

Get the best value and performance with Enphase



The Enphase advantage

Competitor's system

Proven technology

- 8 generations of microinverters over 16 years
- Approximately 4 million systems deployed

- 3 generations of inverters over 3 years
- Approximately 0.5 million systems deployed

Lowest defect rates

- 0.05% microinverter failure rate; approximately 1 in 2000
- No single point of failure; if one microinverter fails, the system keeps producing energy
- No moving parts

- 4.5-10% failure rates*; from 4 to 10 per 100
- Single point of failure; when the string inverter fails, the system stops producing energy
- Fan cooling adds moving parts which are less reliable

Safest design

- Microinverters use low-voltage AC power
- No high-voltage DC power that is prone to arc fault fires
- Enhanced safety with integrated rapid shutdown capability

- High-voltage 600 V DC PV circuit integrated with the battery
- Increased safety risk for installers, homeowners, and first responders
- Additional hardware equipment required on the roof for rapid shutdown capability

Widest compatibility

- IQ Battery 5P compatible with IQ or M Series Microinverters; can be retrofitted with existing rooftop solar systems
- IQ8 Microinverters work with Enphase and many other batteries
- Supports solar plus storage and generators; IQ Batteries can charge from a generator, and the power drawn from the generator is reduced when solar is available

- Not compatible with previous generations; cannot be retrofitted with existing rooftop solar systems
- Meter collar installation may require a meter upgrade, always requires a utility visit, and may not meet installation codes
- Install quality and lead times are unpredictable
- Supports either solar plus storage or generators; use of a generator is not optimized

More power and production

- 23% more total power with IQ8A Microinverters than an equivalent-sized system with string inverter, or 19% more total AC power with IQ8M Microinverters
- More energy produced in partially shaded settings
- Per-module conversion means less degradation and more energy over time
- More power from independent microinverters under each panel and multiple microinverters in each battery

- Less energy produced in partially shaded settings
- Less power due a single hybrid string inverter common to both PV and battery

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<p>More flexible storage sizing</p> <ul style="list-style-type: none"> • Modular design allows starting with a small yet powerful 5 kWh battery and adding more in the future as energy needs grow • Higher scalability and easier expansion of up to 80 kWh 	<ul style="list-style-type: none"> • Starts at a fixed 13.5 kWh battery size, making it difficult to tailor to individual energy needs • Restricted system sizing allows homeowners to expand only up to 54 kWh
<p>More installation options</p> <ul style="list-style-type: none"> • Interior locations (basements, closets, etc.): Install up to 8 x IQ Battery 5P, i.e. 40 kWh • Garages: Install up to 16 x IQ Battery 5P, i.e. 80 kWh • Exterior walls or ground: Install up to 16 x IQ Battery 5P, i.e. 80 kWh 	<ul style="list-style-type: none"> • Interior locations (basements, closets, etc.): Limited to 2 units, i.e. 27 kWh • Garages: Limited to 4 units, i.e. 54 kWh • Exterior walls or ground: Limited to 4 units, i.e. 54 kWh
<p>Simplified wiring</p> <ul style="list-style-type: none"> • Single rapid shutdown switch for the entire system, which only requires wiring to the IQ System Controller • Up to 8 x IQ Battery 5P can be daisy chained on a common set of AC conductors and to a common breaker 	<ul style="list-style-type: none"> • Rapid shutdown switch needs to be wired to every battery in the system • Cannot daisy chain the batteries, as every battery requires independent AC conductors and breakers
<p>Greater resilience</p> <ul style="list-style-type: none"> • Sunlight Jumpstart enables automatic system recovery, even with a fully depleted battery after a prolonged outage • Multiple built-in redundancies keep system up and running, even if a component goes down 	<ul style="list-style-type: none"> • Single point of failure with string inverter can result in the entire system going down
<p>Longest product warranties</p> <ul style="list-style-type: none"> • 25-year microinverter warranty • 15-year battery warranty • 5-year EV charger warranty 	<ul style="list-style-type: none"> • 10-year string inverter and battery warranty • 4-year EV charger warranty
<p>Fastest support</p> <ul style="list-style-type: none"> • 24/7 phone customer support • Wait times under 2 minutes • In-person field service technicians 	<ul style="list-style-type: none"> • Reported wait times of up to 2 hours or more
<p>Easiest repairs</p> <ul style="list-style-type: none"> • Field-replaceable microinverters and boards • Seed stock for quick RMAs 	<ul style="list-style-type: none"> • Repairs may require replacing entire unit • Reported 1-month wait times for replacement MCI

You can build your business on Enphase

Our sole focus is helping people power their lives with the energy of the sun. Every day, we challenge ourselves to find new ways to support our installers and delight homeowners. From new U.S.-based manufacturing to best-in-class support, there's no wonder why Enphase was the highest-quoted provider for both energy storage and inverters.**