COMPANY PROFILE

RENEWABLE ENERGY FOR A SUSTAINABLE WORLD

KLEEVME

INTEGRATED PV SYSTEMS | PANELS | INVERTERS | STRUCTURES | SOLAR TRACKER | ENERGY STORAGE | BALANCE OF SYSTEM

www.kleevme.ae

KLEEV – CONTRIBUTION TO RENEWABLE ENERGY

KLEEV is stepping ahead in renewable energy, contributing to the society and environment by reducing the carbon foot print. Fossil fuels are becoming increasingly more expensive as they are gradually depleted. Every solar power system we install decrease the amount of fossil fuels needed to generate electricity, which in turn reduces the pollutants contributing to global warming.

We are an ISO 9001:2015 approved corporate entity based in Middle East since 2004. The corporation was established with the sole objective to design and supply high quality renewable energy products in MENA region.

Our corporate office is based in Dubai and managed by a professional and experienced team of well-qualified engineers and trained technical staff. We are a group of people driven by a unique mission, to lead the global transition to renewable energy.

VISION & MISSION

OUR VISION

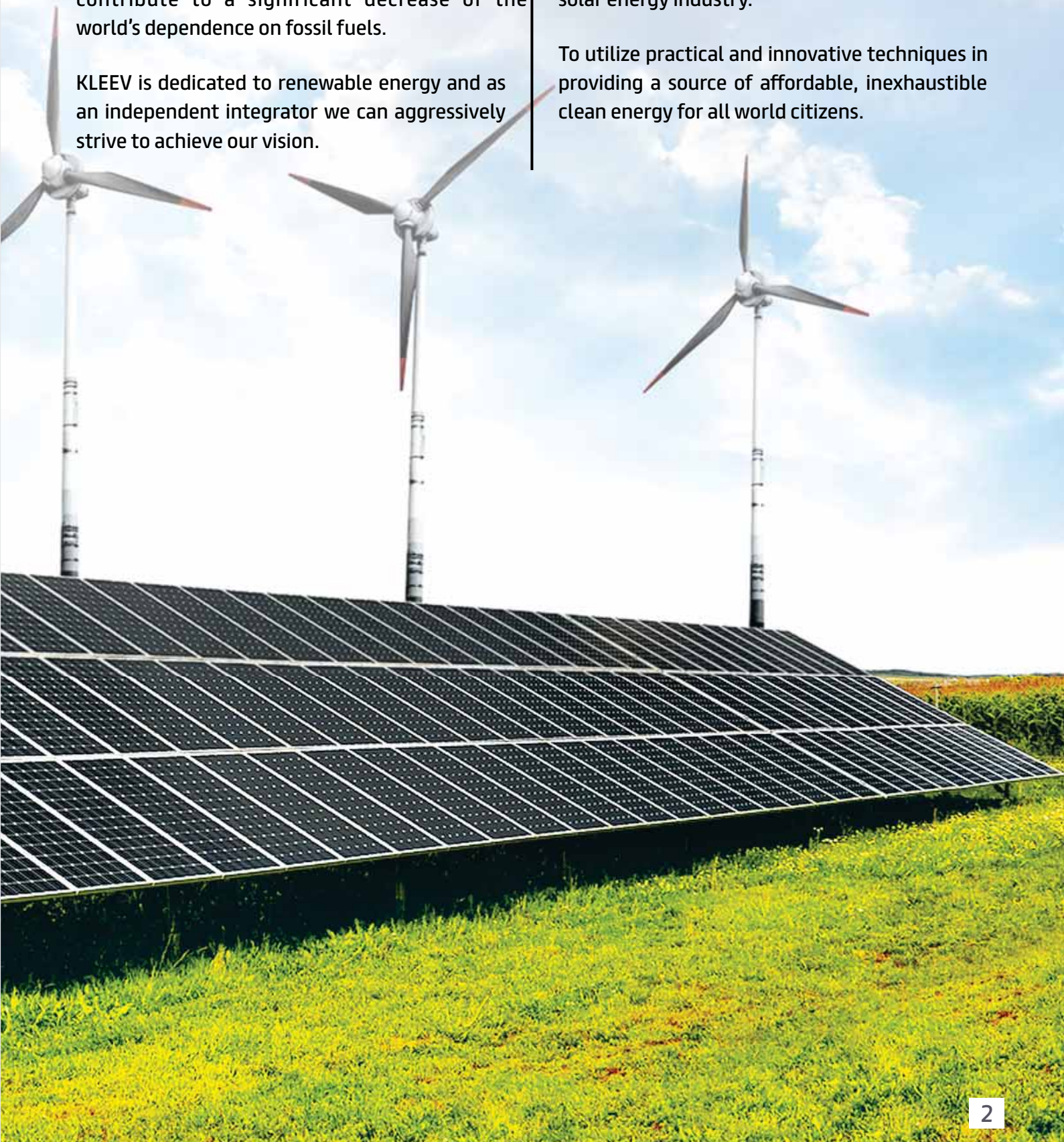
KLEEV plans to become a premier provider of solar energy products and solutions that will contribute to a significant decrease of the world's dependence on fossil fuels.

