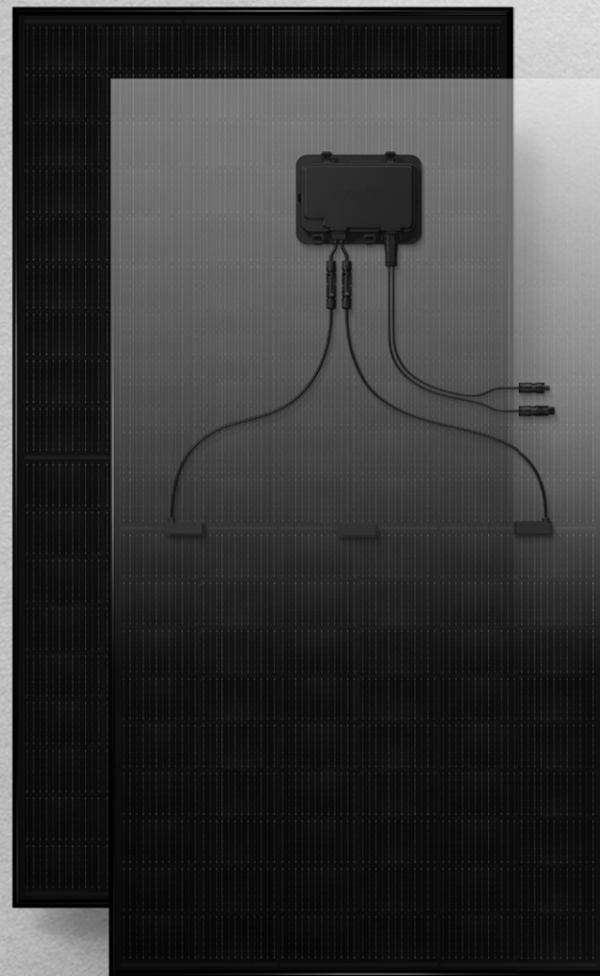
- PCS certified AC-coupled ESS (UL 3141)
- Market-leading warranty provision of 15 years
- Individually rated 7.6kW/13.1kWh, system can be extended up to 2ea as 15.2kW/26.2kWh when connected to the Q.HOME HUB G3
- Wi-Fi/Ethernet/Cellular connection
- Wall/floor mounting
- 68 MWh energy throughput warranty
- Optimized for TPO applications
- DCA variant available that includes domestic content and is assembled in Michigan*

Q.HOME HUB G3

- Whole home backup & partial home backup
- Certified as a service entrance device
- Flexible system design
- Automatic power recovery

Q.OMMAND

- **Q.OMMAND HOME** for homeowners
 - Real time monitoring and smart energy management
- **Q.OMMAND PRO** for installers
 - Fast & accurate installation and commissioning
 - Easy O&M



*Certain variants of Q.HOME CORE G3, Q.TRON AC and Q.PEAK DUO AC contain U.S. manufactured components which can contribute to qualifying for the 10% domestic content bonus for applicable investment and production tax credits. Please consult your Qcells sales representative for specific details for each variant. This statement should not be relied on as tax advice and is subject to change based on changes made to the applicable rules and regulations. Please consult a qualified tax professional for specific guidance.

Qcells AC Modules

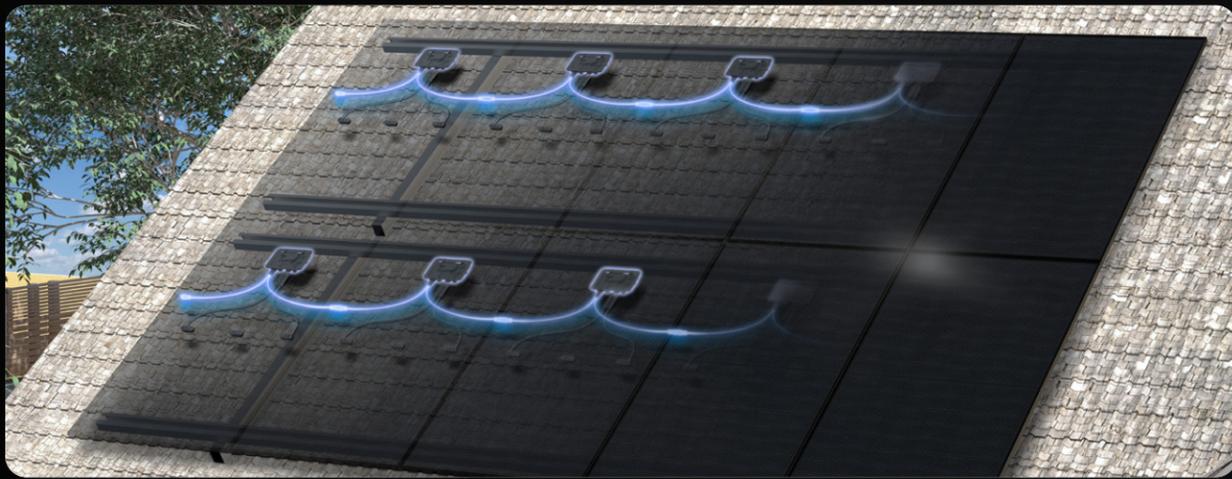
Solar simplified.

