

There are three advantages of equipping your solar with Enphase technology. It ensures: the highest level of reliability, outstanding performance, and the highest return on your investment. All compelling reasons why Enphase is the smartest choice in solar energy.





# Inverters are an essential part of every solar installation.

If you switch to solar energy, you will learn a few things. The energy generated by your solar panels can't be used immediately by the appliances in your home. Your solar panels generate direct current (DC) electricity. Inverters are needed to convert this DC into usable alternating current (AC) electricity at 230V to match what your home is supplied by the grid.

The inverter is the most intelligent part of your system and determines output.

Various types of inverter are available on the market. The two most common are conventional string inverters and innovative microinverters, such as those equipped with the latest Enphase technology.



### Enphase microinverters make the difference

Enphase is setting new standards in reliability, simplicity and safety. The result is an energy system designed to ensure top performance of your solar panels. The major difference between the conventional string inverter, and Enphase microinverters, is that microinverters convert the output of each solar panel **individually** into alternating current for your everyday use, getting the best performance out of each

one. This means that you don't have to install a large and potentially noisy string inverter unit in your home.

### Enphase Envoy = versatile ingenuity

The Enphase Envoy is the brain behind the system. It collects data from your micro-inverters and regularly communicates with Enphase servers in order to guarantee the best possible performance. The Enphase Envoy-S Metered is not only able to provide data about the generation of each individual panel, but also about your household energy consumption.

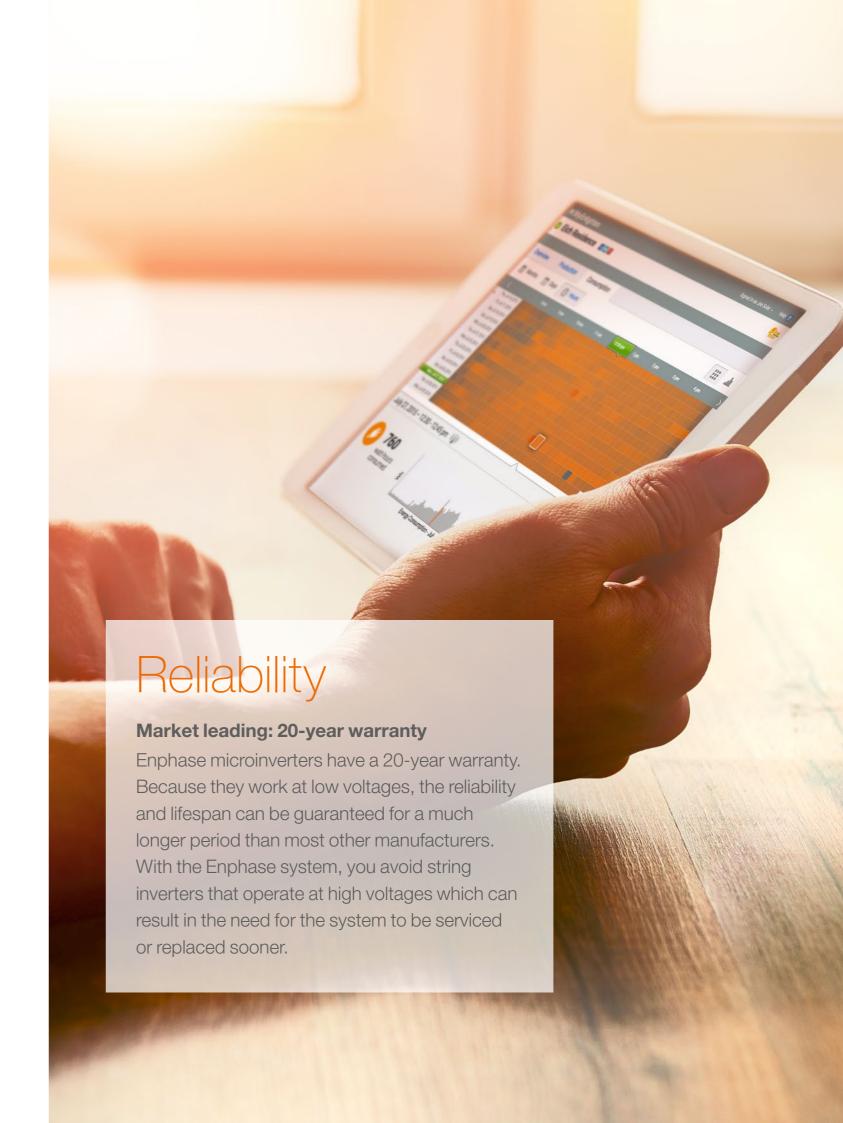
# Our Enlighten monitoring software gives you total

You can constantly track the functioning of the system and the generation data from any web browser on your desktop PC and any mobile device. Enlighten software is efficient and reliable. It helps and supports both the owner and the system installer to track and manage the system.

#### **Future proof**

With production metering and consumption monitoring options, Envoy-S is the platform for total energy management. It has been designed to integrate with the Enphase AC Battery™ which provides the solution to energy storage.





