

2018

EDKAN ENTERPRISES LTD

COMPANY PROFILE
EDWARD KARANJA

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COMPRESSED PHOTO FOLDER FOR PREVIOUS PROJECTS

Since inception in 2006, EDKAN ENTERPRISES works have been to enhance clients' productivity by providing powerful, innovative, affordable and easy to use solutions for their needs.

VISSION

Edkan Enterprises endeavors to be a leading solution provider in the lighting infrastructure market

MISSION

"Linking Projects, Solutions & People"

Good lighting helps to increase and improve ambience. It contributes to a sense of identity and place, makes for a safer friendlier environment, supports and compliments other business initiatives.

Edkan Enterprises can help your establishment explore the possibilities of reliable and renewable solar LED lighting, as per your requirements, by installing outdoor lighting that operates on / off the grid, installs quickly and easily, and is reliable all year-round.

We transform the lives of people by providing simple yet robust products for use. With lower installation costs and no energy bills, our **Solar LED Lighting** increases visibility for pedestrians and motorists while meeting your sustainable design objectives.

With increasing energy costs and sustainable design mandates, solar LED lighting is a viable investment that adds immediate and long-term value. Our lighting systems provide reliable lighting during power outages, ensuring safety and security for customers and employees.

QUALITY

We are a quality conscious organization, and lay lot of emphasis on the quality of the products and services offered by us. To ensure the premium quality of our products and services, we have developed strict quality policy through which our products are screened and tested.

Our idea of service translates into three imperatives:-

- First - to make ourselves available; good communication is vital to the success of any job.
- Second - to deliver products and services on time; meeting your expectations is crucial, particularly because our work most often ties in with your production/delivery schedules.
- Third -we stay within budget.

It is in the spirit of collaboration that we work towards building long-lasting relationships, we invite you to join us and look forward to working with you on your next project.

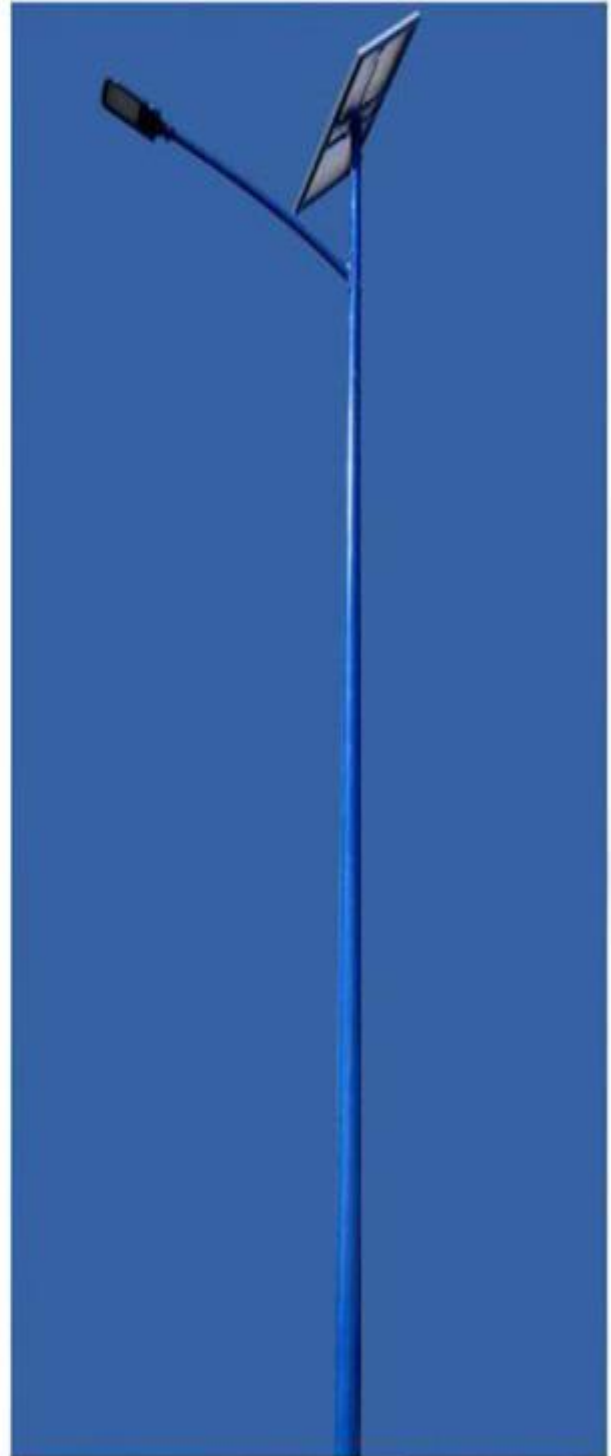
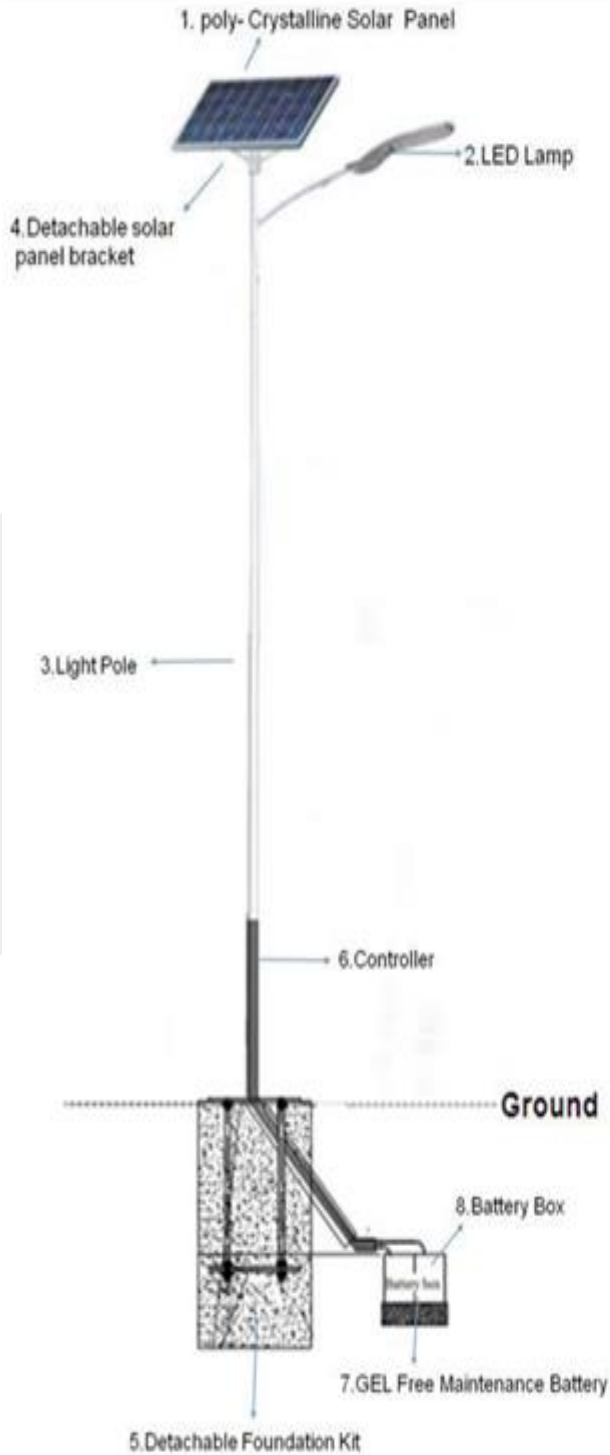
SAFETY

