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PRODUCT CATALOGUE

Comprehensive catalogue showcasing innovative, high-quality products tailored for diverse customer needs.

2026



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ELECTRICAL

SECTION DESCRIPTION

Products related to power distribution, wiring, and electrical infrastructure, suitable for general, industrial, and renewable energy use.

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CABLES

SUBSECTION INTRODUCTION

Our cable portfolio is designed to deliver superior performance, safety, and durability in South Africa's challenging environmental and operational conditions. We specialize in Copper Conductor Steel Wire Armoured (SWA) cables with PVC insulation and Low Harmonic Current (LHC) ratings, ensuring reliability and efficiency in modern electrical networks where harmonic distortion can compromise system performance.



Low Voltage Armored Power Cables (CU / PVC / SWA / PVC – LHC)



Voltage Rating: 600/1000V



Standards: IEC 60502-1 / SANS 1507-3 / BS 5467



Conductor: Plain annealed stranded copper (Class 2)



Insulation: PVC Type B (Heat-resistant, flame-retardant)



Bedding: Extruded PVC or thermoplastic bedding



Armour: Galvanised steel wire armour (SWA) for mechanical protection



Sheath: PVC (Low Halogen Content – LHC, flame retardant and UV resistant)



Core Identification: Colour coded or numbered to IEC or SANS standard



1 2.5mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating (Air/Ground): ~30A / ~27A

 Voltage Rating: 600/1000V

 Max Conductor Temperature: 70°C

 Outer Diameter (approx.): 18-20 mm



 **Application:**
Ideal for low-load distribution circuits, lighting circuits, and small control panels. Commonly used in building infrastructure and short-run outdoor installations.

2 4mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating (Air/Ground): ~30A / ~27A

 Voltage Rating: 600/1000V

 Max Conductor Temperature: 70°C

 Outer Diameter (approx.): 18-20 mm



 **Application:**
Ideal for low-load distribution circuits, lighting circuits, and small control panels. Commonly used in building infrastructure and short-run outdoor installations.

3 16mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating: ~87A (Air) / ~78A (Ground)

 Voltage Rating: 600/1000V

 Outer Diameter: ~28-31 mm

 Weight: ~1.2 kg/m



 **Application:**
Power feeders to small substations, rural installations, agricultural irrigation panels, and generators.

4 4mm² x 19

Core SWA PVC Blue Stripe

 Dimensions: Multi-core 19 x 4mm²

 Voltage Rating: 600/1000V

 Steel Wire Armoured (SWA)

 **Operation:**
PVC insulated and PVC sheathed armored cable with blue stripe identification.



 **Application:**
Industrial power/control wiring; suitable for underground and surface installations; mechanical protection; 12-month warranty equivalent.



1 35mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating: ~142A / ~126A

 Voltage Rating: 600/1000V.

 Outer Diameter: ~36-39 mm

 Weight: ~2.4 kg/m



 **Application:**
Suitable for load centers, underground feeders, and distribution boards in commercial and small industrial setups.

2 70mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating: ~217A / ~192A

 Voltage Rating: 600/1000V.

 Outer Diameter: ~45-49 mm

 Weight: ~3.9 kg/m



 **Application:**
Ideal for large buildings, remote site power transmission, motor feeders, and high-demand irrigation systems.

3 95mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating: ~260A / ~231A

 Voltage Rating: 600/1000V.

 Outer Diameter: ~50-55 mm

 Weight: ~5.1 kg/m



 **Application:**
Used in mining infrastructure, substations, borehole installations, and main low-voltage feeders.

4 120mm² x 4

Core CU PVC SWA PVC LHC Cable

 Current Rating: ~300A / ~265A

 Voltage Rating: 600/1000V.

 Outer Diameter: ~55-60 mm

 Weight: ~6.5 kg/m



 **Application:**
Large-scale infrastructure such as hospitals, data centers, industrial machines, and transformers.



1 150mm² x 4

Core CU PVC SWA PVC LHC Cable

⚡ Current Rating: ~340A / ~298A

⚡ Voltage Rating: 600/1000V.

⊘ Outer Diameter: ~60-65 mm

⚖ Weight: ~8.2 kg/m



🏠 **Application:**
Extremely high-demand power transmission used in mining, utilities, airports, and solar farms.

2 37 Core 1.5mm²

H07 Rubber Trailing Cable

🏷 Type: H07RN-F

⚡ Voltage Rating: 450/750V

🔗 Conductor: Flexible Class 5 copper

🎯 Insulation: EPR (Ethylene Propylene Rubber)

🛡 Sheath: CPE (Chlorinated Polyethylene Rubber), Black

★ Features: High flexibility, impact and oil resistance, flame retardant



🏠 **Application:**
Trailing cables for mobile equipment such as lifts, conveyors, cranes, and mining machinery. Resistant to mechanical stress and harsh environments.

3 37 Core 1.5mm²

Texoprene TRM-J Yellow
690/1150V Unscreened

⚡ Voltage Rating: 690/1150V

🔗 Conductor: Flexible tinned copper

🎯 Insulation & Sheath: Texoprene® (special compound similar to rubber)

⚙ Colour: Safety yellow for high visibility



🏠 **Application:**
Control and flexible power supply cable in heavy-duty applications such as mining, panel interconnection, or transportable equipment.

4 19mm² x 4

Core CU PVC SWA PVC LHC Cable

⚡ Voltage Rating: 600/1000V

⚡ Current Rating: ~99A / ~88A

⊘ Outer Diameter: ~32-34 mm



🏠 **Application:**
An uncommon but highly specified cable size for niche applications such as pump stations, small substations, or specific design specs in infrastructure projects.



1 H07RN-F 120mm² x 4 Core Trailing Cable



Dimensions: Overall dia. ~56.7 mm
Conductor Dia.: ~14.9 mm



Operation:
Four-core flexible Cu EPR-insulated rubber-sheathed cable for 450/750V, suitable for heavy duty trailing, mobile applications in harsh environments.



Application:
Power supply for construction sites, mining, cranes, portable equipment; oil, water, abrasion resistant; EN 50525-2-21 compliant; 12-month warranty equivalent.



2 Assortment of Electrical Cable Lugs:



Sizes & Designs:
Includes a range of sizes from small to larger, with straight and angled barrels for crimping onto cable ends. Ring holes vary in diameter to fit different bolt or stud sizes, typically M3 to M12.



Features:
Crimp-style installation for secure, vibration-resistant joints; some with insulation options (not shown); compliant with standards like IEC 61238 or UL for reliable performance.



Application:
Used for terminating stranded or solid wires in power distribution, automotive wiring, marine environments, industrial panels, and grounding systems. Ideal for creating low-resistance connections in harsh conditions, such as mining or agricultural setups in South Africa, where mechanical protection and longevity are key. Commonly paired with SWA or PVC cables for complete installations.





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TRANSFORMERS

SUBSECTION INTRODUCTION

Our transformers are engineered and tested to deliver reliable voltage conversion and efficient power distribution across a wide range of applications. Each unit is manufactured in compliance with stringent South African quality standards, featuring durable construction and advanced cooling systems to ensure consistent performance and extended service life.



25 kVA

11kV/400V Pole Mount Transformer

	Type:	Distribution Transformer (Pole Mounted)
	Primary Voltage:	11,000V
	Secondary Voltage:	400V
	Rated Capacity:	25 kVA
	Mounting Type:	Pole Mounted
	Phase:	3-Phase



 **Description:**
This compact 25 kVA transformer is designed for rural electrification and small commercial loads. Ideal for use in remote or agricultural areas, it ensures reliable step-down from high-voltage distribution lines to usable low-voltage supply.

-  **Features:**
- Weatherproof galvanized steel tank
 - Mineral oil-cooled (ONAN type)
 - Low noise operation
 - Surge protection compatible
 - Compliant with SANS and IEC standards

-  **Applications:**
- Farms
 - Smallholdings
 - Remote housing projects
 - Roadside utilities

50 kVA

11kV/400V Pole Mount Transformer

	Type:	Distribution Transformer (Pole Mounted)
	Primary Voltage:	11kV
	Secondary Voltage:	400V
	Rated Capacity:	50 kVA
	Mounting Type:	Pole Mounted
	Phase:	3-Phase



Description:

A robust, medium-capacity distribution transformer used in overhead power lines for residential and light industrial applications. Delivers dependable performance in variable climates.



