# "eSolar-Hybrid"" Solutions

Multi-Purpose, Turnkey On-Grid Solar and On-Grid Solar/Diesel PV Solutions with Storage Connectivity

eSolar-Hybrid is a family of pre-engineered PV power generation solutions allowing rapid deployment of on-grid solar arrays and power plants. eSolar-Hybrid includes the added capability of connecting PV arrays to storage solutions, making the most of available solar energy.

All eSolar-Hybrid components are optimally selected and tested to work together and provide the highest performance and reliability.

eSolar-Hybrid is a plug and play solution with all components provided, allowing for quick assembly. eSolar-Hybrid Solutions are designed to optionally connect to diesel generators or step-up transformers when needed.

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"With eSolar-Hybrid, I can finally take full advantage of my solar array, storing energy I generate during the day to power my home at night."



### Why eSolar-Hybrid<sup>™</sup>?

#### Global gap in energy supply

With rapid demographic and economic growth, demand for electricity is ever-increasing, and with it the gap between energy supply and demand. Electricity production from fossil fuels is the largest source of greenhouse gas emissions and will continue to grow as more people are connected to the grid.

With the time and resources required to upgrade grid capacity, it is becoming harder for utilities to stabilize the availability of energy on the grid. In some countries, the supply-demand gap, and oftentimes utility mismanagement have led to a situation where utilities must ration available power through regular blackouts. At the same time, solar technology has reached very affordable costs, and has become the cheapest source of energy in many countries

#### Worldwide challenges

With utilities resorting to financial measures such as Time of Use billing (TOU), Capacity Billing, and Low Power Factor Surcharges (LPFS) to influence consumption, energy bills continue to grow higher.

Additionally, blackouts and brownouts create a burden and added expenses. Most of the time, people resort to diesel generators that are inconvenient on several levels:

- They are costly to buy, refuel and maintain
- They create air and noise pollution and are harmful in residential environments
- They require space, regular maintenance and repetitive refuelling

#### A hassle free, cost-effective solution

eSolar-Hybrid is a simple and cost-effective approach that allows rapid deployment of solar PV generation to reduce your bills while lowering the burden on the planet. eSolar guarantees substantial savings over fuel based alternatives while improving power quality, removing noise and environmental pollution, and limiting human intervention.

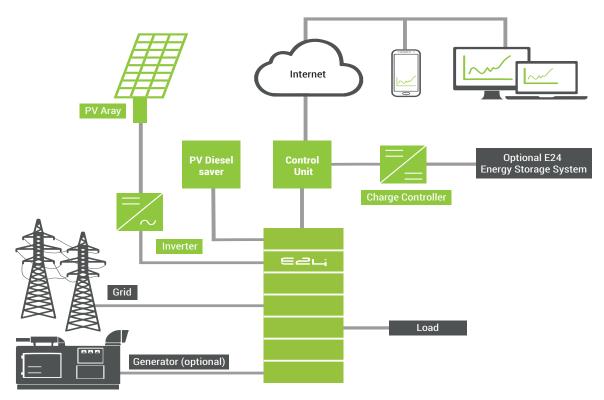
eSolar-Hybrid has a major advantage over standard on-grid solar PV Systems (eSolar). It includes the equipment and capability to connect to an E24 Energy Storage System (purchased separately) allowing you to store solar energy for use at a later time, making the most of your investment. Benefits include energy shifting to avoid the hefty peak time utility tariffs, peak shaving and demand charge cancellation for commercial and industrial customers.

eSolar Hybrid is an ideal solution for areas of frequent power interruptions where excess solar energy is stored in the Energy Storage System (ESS) to be reused during power outages, or fed back to the grid when the ESS is full.





### eSolar-Hybrid<sup>™</sup>: A Better Concept



eSolar-Hybrid is a turnkey solar energy generation solution that can be installed on flat roofs, tiled roofs, pergolas or plain fields. Its demonstrated benefits make it stand out:

#### **One Solution - One Vendor**

Buying from different vendors can be problematic, with no assurance that components are perfectly compatible or tuned to supply the best performance. eSolar-Hybrid components are pre-engineered and pretested by E24 to make sure they are 100% compatible and optimally designed to supply the highest performance

#### **Easy Installation**

eSolar-Hybrid includes step by step instructions on how to assemble the PV solution. Any solar technician can install it by simply following the step by step instructions.