Featuring an embedded microinverter manufactured by Qcells in Detroit, Michigan.



Qcells AC Modules: An Installation Game Changer

Q.TRON AC and Q.PEAK DUO AC are installer-friendly modules featuring a fast and easy installation process.



Groundbreaking AC Cable



Optimized

Two types of AC cable offered depending on module orientation (Portrait or Landscape).



Flexible

Installers can choose to install the system in two ways (see next page) with Qcells' AC cable solution.



Streamlined

Individual AC cables connected together enables a fast, easy and economical installation.

Reduced Labor, Better Efficiency

Conventional way

Bulky accessories and multiple product SKUs.

Time consuming, burdensome process



AC Connector

Bulky AC Cable

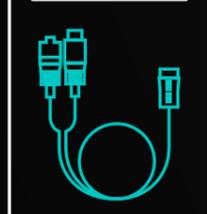
Working Tools

Qcells way

Qcells AC cables replaces AC connectors, bulky AC cables and working tools for added efficiency.



AC Cable



Simple and Flexible Installation

A row of Qcells AC modules can be connected in two different ways.

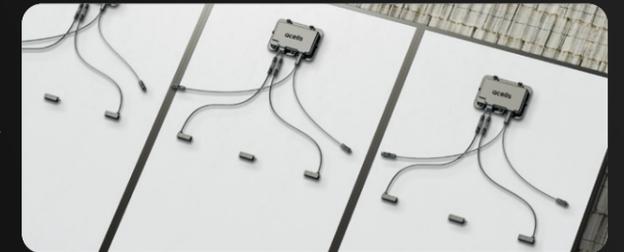
Installation Order Option 1: AC Module → AC Cable

NEW



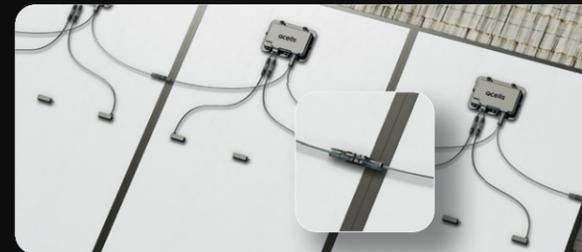
Step 01

Connect AC cable to AC Module.



Step 02

Mount AC Module modules to the rail.



Step 03

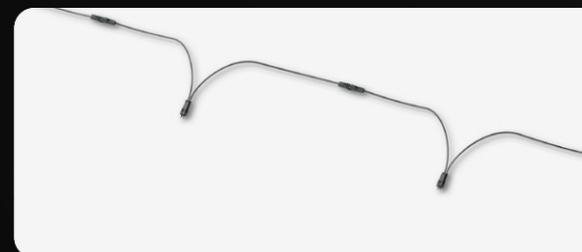
Connect AC cables. Use your preferred method to ensure adequate wire management.



Step 04

Terminate the final AC cable with an end cap.

Installation Order Option 2: AC Cable → AC Module



Step 01

Connect AC cables.



Step 02

Install AC cables on the rail.



Step 03

Connect AC cable to AC Module while mounting to the rail.



Step 04

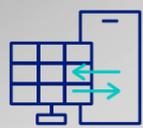
Terminate the final AC cable with an end cap.



Streamlined Installation



Various Operation Modes



Module-Level Monitoring and Control

Solar Configuration

Available Now

AC Module + Q.HOME COMBINER

The ideal solution for homeowners who value maximum efficiency rooftop solar without energy storage.