KLEEV is dedicated to renewable energy and as an independent integrator we can aggressively strive to achieve our vision.

OUR MISSION

Our mission is to be recognized as the top Photovoltaic brand and preferred partner in the solar energy industry.

To utilize practical and innovative techniques in providing a source of affordable, inexhaustible clean energy for all world citizens.



OUR EXPERTISE

SOLUTIONS

- Grid Connected Solar Power Systems (1kW – 500kW)
- Off-Grid Solar Power System for Oil & Gas
- Solar - Diesel Hybrid System
- Containerized Solar Solutions
- Solar Car Parking System
- Portable Solar power System
- Solar Street Lighting System
- Solar Water Pumping System

PRODUCTS

- Solar PV Modules
- Solar Charge Controllers
- Solar Batteries
- Solar Moon Light
- All-in-one LED Solar street lights
- Solar Mounting Structures
- Enclosure

SERVICES

- Site Assessment
- Design, Engineering, Documentation
- Installation & Commissioning
- Annual Maintenance Contract

SOLAR EPC SERVICES

DESIGN

- Cost Estimation
- Architectural Design
- Project Feasibility Studies
- Technology

ENGINEERING

- Front-end Engineering
- Planning & Scheduling
- Safety Planning
- System Integrator

PROCUREMENT

- Contracts Management
- Raw material purchase
- Vendor sourcing
- Quality Controls
- Storage Controls

