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Chameleon

SOLUTIONS LTD

 Nairobi  Mombasa  Nanyuki  South Sudan  Uganda  East Congo

Flagship showroom Inside the Sarit Centre 

**ENERGISING INGENUITY IN THE RENEWABLE
ENERGY SECTOR SINCE 2012**

Over 7.7 MW of PV Solar PV Systems, 15,000 Domestic Solar Heating Systems,
125 Hotels/Commercial Units, 3,500 Heatpumps, dozens of solar pumps and Growing...



CHAMELEON SOLUTIONS LTD

SOLAR POWER . SOLAR WATER HEATING . HEAT PUMPS
WATER PURIFICATION . CUSTOM STEEL FABRICATION



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*All pictures used are from our own projects.







What type of solar system do you need?

Increased versatility and design adaptability; **which** one is best for you?


GRID TIE

 <p>Malls, Industries, offices, pack houses</p>	<p>FUNCTION</p> <ul style="list-style-type: none"> •Daytime power or generator subsidy to real-time power use •This system doesn't offer storage/backup or night time usability 	<p>R.O.I</p> <p>KPLC: Less than 4 years even with Financing interest</p> <p>GENERATOR: Not a direct replacement</p>	<p>CONSIDERATIONS</p> <ul style="list-style-type: none"> • Roof space • Weight tolerance • kWh of power usage between 8am and 5pm • Pattern of usage during the day
		<p>COST</p> <p>Lowest Capital cost (No batteries)</p>	<p>KPLC REPLACEMENT</p> <p>No, must work with KPLC to reduce power bills during the day</p>

HYBRID




 <p>Homes, Offices lodges, smaller loads</p>	<p>FUNCTION</p> <ul style="list-style-type: none"> •Subsidises or works in tandem with KPLC or generator during the day and/ or at night as set •Offers battery storage for use in Back-up or, for certain loads to work all the time independent of grid power 	<p>R.O.I</p> <p>KPLC: 6 to 8 years</p> <p>GENERATOR: 1.5 to 4 years</p>	<p>CONSIDERATIONS</p> <ul style="list-style-type: none"> • Roof space • kWh of usage during the day • kWh of Back-up time required • Peak kW usage of identified critical loads
		<p>COST</p> <p>High Cost</p>	<p>KPLC REPLACEMENT</p> <p>Possibly</p>

OFF-GRID - HYBRID

 <p>Where grid power is not available at all</p>	<p>FUNCTION</p> <ul style="list-style-type: none"> •Allows solar PV power to simultaneously charge the batteries and power the loads directly •Solar is the primary power source with optional connection on to generator possible 	<p>R.O.I</p> <p>GENERATOR: 2 to 7 years</p>	<p>CONSIDERATIONS</p> <ul style="list-style-type: none"> • Panel space • Total Daily consumption of power • Peak kW of all loads
		<p>COST</p> <p>Highest Cost</p>	<p>KPLC REPLACEMENT</p> <p>Yes</p>

- Petrocity head office and 12 stations
- Several Shell stations
- Vintz Plastics Ltd
- Muthaiga Mall
- Shelters Home
- Uneeco Paper Products
- Msambweni Beach House
- Diamond Plaza
- Fayaz Bakeries
- Westend Mall kisumu
- AAA growers
- Elite seedlings
- BRITAM
- MP Shah Hospital
- OIPajeta house
- FairWay Hotel Uganda
- Pure Harvest Ltd
- Ashnil Lodges
- Akiyda
- Lerai camp
- Chui Flower Farm
- ICPAK
- Kenya Civil Aviation Authority
- Bahari Dhow Diani
- Baobab Beach Hotel
- Kikoy Mall EPZ
- Elephant Bedroom
- Supa Loaf Bread; more than 30 plants
- Alu-Glass
- Entim camp

WHICH IS THE BEST ENERGY STORAGE FOR YOU?

ENERGY STORAGE	PICTURE	CYCLES	EXPECTED LIFESPAN	SPACE
SUPER CAPACITOR		25,000 +	35+ Years	Min
LITHIUM BATTERY		6,000-12,000	7-12 Years	Min
MAINTAINANCE FREE BATTERIES (GEL)		2,100	2-4 Years	Mid






We value Excellence in design and aesthetic for long term quality and to put a smile on your face everytime you look up.







 Various **Green financing options** available from reduced interest to power purchase agreements that give you positive cash flow from month 1!









