



IMEON ENERGY
Your Power, Your Rules

Self Consumption Solar Hybrid Inverters



VPP
ready

Setting The Standard!



(*) An Internet connection must be established for minimum of 95% of operating time.

- SMART GRID INVERTER

- COMPACT "ALL-IN-ONE" SYSTEM

- ON-GRID / OFF-GRID BACK-UP / UPS

- A.I. INSIDE - Embedded Artificial intelligence

- LEAD-ACID / LITHIUM COMPATIBLE

- INTEGRATED WI-FI / WEBSERVER

- PLUG-&-PLAY INSTALLATION

- 30% MORE EFFICIENCY⁽¹⁾

ABOUT IMEON ENERGY



IMEON ENERGY, a French manufacturer of solar inverters has designed the IMEON, an innovative electronic system that makes turning a home autonomous or nearly autonomous possible, by the intelligent use of a photovoltaic installation coupled with a storage solution. The developed solution adapts solar energy production for domestic use, increasing the efficiency of an installation and lowering its cost price. The technology developed by IMEON ENERGY is the result of several years of R&D and is protected by an international patent.

Today, IMEON ENERGY markets its inverters in more than 70 countries through approximately thirty distributors leading in their own markets. The company carries out almost 90% of its activity outside of France and devotes 20% off its turnover to research and development. Thanks to its R&D department, IMEON ENERGY clearly expresses its desire for innovation to offer the market a range of high-performance products. This is reflected in intelligent, connected and adaptable inverters that maximize the return on solar system investment. On the other hand, IMEON ENERGY's desire to develop complementary applications enables users to get the best of the inverter today as well as tomorrow. The company has set up a strategy of proximity with its customers by opening local Services Centers (Europe, South Africa and Asia / Pacific) in order to offer them the best service.

REINVENTING THE SOLAR INDUSTRY

With its new generation of inverters incorporating artificial intelligence (A.I.), IMEON ENERGY creates a complete break with the traditional approach of the solar industry. A new era emerges whose key words are Respect, Compatibility and Innovation. Respect: of users and their lifestyle, environment and earth, as well as the storage system. Compatibility: with the main technologies of photovoltaic solar modules, batteries, connected objects ... Innovation: at the center of our developments, IMEON is a technological breakthrough and offers the best global performance using the power of the Cloud. The unmatched reliability of our solutions allows us to offer a 10 year warranty*, which can be extended to 20 years.

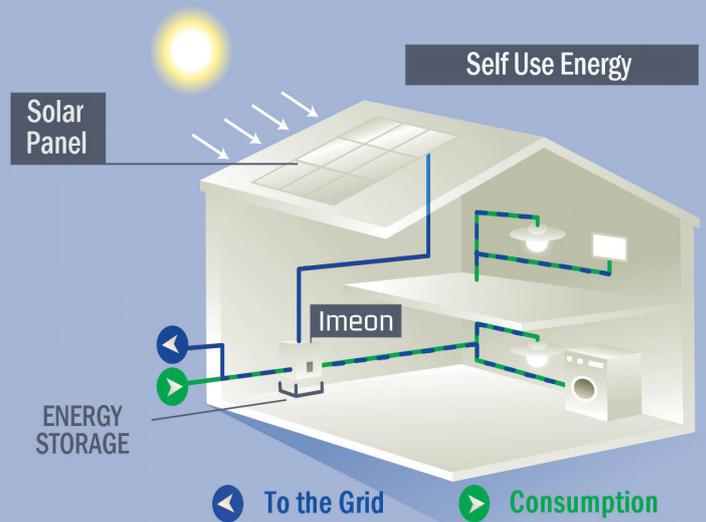
« Setting The Standard! »

▶▶ SELF CONSUMPTION OF SOLAR ENERGY ▶

Smart Grid / Back-up (UPS) / Isolated sites (Off-Grid) / Connected to the grid (Grid-Tie / Hybrid (Grid-Tie and Off-Grid)).

SMART GRID

IMEON is the ideal solution for photovoltaic systems whether in Off-Grid, Back-Up or Grid-Tie. The IMEON Smart Grid Inverters are dedicated to using solar energy for optimal performance. Specific energy readings from different energy sources (PV, Batteries and Grid) are used and the photovoltaic system is optimised according to the required production and consumption needs. The IMEON Smart Grid Inverter prioritises solar energy first and ensures the compliment of power by drawing energy from the batteries and the public grid during consumption peaks.