The safety of employees is of paramount importance in the daily operation of our business. Accordingly, we operate with this safety philosophy in mind:

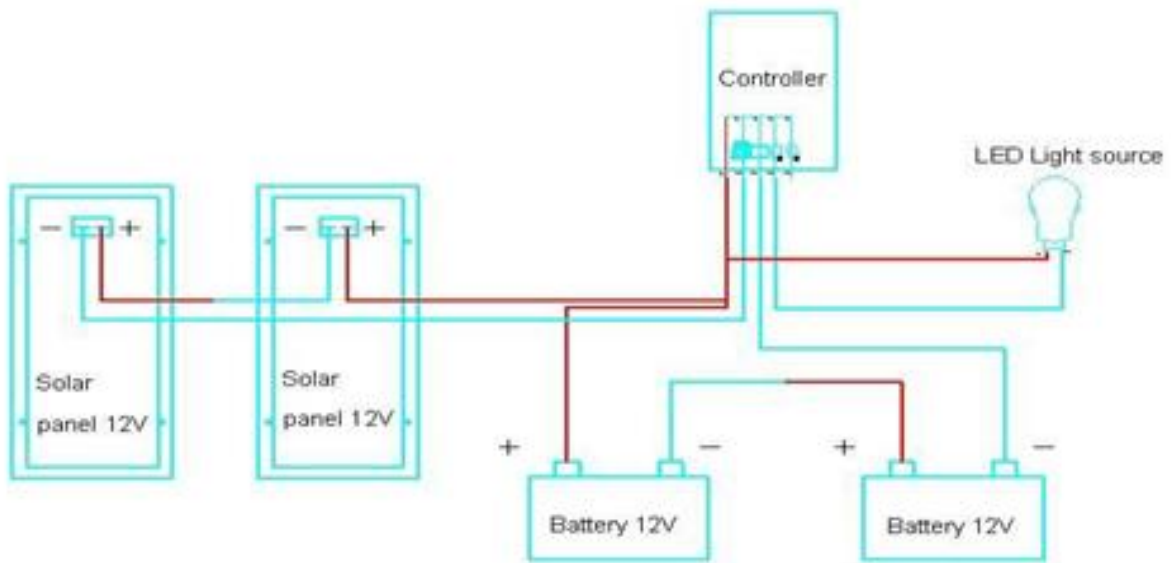
The safety of each employee is vital to the successful conduct of our business. Risks can be avoided or controlled to prevent injuries. We must foster a safe work environment and ensure that work is performed safely. Each employee must be responsible for working safely with an equal concern for the safety of co-workers and contractors. Safety excellence can only be achieved through the active participation of every employee from every area of the company. We believe that all injuries are preventable and that excellence in health and safety is the key to our long term success.

Edkan Enterprises is committed to compliance with government agencies, regulations, and industry best practices and will use audits to monitor, measure, and improve our safety program.