Features:

- Hot-dip galvanized steel tank
- High efficiency and low loss core
- Thermally protected windings
- Long-life bushings
- Easy installation and minimal maintenance



Applications:

- Townships
- Agricultural pumping
- Community infrastructure
- Light commercial zones

100 kVA

11kV/400V Ground Mount Transformer

	Type:	Ground/Pad Mounted Transformer
	Primary Voltage:	11kV
	Secondary Voltage:	400V
	Rated Capacity:	100 kVA
	Mounting Type:	Ground Mount
	Phase:	3-Phase



Description:

This transformer offers reliable and efficient energy distribution for industrial and commercial use. Built for ease of access and long service life, especially where space allows for ground installations.



Features:

- Heavy-duty oil-immersed transformer
- Hermetically sealed tank
- Pressure relief valve & oil level indicator
- Copper or aluminium windings available
- Anti-corrosion paint finish



Applications:

- Small factories
- Housing developments
- Warehouses
- Agricultural processing units

200 kVA

11kV/400V Ground Mount Transformer

	Type:	Ground/Pad Mounted Transformer
	Primary Voltage:	11kV
	Secondary Voltage:	400V
	Rated Capacity:	200 kVA
	Mounting Type:	Ground Mount
	Phase:	3-Phase



Description:

A reliable power distribution unit for medium-scale industrial and commercial facilities.
Designed for continuous operation under varying load conditions.



Features:

- High overload tolerance
- Integrated safety and thermal protection
- Core built from low-loss cold-rolled grain-oriented steel
- Suitable for indoor or outdoor use
- Tested according to SANS/IEC specifications



Applications:

- Shopping complexes
- Agricultural pack houses
- Office parks
- Cold storage facilities



315 kVA

11kV/400V Ground Mount Transformer



Type:

Ground/Pad Mounted Transformer



Primary Voltage:

11kV



Secondary Voltage:

400V



Rated Capacity:

315 kVA



Mounting Type:

Ground Mount



Phase:

3-Phase



DESCRIPTION:

This 315 kVA transformer is an ideal solution for high-demand environments requiring consistent power distribution. Often used in commercial and light industrial setups.

★ FEATURES:

- ✓ High-efficiency core and coil design
- ✓ Thermally upgraded insulation system
- ✓ Anti-vibration mounting base
- ✓ Environmentally friendly insulating oil
- ✓ Optional RMU and LV switchgear integration

🎯 APPLICATIONS:

- 🏭 Industrial parks
- 🏥 Hospitals
- 🚛 Mining support operations
- 🖨 Data centres

500 kVA

11kV/400V Ground Mount Transformer

	Type:	Ground/Pad Mounted Transformer
	Primary Voltage:	11kV
	Secondary Voltage:	400V
	Rated Capacity:	500 kVA
	Mounting Type:	Ground Mount
	Phase:	3-Phase



Description:

Built for heavy-duty performance, this high-capacity transformer supports critical operations with uninterrupted power distribution.



Features:

- Copper windings for improved conductivity
- Vacuum-sealed oil filling for moisture resistance
- Cooling fins for enhanced heat dissipation
- Fault indicator and tamper-proof design
- Compliant with utility and mining standards



Applications:

- Manufacturing plants
- Mines and quarries
- High-density housing
- Infrastructure projects

3-PHASE

Step-Up Transformer

	Type:	Step-Up Transformer
	Input Voltage:	50V AC
	Output Voltage:	550V AC
	Current Rating:	400 Amps
	Phase:	3-Phase





Description:

This transformer is engineered to increase low voltage supply (50V) to high voltage (550V), making it ideal for boosting voltage in test facilities, manufacturing setups, or specialized power needs.

- 
- ### Features:

 - Dry-type or oil-cooled options
 - Strong magnetic core with minimal losses
 - High current carrying capacity
 - Thermal and overload protection
 - Compact and durable housing

- 
- ### Applications:

 - Control panel testing
 - Motor startup equipment
 - Industrial labs
 - Marine or railway systems



1 PHASE TRANSFORMER 230:110V

-  **Rating:** 230V primary | 110V secondary | Single-phase
-  **Operation:** Step-down isolation transformer for voltage conversion.
-  **Application:** Site tools, construction equipment, industrial applications; enclosed type; 12-m



DRY-TYPE CAST RESIN TRANSFORMER 1250kVA 22kV/0.42kV

-  **Rating:** 22kV primary | 0.42kV secondary | Three-phase
-  **Operation:** Air-cooled dry-type transformer for safe, maintenance-free voltage step-down without oil. Compliant with IEC standards.
-  **Application:** Ideal for mining operations, indoor industrial setups, and areas with fire safety concerns like coal mines in South Africa; enclosed design; 12-month warranty equivalent.



CURRENT TRANSFORMER 33kV

-  **Rating:** Up to 33kV | Various ratios (e.g., 100/5A) | Single or three-phase
-  **Operation:** Instrument transformer for measuring high currents safely by stepping down to measurable levels for meters and protection relays.
-  **Application:** Medium voltage reticulation in utilities, mining substations, and industrial power monitoring in South Africa; outdoor or indoor use; 12-month warranty equivalent.

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SUBSECTION INTRODUCTION

BREAKERS & SWITCHGEAR



Our breakers and switchgear solutions are engineered to deliver uncompromising safety, reliability, and efficiency across diverse electrical applications—from small commercial installations to large-scale industrial systems.



Built for robust performance under demanding conditions, each product is designed for ease of installation, low-maintenance operation, and seamless integration into modern power distribution networks.



125A 3-PHASE MINIATURE CIRCUIT BREAKER (MCB)

⚡	Rated Capacity:	125A
💡	Breaking Capacity:	10kA
🏠	Mounting:	DIN rail compatible
🛡️	Enclosure:	IP65 weatherproof enclosure
🏢	Application:	Designed for lighting circuits and small motor loads in commercial and residential systems.

FEATURES:

- Fast and reliable short circuit protection
- Overload protection
- Compact design for space-saving installations
- Ideal for control panels, distribution boards, and general lighting protection.



250A MOLDED CASE CIRCUIT BREAKER (MCCB) 3-POLE

⚡	Rated Capacity:	250A
💡	Breaking Capacity:	25kA
⚙️	Trip Settings:	Adjustable thermal-magnetic trip
🏢	Application:	Ideal for medium load circuits in industrial, commercial, and agricultural installations.

FEATURES:

- Adjustable trip units for customized protection
- High fault level tolerance
- Compact and rugged enclosure
- Provides protection against overloads and short circuits



400A MCCB 3-POLE

	Rated Capacity:	400A
	Breaking Capacity:	35kA
	Enclosure:	Lockable design for enhanced safety
	Application:	Used in distribution boards, panel boards, and for machinery requiring robust protection.

FEATURES:

- High breaking capacity for demanding applications
- Reliable protection for motor and power distribution circuits
- Long life mechanical and electrical endurance



630A MCCB 3-POLE

	Rated Capacity:	250A
	Breaking Capacity:	25kA
	Trip Settings:	Adjustable thermal-magnetic trip
	Application:	Ideal for medium load circuits in industrial, commercial, and agricultural installations.

FEATURES:

- Adjustable trip units for customized protection
- High fault level tolerance
- Compact and rugged enclosure
- Provides protection against overloads and short circuits

800A AIR CIRCUIT BREAKER (ACB)

⚡	Rated Capacity:	800A
💡	Breaking Capacity:	65kA
🔧	Design:	Draw-out configuration for ease of maintenance
🏢	Application:	Perfect for high-capacity systems like commercial buildings, data centers, hospitals, and substations.

FEATURES:

- High interrupting capacity for major fault currents
- Modular design with accessories like undervoltage and shunt trips
- Service-friendly with replaceable contacts
- Excellent reliability for continuous power systems

CHANGEOVER SWITCH 160A

⚡	Rated Current:	160A
⚡⚡⚡⚡	Poles:	4-Pole
🛡️	Enclosure Rating:	IP65 Weatherproof
👤	Operation:	Manual source transfer
🏢	Application:	Suitable for switching between main and backup generators in outdoor or dusty environments. Ideal for large-scale backup systems in factories, commercial buildings, or agricultural processing units.