- Radisson Blu Hotel
- Purple Haze
- Hyatt Hotel
- Niharika Apartments
- Oceans 7 Serviced Apartments
- White Rhino Hotel
- MP Shah Hospital
- BAT Headquarters
- Treetop Apartments
- Pullman Hotels
- 8 Serena Hotels
- Best Western Hotel
- Corniche Apartments
- Oceanic Towers
- Tamarind Hotel
- Lions Eye Hospital
- Kika Lodge
- Bahari Dhow
- English Point Marina
- Nova Apartments
- Solitaire Apartments
- Chigwell Phenom Park; 6 Phases
- Acacia Hotel
- Kingfisher Hotel
- BRITAM Serviced Apartments
- Josh Heights
- Msambweni Beach House
- 4 Hilton Hotels
- 3 Sheraton Hotels
- Mulberry Apartments
- City Blue Hotel
- Concord Hotel
- Baobab Beach Hotel
- Premier Hospital
- PETROCity (12 Stations)
- AAA Growers

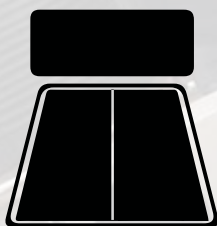




CALORIFIER, PANELS, FRAME

FULL SYSTEMS INCLUDING: CONNECTION KIT INCLUDING SAFETY VALVE

SR609C DIGITAL CONTROLLER



+



+



Brass 3/4 nipple-3pcs
Reducing nipple brass 3/4 x1/2
Brass male panel plugs 3/4
Brass panel plugs female3/4

Over 15,000 thermosiphon systems and 5,000,000 litres of centralised systems installed in East Africa since 2012







ELECTRIC VEHICLE (EV) CHARGING: Domestic/Commercial , Free/Payable



- ✔ Solar
- ✔ Electric
- ✔ Plug & Play
- ✔ Prepay for commercial
- ✔ Custom Solutions



SOLAR LIGHTS



WHY QUALITY IS IMPORTANT?

- ✔ Poor Quality lasts shorter times, creates more waste
- ✔ Planning to standards becomes difficult
- ✔ More quantities bought after realisation of dimness leading to higher costs and more waste
- ✔ Encourages low quality dumping in the country
- ✔ Unfair/discriminative sales become a norm mainly to developing countries
- ✔ It starts with smaller items then becomes a norm to sell sub par items to specific regions for larger items
- ✔ Like for Like works out more expensive per unit of light as compared to quality brands.



SOLAR PUMPS: A different model to suit any design with panels in any design from basic to car sheds to floating structures.



EXTREMELY LOW OPERATING COST

It minimizes the dependence on electricity or diesel, once installed, there is no recurring cost of electricity or fuel.



COMPARATIVELY LOW MAINTENANCE

The pump has fewer moving parts than other water pumps so the chances of deterioration are very few



SIMPLE AND HIGHLY RELIABLE

There is a reduced dependence on electricity and fuel, issues like power cuts, low voltage and single-phase problems do not affect the functioning of solar water pumps at all.



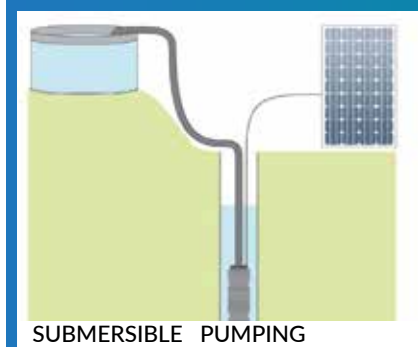
ECO-FRIENDLY

These solar water pumps are powered by the renewable source of energy, they do not release any harmful substances that can cause serious issues like Global warming.

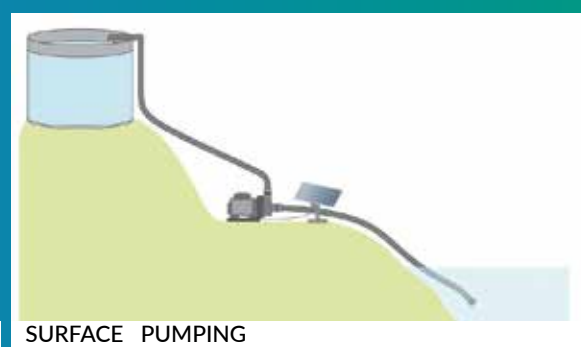


ECONOMICALLY BENEFICIAL

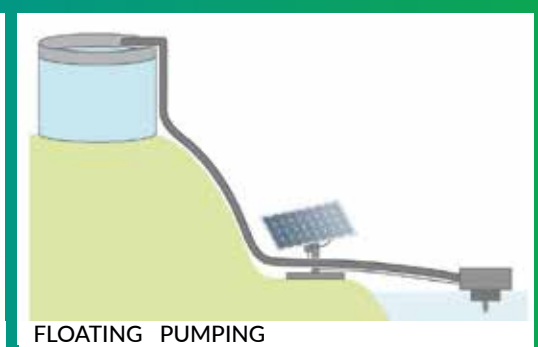
Apart from using the system for water irrigation, it can be an alternative source of income.