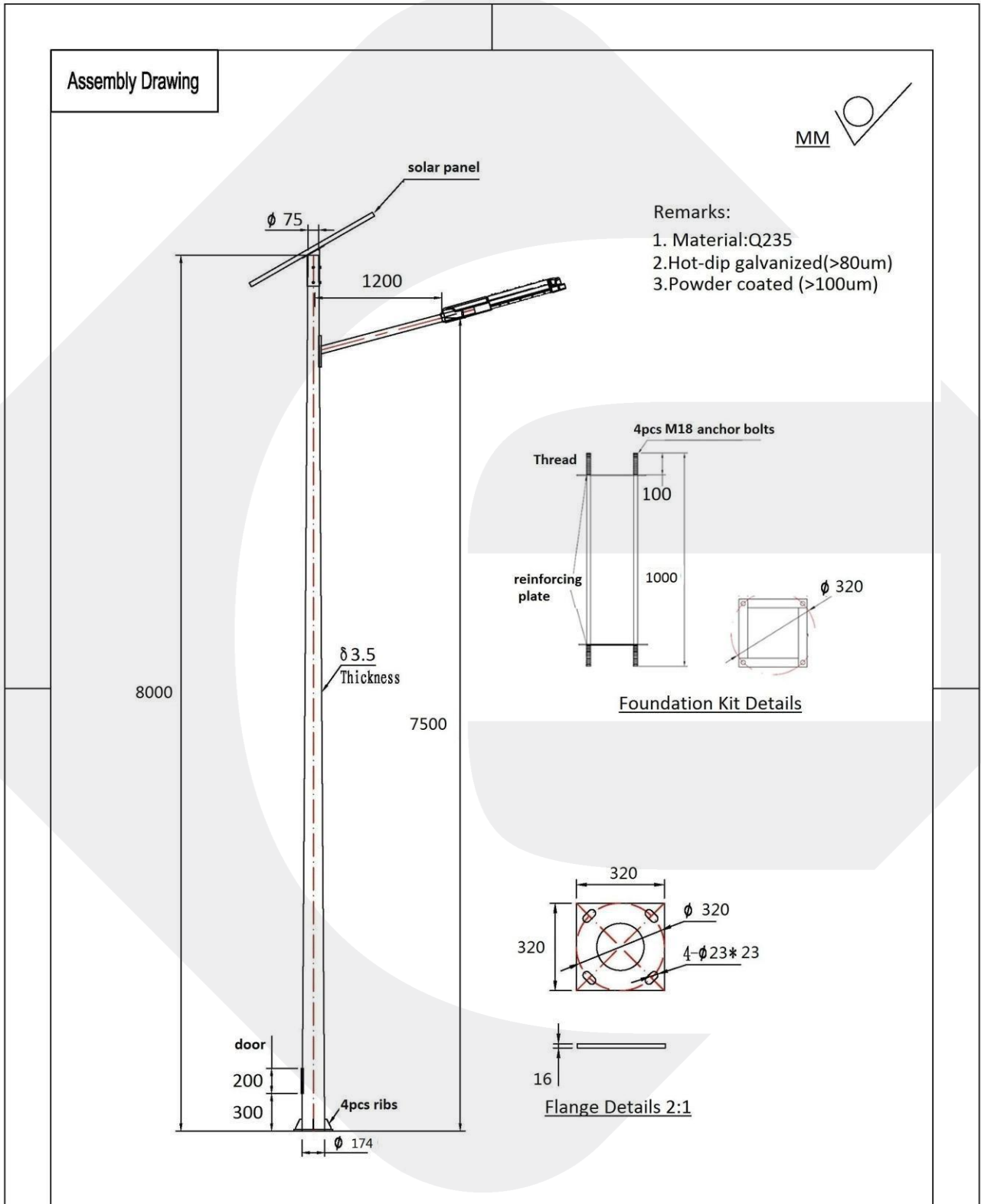
SOLAR STREET POLE.



Solar Lighting System Circuit Diagram

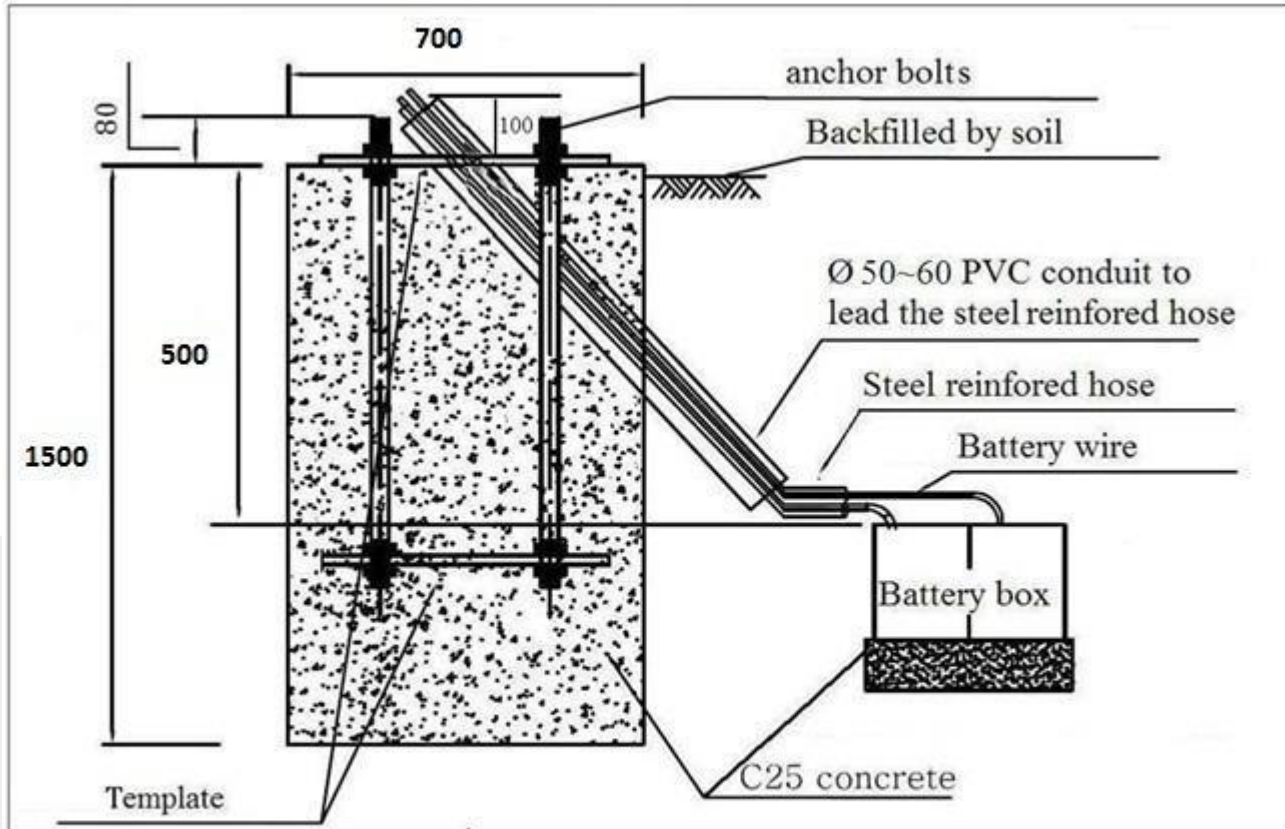


SOLAR TECHNICAL DIAGRAM.



Detailed CAD Drawing for Underground Part

When you do the underground foundation part, pls refer to the following drawing



The above Diagrams show our new Solar Street Pole design made of 3mm Mild Steel Sheets.

8 & 10 Mtr Solar Poles projects undertaken by Edkan Enterprises In Kenya.



Above Photos showing earlier designs of solar street poles.

BENEFITS OF SOLAR LIGHTING

- No monthly electric bills
- Controlled charging to prolong battery service life
- Long-life PV modules with more than 25 years of power generation capacity
- Environment friendly - 100% powered by the sun, solar panels reduce fossil fuel consumption, eliminating pollution
- Self-contained solution - Light on/off controlled by automatic daylight sensing
- Better light source - LED lights feature cool white light without flickering and higher brightness than sodium lights
- Safe 12 / 24 volt circuit, no risk of electric shock

WHY US?