FEATURES:

- Corrosion-resistant housing
- Secure and clear switching position indication
- Compact and durable design
- Easy to operate under emergency conditions





CHANGEOVER SWITCH 400A

-  **Rated Current:** | **400A**
-  **Operation:** | **Manual or Automatic**
-  **Application:** | **Ideal for large-scale backup systems in factories, commercial buildings, or agricultural processing units.**

FEATURES:

- Enables uninterrupted power supply
- Automatic version offers hands-free switching during power failure
- High reliability for critical systems
- Built to handle high loads and long operating life

6kA 1P 6A CIRCUIT BREAKER C-CURVE

-  **Rating:** | **6kA breaking capacity | 1 Pole | 6 Amp | C-Curve**
-  **Operation:** | **Miniature circuit breaker providing overload and short-circuit protection.**
-  **Application:** | **Residential, commercial, and light industrial distribution boards; DIN-rail mountable; 12-month warranty equivalent.**





11 PIN RELAY 10A 3C/O

-  **Rating:** 10 Amp | 3 Changeover contacts | 11-pin base
-  **Operation:** Electromechanical control relay for switching circuits.
-  **Application:** Control panels, automation systems, motor control; plug-in base type; 12-month warranty equivalent.



CONTACTOR

-  **Rating:** Varies by model (AC motor control)
-  **Operation:** Electrically controlled switch for switching power circuits.
-  **Application:** Motor starters, industrial automation, HVAC systems; 12-month warranty equivalent.



CURRENT MONITOR

-  **Operation:** Monitors load current and provides output signal for protection or control.
-  **Application:** Motor protection, load monitoring, automation systems; DIN rail or panel mount; 12-month warranty equivalent.



SCHNEIDER ELECTRIC iPRD40r SURGE ARRESTER

-  **Type:** Modular Type 2 surge protection device for 3-phase systems
-  **Operation:** Diverts transient overvoltages and surge currents to ground, with pluggable cartridges for quick replacement and remote signaling.
-  **Application:** Protects electrical installations in residential, commercial, and industrial settings from lightning and power surges; DIN rail mounted in distribution boards.

HUBER+SUHNER

COAXIAL SURGE PROTECTOR



Type:

RF coaxial lightning arrester with gas discharge tube or hybrid technology



Operation:

Discharges high-energy surges from lightning strikes to ground while maintaining low residual voltage and minimal signal interference.



Application:

Safeguards antenna, telecommunications, broadcasting, and RF equipment in communication towers, military, and wireless systems.



MAIN DISTRIBUTION BOARD (MDB)

⚡	Rated Size:	100–800 A, 12–54 ways
⚙️	Operation:	Central incoming power distribution and protection
🏠	Application:	Ideal for residential and small-to-medium commercial solar installations as the primary board that receives power from the utility, solar inverter, and battery system.

FEATURES:

- Main isolator + surge protection + metering section
- Separate compartments for utility, solar, and backup feeds
- Up to 4-pole MCCB or switch-disconnector
- Fully type-tested to SANS 61439-3
- IP40–IP54 indoor enclosure with removable gland plates
- Pre-wired neutral and earth bars with 100 % capacity



SUB-DISTRIBUTION BOARD (SDB)

⚡	Rated Size:	63–250 A, 8–36 ways
⚙️	Operation:	Secondary circuit distribution from main board
🏠	Application:	Perfect for splitting power to different floors, workshops, outbuildings, or separate solar-fed loads in larger homes and commercial properties.

FEATURES:

- Fed from upstream MDB via sub-main cable
- Miniature circuit breakers (MCBs) or RCBs per circuit
- Dedicated solar or essential-load sections
- Door interlock and lockable handle option
- Surface or flush-mount versions
- Easy expansion with DIN-rail extensions



DC DISTRIBUTION BOARD (PV ARRAY BOARD)

-  **Rated Size:** 600–1500 V DC, 4–16 strings
-  **Operation:** DC string collection, protection and isolation
-  **Application:** Designed for the DC side of solar PV systems – collects multiple strings from the roof or ground array before feeding the inverter.

FEATURES:

- 1000 V or 1500 V DC rated fuses or breakers per string
- Surge protection devices (Type 2) on each pole
- Isolator + DC switch-disconnector
- IP65 weatherproof enclosure for rooftop or ground use
- String monitoring option (current sensors)
- Arc-fault detection ready



HYBRID / CHANGEOVER DISTRIBUTION BOARD

-  **Rated Size:** 63–400 A, 12–36 ways
-  **Operation:** Automatic or manual source changeover (grid ↔ solar ↔ generator)
-  **Application:** Essential for homes and businesses with solar + battery + generator backup that require seamless power switching during loadshedding or outages.

FEATURES:

- Automatic Transfer Switch (ATS) or manual changeover
- Priority solar/battery feeding with grid fallback
- Essential & non-essential load split
- Built-in energy meter and CTs for zero-export control
- Complies with SANS 10142-1 and NRS 097-2-1
- Lockable doors with clear source indication



OUTDOOR WEATHERPROOF DB BOARD

-  **Rated Size:** 63–250 A, 8–24 ways
-  **Operation:** IP65/IP66 protected power distribution
-  **Application:** Ideal for solar farm control rooms, rooftop solar installations, agricultural pumps, and any exposed location where the board must withstand rain, dust and direct sunlight.

FEATURES:

- Polycarbonate or powder-coated steel enclosure
- IP65–IP66 rating with transparent or solid door
- UV-stabilised and corrosion resistant
- Gland plates top and bottom for easy cable entry
- Thermostat + heater option for condensation control
- Padlockable handle and internal DIN rails



BATTERY DISTRIBUTION BOARD (BDB)

-  **Rated Size:** 100–800 A DC, 4–24 ways
-  **Operation:** DC busbar collection and protection from battery bank
-  **Application:** Ideal for residential and commercial solar battery storage systems, hybrid inverters, and off-grid setups where the battery bank needs safe, monitored distribution to one or multiple inverters and DC loads.

FEATURES:

- Heavy-duty tinned copper busbars rated for full battery current
- High-current DC fuses or MCCBs per string/output
- Integrated current shunt and voltage monitoring terminals
- Main DC isolator with lockable handle
- IP40 indoor or IP65 outdoor enclosure options
- Fully compliant with SANS 10142-1 and IEC 61439-1



BRUSHED DC MOTOR



Rated Power: 10 W – 5 kW



Operation: Commutated DC to rotary mechanical conversion



Application: Ideal for small solar water pumps, ventilation fans, linear actuators, and low-cost single-axis solar trackers in off-grid or 12/24 V battery systems.

FEATURES:

- Simple construction and low initial cost
- Excellent starting torque and easy speed control with PWM
- Compatible with common solar voltages (12 V, 24 V, 48 V)
- Compact and lightweight for portable setups
- Affordable replacement parts
- Requires periodic brush and commutator maintenance

BRUSHLESS DC MOTOR (BLDC)



Rated Power: 50 W – 50 kW



Operation: Sensor-based or sensorless electronic commutation



Application: Perfect for high-efficiency solar trackers, solar pool pumps, cooling fans in inverters, and battery-powered cleaning robots for solar panels.



FEATURES:

- 85–95% efficiency with minimal heat generation
- No brushes = 20,000+ hour lifespan and zero maintenance
- Very quiet and low vibration operation
- Precise speed/torque control via ESC or driver
- High power density in small frame sizes
- Built-in hall-effect sensors or sensorless variants



THREE-PHASE INDUCTION MOTOR



Rated Power: | 0.25 kW – 500 kW



Operation: | AC electromagnetic induction for rotary power



Application: | Best for large solar-powered irrigation pumps, borehole pumps, and industrial loads in grid-tied or hybrid solar systems with VFD control.

FEATURES:

- Extremely rugged and tolerant of dust, heat, and voltage fluctuations
- High efficiency (IE3/IE4) in larger sizes
- Self-starting and simple design
- Proven 20+ year service life in harsh environments
- Requires VFD for variable speed in solar applications
- IP55–IP66 enclosure options available

STEPPER MOTOR



Rated Power: | 10 W – 2 kW (torque-focused)



Operation: | Precise open-loop incremental stepping motion



Application: | Designed for dual-axis solar trackers, heliostats, and precise positioning systems that must follow the sun with 0.1–1° accuracy.