COMMISSIONING

- Trail Runs
- Quality Checks
- Safety Protocols
- Certifications

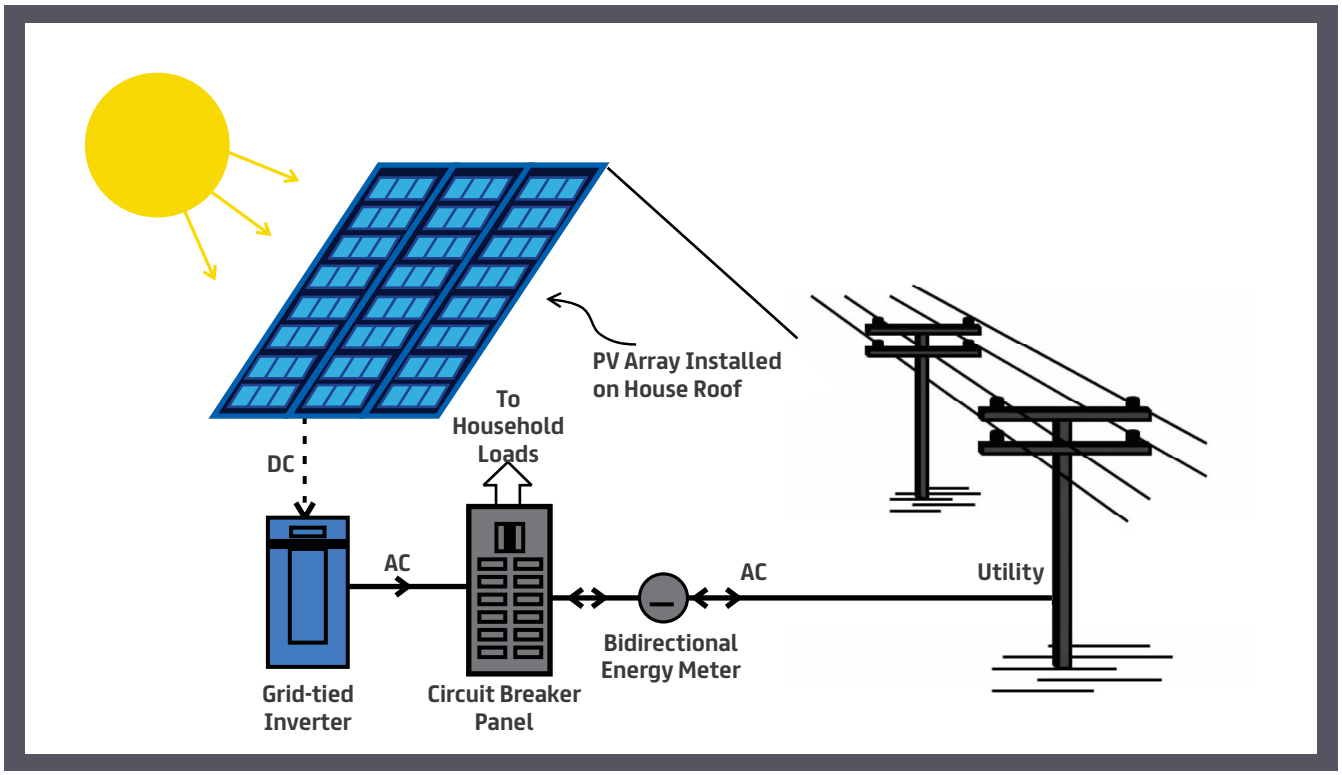
OPERATION & MAINTENANCE

- Preventive Maintenance
- Performance management
- Facility Management
- Plant Maintenance

GRID CONNECTED SOLAR POWER SYSTEM

BE AN INDEPENDENT POWER PRODUCER

Solar energy is present everywhere in abundance, and is more than enough to illuminate the whole earth. We at KLEEV assess your energy requirement, design the system components and integrate the whole components to generate the optimum output.



BENEFITS

- Utilization of available vacant roof / ground space.
- Lower transmission and distribution losses
- Long term energy and ecological security by reduction in carbon emission.

ROOFTOP SYSTEM

GROUND MOUNTED SYSTEM

OFF-GRID SOLAR POWER SYSTEM FOR OIL & GAS

Our Off-Grid Solar Power Solutions for the Oil and Gas industry are cost effective, reliable system. Our proven solar systems have the capability to be deployed by some of the largest Oil and Gas companies like ADNOC, ADCO, GASCO, KOC, OXY etc.

APPLICATIONS

- On Shore / Off Shore
- Well head Control Panel
- Control Valve
- Chemical injection system
- Flow meters
- Video surveillance
- High efficiency Gas flow Control Computers
- Remote Telemetry Units (RTU's)
- Mineral exploration camps
- Cathodic protection for pipelines
- SCADA monitoring stations