We specialize in the manufacture of both **ELECTRICAL & SOLAR** street light and high mast lighting systems - and build them locally in Kenya. We manufacture 8Mtr to 12Mtr street poles and 15Mtr to 30Mtr High Mast poles and apply highest standards of fabrication and safety.



18 MTR SOLAR HIGH MAST INSTALLED IN A RURAL TOWN.



18Mtr Solar High Mast lighting up at dusk



The Solar High mast fully light at night.



18MTR SOLAR HIGH MAST:-

SYSTEM OVERVIEW

- Fitted with 8No. 250watt panels
- 4No.100watt LED floodlights (Daylight)
- Lantern & Panel lowering system
- Electro-Mechanical winch (Drum Type)
- Mast Structure made of 4mm Mild steel sheets (Dodecagon)

18MTR SOLAR HIGH MAST CONTROL PANEL



System overview

-8No. 200Ah deep cycle batteries

-Charge Controller with Auxiliary Communication Ports

-Fitted with an intelligent pre-programmed time schedule with the following features:-

- Central remote Control of light units
- Database for the light control boxes
- Statistical reports & Fault analysis
- Time-based & Electric Load analysis
- Contactors malfunction reporting

SOLAR PANEL 80 - 250 WATT FOR SOLAR STREET & HIGHMAST POLES



Model	80 Watt	100 Watt	120 Watt
Maximum power Pmax	80W	100W	120W
Current maximum powerpoint Impp	4,4A	5,6A	6,7A
Voltage maximum powerpoint Vmpp	18V		
Open circuit voltage Voc (STC)	21.6V		
Short circuit current Isc	5.2A	6.5A	7,6A
Operating temperature	-40°C to 85°C		
Maximum system voltage (V)	715V		
Maximum series fuse rating (A)	10A		
Power tolerance	±3%		
Diode	10A		

Electrical Properties at STC*

- *STC (Standard Test Condition):
- ☑ Irradiance 1000 W/m²,
- ☑ Module temperature 25°C
- ☑ Spectrum AM 1.5

Warranty

Model	80 Watt	100 Watt	120 Watt
Product Warranty	10 years		
Output Warranty	Linear warranty (1 st year 97%, after 2 nd year 0.7% annual degradation, 80% after 25 years)		

Mechanical Properties

Model	80 Watt	100 Watt	120 Watt
No. of cells	36 (4x9)		
Cell type	Polycrystalline cell		
Module dimensions (a) x (b)	667 x 944mm	667 x 1160mm	667 x 1377mm
Distance between mounting holes (c)*	500mm	800mm	800 mm
Distance from corner (d)*	222mm	180mm	288mm
Size of mounting hole (e) x (f)	9 x 13mm		
Weight	8.8kg	10.9kg	12.9kg

* Middle of the mounting hole

Output Terminal

Model	80 Watt	100 Watt	120 Watt
Output Terminal	Junction box IP65 with male/female connection		
Cable	4mm ² - 10A - 1000V		

DEEP CYCLE SOLAR BATTERY 70AH -200AH



Introduction:

After 10 years of experience in VRLA with Shin Kobe, Exide (INDIA) has finally launched new Ceil Powersafe NXT with the cycle life unmatched with competition nationally and internationally with its unique feature of 5 hours quick recharge option.

Features:

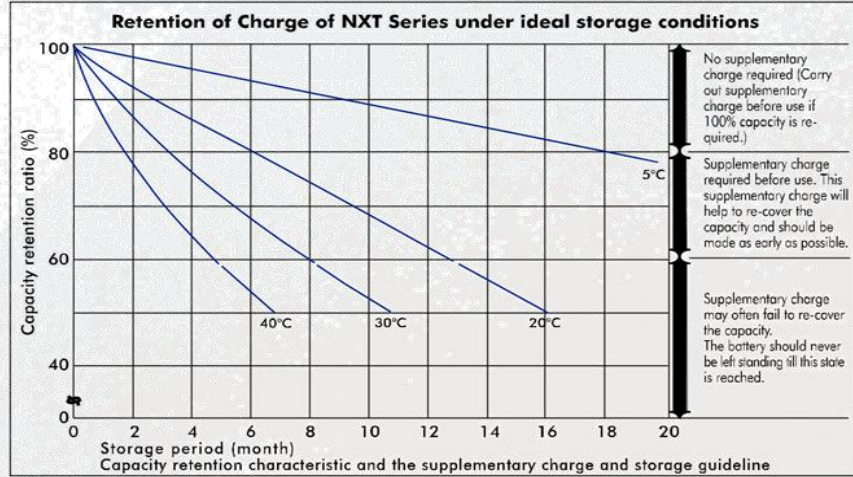
- Deep cycle application
- Fast recovery from deep discharge
- Extended cycle life
- Fast recharge capability
- Excellent charge retention
- International size
- Free from orientation constraints
- Eco-friendly