Streamlined Installation

Microinverter and module manufactured in a single automated line

- Microinverter embedded Q.TRON or Q.PEAK DUO module enables reduced installation time with pre-assembled DC cables.
- Fast installations and flexible PV array arrangements with Qcells AC cables.
- Install AC cables on the racking first or connect them to the modules and wire as you go.
- Each microinverter is linked with its respective module's serial number, ensuring an excellent level of traceability.
- QR codes on embedded microinverters and serial number barcodes on modules allow installers to seamlessly register modules in the Q.OMMAND PRO app pre- or post-installation.

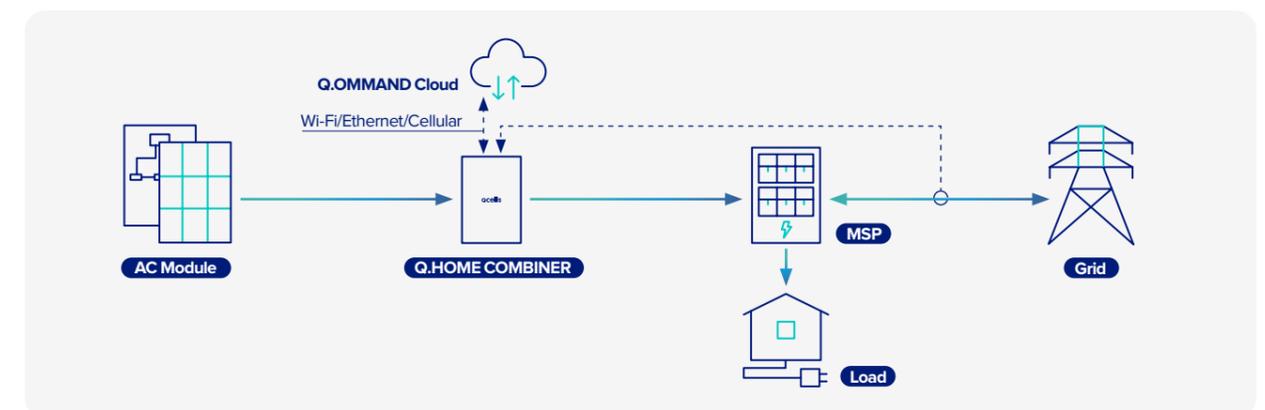
Various Operation Modes & Settings

- **Auto:** prioritizes maximum production.
- **Grid Feed-In-Limit:** sets maximum export limit to the grid
- **Backfeed Power Limit (BFPL):** limits system output to meet Overcurrent Protective Device (OCPD) current limits. Generally used to meet the requirements of NEC 705.12 (the "120% rule").
- **Busbar Overload Control (BBOC):** monitors current from all sources and prevents the MSP busbar from being exposed to excessive current.

Module-Level Monitoring and Control

- Q.TRON AC or Q.PEAK DUO AC operates at its optimal voltage and current thanks to its embedded microinverter's independent control function.
- Enhanced communication performance for continuous control, thanks to PLC communication using mesh topology.
- Qcells AC modules offer greater energy availability in the event of module failure, as compared with a string inverter failure where, as compared with a string inverter system where a module failure could disable a string, or the entire system could go down.

How the System Works






Benefit from Available Incentive Programs


Optimized Energy Efficiency


Backup Ready

Grid Support Configuration

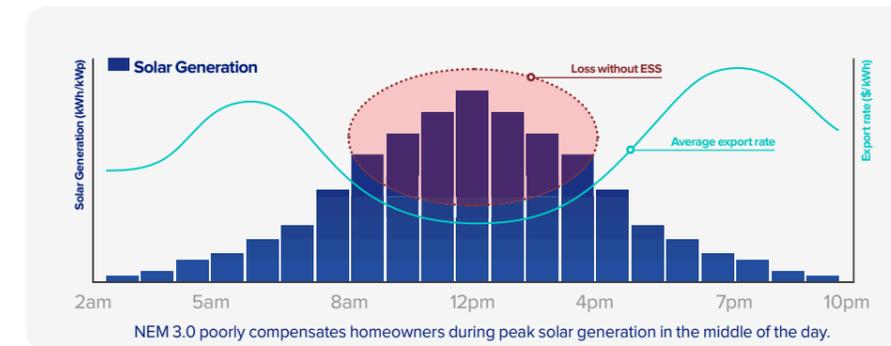
Available Now

AC Module + Q.HOME COMBINER + Q.HOME CORE G3

The optimal solution for homeowners looking to maximize system economics using available grid service incentives without requiring home battery backup.

