

Truly Global, Fully Reliable



KUN.Z

HANDELS - & PRODUKTIONS GMBH

SOLAR POWER SYSTEMS

Off-grid Solar Power

Solar power is one of the most promising sources of energy for the 21st century. As fuel prices climb, the efficiency and affordability of off-grid systems continue to increase, making solar power not only competitive but also a smart alternative.

The sun is a clean, safe and limitless energy source and this makes Kunz Solar Generators not only an environmentally friendly way of producing power but also a valuable and wise long-term investment.

Solar power is an excellent investment for your business and we, as Kunz Power Systems, are ready to power your business.

Kunz Power Systems strives to provide the best power solutions to suit our customers' power needs. We are using high quality Solar Panels, Batteries and accessories on all of our Kunz Solar Generators. Our Solar Powered mobile generators use clean solar energy to produce pure sine wave power. Moreover, mobile solar is clean and quiet, combining durable mobility and ease of use in a financially and environmentally friendly package.

There are many benefits to installing solar power on your business;

FINANCIAL

Even though the original cost for a solar generator is higher than some petroleum generators, it will save you money in the long run. Rising energy costs and government incentives like feed-in tariffs, your organization will be able to significantly lower its electricity bills with the energy generated from solar power.

ENVIRONMENTAL

The environmental benefits of solar power are well known. By installing solar on your premises, you can significantly reduce the amount of greenhouse emissions your business produces. Our solar systems are replenished with clean fuel each day as the sun crosses the sky – fuel that has no environmental impact. You never need to cringe at the noise, smell and emissions of a mobile solar generator – there are none.

SOCIAL

Improve your brand image, marketability and become known as a green business with solar power. Improve societal perception of your business and see the value of your business grow. Help your business in staff acquisition and retention by demonstrating your environmental commitment. In addition to this, many companies now require suppliers to have 'green' credentials and solar power is the perfect display of environmental stewardship for your company.





Mobile Solar Generator

HYBRID SOLAR SYSTEM

Much like new generation Hybrid automobiles Kunz's Mobile Solar Generator include an onboard diesel generator that is automatically activated only when needed.

In solar-only mode, Kunz systems can provide continuous clean power from the sun. With our Hybrid option, you can power on, using one of the most technologically advanced clean generators in the world. Kunz's Mobile Solar solution provides the cleanest overall solution to long-term off-grid power needs, while using the least amount of diesel fuel and environment friendly.

KUNZ has designed and assembled Mobile Solar Power System which draws 9,234 W solar powers first and followed by 43, 68 kWh lead-acid batteries and finally relying on 53 kW back-up diesel generators power as the final fallback for the power.

KUNZ's unique SOLAR HYBRID MOBILE GENERATOR design consists of following components;

- 9, 234 W solar system
- 43, 68 kW lead acid long lasting batteries
- 53 kW synchronized diesel generator set

UNIQUE DESIGN

DURABLE MOBILITY
German made trailer-based mobile solar generator can be transported by truck, car and etc.

EASY TO USE
Rock solid aggregate is easy to set up and start up at any job site. One person can produce pure sine wave easily

COMPACT DESIGN
All components are stored in the canopy and synchronized with each other

CONTINUOUS POWER
Solar power combining with 24 unit 48 Volt batteries and two units diesel generators provide continuous power

Mobile Solar Generator

WHEREVER, WHENEVER AND HOWEVER IT IS NEEDED..

This unique design provides innovative solutions for a variety of applications;

Off-grid buildings

KUNZ Mobile Solar generator has been designed especially for residential areas where the utility grid is unavailable. These off-grid house owners are demanding our mobile solar generator, because it is easy to install and use and it saves their money.



Telecommunication industry

Telecommunication is a well-developed industry which inquires not only continuous but also mobile and remote power stations. At this point, KUNZ's this design exactly suits with our customers which needs power at top of the mountain for their base stations or remote areas without utility power.



Disaster areas

Natural disasters are inevitable and immediate power supply has always been requested. This superior technology provides immediate power supply and it is a perfect match for disaster recovery. Because it is mobile and provides constant power.



Construction sites

Construction areas tend to demand high loads at instant times and our mobile aggregate is capable of providing enough power to sites which need stable Energy.



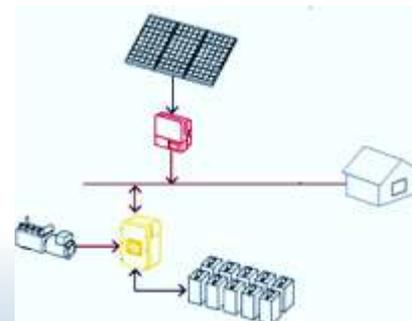
Mobile Solar Generator



BY COMBINING DIFFERENT ENERGY SOURCES, KUNZ STRIVES TO PROVIDE BEST POWER SOLUTIONS TO SUIT CUSTOMERS' POWER NEEDS.