Specification Table

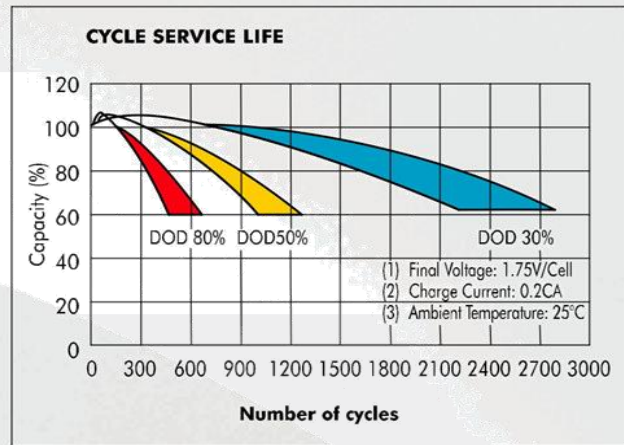
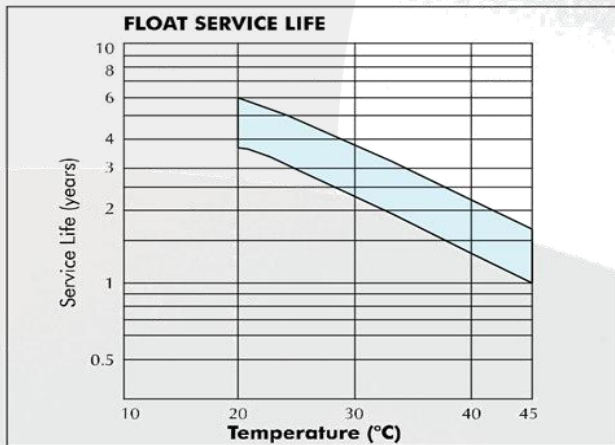
Battery Type	Nominal Voltage (V)	Rated Capacity (Ah) at 27°C								(Dimensions in mm)				Weight (Kg.) +/-5%	Internal Resistance (m-ohm)	Maximum Discharge Current (Amps)
		20hr. 1.75 V/cell	10hr. 1.75 V/cell	5hr. 1.75 V/cell	3hr. 1.75 V/cell	2hr. 1.75 V/cell	90 mins. 1.75 V/cell	60 mins 1.75 V/cell	30 mins 1.75 V/cell	Overall Height +/-3	Height up to lid +/-3	Length +/-2	Width +/-2			
NXT 17-12	12	17	15.5	14.0	13.0	12.0	11.0	9.5	7.5	167	167	181	76	5.90	15	255
NXT 26-12	12	26	23.5	21.0	19.5	18.0	17.0	14.5	11.5	175	175	166	125	9.60	10	390
NXT 42-12	12	42	38.0	34.0	31.5	29.5	27.5	23.0	19.0	170	170	197	165	13.80	8	420
NXT 65-12	12	65	58.5	52.5	49.0	45.5	43.0	36.0	29.5	174	174	350	166	22.00	8	500
NXT 100-12	12	100	90.0	81.0	75.0	70.0	66.0	55.0	45.0	235	235	407	173	35.00	6	600
NXT 150-12	12	150	135.0	121.5	112.5	105.0	99.0	82.5	67.5	240	240	557	172	50.00	6	900
NXT 200-12	12	200	180.0	162.0	150.0	140.0	132.0	110.0	90.0	240	240	533	250	67.00	5	1200

Note: Batteries are despatched from factory at minimum 90% state of charge. Full capacity is achieved after a minimum ten numbers of charge - discharge cycle at full depth or 3 months of continuous float operation.

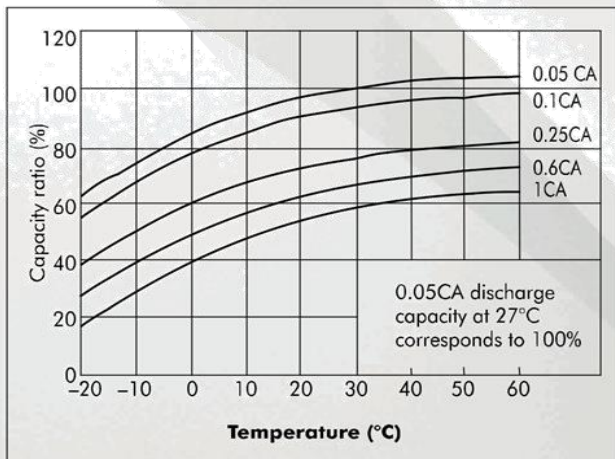
CAPACITY RETENTION



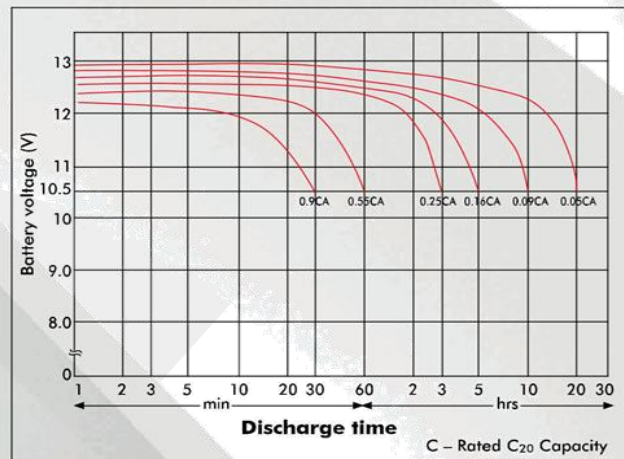
NXT SERVICE LIFE



EFFECT OF TEMPERATURE ON CAPACITY



NXT DISCHARGE CHARACTERISTICS



CHARGE CONTROLLER



Charge current up to 50 A and PV voltage up to 75 V

The BlueSolar 75/50-MPPT charge controller is able to charge a lower nominal-voltage battery from a higher nominal voltage PV array.

The controller will automatically adjust to a 12 or 24V nominal battery voltage.

Ultra-fast Maximum Power Point Tracking (MPPT)

Especially in case of a clouded sky, when light intensity is changing continuously, an ultra fast MPPT controller will improve energy harvest by up to 30% compared to PWM charge controllers and by up to 10% compared to slower MPPT controllers.

Advanced Maximum Power Point Detection in case of partial shading conditions

If partial shading occurs, two or more maximum power points may be present on the power-voltage curve.

Conventional MPPT's tend to lock to a local MPP, which may not be the optimum MPP. The innovative BlueSolar algorithm will always maximize energy harvest by locking to the optimum MPP.

Outstanding conversion efficiency

No cooling fan. Maximum efficiency exceeds 98%. Full output current up to 40°C (104°F).

