RF - MINI GRID CONTAINERISED SOLAR POWER SOLUTIONS

WE SPECIALISE IN THE DESIGN, MANUFACTURE, SUPPLY, INSTALLATION OF CONTAINERISED SOLUTIONS THROUGHOUT SUB-SAHARAN AFRICA.

RENEWABLE FUTURE™
A RED ENGINEERING BRAND
AUTONOMOUS ENERGY GENERATOR

A stand-alone unit that acts as an uninterrupted power generator from an emission-free solar source, utilizing a 100% renewable resource and allowing continuous self-supply of electric power, independent from the electricity grid. This is, therefore, a green alternative for power generation from isolated systems of the network, to reduce the consumption of fossil oil, granting a continuous supply of energy at reduced operational costs and of easy maintenance.

POTABLE WATER TREATMENT

Potable water can be abstracted from various sources. Generally, these include: surface water such as collection dams and rivers; borehole and well point; natural springs; sea. In general, raw water is stored in buffer tanks prior to treatment. Post treatment, purified water is stored in clean water holding tanks. The clean water tanks are elevated to provide a pressure supply. If elevation is not possible, a booster pump arrangement is supplied with the treatment plant. Treatment processes are determined by the source of the un-treated water. Choice of technology is determined by efficiency and reliability.

“Plug and Play”

Portable solar photovoltaic solution, which integrates in a certified container all the necessary components to generate electricity in an autonomous, portable and easy way to install (Plug & Play). These mobile systems are ideal for remote locations and temporary settlements.

Monitoring

The remote monitoring system allows visualization of the status and behavior of each subsystem, as well as the viewing of instantaneous consumption values. It also allows configuration changes to devices, remote analysis of different alarms and more. A complete minigrid!

Technical specifications

- Solar panel array with high quality modules producing from 5 to 80 kWp;
- Leading high performance solar modules using latest PERC cell technology, offering 10-year product and 20-year performance warranties;
- Light-weight, quick and easy mounting structure utilising mounting points on top of the container, and optimised ground ballasting;
- High-efficiency lithium-ion battery system ideally suited for off-grid application ranging from 10 to 200 kWh;
- All equipment is safely packaged in a rugged and insulated 20ft container for maximised mobility, protection and durability.

WHAT WE OFFER

We offer multiple containerised solutions using solar power with or without battery storage. We also incorporate other technologies including water pumps, water treatment and refrigeration.
MULTIPURPOSE SOLAR CONTAINERS

The multipurpose containers are built with a large compartment to house applications that supply essential services. These containerised, rugged, easy-to-ship units are ideally suited for remote locations, rural clinics, temporary workshops, and disaster relief.

Depending on the application and the power demand, the solar panel array can produce between 17 and 35 kWp per 20ft container. In addition to this, batteries can be fitted to allow power storage.

MODELS

FLEX
Reftractable accordion-style EXOrac engineered by Swiss PWRstation is an industrial-class racking system that offers a transportable, flexible solution for ultra-rapid activation – within minutes. It produces 5kWp using four individual EXOracs and houses inverters and 10kWh of Lithium-ion batteries in a rugged 10ft container. It can be closed and locked in case of security concerns, extreme weather, or fire, and is therefore ideal for remote and rural off-grid applications, whether permanent or temporary.

COMPACT
All solar modules, structures, batteries, and electronics are pre-installed and packed inside a 20ft ISO shipping container for safe and easy transport. Installation manual, ladder, and tools for onsite installation included. PV size options: 17kWp, 24kWp, and 36kWp. Up to 100kWh battery storage can be included.

EXTENDED
All equipment ships in one or more 20 or 40ft shipping containers. Ideal for larger mini-grids or hybrid systems. PV size can vary between 30kWp and 80kWp. Up to 200kWh battery storage can be included.

Multipurpose solutions that are custom-designed and built-to-purpose include:

- Drinking water purification / desalination
- Water pumping / irrigation
- Refrigeration / freezer
- Office / Workshop / Clinic.

ENGINEERING PARTNERSHIP WITH:
SERVICES

- Solar PV System Design & Engineering
- Commercial & Industrial
- Residential Rooftop
- Battery Storage Systems
- Energy Efficiency Consulting
  (ISO 50001, European Energy Manager)

PRODUCTS

MINIGRID
- SOLAR POWER
- WATER
- GAS TO POWER
- MULTIPURPOSE

ENERGY MANAGEMENT
- POWER
- WATER
- MEASUREMENT
- BILLING OPTIONS

WATER
- TREATMENT
- SEWAGE
- AIR TO WATER
- CONTAINERISED SOLUTIONS

GAS TO POWER
- CHP (COMBINED HEAT & POWER)
- GAS GENSETS

RENEWABLE FUTURE specialises in the design, manufacture, supply, installation of containerised solutions throughout Sub-Saharan Africa.
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