FEATURES:

- Excellent position holding without feedback
- High torque at low speeds (ideal for trackers)
- Microstepping for smooth, silent operation
- Simple pulse/direction control from solar tracker controllers
- Various step angles (0.9°, 1.8°) and NEMA frame sizes
- Low cost for high-precision solar applications





PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM)



Rated Power: 100 W – 100 kW



Operation: AC synchronous permanent-magnet rotation



Application: Ideal for high-efficiency solar water pumps, variable-speed drives in hybrid systems, premium single- and dual-axis solar trackers, and any solar-powered application where maximum efficiency and precise speed control are required.



FEATURES:

- Highest efficiency class (IE4/IE5) – 92–97%
- No rotor copper losses → runs cooler and lasts longer
- Excellent torque density in a compact frame
- Precise closed-loop control with VFD or servo drive
- Very low noise and vibration
- IP65–IP67 outdoor-rated versions available
- Maintenance-free design with 20,000+ hour bearing life



MOTOR SIREN



Type:

Mechanical audible warning device



Operation:

Produces loud, high-decibel warning tones through an electric motor driving a rotor or impeller within a housing, creating air pressure waves that generate sound, often with adjustable pitch or volume via speed control, and designed for durability in harsh environments with weatherproof enclosures.



Application:

Used for emergency alerts, industrial signaling, fire alarms, civil defense warnings, and vehicle sirens, providing audible notifications in factories, ships, public safety systems, and construction sites to ensure rapid response and evacuation.

SINGLE PHASE CAPACITOR START INDUCTION MOTOR



Rating:

0.5 kW – 5 kW | 230V | Single-phase

Operation: AC induction with capacitor for starting torque, suitable for fixed-speed applications.



Application:

Fans, compressors, small pumps in farming and light industrial setups; enclosed fan-cooled type; 12-month warranty equivalent.

SYNCHRONOUS RELUCTANCE MOTOR



Rating:

1 kW – 100 kW | 400V | Three-phase

Operation: Rotor aligns with magnetic field without slip for efficient constant-speed operation.



Application:

High-efficiency pumps, fans, conveyors in mining and renewable energy systems; no rare-earth magnets; 12-month warranty equivalent.



HIGH BAY LIGHTS

-  **Type:** Industrial LED high bay luminaire
-  **Operation:** High-lumen output for large indoor spaces.
-  **Application:** Warehouses, factories, workshops, mining; energy efficient; 12-month warranty equivalent.



DAY/NIGHT SWITCH

-  **Operation:** Photocell-controlled automatic switching based on ambient light levels.
-  **Application:** Street lighting, security lighting, outdoor installations; weather-resistant; 12-month warranty equivalent.



SEALED FLUORESCENT CRUSHER

-  **Type:** Fluorescent lamp disposal unit
-  **Operation:** Safely crushes fluorescent tubes in sealed container to control mercury vapor.
-  **Application:** Industrial waste management and recycling; compliant disposal; 12-month warranty equivalent.



LED STRIP LIGHTS - FLEXIBLE ILLUMINATION

-  **Operation:** Adhesive-backed flexible circuits embedded with SMD LEDs, cuttable at marked intervals and powered via low-voltage adapters; offers color-changing RGB options with remote or app control for customizable ambiance.
-  **Application:** Enhances decor in homes, under cabinets, behind TVs, and in vehicles; used for accent lighting, mood setting, and architectural highlights in residential, commercial, and entertainment spaces.



LED FLOODLIGHT - OUTDOOR



Operation:

High-intensity fixture using LED diodes to convert electrical energy into bright, wide-beam light with minimal heat; activated via switches or sensors for efficient, long-lasting illumination.



Application:

Provides broad-area lighting for security, sports fields, parking lots, and landscapes; energy-efficient solution for outdoor safety, visibility, and deterrence in residential, commercial, and industrial settings.



PORTABLE LED WORK LIGHT



Rating:

50W | 5000 Lumens | Rechargeable Battery | IP67 Rating



Operation:

Handheld or stand-mounted LED light for temporary illumination.



Application:

Construction sites, mining operations, emergency repairs, agricultural fieldwork; impact-resistant; 12-month warranty equivalent.



EXPLOSION PROOF LED LIGHT



Rating:

100W | 13000 Lumens | ATEX Certified | 5000K



Operation:

Rugged LED fixture designed for hazardous environments.



Application:

Mining tunnels, chemical plants, oil refineries, gas stations; flameproof enclosure; 12-month warranty equivalent.



SOLAR POWERED SECURITY LIGHT



Rating:

20W | 2000 Lumens | Motion Sensor | IP65



Operation:

Solar-charged LED light with automatic activation.



Application:

Farm perimeters, rural properties, storage yards, outdoor security; no wiring needed; 12-month warranty equivalent.



MINING

SECTION DESCRIPTION

Tools and equipment for drilling, breaking, and specialized mining operations.





SOLENOID-OPERATED DIRECTIONAL CONTROL VALVE

	Type:	Electrically actuated hydraulic/pneumatic valve
	Operation:	Controls direction of fluid flow using solenoid actuation.
	Application:	Hydraulic systems, industrial machinery, automation; 12-month warranty equivalent.



MILD STEEL ENCLOSURE

	Material:	Powder-coated mild steel
	Operation:	Protective housing for electrical components.
	Application:	Control panels, distribution boards, machinery, installations; wall or floor mount; 12-month warranty equivalent.



GORO HEAVY DUTY BELT FASTENERS

	Type:	Mechanical conveyor belt fasteners
	Operation:	Secures and joins conveyor belts.
	Application:	Mining, bulk material handling, heavy industry; high tensile strength; 12-month warranty equivalent.



OXYGEN SELF RESCUER

	Type:	Chemical oxygen self-rescue breathing apparatus
	Operation:	Provides breathable oxygen in emergency situations.
	Application:	Mining and confined space emergency escape; compact and belt-worn; 12-month warranty equivalent.



SEWAGE PUMP

	Type:	Submersible wastewater pump
	Operation:	Pumps sewage and effluent with solids handling capability.
	Application:	Municipal, industrial, and mining wastewater systems; heavy-duty design; 12-month warranty equivalent.



HYDRAULIC PRESS

	Rating:	20-ton 2" ram stroke 10" working height
	Operation:	Heavy-duty pressing machine for bending and straightening.
	Application:	Automotive repair, bearing installation, metal forming; manual pump; safety overload valve; 18-month warranty equivalent.



MINING HARD HAT LAMP

	Type:	Rechargeable LED cap lamp
	Operation:	Helmet-mounted hands-free lighting.
	Application:	Underground mining, confined spaces, industrial inspection; impact-resistant; 12-month warranty equivalent.



P-500 ACOUSTIC CABLE FAULT LOCATOR

	Fault Detector:	Portable ultrasonic/acoustic receiver unit with telescoping probe, LCD screen, and headphones that detects acoustic signals from cable faults; paired with surge generators.
	Application:	Locating faults in underground cables, utility maintenance, power distribution, high-voltage diagnostics.



P-500 ACOUSTIC CABLE FAULT LOCATOR

	Type:	Portable ultrasonic/acoustic receiver unit
	Operation:	Detects acoustic signals from cable faults using a telescoping probe for ground contact, with an LCD screen displaying frequency and signal strength, supported by headphones for audio monitoring and paired with surge generators for high-voltage testing.
	Application:	Used for locating faults in underground cables, such as arcs or thumps in electrical systems, ideal for utility maintenance, power distribution, and high-voltage cable diagnostics.



GROUND MICROPHONE

	Type:	Acoustic detection device for underground fault locating
	Operation:	Captures and amplifies sound vibrations from the ground using a sensitive probe or microphone head placed on or inserted into the soil, detecting acoustic signals like thumps, arcs, or leaks, often connected to a receiver unit with headphones for real-time audio monitoring and signal processing.
	Application:	Utilized in pinpointing faults in buried cables, water pipes, or other utilities, essential for electrical and plumbing maintenance, leak detection surveys, and infrastructure repair to minimize excavation and downtime.