Flexible charge algorithm

Eight preprogrammed algorithms, selectable with a rotary switch (see manual for details)

Extensive electronic protection

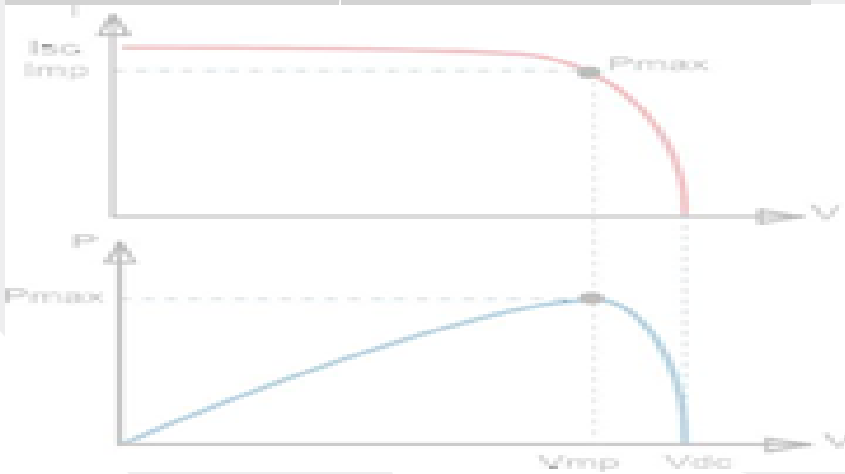
Over-temperature protection and power derating when temperature is high. PV short circuit and PV reverse polarity protection.

PV reverse current protection.

Internal temperature sensor

Compensates absorption and float charge voltages for temperature

BlueSolar charge controller		MP PT 75/50
Battery voltage	12/24V Auto Select	
Maximum battery current	50 A	
Maximum PV power, 12V 1a,b)	700 W (MPPT range 15 V to 70 V)	
Maximum PV power, 24V 1a,b)	1400 W (MPPT range 30 V to 70 V)	
Maximum PV open circuit voltage	75 V	
Maximum efficiency	98 %	
Self-consumption	10 mA	
Charge voltage 'absorption'	Default setting: 14,4 V / 28,8 V	
Charge voltage 'float'	Default setting: 13,8 V / 27,6 V	
Charge algorithm	multi-stage adaptive	
Temperature compensation	-16 mV / °C resp. -32 mV / °C	
Protection	Battery reverse polarity (fuse) Output short circuit Overtemperature	
Operating temperature	-30 to +60°C (full rated output up to 40°C)	
Humidity	95 %, no n-condensing	
Data communication port	VE.Direct See the data communication white paper on our website	
		ENCLOSURE
Colour	Blue (RAL 5012)	
Power terminals	13 m ² / AWG6	
Protection category	IP43 (electronic components), IP22 (connection area)	
Weight	1,25 kg	
Dimensions (h x w x d)	130 x186 x 70 mm	



Maximum Power Point Tracking

Upper curve:

Output current (I) of a solar panel as function of output voltage (V).

The maximum power point (MPP) is the point Pmax along the curve where the product $I \times V$ reaches its peak.

Lower curve:

Output power $P = I \times V$ as function of output voltage.

When using a PWM (not MPPT) controller the output voltage of the solar panel will be nearly equal to the voltage of the battery, and will be lower than V_{mp} .

LEDXION S439 SERIES 30W, 40W, 60W LED STREET LANTERN

LED TECHNICAL DATA

Typical Luminous Flux & Efficiency @ 350 mA:

- 144lm

Max Junction Temperature:

- 150°C

Color Temperature:

- 3500K Warmwhite & 5300K Daylight

LED Life Cycle:

- 50,000 hrs

LUMINAIRE TECHNICAL DATA

LED Light Source:

- 1 LED Module x 14 LUMILEDS LUXEON Rebel ES (30W)
- 1 LED Module x 18 LUMILEDS LUXEON Rebel ES (40W)
- 2 LED Modules x 14 LUMILEDS LUXEON Rebel ES (60W)

Housing Material:

- Die-cast aluminium finished with durable polyester epoxy powder coating

Operating Temperature:

- -30°C ~ +45°C

Power Supply:

- AC : 90 ~ 305Vac 50 / 60Hz

Max System Power Consumption:

- 34W
- 42W
- 66W

Total Luminous Flux:

- 30W - 2800lm
- 40W - 3800lm
- 60W - 5600lm

Classification:

- Class II Power Supply

Ingress Protection:

- IP66 (Lamp & Gear Compartments)

Mounting Spigot

- ø50mm

Pole Installation Details (mm)

- Pole diameter ø42-50mm

Nett Weight:

- 4.0 kg

COMPLIANCE STANDARD

LED:

- LM 80

Driver:

- UL/CUL, CE, EN55015, EN61000, EN61457

Luminaire:

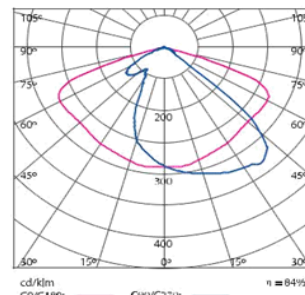
- LM 79, EN 60598-1, EN 60598-2-3, EN62471, EN62493, EN61000-3, EN61547



APPLICATION

- General Minings & Conveyor Lightings
- Pathways & Parks
- Shopping Areas & Car Parks
- Foot Paths & Access Ways
- Road Lightings & Residential Areas