BATTERY OPTIONS

- Up to 5 Day's Autonomy

VOLTAGE OPTIONS

- 12V DC / 24V DC / 48V DC / 230V AC

SOLAR - DIESEL HYBRID SYSTEM

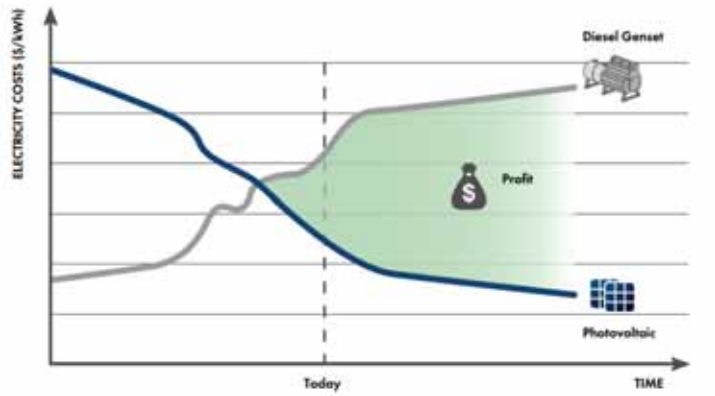
Solar hybrid systems are power systems that combine solar power from a photovoltaic system with another energy source. One of the most common hybrid systems being PV diesel hybrid system, coupling PV and diesel generators.

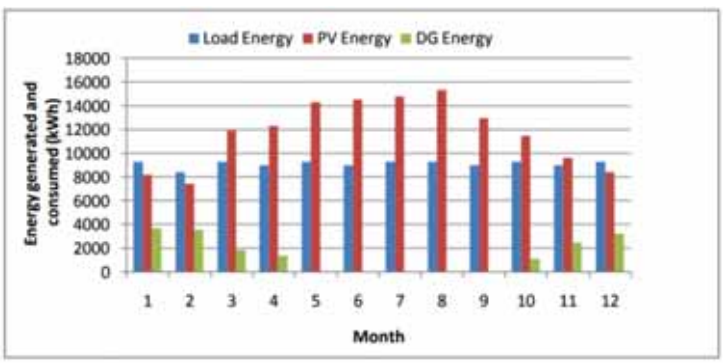
ADVANTAGES OF SOLAR DIESEL HYBRID SYSTEMS

- Increased PV penetration
- No wasted Energy
- Uninterruptible power
- Hybrid systems can be programmed
- Environmental friendly
- Fuel cost can be reduced

MAJOR COMPONENTS

- Diesel genset
- Photovoltaic system
- Solar Inverter
- Fuel saver controller
- Batteries (optional)





APPLICATIONS

- Project developers, EPCs
- Industrial & mining
- Telecom
- Agriculture
- Hospitals
- Hotels & resorts

CONTAINERIZED SOLAR SOLUTIONS

Containerized solar solutions are suitable for camp sites, field hospitals, mining sites and other remote areas where the grid power is not available. These units can be deployed within few minutes with a standard site vehicle with a minimal site preparation.

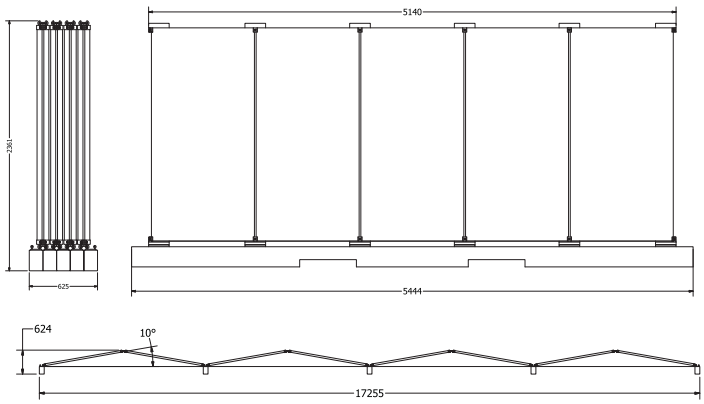
ADVANTAGES

- Quick and easy installation
- Extremely flexible in design
- Benefit to the environment
- Easy to transport

FEATURES

- 100% Prefabricated
- Streamlined logistics
- Rapid deployment
- Portable solar

MECHANICAL SPECIFICATIONS



SOLAR STREET LIGHTING

SOLAR POWERED LED BILLBOARD LIGHTING.

Solar Street Lighting is an ideal lighting system for the illumination of street, squares and cross roads located in areas that are not connected to the power grid. This fully integrated system combines the latest and most innovative technologies available providing years of convenient and trouble free lighting.