#### **Preventative Remote Monitoring**

eSolar-Hybrid is cloud connected to our call center, allowing our server to continuously monitor the performance. This means E24 is able to immediately detect anomalies and take the necessary action to make you never lose performance on your investment.

#### **Compatible with Energy Storage Solutions**

eSolar-Hybrid's major advantage is that it can be connected to an energy storage solution, allowing all solar energy generated to be utilised and stored to use at a later time. This is ideal for use in situations of recurrent blackouts, peak billing periods or peak demand periods.



### **Designed for Your Needs**

#### **Substantial Cost Savings**

eSolar-Hybrid saves on energy bills, with a lower cost of operation compared to diesel generators. A substantial part of the cost of a solar PV system is in its engineering and logistics. With eSolar, these costs are immedially eliminated as it is pre-engineered and shipped directly to site.

#### **Eco-friendly image and values**

Choosing solar energy demonstrates a commitment to lowering carbon emissions. eSolar-Hybrid improves your image, sending a message of environmental responsibility.

#### Unattended operation and low maintenance

eSolar-Hybrid is a standalone system that requires very low maintenance. Its remote monitoring tools allow our technicians to ensure smooth operation and get notified in case of any issues.

#### **Calm and Clean**

eSolar-Hybrid allows you to avoid the use of noisy, polluting diesel generators that release harmful gases.

#### **Adaptable & Compatible**

eSolar-Hybrid is compatible with auxiliary power sources and includes smart technology to automatically start and control the load on available generators.

#### **Modular and Upgradable**

eSolar-Hybrid modularilty means that is possible to add more PV panels and inverters, dynamically growing with your evolving energy needs.

#### **Plug and Play**

E24 technology is supplied in prepackaged kits that include all components. This allows quick, systematic assembly with no external components an no surprises

#### **Best Warranty**

E24 offers a comprehensive warranty on all solution components: 25 years on PV Panels, 15 Years on inverters and 5 years on all remaining parts.



### eSolar-Hybrid<sup>™</sup> Pays for Itself

eSolar-Hybrid substantially reduces your energy bills and pays for itself:

- eSolar-Hybrid overcomes the need for expensive diesel generators and generator subsrciptions.
- When used privately, eSolar-Hybrid returns excess energy to the grid, saving on utility bills through net metering.
- If coupled with a diesel generator, eSolar-Hybrid's smart technology controls the generator's load, utilizing as much solar energy as possible, while avoiding reverse energy damaging your generator.

E24 has a range of funding partners in selected countries and can assist in financing your solar investment.

Additionally, E24 provides the energy analysis and supporting documents for you to obtain funding at the lowest costs.

### eSolar-Hybrid™ Applications

eSolar-Hybrid solutions are adapted to a wide range of applications, including flat and tilted rooftops and large fields. With eSolar, it is possible to power your home, business, factory or the utility grid, allowing for the capability of storing the energy produced.