Benefit from Available Incentive Programs

Grid support configuration is suitable for California NEM 3.0, SGIP, SREC and various demand response programs.



*NEM 3.0

For example, NEM 3.0 in California involves a 75% reduction in export rates as compared with NEM 2.0. This results in a payback period for solar + ESS systems that is roughly equivalent to solar PV only systems.

Various Operation Modes & Settings

- Auto (self-consumption)
- Feed-in-limit
- Backfeed-power-limit (BFPL)
- Busbar Overload Control (BBOC)
- Time-of-Use (TOU) modes

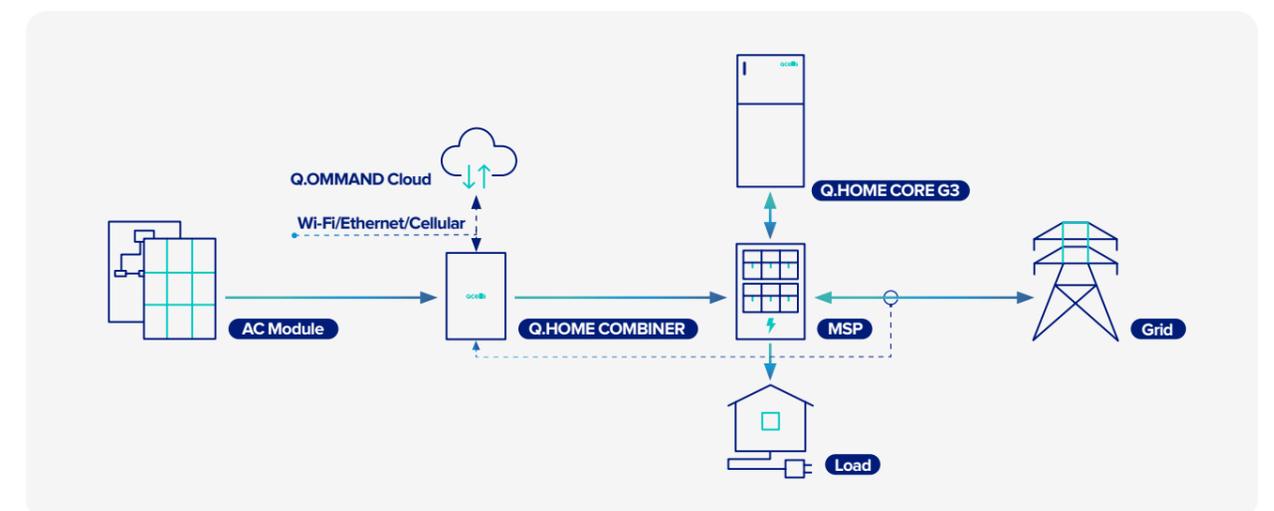
Optimized Energy Efficiency

- Maximize self-consumption rate.
- Manage electricity cost in the most economical way.

Backup Ready

Add a Q.HOME HUB G3 in the future if whenever backup capability is desired.

How the System Works





Cost Savings



Backup Function



Flexible System Design

Backup Configuration

Available Now

AC Module + Q.HOME COMBINER + Q.HOME CORE G3 + Q.HOME HUB G3

The complete solution for when continuous reliable energy supply is required by homeowners. NEM 3.0, SGIP, SREC and various demand response programs are also supported with the backup configuration.

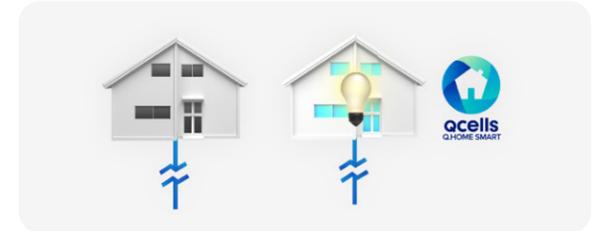
Cost Savings

Q.HOME HUB G3 is certified to UL 869A and UL67, enabling it to be used as a 200A main service panel (MSP).