ELECTRONIC SOUNDER:

	Type:	An electronic device designed to produce audible alerts or alarms.
	Operation:	Converts electrical signals into sound waves via speakers or piezo elements, producing beeps, sirens, or tones, often with adjustable volume and tone settings for different warning levels.
	Application:	Typically used in security systems, industrial machinery, fire alarms, vehicles, and safety equipment for effective audible warning and notifications.



THERMAL IMAGING:



A technology that detects and visualizes infrared radiation (heat) emitted by objects, creating images based on temperature differences.

Commonly used in cameras for applications like night vision, building inspections, medical diagnostics, firefighting, or wildlife monitoring, where it helps identify heat leaks, overheating components, or hidden objects without visible light.



WATERPROOF, SURFACE-MOUNTED 16A SINGLE SOCKET OUTLET:



An electrical power outlet designed for outdoor or wet environments, rated for 16 amps of current, with a single socket for plugging in devices. It features a weatherproof enclosure (often IP-rated for water and dust resistance) and is mounted directly on walls or surfaces without recessing, ideal for gardens, workshops, or industrial sites to safely power tools or appliances.



SOLENOID-OPERATED DIRECTIONAL CONTROL VALVE



Type:

Electrically actuated hydraulic/pneumatic valve



Operation:

Controls direction of fluid flow using solenoid actuation.



Application:

Hydraulic systems, industrial machinery, automation; 12-month warranty equivalent.



CONVEYOR BELTS - MATERIAL HANDLING



Operation:

Continuous looped bands made from durable materials like rubber or PVC, driven by motorized pulleys to transport goods; items are placed on the belt surface, which moves them along a fixed path via friction and tension adjustments for smooth flow.



Application:

Transports bulk materials, packages, or products in manufacturing, warehouses, airports, and mining operations; essential for automation in assembly lines, sorting systems, and logistics to improve efficiency and reduce manual labor.



CONVEYOR ROLLERS - SUPPORTIVE CYLINDERS



Operation:

Cylindrical components mounted on frames, rotating freely or powered to support and guide conveyor belts or directly move items; bearings inside allow smooth rotation, with gravity or motors propelling goods forward along the roller path.



Application:

Used in gravity-fed or powered conveyor systems for handling boxes, pallets, and components in distribution centers, factories, and e-commerce fulfillment; enables cost-effective material flow, accumulation, and directional changes in production and packaging lines.



MECHANICAL JOINTS - FLEXIBLE CONNECTORS



Operation:

Hinged or pivoting assemblies linking two shafts or components, allowing movement in multiple directions while transmitting torque or force; types like universal joints compensate for misalignment by flexing at angles without interrupting power transfer.



Application:

Connects drivetrains in vehicles, machinery, and robotics to accommodate vibrations, angles, or expansions; common in automotive steering, industrial equipment, conveyor drives, and aerospace for reliable motion transfer and system durability.



CONVEYOR ROLLER KITS - GRAVITY-ASSISTED



Operation:

Modular assemblies featuring steel or polymer rollers mounted on shafts with bearing housings, installed by sliding into frame tracks or side profiles; allows smooth, unpowered movement of goods via gravity or manual push, with anti-static options for sensitive environments.



Application:

Facilitates efficient material handling in warehouses, assembly lines, and distribution centers; commonly used in packaging, sorting, and storage systems for cost-effective transport without motorized components.

UNIVERSAL JOINTS FOR CONVEYORS - FLEXIBLE POWER TRANSMISSION



Operation:

High-strength couplings connecting drive shafts in line shaft systems, enabling angular misalignment and torque transfer through pivoting yokes and cross bearings; secured with set screws for quick replacement and minimal downtime.



Application:

Powers live roller conveyors in logistics and manufacturing setups; essential for transmitting rotational force across non-aligned sections in automated sorting, accumulation, and transportation lines to enhance system reliability and efficiency.



ANGLE GRINDERS AND CUTTING TOOLS - PRECISION CUTTING DEVICES



Operation:

Essential for precise cutting and shaping tasks featuring vibration reduction technology, reinforced safety guards, long-lasting cutting discs, and thermal overload protection.



Application:

Cutting reinforcement bars, pipelines, structural supports, or composite materials used underground in mining environments.





TRICONE ROLLER CONE BIT



	Rated Size:	6–17.5 inches
	Operation:	Rotary drilling
	Application:	Ideal for blasthole drilling in open-pit and underground mining for soft to hard rock formations like limestone, granite, or sandstone.
	Features:	<ul style="list-style-type: none"> • Versatile for various rock types • Rotating cones crush and gouge efficiently • Available in milled-tooth for soft rock or TCI for harder, abrasive conditions • High rate of penetration with proper weight on bit • Durable bearings for extended life in harsh mining environments

PDC (POLYCRYSTALLINE DIAMOND COMPACT) BIT



	Rated Size:	4–12 inches
	Operation:	Shearing action
	Application:	Ideal for directional drilling in medium-hard, non-abrasive formations such as shale or limestone in exploration or production mining.
	Features:	<ul style="list-style-type: none"> • Fixed diamond cutters for smooth, consistent shearing • High speed and efficiency reducing drilling time • Self-sharpening in suitable rock types • Lower vibration for better borehole stability • Cost-effective for high-volume operations with minimal trips



BUTTON BIT (PERCUSSION)

- | | | |
|--|--------------|--|
| | Rated Size: | 2–6 inches |
| | Operation: | Top-hammer or DTH percussion |
| | Application: | Ideal for hard rock tunneling, quarrying, or underground mining in formations like quartzite or basalt. |
| | Features: | <ul style="list-style-type: none"> • Tungsten carbide buttons for impact resistance • Spherical, ballistic, or conical designs for optimized fracturing • Retractable options to prevent jamming • High energy transfer for faster hole completion • Long service life with proper air flushing and maintenance |



IMPREGNATED DIAMOND CORE BIT

- | | | |
|--|--------------|---|
| | Rated Size: | 1–4 inches |
| | Operation: | Core sampling |
| | Application: | Ideal for geological exploration in ultra-hard, abrasive rock like quartzite or diamond-bearing kimberlite pipes. |
| | Features: | <ul style="list-style-type: none"> • Diamonds embedded in matrix for self-sharpening • Precise core extraction for analysis • Water-cooled for heat management • High recovery rate in challenging formations • Built for deep drilling with minimal deviation |



Shaft extensions for drills, specifically designed for extending the reach of drill bits into tight, awkward, or hard-to-access spaces.



HEX JUMPER VARIANTS

- Hex Jumper 1.2m x 25 159 FC
- Hex Jumper 1.5m x 22 159 FC
- Hex Jumper 1.5m x 25 159 FC
- Hex Jumper 1.8m x 22 159 FC
- Hex Jumper 1.8m x 25 159 FC
- Hex Jumper 2.4m x 22 159 FC
- Hex Jumper 2.4m x 25 159 FC
- Hex Jumper 2.6m x 22 159 FC
- Hex Jumper 2.6m x 25 159 FC
- Hex Jumper 3.0m x 22 159 FC
- Hex Jumper 3.0m x 25 159 FC



Multiple chisels (assorted types and sizes) suitable for industrial, construction, and maintenance applications.



Manufactured from heat-treated high carbon or chrome vanadium steel for strength and durability, with hardened cutting edges for long service life.



Suitable for cutting, chipping, shaping, and breaking concrete, brick, stone, and metal.



Available in flat, pointed, cold, and masonry types, compatible with both manual use and power tools where applicable.



Designed for heavy-duty performance in workshops, mining, fabrication, and general site work.



FARMING & AGRICULTURAL

Pumps and systems for irrigation, water supply, and farm-related applications.



BACKPACK SPRAYER

-  **Type:** Manual or pressure sprayer
-  **Operation:** Portable spraying system with shoulder straps.
-  **Application:** Agriculture, pest control, landscaping, sanitation; chemical-resistant tank; 12-month warranty equivalent.



GALVANIZED WELDED WIRE MESH ROLL

-  **Type:** Hot-dip galvanized steel wire fencing mesh
-  **Operation:** Forms a durable barrier or support structure through welded intersecting wires, resistant to rust and corrosion.
-  **Application:** Used for garden fencing, animal enclosures, poultry netting, construction reinforcement, and DIY projects like cages or plant supports.



LEAF BLOWER

-  **Type:** Gasoline-powered or electric blower.
-  **Operation:** Blows leaves and debris off lawns and pathways using high-velocity air.
-  **Application:** Used for yard cleanup and maintenance; includes a shoulder strap and variable speed control.