The stand alone solar photovoltaic lighting system comprises of the following components:

- Solar PV Modules
- LED Light with In-built charge controller
- Rechargeable battery
- Street Light Pole with Mounting arm
- Battery Box

FEATURES

- Easy to install and safe to use
- Compact and highly efficient
- Simple, rugged and reliable
- Long life
- Minimal maintenance

SOLAR MOON LIGHTS

FEATURES

- Simple Operation
- Modular design
- Six working modes
- Micro-controller based sensor system
- Longer lifetime with Lithium batteries.
- Work continuously for 2-3 rainy days
- IP65 Protection.

MODEL	KL-ML-6	KL-ML-9	KL-ML-12
Lamp Power	6W	9W	12W
Solar Panel	12W / 5V	25W / 5V	40W / 5V
Lithium Battery	10AH / 3.2V	20AH / 3.2V	30AH / 3.2V

APPLICATIONS:

- Widely used in Park, Villa, Village, Square, Courtyard, Farm, School, Desert, Prairie, Path, etc.. The places where need outdoor lighting and with enough sunshine.

ALL-IN-ONE LED SOLAR LIGHT

An integrated all-in-one solar street light combines the green energy parts of solar panel, LED lamp and Lithium battery in to single product.

FEATURES

- Lower Operation Cost
- Compact Design
- Reduced Damage / Theft
- Improved safety
- Faster Installation

MODEL	KFL-12W	KFL-15W	KFL-20W	KFL-50W	KFL-80W
LED Wattage	12W	15W	20W	50W	80W
Solar Panel	18V / 25W	18V / 32W	18V / 40W	18V / 80W	36V / 120W
Lithium Battery	12.8V / 15AH	12.8V / 15AH	12.8V / 18AH	12.8V / 33AH	25.6V / 24AH

SOLAR CAR PARK

Solar car parking solution is an intelligent alternative to rooftop or ground mounted Solar Power Plants.

Our attractive modular system can be installed in any car park, generating solar energy that can be used on-site as well as charging point for electric cars and is a perfect way to harness the Sun's Energy to produce your own power.

We KLEEV provides a perfect end to end solution for solar roof top parking with highly tested materials.

ADVANTAGES OF SOLAR CAR PARKS

- Save on Electricity Bill
- Embrace the future
- Keeps vehicle cooler
- Doesn't affect parking or number of available spaces
- Adds a modern aesthetic

PORTABLE SOLAR POWER SYSTEMS

KLEEV designs a complete line of mobile trailer mounted solar power sources. The portable solar power systems are ideal for use in areas where permanent power system installation are not desired. These systems can be used for multiple locations where power is needed

APPLICATIONS

- Remote Power
- Construction Site Power
- Communications Site Power
- Backup Power / Emergency Power
- Base camp Power
- Oil & Gas Drill Site Power

BENEFITS

- Reduce or Eliminate the use of Gas / Diesel Generator
- No Noise, Completely quite operation
- No Harmful Exhaust- Zero carbon footprint
- No Routine maintenance required
- No Special skill required to operate

ENCLOSURE & MOUNTING STRUCTURES

STAINLESS STEEL ENCLOSURE

Material	SS 316, SS 316L, SS 304 or MS
Mounting plate	Galvanised, SS 316, SS 316L, SS 304 or MS
Locks	Die-cast Zinc, Nickel-chrome plated with SS cam,
	Multipoint Locks are also provided (optional)
Thickness	From 1.2 mm to 3mm, Door thickness vary as per sizes.
Surface Finish	Mat or Mirror Finished
Protection	IP 66 to EN 60 529, IK 10

KLEEV ME

KMX SERIES

GRP ENCLOSURE

FEATURES

- Ingress Protection: IP-66/65/55
- Weather Proof
- Corrosion Resistant
- Anti Static
- Fire Retardant