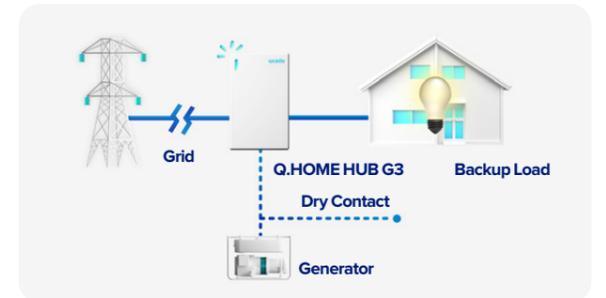


Backup Function

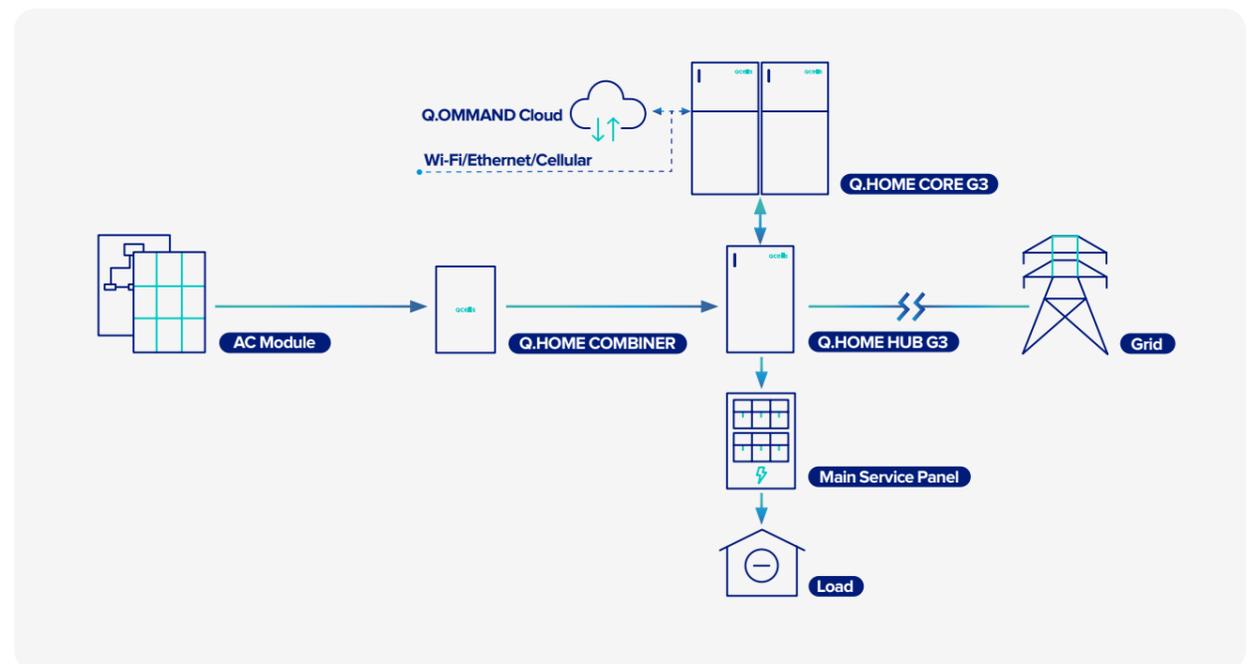
Continuous energy supply in the event of an outage.



Generator integration supported.



How the System Works



Q.OMMAND Q.OMMAND HOME + Q.OMMAND PRO



Q.OMMAND HOME For Homeowners

For monitoring and managing energy generation, consumption and storage anytime, anywhere.



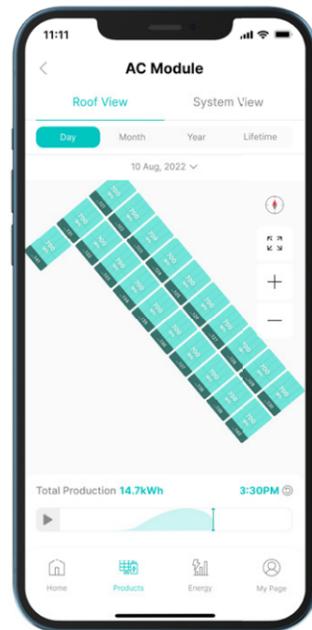
Q.OMMAND PRO For Installers

For fast and accurate commissioning as well as easy O&M services.