SOIL MOISTURE METER

-  **Type:** Digital probe sensor.
-  **Operation:** Measures soil moisture, pH, and light levels.
-  **Application:** Helps optimize watering schedules for plants; easy-to-read LCD display.



COMPRESSION FITTINGS - PLUMBING CONNECTOR



-  **OPERATION:** Mechanical joints consisting of a nut, ferrule (compression ring), and body that seal pipes by compressing the ferrule against the tube when tightened; no soldering or heat required, allowing for easy assembly and disassembly.
-  **APPLICATION:** Ideal for connecting copper, PEX, or plastic tubing in water supply, gas, and hydraulic systems; commonly used in repairs, renovations, and new installations where leak-proof, reusable connections are needed; suitable for both professional and DIY applications in various environments.

SADDLES - PIPE CLAMP



-  **OPERATION:** U-shaped or semi-circular brackets typically made from metal or plastic, designed to secure pipes, conduits, or cables to walls, ceilings, or structures by encircling the tube and fastening with screws or bolts; adjustable for various diameters to ensure stable mounting.
-  **APPLICATION:** Used in plumbing, electrical, and HVAC installations for supporting and organizing piping systems; prevents sagging, vibration, and damage in residential, commercial, and industrial settings; enhances system integrity and accessibility for maintenance.



FORMWORK AND FALSEWORK SYSTEMS – STRUCTURAL MOLDING FRAMEWORKS

-  **OPERATION:** Modular steel or engineered composite panels with quick-connect frames and load-rated support structures.
-  **APPLICATION:** Shaping/supporting concrete pours for spillways, gates, tunnels, and powerhouse components.



MULTISTAGE CENTRIFUGAL PUMP



RATED POWER: 370 W – 3.7 kW



OPERATION:

Multistage design using rotating impellers to boost pressure.



APPLICATION:

Suitable for household water supply, garden irrigation, small-scale farming, and commercial applications where high pressure is needed for taps, showers, and systems.



FEATURES:

- Provides high pressure
- Enhances efficiency and quiet operation
- Corrosion-resistant materials
- Low energy consumption
- Automatic controls available
- Built-in protection against overheating
- Compact design for easy installation

AUTOMATIC BOOSTER PUMP



RATED POWER: 200 W – 1.5 kW



OPERATION:

Automatic pressure control with built-in tank for steady flow.



APPLICATION:

Ideal for homes with inconsistent water pressure, small farms requiring reliable supply for irrigation, and off-grid setups using existing tanks for showers, faucets, and appliances.



FEATURES:

- Ensures steady water pressure
- Reduces pump cycling and wear
- Protects plumbing from pressure drops
- Energy-efficient operation
- Quiet motor design
- Thermal overload protection
- Easy to install and maintain



SUBMERSIBLE PUMP



RATED POWER: 500 W – 5 kW



OPERATION:

Fully sealed motor for underwater operation, pumping from depth.



APPLICATION:

Perfect for deep wells in rural homes, small farms for irrigation and livestock watering, basements, and wastewater handling in residential settings.



FEATURES:

- Highly efficient with minimal cavitation risk
- Produces less noise
- Handles clean and dirty water
- Durable stainless-steel housing
- Corrosion-resistant
- Automatic float switch for hands-free use
- Portable options available

JET PUMP



RATED POWER: 750 W – 2.2 kW



OPERATION:

Self-priming mechanism using venturi effect to draw water.



APPLICATION:

Suitable for shallow wells, water tanks in homes, small farms for irrigation, pressure boosting, and municipal water supply enhancement.



FEATURES:

- Reliable for variable water availability
- Durable motor for long-lasting use
- Thermal overload protection
- High flow rates
- Energy-efficient design
- Easy operation
- No need for foot valve in some models





DIAPHRAGM PUMP

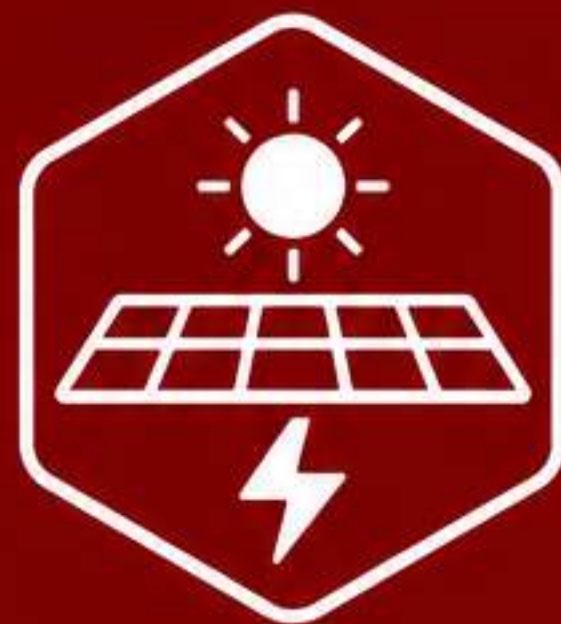


-  **RATED POWER:** 100 W – 1 kW
-  **OPERATION:** Flexible diaphragm to pump fluids without direct contact.
-  **APPLICATION:** Great for handling chemicals in small farms, wastewater treatment in homes, food processing, and moving abrasive liquids in residential or light commercial use.
-  **FEATURES:**
 - Handles toxic or corrosive liquids
 - Provides lower flow rates but high reliability
 - Produces more noise but versatile
 - Sealed to prevent leaks
 - Ideal for hazardous materials
 - Gentle on liquids to avoid contamination
 - Built-in check valves

PERISTALTIC PUMP



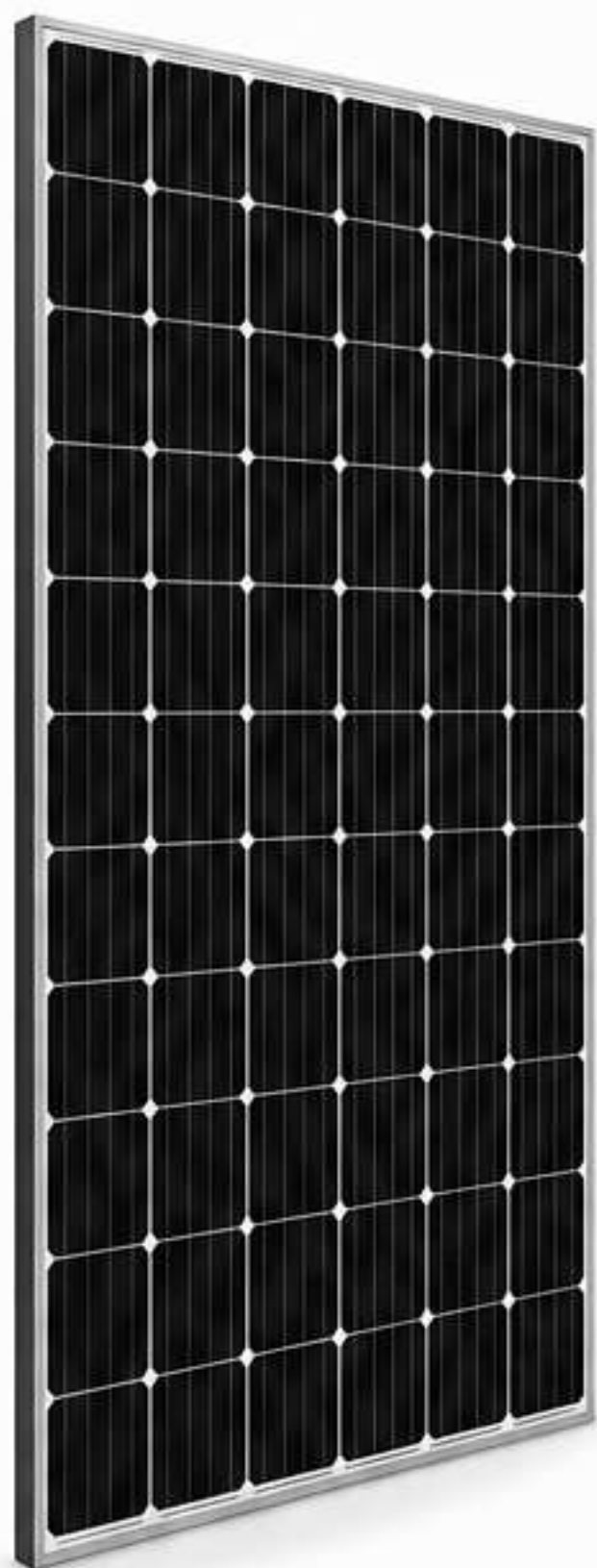
-  **RATED POWER:** 20 W – 300 W
-  **OPERATION:** Rotating rollers compressing flexible tubing to propel fluid without direct contact.
-  **APPLICATION:** Suitable for light-duty water treatment in homes and farms, such as disinfection, pH adjustment, chemical dosing for wells, and precise irrigation systems.
-  **FEATURES:**
 - Contamination-free as fluid only touches tubing
 - Self-priming with high suction lift
 - Handles viscous, abrasive, or shear-sensitive liquids
 - Variable speed for accurate flow control
 - Low maintenance with easy tube replacement
 - Quiet and vibration-free operation
 - Reversible flow direction
 - Compact and portable design



SOLAR & ENERGY

Solar-powered pumps and systems for irrigation, water supply, and sustainable farm-related applications.