### **Remote Cloud Monitoring**

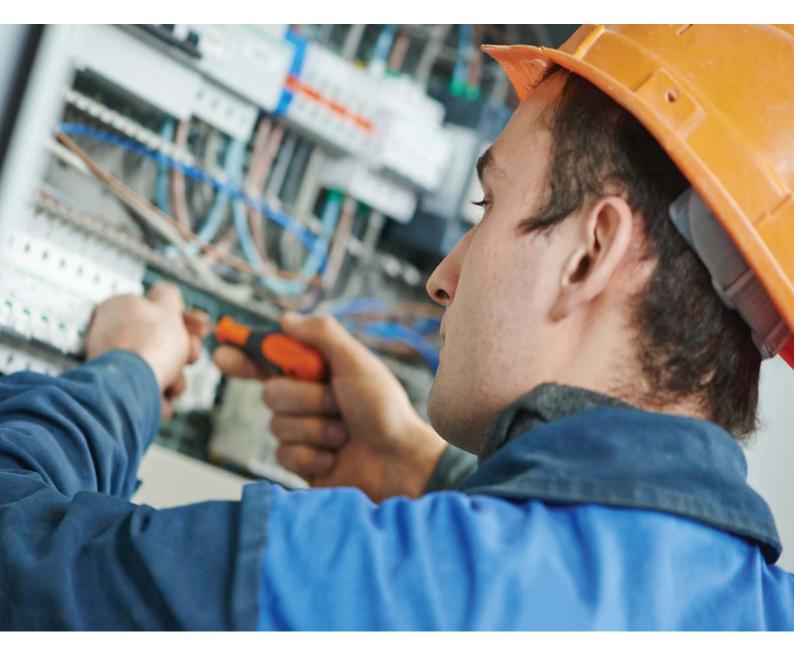
eSolar-Hybrid includes a state of the art web management tool allowing you to visualize and closely monitor the sound operation of your energy solution, monitoring energy production and load consumption.

The control system logs data from solar panels, utilities, loads and optional generators. All data is recorded, and history can be downloaded for analysis, keeping you in control of your energy generation and spending.

eSolar is connected to the E24 cloud based monitoring system, allowing the technical support team to remotely manage your system and take immediate preventive action in case of anomalies, keeping your investment safe.

621

### **E24 Quality Pledge**



E24 is the result of 30 years' experience in the field of energy generation, conversion and storage technology. E24 designs and manufactures the most durable, efficient and reliable energy solutions on the market tailored for the most demanding applications and locations around the world.

E24 designs, engineers, manufactures, assembles, tests and delivers its solutions in modular components that are easy and cost-effective to assemble on site.

E24 commissions its solutions through a network of affiliates or business partners under strict quality standards and procedures to ensure the highest optimal performance and customers' satisfaction. E24 continuously invests in R&D and develops its own proprietary technology. Each part of the energy solution supplied is optimized to bring the highest customer value.

All solutions are designed for quick and hassle-free capital recovery and high return on investment.

### **E24 Comprehensive Services**

Our turnkey approach is what sets us apart. In addition to our complete solutions, we offer a variety of services, allowing you to make the most of your investment:

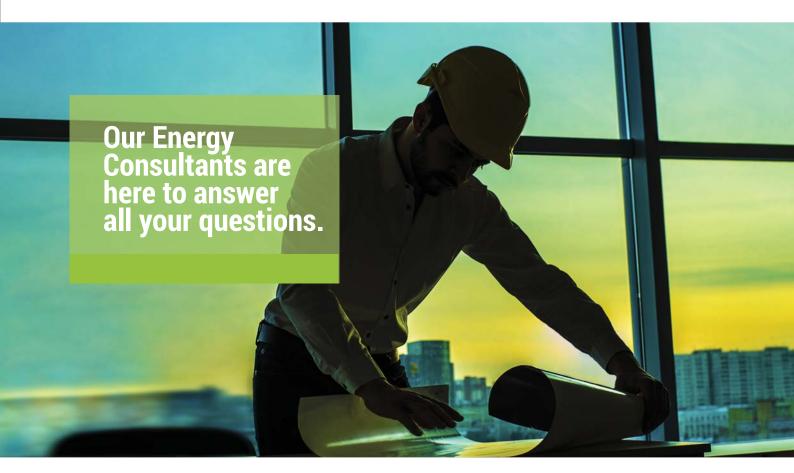
- Site Assessment Visits
- Energy Saving Analyses
- Feasibility Studies
- Structural Designs
- Multi-Level Training Programs
- Commissioning Services
- Financing Services

With support centers, regional offices, and knowledgeable personnel, E24 brings an uncompromising commitment to customer satisfaction. Our after sales services include:

- Warranty Extension Programs
- Comprehensive Maintenance Programs
- Field Service
- Overhaul & Refurbishments
- E24 certified parts

E24 works closely with its clients to look at all aspects of their energy-related costs and performance, identifying opportunities for improvement and potential to lower overall costs.