OPTIMISED STORAGE

The IMEON Smart Grid Inverter intelligently manages the solar system by first directing the generated solar power to the loads. Only the excess power is used to charge the batteries. Battery discharging only takes place during times of high consumption, night-time and during times of limited solar production, resulting in improved overall efficiency of the system and extended battery life. Therefore, the self-consumption of solar energy will be optimised.

ECONOMIC

With IMEON's intelligent energy management and all-in-one features, there is no longer a need for separate components such as charge controllers or added inverters. The overall cost of the photovoltaic system can be reduced by 30%⁽¹⁾ when using an IMEON Smart Grid Inverter. The innovative "Smart Grid Mode" of IMEON allows for a lower required battery capacity and reduced battery cycling, as well as further prolonging the battery life.

ALL IN ONE

The IMEON Smart Grid Inverter was specifically designed for any solar installation, regardless whether the system is an Off-Grid, Back-Up, Grid-Tie, or a hybrid power system. The IMEON is a Plug-and-Play Smart Inverter which simplifies the installation process and reduces the overall setup time of a solar system. Energy independence and autonomy is now possible with the IMEON Smart Grid Inverter with one's own self-generated solar production.

(1) According to the condition of use

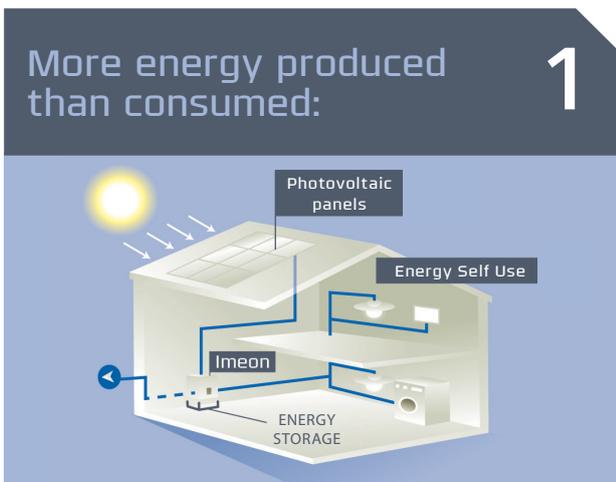
▶ SMART GRID & ENERGY SOURCES MANAGEMENT



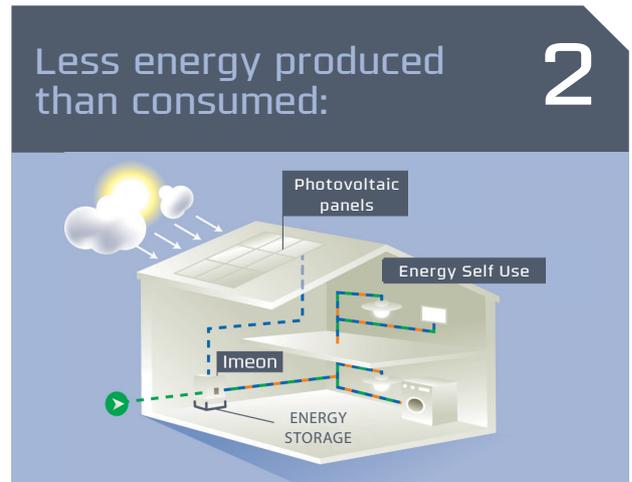
IMEON PRIORITISES RENEWABLE ENERGY
USING THE IMEON SOLUTION IS TAKING A STEP
TOWARDS AUTONOMY



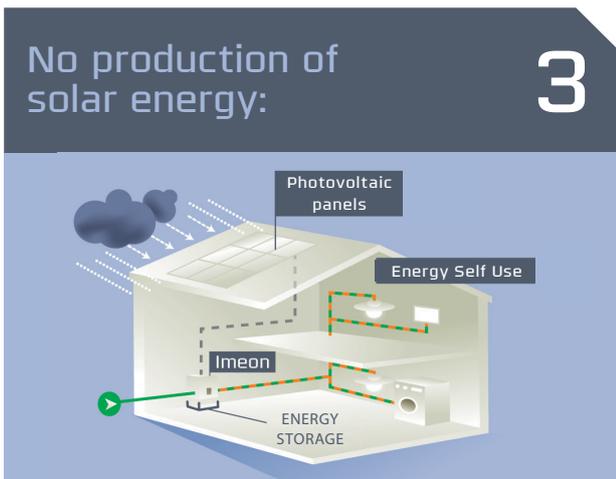
IMEON manages multiple energy sources (PV, Batteries and Grid) and adapts the available power according to the conditions of solar production and overall consumption. Each kWh produced is directly consumed and stored in batteries or sold to the grid.