#### **Maximum output**

With Enphase, your system is running at the maximum possible output, giving you more power for your money. Enlighten makes it easier for your installer to remotely identify and resolve issues (such as dirt accumulation, panel degradation or faulty equipment). Another advantage of the Enphase microinverter is that while one panel may have a problem, the other solar panels continue to perform optimally, allowing for a faster return on your investment.

#### **Extremely low failure rate**

If you choose Enphase microinverters, the system will require minimal maintenance in the years ahead. Enphase systems are characterised by an extremely low failure rate. In the event that an individual microinverter is not operating optimally, it will only impact the energy output of that one specific solar panel. This means replacement can be planned and managed at minimal cost while the rest of the system continues to function as normal. Conversely, if a string inverter fails, the entire system will go offline and require urgent, perhaps costly replacement. Within the 20-year warranty period provided by Enphase, should a microinverter fail, a replacement unit will be provided free of charge.

#### **Energy output of string inverters vs. Enphase microinverters**



A string system will only produce as much as its worst performing panel.



String Inventer



Enphase microinverters operate independently, resulting in greater energy output.



**Enphase System** 

#### Year after year

Quality is one of Enphase's key core values. We're passionate about building products our customers can count on, no matter the climate. That's why quality is at the forefront in every step of our design process and production process. Enphase applies the most rigorous quality standards in the industry. The product warranty we offer covers defects in manufacture and materials for a period of 20-years.

### 1,000,000 hours of performance and reliability testing

Enphase invests a minimum of 15% of its turnover into Research and Development, including quality and reliability innovations.

Our products undergo more than 1 million hours of testing. Accelerated processes are used to enable long-term reliability testing to be performed prior to a product being released. Enphase laboratories across the world test the microinverters under the most extreme weather conditions.

Additionally, our microinverters remain cool; they generate less heat than conventional inverters because every module converts just a small amount of power from one individual solar panel.

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## Smart and Safe

Be smarter with your home energy consumption.

The Enphase system allows you to not only track your energy production, but also monitor your home's energy usage. You'll save more on your energy bills.

According to the Energy Saving Trust, in the first year that you use an energy monitor, your energy usage costs can fall by 5% to 15%\*

#### Savings? Take control!

Your energy consumption will become much more transparent with the Enphase MyEnlighten app and this leads to real savings. You can view your electricity usage by month, day, hour, or latest production data, which enables you to spot patterns and immediately see where you might be wasting energy. Keep in

mind, solar energy isn't a free pass to leave all of your lights on. Conserve power to make the most of your energy savings. Smart consumption is the best way to see a quicker payback on your solar energy investment.

#### Safety first

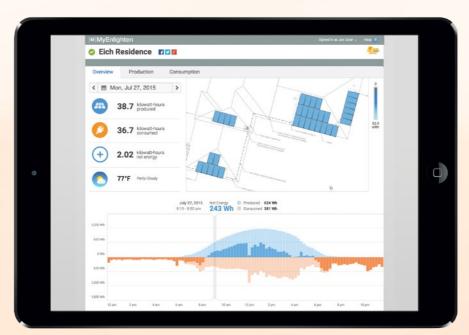
Enphase microinverters are interconnected using 230 Volt cabling, the same as is

supplied to appliances in your home from the power sockets. By comparison, string inverter systems use high voltage direct current (DC) electricity from the solar panels at your home.



Additional risks of using a high voltage string inverter are not present with the Enphase microinverter solution.

The output from the microinverters is connected directly to the electricity grid using your existing wiring. No additional safety adaptations are required in your home.



<sup>\*</sup> http://www.energysavingtrust.org.uk/home-energy-efficiency/energy-saving-quick-wins

# Future proof

Enphase products allow easy adaptation and flexible design of your system, permitting you to utilise a larger area of your roof. The design plan can even be refigured during installation. If you'd like to expand your system in the future by installing even more solar panels, this is also not a problem. For small budgets, installation is within reach, even if it means starting with just one solar panel.

#### **Envoy-S for total energy** management



#### The next step in efficient energy management: storage of the energy your system produces

#### Choose the right solution





Enphase Energy, founded in 2006 in California, believes that clean energy should be available to everyone. Our technological innovations allow us to offer a renewable solar energy solution for every budget. Quality, reliability, ease and safety are our company's core values. With an Enphase energy system, you get the highest return on your investment and you're also prepared for the future.

www.enphase.com/uk









#### Enphase® M250 microinverter

Inverters convert the produced energy (DC) into usable energy (AC). The inverter is the heart of your system and determines your return on investment.

#### Enphase® Envoy-S

The Enphase Envoy is the brain of your system. It collects data, controls and communicates continuously with your microinverters to ensure the best possible performance.

#### **Enphase**® **Enlighten Software**

Thanks to Enlighten you can check the status of your system via the Internet It also offers suggestions to reduce energy consumption.

#### **Enphase® AC Battery™**

Store excess production energy, which you can use when needed.