E24 also offers a number of financing services allowing customers to pay for their equipment gradually and partially finance their investments from the savings they generate. Our services are provided by engineers operating from E24 regional offices, allowing customers to benefit from accurate data based on relevant local field experience.





#### **Energy Storage Solutions**



eHome



eVilla eBu



eBuilding

eBusiness



eGrid

eVillage







eHybrid



eTelecom



eAgri

eGrid

## **Comprehensive Energy Solutions**

E24's broad portfolio of successfully completed projects ranges across a variety of sectors including Residential, Commercial, Industrial, Telecom and Governmental. We have built our reputation on our client focus and versatility to solve their problems. Our tailored solutions that place the lifestyle and needs of customers at their core. E24 leverages technology as a problem solver and enabler.

It is in this spirit that E24 develops targeted, personalized, seamless energy solutions for homes, villas, businesses, buildings, factories, villages, telecom and utility operators. E24 is constantly working towards enhancing the economics and lifestyle of its customers while saving on the planet.

### **Ordering Information**

#### Ref. Number Description

S110-1F1-02K2I eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 2.2 KWp, 220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 2.2 KWp, 220V, 50/60Hz for Tilted roof S110-1T1-02K2I S110-1F1-04K5I eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 4.5 KWp, 220V, 50/60Hz for Flat roof S110-1T1-04K5I eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 4.5 KWp, 220V, 50/60Hz for Tilted roof S110-1F1-06K7I eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 6.7 KWp, 220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Single Phase, 240Vdc, 6.7 KWp, 220V, 50/60Hz for Tilted roof S110-1T1-06K7I S110-3F1-02K2I eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 2.24 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 2.24 KWp, 380/220V, 50/60Hz for Tilted roof S110-3T1-02K2I S110-3F1-04K5I eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 4.5 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 4.5 KWp, 380/220V, 50/60Hz for Tilted roof S110-3T1-04K5I S110-3F1-06K7I eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 6.7 KWp, 380/220V, 50/60Hz for Flat roof S110-3T1-06K7I eSolar Hybrid Solar Solution, Three Phase, 240Vdc, 6.7 KWp, 380/220V, 50/60Hz for Tilted roof S110-3F2-02K2I eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 2.24 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 2.24 KWp, 380/220V, 50/60Hz for Tilted roof S110-3T2-02K2I S110-3F2-04K5I eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 4.5 KWp, 380/220V, 50/60Hz for Flat roof S110-3T2-04K5I eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 4.5 KWp, 380/220V, 50/60Hz for Tilted roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 6.7 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-06K7I S110-3T2-06K7I eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 6.7 KWp, 380/220V, 50/60Hz for Tilted roof S110-3F2-009KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 9 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 9 KWp, 380/220V, 50/60Hz for Tilted roof S110-3T2-009KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 11.2 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-011KI S110-3T2-011KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 11.2 KWp, 380/220V, 50/60Hz for Tilted roof S110-3F2-013KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 13.4 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 13.4 KWp, 380/220V, 50/60Hz for Tilted roof S110-3T2-013KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 15.7 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-016KI S110-3T2-016KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 15.7 KWp, 380/220V, 50/60Hz for Tilted roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 20.2 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-020KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 20.2 KWp, 380/220V, 50/60Hz for Tile roof S110-3T2-020KI S110-3F2-023KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 23 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 27 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-027KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 35 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-035KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 46 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-046KI S110-3F2-058KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 58 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-069KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 69 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-081KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 81 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-098KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 98 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 120 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-121KI S110-3F2-150KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 150/60 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 200 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-200KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 240 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-240KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 300 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-300KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 50/600 KWp, 380/220V, 50/60Hz for Flat roof S110-3F2-500KI S110-3F2-630KI eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 630 KWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 1 MWp, 380/220V, 50/60Hz for Flat roof S110-3F2-001MI S110-3F2-1M25I eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 1.25 MWp, 380/220V, 50/60Hz for Flat roof eSolar Hybrid Solar Solution, Three Phase, 480Vdc, 1.89 MWp, 380/220V, 50/60Hz for Flat roof S110-3F2-1M89I





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#### AUTHORIZED RESELLER



#### Get more info on www.e24solutions.com

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