KLEEV ME

SOLAR MODULE MOUNTING STRUCTURES

PRODUCT PORTFOLIO

- Ground Mounted module mounting structure
- Roof Top module mounting structures
- Customized Solar Module structures

HOT DIP GALVANIZING

- Modern galvanizing plant
- Zinc coating up to 120 microns thickness.
- Pre-treatment of steel using special chemicals

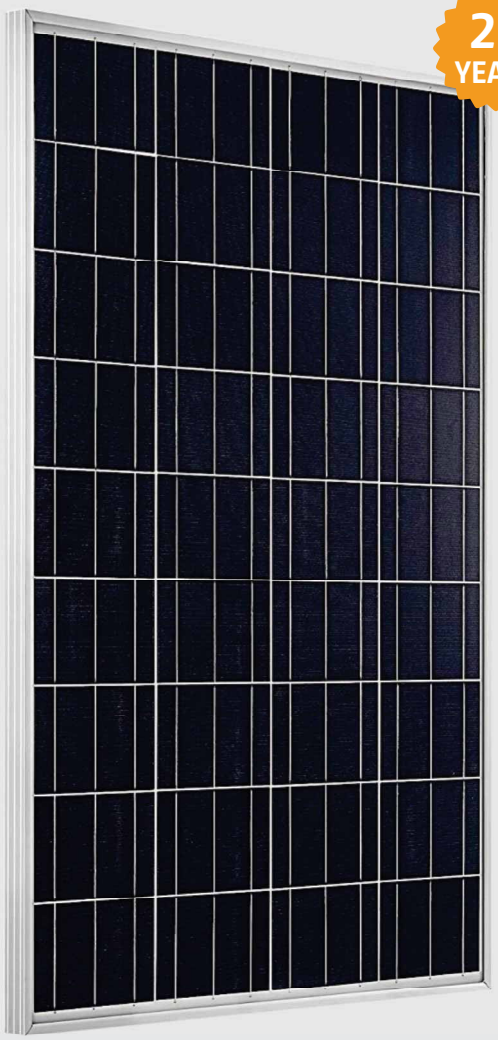
STRUCTURAL DESIGN

- Structures can be designed to withstand wind speed up to 150 km /hr.
- Detailed structural calculation can be provided.

SOLAR MODULES

LINEAR POWER OUTPUT WARRANTY

25 YEARS



POLY CRYSTALLINE SOLAR MODULES

36 / 60 / 72 Cells
POLYCRYSTALLINE

Efficiency up to

17.5%

100 – 340 Wp Range

KLEEV offers a range of small, medium and large polycrystalline solar & monocrystalline solar modules.Each module is designed to perform under the harshest weather conditions and comes with a product warranty of 10 years.

USA QUALITY

Kleev Solar photovoltaic modules are characterized by high quality materials, best workmanship, USA development and management.

USA QUALITY

KLEEV USA

FEATURES

- High Module Output Power
- Positive Tolerance
- Highly Reliable Anti-reflected Coated Glass
- Extremely Reliable Product
- Product Warranty- up to 10 Years
- Power Output Warranty- up to 25 Years

ELECTRICAL PARAMETERS:

Peak Power Pmax (Wp)	100	150	250	280	300	320	330	340
Maximum Voltage Vmpp (V)	17.99	18.64	31.08	32.82	37.29	38.52	38.95	39.88
Maximum Current Impp (A)	5.57	8.05	8.05	8.54	8.05	8.31	8.48	8.53
Open Circuit Voltage Voc (V)	21.84	22.32	37.2	38.7	44.64	45.73	46.06	46.58
Short Circuit Current Isc (A)	6.11	8.47	8.47	8.99	8.47	8.74	8.92	8.98
Module Efficiency η %	13.03	15.19	15.3	17.14	15.45	16.48	17.01	17.51

MONO CRYSTALLINE SOLAR MODULES

25 YEARS
LINEAR POWER OUTPUT WARRANTY

KLEEV focuses on maintaining the highest quality standards while offering best in class products to the consumers. In order to keep pace with the increasing demands in the market, we have ensured that we are equipped with the right machinery, technology and manpower.