MONOCRYSTALLINE SOLAR PANEL



RATED POWER: 400 – 650 W



OPERATION: Photovoltaic conversion



APPLICATION: Ideal for residential rooftops, urban installations, and any space-constrained project that demands maximum energy output per square metre.



FEATURES:

- Highest efficiency 19–23% made from single pure silicon crystal
- Sleek uniform black appearance with rounded cells
- Excellent low-light and high-temperature performance
- 25–30 year linear warranty with only 0.3–0.5% annual degradation
- Premium build quality and snow/wind load resistance



POLYCRYSTALLINE SOLAR PANEL



RATED POWER: 320 – 480 W



OPERATION: Photovoltaic conversion



APPLICATION: Perfect for large ground-mounted solar farms, agricultural projects, and budget-driven installations where space is not limited.



FEATURES:

- Cost-effective manufacturing from multiple silicon fragments
- Blue-speckled appearance
- 15–18% efficiency range
- Solid temperature coefficient and proven long-term reliability
- 25-year performance warranty
- Good performance in standard irradiance conditions



THIN-FILM SOLAR PANEL



RATED POWER: 120 – 380 W



OPERATION:

Photovoltaic conversion using micrometre-thin semiconductor layers



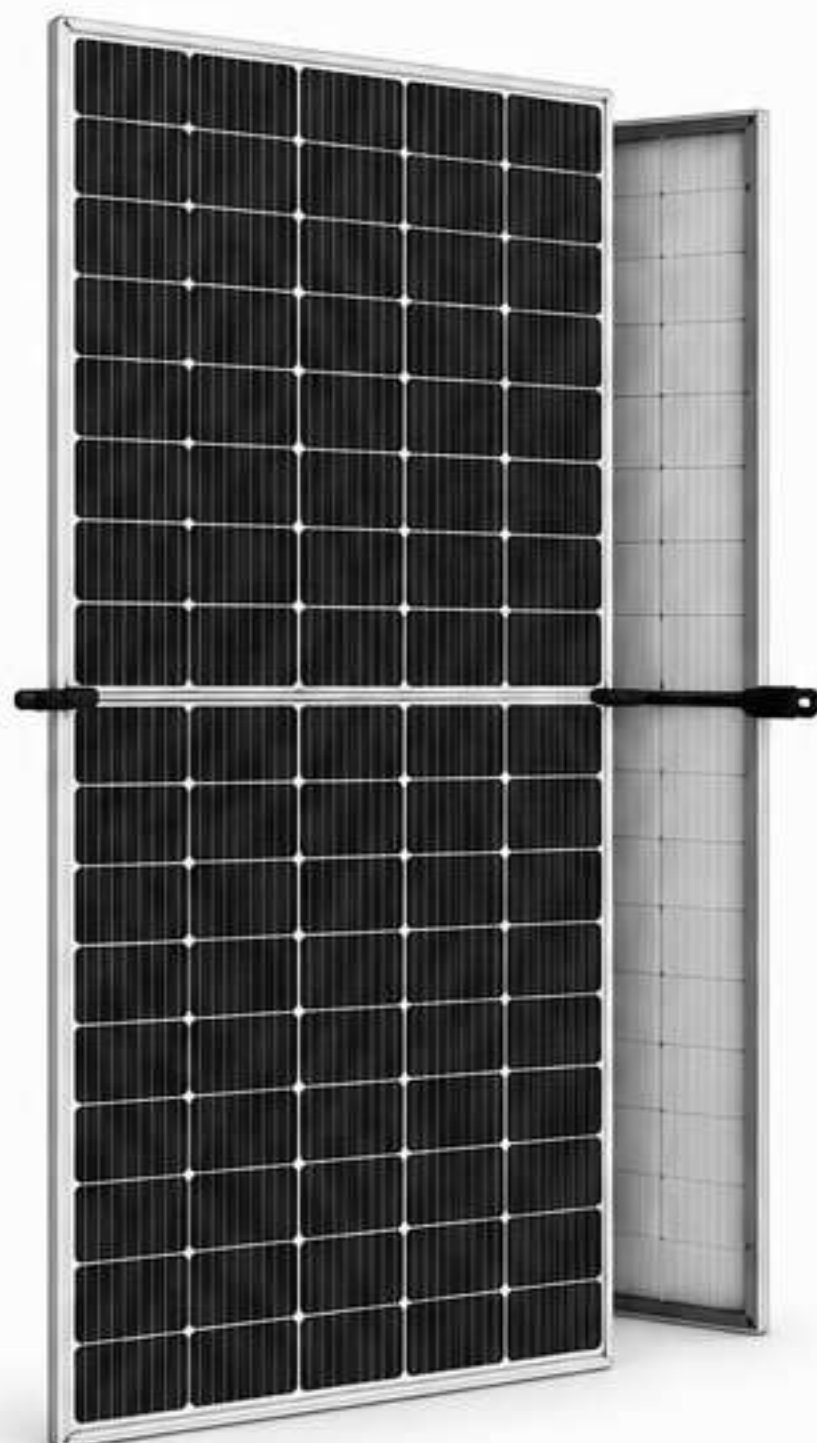
APPLICATION:

Ideal for flexible or curved surfaces, building-integrated PV (BIPV), portable solar, high-heat desert environments, and lightweight rooftop retrofits.



FEATURES:

- Lightweight and flexible construction
- 10–14% efficiency (CIGS/CdTe/a-Si)
- Superior performance in diffuse light and high temperatures
- Can be produced in rolls or custom shapes
- Lower temperature coefficient than crystalline panels
- Faster energy payback time



BIFACIAL SOLAR PANEL



RATED POWER: 450 – 720 W (front side)



OPERATION:

Dual-sided photovoltaic conversion



APPLICATION:

Best for ground-mounted utility-scale farms, agrivoltaics, carports, and any reflective surface (white roof, snow, sand, water) to capture extra rear-side energy.