SUBMERSIBLE PUMPING



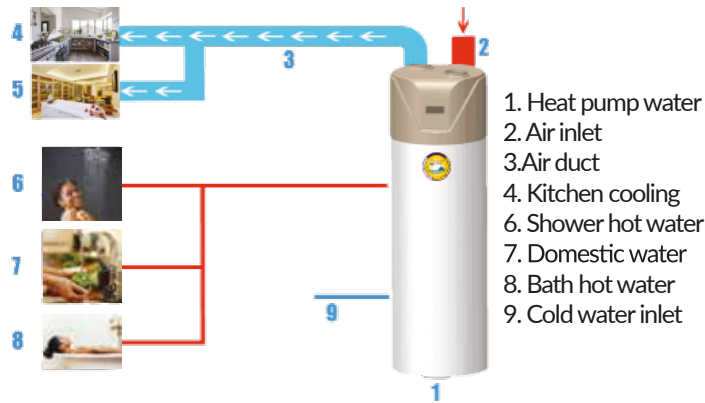
SURFACE PUMPING



FLOATING PUMPING



ALL-IN-ONE SERIES HEAT PUMP



Features

- ✓ Up to 70°C hot water temperature.
- ✓ Enamel inner tank for maximum life span and safe water.
- ✓ Automatic defrost.
- ✓ Highest environmental friendly ratings.
- ✓ All safety precaution inbuilt.
- ✓ BMS communication enabled.

EXTERNAL MINI HEAT PUMP (Domestic/small commercial)

Air source heat pump takes advantage of a little electric power to make the compressor work, puts high-pressure working medium to expansion tank for expansion and to evaporator to make it gaseous. In this process the medium absorbs a lot of heat from the air, then the compressor makes it high-pressured and high-heated liquid. This liquid goes through a condenser and transfers the heat to the water. In this way water is heated.

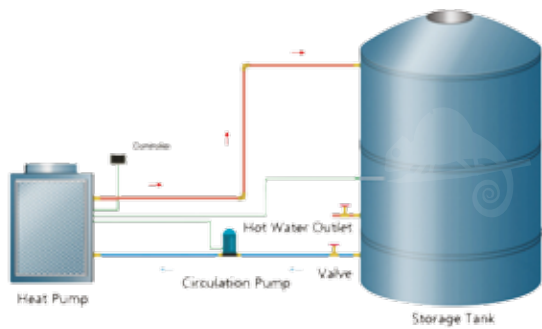


Features

- ✓ Larger evaporation for maximum efficiency.
- ✓ Water pressure reaches 0.6Mpa-0.9Mpa.
- ✓ Compact plug and play.

Type	Circulation heating/Domestic
Heating Capacity	3.5kw~8.7kw
COP	≥6.8
Rated water temp.	55°C
Running ambient temp	-7~43°C
Compressor	Rotary
Refrigerant	R410a
Power supply	220~/50/1

COMMERCIAL HEAT PUMP



Features

- ✓ Higher water temperature output up to 60 °C.
- ✓ Adopt tube in tube heat ex-change and circulating heating method to realize higher COP.
- ✓ Automatic defrost .
- ✓ High pressure protection function.
- ✓ BMS communication enabled.



COMMERCIAL SWIMMING POOL HEAT PUMP



Features

- ✓ Titanium tube heat exchanger for maximum lifespan even with chlorinated water.
- ✓ Automatic defrost.
- ✓ Compact plug and play.
- ✓ Pool covers available on request.
- ✓ Solar water heating and solar PV intergration possible.

Type	Swimming/Circulation Heating
Heating capacity	3.5kw~39kw
COP	≥4.5
Rated water temp.	30°C
Running ambient temp	-7~43°C
Compressor	Scroll/Rotary
Refrigerant	R410a
Power supply	220-240~/50/1 380-415~/50/3
Certification	CE



- Treetop Apartments
- Hilton CBD
- Hilton Ngong Road
- JIT Hotel
- Donyo Park
- Bill Apartments
- Purple Haze
- Entim Hotels
- Serena Hotels
- Elegant Properties
- Mivida
- Singita Grumeti, Tanzania
- Greystone Apartments
- BRITAM serviced apartments
- Amber Hotel
- Dusit Hotel
- Mara Ishani
- Lions Eye Hospital
- MpShah Hospital
- Taarifa Suites
- Smash Gym (Sarit Centre)
- Langham Court Apartments
- Andbeyond Kichwa tembo
- And over 100 residences











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