PHOTOMETRIC

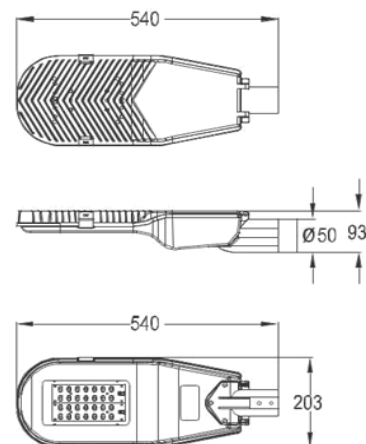


ORDER CODE

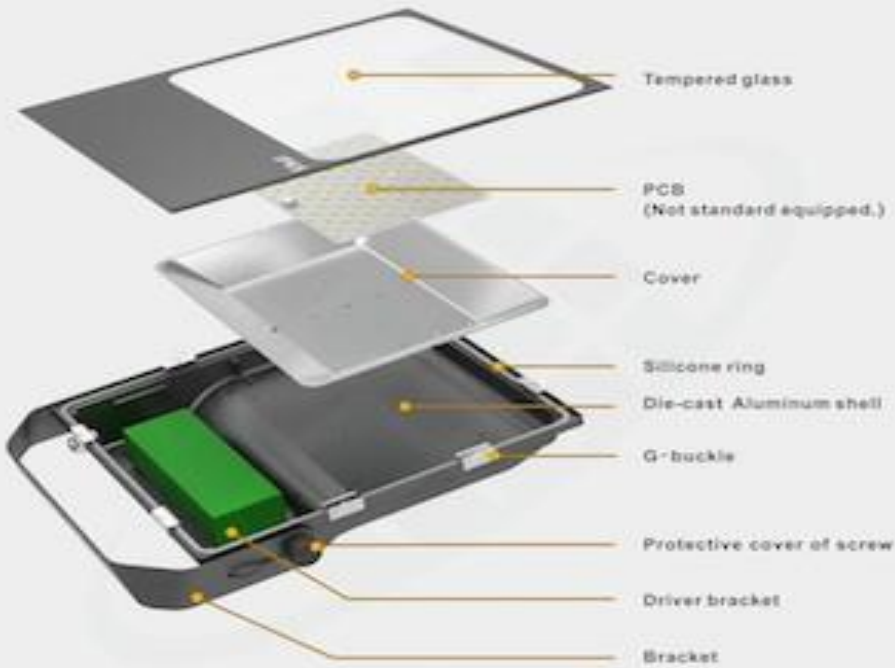
- S439 30W - LEDXION K09360 30W
- S439 40W - LEDXION K09360 40W
- S439 60W - LEDXION K09360 60W

* Please indicate color temperature when ordering.

DIMENSION



100 – 600 WATT LED FLOOD LIGHTS FOR SOLAR & ELECTRICAL HIGH MASTS RESPECTIVELY.



ALL IN ONE INTERGRATED SOLAR STREET LAMP_– 30WATT – 120WATT



30MTR HIGH MAST COMISSIONING



President Uhuru Kenyatta commissioned one of our 30mtr high mast installed in Starehe boys Nairobi County

30MTR HIGH MAST INSTALLATION



30MTR HIGH MAST INSTALLATIONS IN NAKURU NJORO TOWN

ELECTRO-MECHANICAL WINCH FOR 30MTR & SOLAR MASTS

- Lifting Capacity up to 3Ton
- Single Drum Type
- Galvanized wire rope 8mm Diameter; 35Mtrs on the Drum
- 1 H.P Motor
- Directional Change over switch

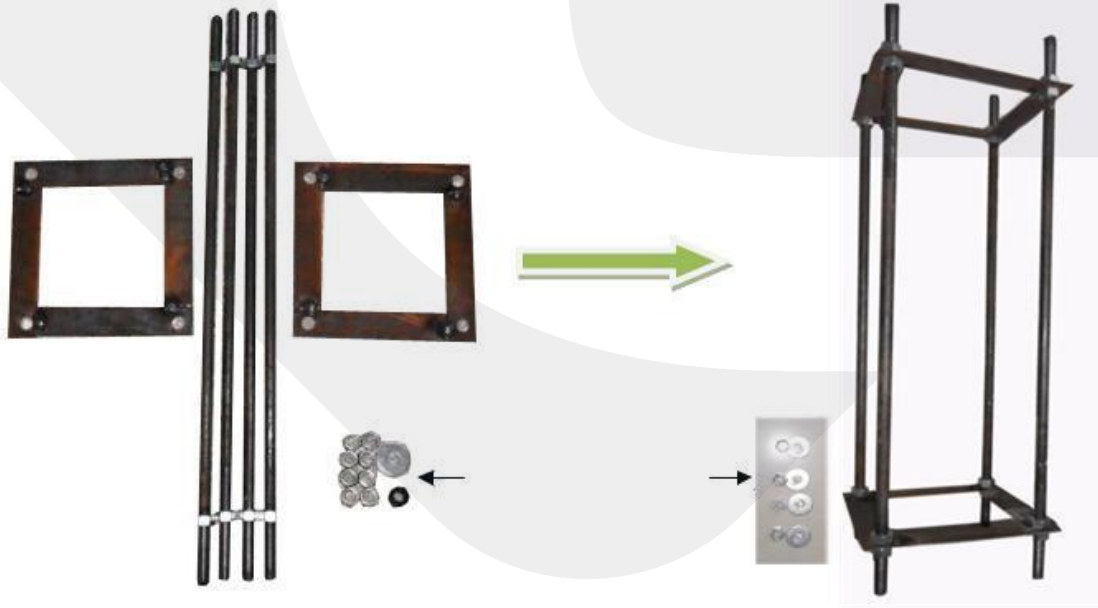


FOUNDATION KIT FOR STREET & HIGH MAST LIGHTING POLES.



18MTR & 30MTR ANCHOR STUD

STREET POLES ANCHOR STUD

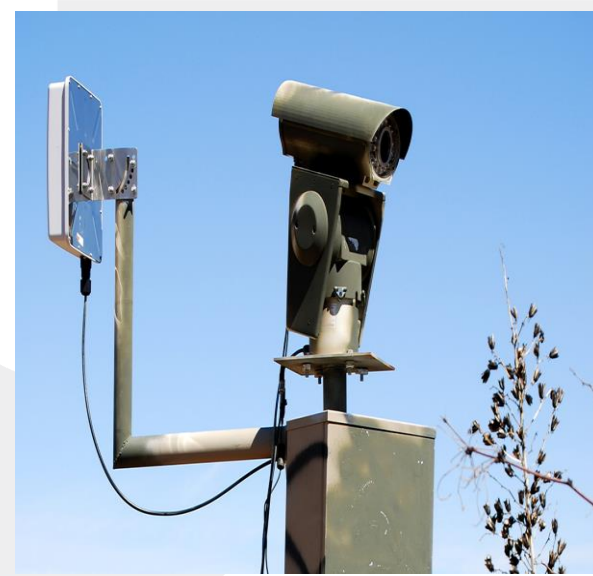


DIGITAL TOWNS

INTERGRATED COMMUNICATION AND SURVEILLANCE SOLUTIONS

Edkan Enterprises is at the forefront in ensuring that we provide quality & affordable solutions for fast communication and Public security & safety, essential for our growing economic hubs in a digitalized world.