36 / 60 / 72 Cells
MONOCRYSTALLINE

Efficiency up to
18.5%

100 – 360 Wp Range

WIDE RANGE

Kleev solar modules are ideal for a wide range of applications, from home to industry roofs and ground mounted systems. Compatibility with industry standard mounting systems.

APPLICATIONS

- On-Grid large scale utility systems
- On-Grid residential roof top and commercial systems
- Off-Grid residential systems
- Off-Grid Oil & Gas systems.

USA QUALITY

KLEEV USA

ELECTRICAL PARAMETERS:

Peak Power Pmax (Wp)	100	150	250	280	330	340	350	360
Maximum Voltage Vmpp (V)	18.2	18.83	31.44	32.4	39.16	39.46	39.75	39.5
Maximum Current Impp (A)	5.49	7.97	7.96	8.65	8.43	8.62	8.81	9.12
Open Circuit Voltage Voc (V)	22.4	22.7	37.92	38.4	46.29	46.36	46.51	48
Short Circuit Current Isc (A)	5.85	8.39	8.37	9.09	8.86	9.06	9.26	9.51
Module Efficiency η %	15.06	15.19	15.3	17.14	16.99	17.51	18.02	18.5

SOLAR CHARGE CONTROLLERS

The Charge controller is the heart of every solar system, and is required to monitor and control the power going into and coming out of the battery. It must also manage the power generated by the solar panel to ensure it does not overcharge the battery. The charge controller must also ensure that the connected loads don't over discharge the battery, thereby damaging it.

PWM CONTROLLER

FEATURES

- 12 / 24V Auto, 48V Battery Selection
- LCD Display
- Selectable Operating Mode Of Load
- Solar & Load Current Parameter Display
- Intelligent PWM Charge Mode
- Automatic Temperature Compensation
- Adjustable Charge- Discharge Control Parameters
- USB Charging (optional)

PRODUCT DETAILS:

TYPE	PWM	MPPT
Rated Current	10 A / 20 A / 30 A	20 A
System Voltage	12 / 24 V Auto	12 / 24 V Auto
Solar Panel	< 50 V	< 70 V
Low voltage Disconnect	10.7 V / 21.4 V	
Low Voltage Reconnect	12.6 V / 25.2 V	
Operating Temperature	-20°C to 50 °C	

MPPT CONTROLLER

FEATURES

- Microprocessor based advanced MPPT design
- Adjustable charging voltage
- 4 stage battery charging
- Reverse polarity protection
- Battery over voltage protection
- Automatic temperature compensation

SOLAR BATTERIES

KLEEV is one of the largest battery manufacturers in USA. KLEEV batteries are specially designed for optimum performance, very long life, high reliability, low self-discharge and quick charging ability.

Batteries are rated according to their voltage, ampere hours (AH) of storage and their ability to deliver the stored energy over a given period of time as C rating i.e C5, C10, C20, C100.

KLEEV USA

APPLICATIONS

- Solar Energy / Wind Energy
- Online UPS
- Alarm System
- Communication Equipment
- Emergency power system
- Security system

PRODUCT RANGE:

MODEL NO	VOLTAGE PER UNIT	CELL PER UNIT	CAPACITY @ C10 RATE TO 1.8V PER CELL @ 25°C	DIMENSION (L X W X H) MM	WEIGHT (KG)
KL1240	12 V	6	40 Ah	198 x 166 x 171	13.0
KL1265	12 V	6	65 Ah	350 x 167 x 183	21.0
KL1270	12 V	6	70 Ah	350 x 167 x 183	22.5
KL12100	12 V	6	100 Ah	328 x 172 x 222	30.0
KL12150	12 V	6	150 Ah	483 x 170 x 240	44.5
KL12200	12 V	6	200 Ah	522 x 240 x 223	60.0

FEATURES

- Low self discharge rate: 3% month
- Good high rate discharge performance
- Wide operation temperature range : -20~50°C
- Structure : Compact design, shorter internal connectors between cells
- Vent system : Gases can be vented through flame arrester/filter
- Terminal sealing : Double sealing technique (mechanical + epoxy glue).