Solar Photovoltaic System

- 28 monocrystalline solar modules each with 333 Wp,
- 96 cells / module
- Total system output: 9324 Wp
- 28 panels in 3 different strings
- Inverters: 3 battery and 1 unit PV inverter
- DC Inputs: DC1a-12 panel, DC1b-12 panel and DC2 4 panel
- Voltage/Current: DC1a-656, 4 V / 6, 09 A
DC1b-656, 4 V / 6, 09 A
DC2-218, 8 V / 6, 09 A
- 910 Ah battery capacity



Diesel Generator

- 2 units Perkins 1103A-33G diesel engine
- 2 units Stamford BC1184G alternator
- Synchronization Control Panel
- Rated power 66 kVA, 1500 rpm
- Deepsea 7320 AMF control module
- 3 pole protection circuit breaker
- Integrated fuel tank



Mobile Solar Generator



Weather and Sound proof canopy

- Dimensions: L6500 x W6700 x H3600 mm
- Total weight: 5100 kg
- Operating temperature: -10C° to 65 C°



PV Modules

KUNZ's PV modules are European origin and they are as unique as like the whole design. 28 panels are supplying over 9 kW.



Batteries

Due to their closed gel technology, the solar batteries enable maintenance-free operation.

The excellent cycle stability provides the greatest reliability for the supply of stand-alone systems or consumers away from the grid. In addition, the closed cycle of potential recyclables within a certified recycling system protects the environment.

- Solar lead gel battery, each 2.00 V
- Rated voltage: 48 V
- Capacity: 910 Ah
- Energy storage capacity: 43,6 kWh

Mobile Solar Generator



Batteries

24 units, each 2 V batteries, are providing 910 Ah and 2000 A with highest longevity and cycle stability. It saves the sun or daytime energy to provide enough power at night time.

Diesel Generator

Two units synchronized 33 kW diesel generators are consist of Perkins engine and Stamford alternator to provide continuous power no matter what.

Battery and PV module Inverters with Remote Control

This unique design is equipped with two different type inverters which are for PV module and battery.

PV inverters are one-way inverters with a broad input voltage range and a maximum DC voltage of 1,000 V, as well as an extremely large MPP voltage range of 150 to 800 V.

Battery off-grid inverters are designed to control the most important charging and discharging processes and it increases the electrical endurance of our lead batteries.

KUNZ Mobile Solar unit provides remote control to configure the system remotely.

Automatic Load Distribution Panel

This panel allows the formation of off-grid and hybrid system. As the main AC distribution for the connection of generators and for supplying loads of up to 300 kW, between two and 12 three-phase clusters, each consisting of three battery inverters and connected in parallel using this panel. To simplify installation, all panels are completely wired and have a main connector for generators, the load distribution and PV systems.

Technically, KUNZ's Automatic Load Distribution Panel is equipped with three Solar(PV) and two units diesel generator inputs while it allows input and output for battery charger, battery inverters and grid for consumers.

- Rated voltage: 230 V (LN), 400 V (L1, L2)
- AC Voltage range: 172,5 V – 265 V, 300 V - 433 V
- AC current: 3x80 Amper

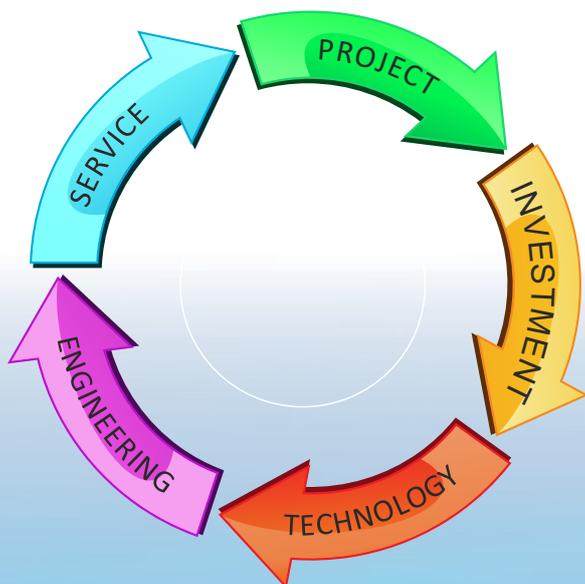


Stand Alone Off-Grid Solutions



DESIGNED FOR COMMERCIAL BUILDING, HOSPITALS, SCHOOLS, REMOTE COMMUNITIES, DEFENCE, MINING, OIL APPLICATIONS AND SO ON...