Cities are growing at a very fast pace – by 2050, another three billion or so people will be living in urban settings instead of rural areas. This trend poses new challenges for society; among other things, it is already increasing the need to improve and reinforce existing communication and security concepts.



County governments face the challenge of reassuring citizens and businesses by preventing and minimizing potential threats. These include vandalism, burglary, and all other forms of crime. There is also a need to ensure efficient processes in everyday public life, for instance managing traffic flow and enhancing communication networks for fast trade. There is therefore a need for Governmental bodies to embrace advanced technologies for enhancing communication, security and safety as efficiently and reliably as possible. We also see a growing need for user-friendly, intelligent systems that are easily integrated with multiple other systems, such as those that link and coordinate the responses of police, fire departments, and hospitals to accidents or natural disasters.

Our Systems offers you a comprehensive portfolio of innovative, reliable, high-quality products for implementing a city surveillance and communication solution that meets your requirements. You can depend on them to deliver a fast, substantial return on your investment.

SOLAR POWERED WIRELESS SURVEILLANCE SOLUTIONS



We offer a wide range of networked solutions for efficiently monitoring buildings and public areas and effectively managing security, safety, and communications. Our IP networked video surveillance is one part of our portfolio. It provides a host of benefits that enable faster detection and prosecution of accidents and crimes and, in many cases, constitute effective deterrents to prevent crimes from being committed in the first place.



ADVANTAGES OF SURVEILLANCE

- Deter Detect illicit transactions
- Monitor crowds
- Fight Crime
- Monitor Traffic & catch offenders

Our Answer to Your Integration Needs

With all of the systems and equipment that can be installed to monitor and manage potentially dangerous situations, it is a challenge to efficiently manage and coordinate them all. Enterprise-class management systems include an advanced user interface cockpit that lets a single operator efficiently monitor and control all security systems. They also enable seamless management of digital video, audio, and data over any IP network.

When a critical situation arises, the system displays alarms on location maps: symbols and audible signals immediately indicate their source. You can also define alarm workflows based on scenarios to ensure immediate and appropriate responses.

A Complete Solution for Integrated Building Management

No matter how comprehensive and complex your building management requirements are, the Building Integration System (BIS) responds flexibly and is extremely easy to use. It is an all-in-one modular platform that combines multiple technical systems: for fire and intrusion alarms, video monitoring, access control, and evacuation. The BIS provides a complete overview of your organization, right down to showing the status of individual detectors. It is based exclusively on proven IT standards – which makes it easy to integrate third-party security and building management systems. This generates synergies while ensuring optimal service and compatibility with existing systems – thus safeguarding your investments.

OUTDOOR & INTERIOR DECOS:

Our fabrication team designs and plays a vital role in decorative works for today's modern housing. Some of our products are:-

- Aluminium Curtain Walling for High rise buildings
- Aluminium office partitioning
- Gypsum Designs and installations
- Curtain rods, wall Brackets & Holdbacks
- Decorative Solar Garden lighting poles
- Curtains, Drapes, Shades & Blinds

CURTAIN RODS

Our curtain rods are fabricated from the following material and have different type of surface finishes:-

Rod Material:

- Round Tubes 1" DIAMETER CLASS B
- Flat Bar 1" X 1/8" for wall brackets
- Drawn wire Gauge 14 for curtain rings
- Round bar R12 for Holdbacks
- Decorated Ready-made finials -Flower endings on the rods and holdbacks

Surface Finish:

- Gold & Silver Electroplating on all materials
- Decorative Powder Coating on all materials

FIND ATTACHED SEPARATE COMPRESSED FOLDER WITH PHOTOS OF OUR INTERIOR DESIGN WORK

ENVIROMENTAL POLICY STATEMENT:

Edkan Enterprises is committed to leading the industry in minimizing the impact of its activities on the environment.

The key points of its strategy to achieve this are:

- Minimize waste by evaluating operations and ensuring they are as efficient as possible.
- Minimize toxic emissions through the selection and use of its fleet and the source of its power requirement.
- Actively promote recycling both internally and amongst its customers and suppliers.
- Source and promote a product range to minimize the environmental impact of both production and distribution.
- Meet or exceed all the environmental legislation that relates to our business.

THE TEAM:-

EDWARD K.KINYUA:- Entrepreneur/Director Edkan Enterprises. Holds a Diploma in Aeronautical Engineering from the Technical University Of Kenya.

CHARLES MUIRURI WANJAU: - Head of Management. Holds a Masters in Project management and Planning from University of Nairobi. Has been in the Banking Industry **Equity Bank Kenya Ltd** holding various positions:-

Credit Risk Analyst -Head Office (2015 – 2016)

Project financing SME Manager (2011-2015)

Credit Monitoring & Evaluation officer (2008-2012)

DAVID GUCHU: - Head of Finance. Holds a BA (Economics) from Moi University, CPA graduate and finalizing MA in leadership and Entrepreneurship at (PAC University). Has a wealth of experience in Banking and Financial consultancy. Expert in SWOT and PESTLE analysis of African Economies

ROSE NJOKI: - Head of Marketing. Has 15+ years of experience in business development in the private sector for both local and international companies. This has seen her cover several African countries to increase revenues for the organizations she has worked with.

She is also a co-founder of Entrepreneurs spot and responsible for marketing and investor relations. She has a keen eye for identifying potential businesses & growing them and sits on various business advisory teams.

HENRY K. MACHARIA: - Head of Engineering. Holds a Bachelors Degree in Industrial Engineering. Has a wealth of experience in Entrepreneurship, owns Global Logistics later changed to Global Consolidated in the State of Delaware USA. An awardee of - Entrepreneur of the Year 2012 Delaware State.

JUSTU WERU IRUNGU: - Head Systems Development. Post Graduate Software Engineering, Entrepreneurship at Strathmore School of Business. A full time Entrepreneur and Managing Director at Amaris Solutions.

OUTSOURCED MANAGEMENT TEAM:-

FINANCE: - G&G ASSOCIATES

LEGAL: - TRIPLEMf & ASSOCIATES

HUMAN RESOURCE:-REEDS AFRICA CONSULT

Signed by Director of company



EDWARD K.KINYUA.