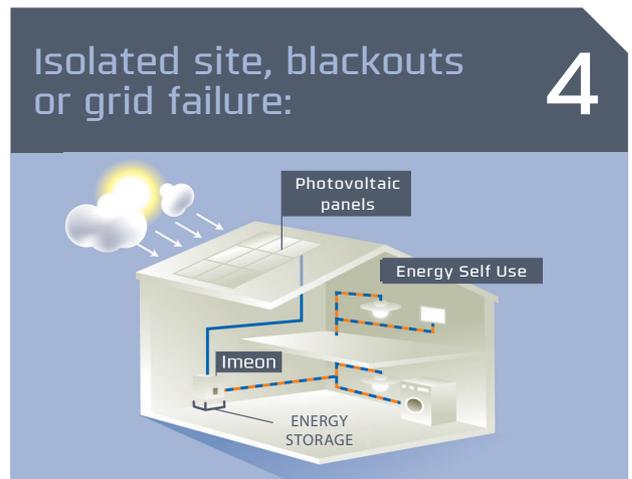
The generated solar power supplies the consumption needs and simultaneously charges the batteries. Any eventual surplus of solar production is then exported to the public grid.



The generated solar power supplies part of the consumption needs. The batteries and the public grid will provide the remaining power for the rest of the consumption needs.



The batteries will feed the consumption needs. When needed, supplementary power will be provided from the public grid to assist in supplying the consumption needs.



The generated solar power supplies the consumption needs first, and surplus power will be used to charge the batteries. The batteries then provide any additional power required.

⬅ Towards the grid

➡ Consumption

Stored Energy

▶▶ INTELLIGENT BATTERY MANAGEMENT

Full battery storage optimization

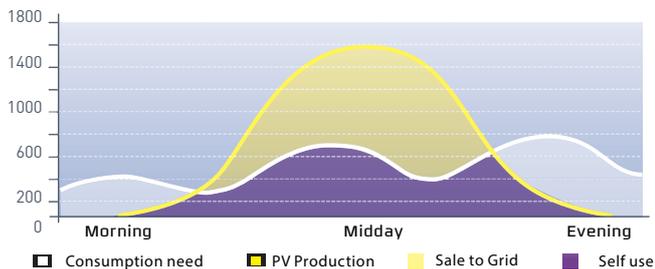
IMEON intelligently manages storage systems by limiting battery use. The system uses surplus energy to charge the batteries, and only discharges them when additional power is needed to compliment solar production. The IMEON Smart Grid Inverter reduces the required storage capacity and extends the battery life span by minimising the number of charging and discharging cycles. Most traditional Off-Grid technologies manage storage using fixed thresholds, while IMEON Smart Grid Inverters continually adjust the thresholds according to the charge (Production) and discharge (Consumption) currents. Moreover, the

IMEON Smart Grid Inverter provides two different levels of discharge depth according to the grid availability: The first threshold level is used to optimise the battery life span. The second level is used to increase the autonomy with batteries in case of grid failure.

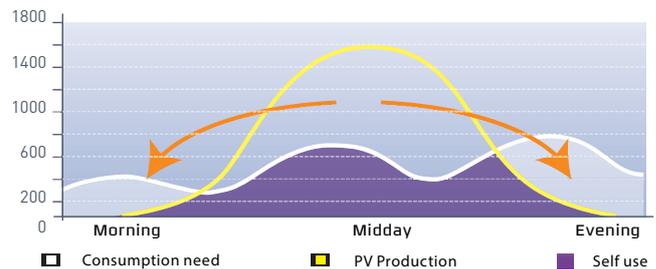


IMEON and lithium batteries

In order to be compatible with the latest technical developments on the market and mainly lithium batteries, IMEON ENERGY has developed strategic partnerships with the world's leading storage solutions manufacturers. These partnerships enable compatibility and communication between the inverter and the battery and thus ensure optimum operation of the overall system with a high level of safety.



Operation without battery bank:
selling excess power to the grid.