KUNZ Solar systems are your reliable power supplier anywhere in the world where access to a public grid is not available. Wherever and however it is needed, KUNZ's experienced solar team can deliver comprehensive solutions to you. Our exclusive project value chain allow us to support your projects from very beginning and provide solutions which are reliable and cost effective.



Stand Alone Off-Grid Solutions

PROJECT

With years of experience in projecting and implementing, we have experienced that increasing performance starts in the planning phase. Our power team has gained various skills in order to evaluate, plan and develop projects to realize optimal solutions for your energy requirements.

- Evaluate and plan feasible projects
- Design and development
- Process execution
- Risk management

INVESTMENT

After all, we are very sure that only the best solar system also offers a secure investment and if you invest in the most feasible and efficient system, you can look forward to long-term yields. KUNZ team tracks global developments in solar markets as well as financial markets and regulations. This expertise allow us to make decisions and to ensure providing professional services to our valuable customers.

- Investment analyzes and consultation
- Asset management
- Risk management

TECHNOLOGY

KUNZ's standardized system concept stands for excellent products. We offer top-quality "made in Germany" technology at competitive prices. As a pioneer in system design, we are always ahead of every new development so that KUNZ customers can easily keep up with the solar industry's rapid technological advancements.

- Cutting edge technology
- Top quality German made PV modules
- Efficient Inverters
- Remote monitoring and controlling equipments
- Cables and connectors

ENGINEERING

All the stages of engineering , from projecting to implementing and finishing, were established at the German production site in Mannheim. This is precisely how KUNZ ensures the best quality throughout the entire engineering process.

- Full system design
- Mechanical and Electrical assembly
- Construction management
- Comprehensive test run

SERVICE

Although quality of KUNZ products is certified by external and independent testing institutions, we provide fully integrated power plant service. We make this happen by turning data into powerful analytics so we can resolve events in real time and provide comprehensive service solutions.

- Integrated maintenance
- Remote monitoring
- Comprehensive support
- Repair work



Solar Flood Light Generator

NOT ONLY A TOWER LIGHT BUT ALSO SOLAR GENERATOR...

KUNZ flood light solar generator provides both lighting and at electricity at construction and mining sites, road works, civil engineering, emergency rescue, defense, industrial, government and events applications worldwide and many other places of work.

This SKZL series portable solar tower which light up a large area without making any noise and without having any external power supply. These High-Performance LED lights can be raised to 7 m to cover the large area easily with a bright light. You can easily choose the appropriate combination of solar power and lights for the best performance you require. This product does not require Gas, Petrol or Diesel to run and it is totally noise free.

The highest quality components ;

SKZL327

Lights:

4x55 W, 24 Volt DC SMD-LED flood lights

Luminosity:

100 lumens per watt, 22.000 total lumens

Telescopic Mast:

8 meter and lights operate at any height

Solar:

2 x 327 W mono-crystal PV module

Battery:

2 x 180 Ah Lead Gel Battery

Trailer:

3,14m x 1,65m x 3,7m (L x W x H)

Air Compressor:

24 Volt DC compressor at 1.8 bar: 9 Amps

Charge Controller:

65 A MPPT Charge Controller

Battery Watch:

60 A Battery Watch

Inverter:

230 V Pure sine-wave 1000 Watt Continuous power



Solar Flood Light Generator



Mobility

Because solar energy is located on-site, close to a customer's consumption, solar can limit inefficient waste of heat from central electric power plants as well as the expense and energy losses associated with distribution to the end users. Solar power is a viable choice for almost everyone because it can be implemented easily in urban, suburban and rural environments.

Retail Benchmark

Solar energy in some areas are directly competitive with retail prices at the customer's site and can supplement a customer's electricity purchased from the local utility. Moreover, solar power is well-suited to match peak energy needs as sunlight hours typically correspond to peak demand periods when electricity prices are at their highest. This correlation increases the value of solar solutions in comparison with other types of renewable energy that are not in alignment with peak demand periods.



No Fuel and No Noise

Solar energy has no fuel price volatility like fossil and nuclear fuels. Solar energy systems can be properly sized and configured to be highly reliable and in turn will provide long-term fixed prices for your electric power needs. This product is totally noise free.

Maintenance free

Solar roof and ground mount systems require minimal maintenance as there are limited moving parts.

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