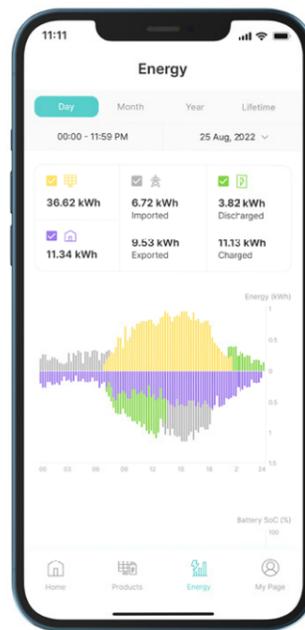
Real-Time Energy Flow

Monitor real-time energy flows, product status and energy production at home or on-the-go.



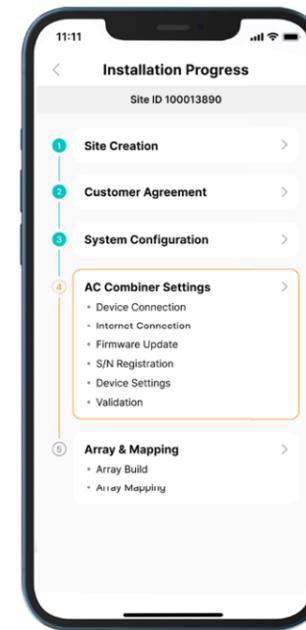
Product Monitoring & Control

Provides easy access to product information, real-time status and setting options for full energy control.



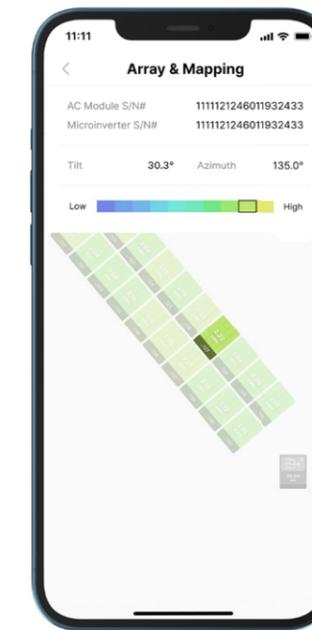
Regular Energy Analytics

Analyze and compare your energy consumption easily over time. The information is available by hour, day and year.



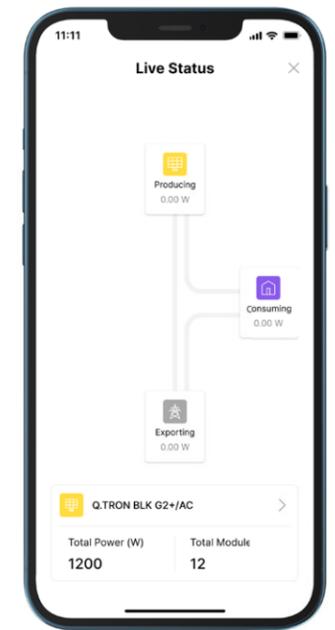
Installation Progress

Installers can confirm each product is performing as intended during commissioning.



Module Level Monitoring

Installers can map out arrays online for accurate AC module monitoring.



Live Status

Immediately indicates energy flow status while commissioning.

Key Functions



Module Level PV Monitoring

Track current and historic PV generation of each installed module in the system.



Energy Backup

Enable the Storm Protect feature for Backup Configuration systems to ensure battery is fully charged during severe weather events.



Auto Recognition

The total PV capacity (kW) and AC Module serial numbers are automatically recognized, enabling quick and accurate system installation and registration.
*Patent pending in progress



One-Stop Customer Service

Our Qcells Customer Support team is equipped to answer questions that arise during system installation, commissioning and post-installation. Call (888) 249-7750 or email na.support@qcells.com to get in touch with us.

We aim for a greener tomorrow with completely clean energy solutions.



EPEAT Registration

Driven to create a more sustainable future, we know that every decision is an opportunity to make our processes more sustainable. This is why we have focused significant efforts on achieving module EPEAT registration, a globally recognized low-carbon standard for solar modules and inverters.



Sustainable Packaging

Qcells incorporates eco-friendly packaging certified by FSC* for our Q.HOME SMART products.

*Forest Stewardship Council



Product Recycling

Qcells is advancing a circular solar economy through EcoRecycle by Qcells, our in-house recycling business. As the first U.S. solar company to both manufacture and recycle solar modules, we're reducing waste and recovering valuable materials.

Qcells