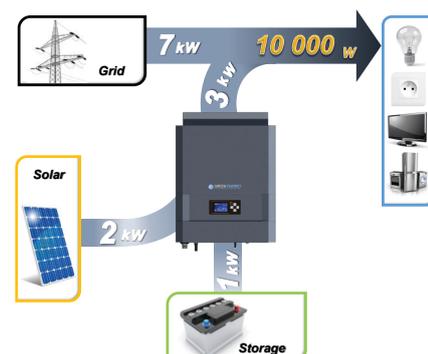


Operation with uncharged battery bank:
excess power is stored for later consumption.

▶▶ INNOVATIVE PHASE COUPLING

Multiple Energy Source Coupling

IMEON is a result of high innovation and technology. Multi sources phase coupling Energy allows multiple sources (PV / Batteries / grid) to be used simultaneously to power a home. Energy coupling is the solution to solar energy problems: intermittence and fluctuation. Thanks to this type of coupling, it is possible to guarantee a constant power supply and an optimum efficiency.



EFFICIENCY AND MAXIMUM AUTONOMY

With the IMEON Smart Grid Inverter there is no longer the need for complicated designs and installations. The IMEON Smart Grid Inverter adjusts itself to optimize the use of all available sources of energy. Thanks to its innovative architecture, IMEON optimizes battery life and increases the efficiency of systems with storage by up to 30%, which directly reduces the price of the generated kWh. Choosing IMEON means choosing a kWh that competes with one supplied by conventional means, to reduce your electricity bill up to 100%! Choosing IMEON allows you to become energy self-sufficient and makes power cuts a distant memory.

SETTING THE STANDARD

Our hybrid inverters are an essence of technology and innovation that simultaneously manage several energy sources and compensate the fluctuation and intermittence of the solar energy. The implementation of an Artificial Intelligence enables it to understand its environment in order to adapt its energy management strategy while respecting the objectives of the user: autonomy, lowering the energy bill, security of power supply...

More intelligent

Thanks to its Artificial Intelligence implanted in the heart of a 32 bit Texas Instruments ARM Cortex processor with 8GB of storage, IMEON has unmatched capabilities!

More connected

The integrated Wi-Fi communication allows local (webserver) or remote control of the IMEON through overhauled monitoring interface. Set up your installation from your sofa or from any place on the globe.

More autonomous

A flexible architecture to allow a wide range of storage capacities ranging from 2kWh to 15kWh for IMEON 3.6 and up to 100kWh for IMON 9.12.



More flexible

Self-consumption, back-up, isolated site, Virtual Power Plant...IMEON is the solution ready to function in all scenarios.

More adaptable

IMEON has the ability to integrate new technical developments and regulatory changes thanks to its new architecture and specialized applications (new batteries, smart home, electrical mobility...).

More secure

IMEON sends emails about system vagaries. It instantly secures the power supply for essential devices (lighting, Wi-Fi, freezer...).

▶▶ IMEON MANAGER & MONITORING

Supervise your installation from any place on the globe!

« IMEON: the intelligence in communicating. »



With an intuitive interface developed in HTML5, the IMEON MANAGER application can be accessed on any device and allows to follow your installation in real time! The application has different tabs allowing you to visualize the information concerning the energy produced by the photovoltaic system, energy stored in the battery and characterizing the public electricity distribution network. A historical data is easily available and configurable.

A local connection is possible thanks to the webserver integrated to the IMEON. It will delight installers who can easily set up the inverter from a tablet or a smartphone, using dedicated tabs on the IMEON manager application through the Wi-Fi network created by IMEON!

▶▶ EMBEDDED ARTIFICIAL INTELLIGENCE : A.I. INSIDE

IMEON smart grid inverters for self-consumption are the heart of your solar installation. With a real conscience, IMEON adapts to its environment. Thanks to its Texas Instrument ARM Cortex processor, it is designed to progress and adapt to future technological and regulatory developments (connected objects, smart home, electric mobility...). Its internal storage capacity of 8GB allows it to integrate updates. At the same time, IMEON ENERGY is constantly developing applications to help you get the most of your energy manager capabilities. It integrates a module manager with many available applications both designed for individuals and professionals. With IMEON, you will be astonished and impressed by the possibilities of your inverter.



IMEON learns behaviors and adapts its operations through a deep learning process to make the best choices in order to increase your autonomy. IMEON is the only inverter that anticipates the future. Its unmatched capabilities, unique in the market, allow it to continuously evolve and integrate new functionalities, increasing its profitability. Choosing IMEON today is a way to anticipate the future.



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