PROJECTS EXECUTED

END USER: UNILIVER
LOCATION: DUBAI
SYSTEM: SOLAR STREET LIGHT

END USER: DUBAI MUNICIPALITY
LOCATION: DUBAI
SYSTEM: SOLAR OFF-GRID SYSTEM

OMIFCO - 59 kWp ON-GRID ROOF TOP SOLAR POWER SYSTEM
LOCATION : SUR, SULTANATE OF OMAN

بلدية دبي
DUBAI MUNICIPALITY

END USER: DUBAI MUNICIPALITY
LOCATION: AL-QUOZ, DUBAI
SYSTEM: 50W SOLAR STREET LIGHT

END USER: KUWAIT OIL COMPANY
LOCATION: KUWAIT
SYSTEM: 4.6 kWp SOLAR OFF-GRID SYSTEM

PROJECTS EXECUTED

شركة نواة للطاقة
Nawah Energy Company

END USER: NAWAH ENERGY COMPANY
LOCATION: BARAKAH NUCLEAR POWER PLANT, ABU DHABI.
SYSTEM: 2.4 KWP SOLAR OFF-GRID SYSTEM

OXY
Occidental Petroleum Corporation
شركة أوكسيدنتال للبترول

END USER: OXY
LOCATION: OMAN
SYSTEM: SOLAR OFF-GRID SYSTEM - 40 NOS.

END USER: ENCARDIO
LOCATION: DUBAI
SYSTEM: SOLAR OFF-GRID SYSTEM

END USER: DUBAI MUNICIPALITY
LOCATION: DUBAI
SYSTEM: 0.5 kWp SOLAR OFF-GRID SYSTEM

OUR CLIENTS


بلدية دبي
DUBAI MUNICIPALITY


OXY
Occidental Petroleum Corporation
شركة أوكسيدنتال للبترول


Delta
Controls


أدنوك
ADNOC


WT PETROTECH
USA, INC.


FORTUNE
ENGINEERING & ENERGY SERVICES


المير
ALMEER


شركة نفط الكويت
Kuwait Oil Company
إحدى شركات مؤسسة البترول الكويتية
A Subsidiary of Kuwait Petroleum Corporation


Schneider
Electric


BEC
Bahwan Engineering
Company LLC


Oman India Fertiliser Co.
أوميفكو
OMIFCO


RAY
INTERNATIONAL
GROUP


AMERICAN UNIVERSITY OF RAS AL KHAIMAH


PROLIANCE
ENERGY SOLUTIONS


ZOOMLUX
LIGHTING


ROBT STONE


GEOSCOPE
جيو سكوب


ENCARDIO RITE


ديزرت جروب
Desert Group


TARGET


JEIKOR CONTRACTING CO. (L.L.C.)

WE INTEGRATES

SOLAR MODULES

KLEEV USA | KYOCERA | SHARP | SOLARWORLD | JinKO Solar — Building Your Trust in Solar

CHARGE CONTROLLERS

KLEEV USA | steca Elektronik | MORNINGSTAR — World's Leading Solar Controllers & Inverters | phocos | Micha

INVERTER

SMA | ABB | Fronius — SHIFTING THE LIMITS | KACO new energy. | STUDER

BATTERIES

KLEEV USA | Deka BATTERIES | Trojan BATTERY COMPANY — Clean energy for life. | EXIDE BATTERIES | EnerSys — Power/Full Solutions

LED LIGHTING

KLEEV USA | PHILIPS | EATON — Powering Business Worldwide | OSRAM | Neotroni Light. Future

WATER PUMP

KLEEV USA | GRUNDFOS | LORENTZ | C.R.I. PUMPS — Pumping trust. Worldwide. | Kirloskar — Enriching Lives

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KME - CAT-VM-2019-03

MY ENERGY
MY RESPONSIBILITY

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