FEATURES:

- Up to 30% additional yield from rear-side generation
- Usually monocrystalline PERC or TOPCon cells
- Glass-glass construction for durability
- Works exceptionally well with trackers and albedo surfaces
- 30–35 year product warranties on many models
- Higher overall LCOE reduction in suitable sites



SOLAR SUBMERSIBLE PUMP

-  **RATED POWER:** 200 W – 5 kW
-  **OPERATION:** DC or AC submersible centrifugal/helical pumping
-  **APPLICATION:** Ideal for deep boreholes, wells, and groundwater extraction in off-grid solar systems for irrigation, livestock watering, and village water supply.
-  **FEATURES:**
 - Can lift water from 10–300 m depth
 - High-efficiency brushless DC motor (up to 95 %)
 - MPPT controller built-in or separate for direct solar connection
 - Stainless steel or corrosion-resistant construction
 - Dry-run protection and automatic restart
 - Low maintenance and silent operation



SOLAR SURFACE CENTRIFUGAL PUMP

-  **RATED POWER:** 300 W – 4 kW
-  **OPERATION:** Surface-mounted centrifugal pumping
-  **APPLICATION:** Perfect for shallow wells, rivers, ponds, and surface water sources where the pump stays above ground for easy access and maintenance.
-  **FEATURES:**
 - Self-priming or foot-valve assisted
 - Flow rates up to 30 m³/h at lower heads (5–50 m)
 - Lightweight and portable for seasonal irrigation
 - IP65 weatherproof controller with MPPT
 - Easy installation without lowering into water
 - Lower cost than submersible models



SOLAR BOOSTER / PRESSURE PUMP



-  **RATED POWER:** 300 W – 2.2 kW
-  **OPERATION:** Multistage centrifugal pressure boosting
-  **APPLICATION:** Ideal for homes, small farms, and off-grid houses that already have a water tank and need consistent pressure for showers, taps, and irrigation systems.
-  **FEATURES:**
 - Automatic pressure switch and tank control
 - Delivers 2–6 bar constant pressure
 - Works directly from solar or battery backup
 - Quiet multistage design
 - Built-in thermal protection and run-dry sensor
 - Compact wall-mount or horizontal installation

SOLAR JET PUMP



-  **RATED POWER:** 200 W – 1.5 kW
-  **OPERATION:** Venturi jet-assisted centrifugal pumping
-  **APPLICATION:** Ideal for shallow wells, cisterns, rivers, and surface water sources where suction lift up to 8 m is needed and the pump remains above ground for easy access in solar-powered domestic water supply and small irrigation systems.
-  **FEATURES:**
 - Self-priming up to 8 metres suction lift
 - Combines centrifugal impeller with Venturi jet for higher pressure
 - Delivers strong flow and pressure over longer distances
 - Works directly from solar panels or battery backup
 - Lightweight, portable, and easy to service
 - Built-in thermal protection and run-dry sensor
 - Excellent for 12/24/48 V DC solar systems



SOLAR HELICAL ROTOR PUMP (PROGRESSIVE CAVITY)



RATED POWER: 400 W – 3 kW



OPERATION: Positive displacement helical rotor pumping



APPLICATION: Designed for deep wells with low water yield, high-lift applications (up to 350 m), and water containing sand or silt.



FEATURES:

- Excellent for very deep boreholes and low-flow high-head needs
- Constant flow regardless of head variation
- Handles sandy or muddy water without clogging
- Very high efficiency at low solar irradiance
- Long-life stainless steel rotor and stator
- Built-in MPPT and dry-run sensor



SOLAR DIAPHRAGM PUMP



RATED POWER: 50 W – 800 W



OPERATION: Positive displacement diaphragm pumping



APPLICATION: Best for small-scale domestic water supply, livestock troughs, garden irrigation, and chemical dosing in solar-powered systems.



FEATURES:

- Self-priming up to 8 m suction lift
- Can run dry without damage
- Very low power consumption (ideal for small panels)
- Handles viscous or slightly dirty water
- Quiet operation and minimal vibration
- Compact and easy to install on tanks or rooftops





SOLARCLEANO M1



DIMENSIONS:

1139 x 893 x 337 mm
Brush Length: 0.8 m



OPERATION:

Battery-powered remote-controlled robot with helicoidal brushes for trace-free cleaning of solar panels and glass.



APPLICATION:

Designed for small solar installs and canopies; supports wet/dry cleaning on all panel types; 12-month warranty.



FEATURES:

- Dismantles into 3 parts (<12kg each) for easy setup
- Battery: Lithium-ion 24V-20Ah, 3h runtime, 4h charge
- Brushes: 0.17m diameter, 180 RPM, DC motor; bristle types: soft/standard/hard/very hard
- Speed: 30 m/min
- Capacity: 600 m²/h
- Climb: 18° (32%)
- Weight: 27–37kg (0–2 brushes)
- Remote: 2.4GHz, 24h battery, 200m range, IP65



OPTIONS:

- Water cleaning, GPS
- Water: 12 L/min avg, 5 bar max, 10mm hose min
- Compact ground control.





BOSON ROBOTICS ARCHIMEDES



DIMENSIONS: Adjustable rectangular frame (75% of panel area); detachable connecting rods for size customization
Brush Length: Coaxial rolling brushes (length adjustable per panel width).



OPERATION: Autonomous battery-powered robot with rolling and strip brushes for waterless dry cleaning of solar panels; optional water spray for wet mode.



APPLICATION: Designed for utility-scale PV solar farms in harsh environments; supports autonomous cleaning on inclines and uneven arrays; warranty not publicly specified.



- FEATURES:**
- Self-Straightening Technology (SST) for uneven panels
 - Battery: High-weather-resistant packs, solar-charged; runtime up to 4,000 panels/trip
 - Brushes: Nylon bristles, detachable rolling (coaxial) and strip types; self-lubricating axis
 - Speed: Constant (self-locking worm gear); approx 0.3–0.4 m/s
 - Capacity: 1.5 MW/array
 - Climb: 28° (obstacle surmounting)
 - Weight: Lightweight aluminum with hollow holes
 - Remote: SCADA-integrated, remote monitoring; auto posture correction every 0.3s



- OPTIONS:**
- Gap-spanning up to difficult sizes, anti-falling hooks, temperature sensing
 - Water: Optional atomizing nozzles, tank with pump and alarm; min hose not required for dry mode
 - Compact for mass deployment in existing farms.





GREENLEAP ROBOTICS LOTUS A4000:



DIMENSIONS:

4500 x 660 x 370 mm
Brush Length: Up to 8 m (modular, standard ~4.5 m)



OPERATION:

Battery-powered fully autonomous robot with rotating ultra-soft microfiber cleaning fins for waterless dry cleaning of solar panels.



APPLICATION:

Designed for utility-scale PV solar farms, rooftop, and ground-mounted installations in arid regions; compatible with inclines and misalignments; 25-year minimal maintenance design.



FEATURES:

- Modular design for customizable length (2–8 m)
- Battery: Lithium-ion 12Ah/25.6V (3h runtime), optional 18Ah/25.6V (4.5h), <2h solar charge
- Brushes: Microfiber fins, rotating along length; BLDC motors 5000+ hours life
- Speed: Cleans 1 MWp in <2.5 hours
- Capacity: Daily cleaning for peak output
- Climb: Handles misalignments via ROCS (Real-time Orientation Control System)
- Weight: 45 kg (standard)
- Remote: 4G LTE, web app, SCADA integration; predictive maintenance



OPTIONS:

- Extended battery, waterless only
- Water: None required; air-flow and impact cleaning
- Compact solar docking station.





INVERTERS



THREE-PHASE INVERTER

-  **RATED POWER:** 10–150 kW
-  **OPERATION:** Three-phase DC to AC conversion
-  **APPLICATION:** Ideal for commercial buildings, factories, apartment blocks, farms, and any installation connected to a 400V three-phase grid where balanced power delivery is required.
-  **FEATURES:**
 - Balanced output across L1-L2-L3 phases for stable grid feed
 - 4–12 independent MPPT trackers for maximum harvest
 - Advanced grid-support functions (Q-on-demand, FRT, zero export)
 - 98.5–99.2% efficiency
 - IP65 outdoor-rated enclosure
 - 12–15 year warranty with optional extension



SPLIT-PHASE INVERTER (2-PHASE)

-  **RATED POWER:** 3–11.4 kW
-  **OPERATION:** Split-phase 120/240V AC conversion
-  **APPLICATION:** Perfect for residential homes in South Africa and Southern Africa, 120/240V split-phase grid or off-grid system that needs both 120V and 240V outputs from a single unit.
-  **FEATURES:**
 - Simultaneous 120V and 240V output from one inverter
 - Dual MPPT inputs for east-west or shaded arrays
 - High surge capacity (2–3× rated power) for motors and pumps
 - 97–98% efficiency
 - Built-in 120/240V auto-sensing and neutral bonding
 - 10-year standard warranty



COMMERCIAL INVERTER

- RATED POWER:** 30–250 kW
- OPERATION:** High-capacity string or centralised DC to AC conversion
- APPLICATION:** Designed for large commercial rooftops, shopping centres, warehouses, schools, and medium-scale ground-mounted projects where high power density and low LCOE are critical.
- FEATURES:**
 - Modular plug-and-play design for fast installation and service
 - String-level monitoring with optional optimisers
 - Ultra-high efficiency 98.8–99.1%
 - Smart export limitation, peak shaving, and VPP-ready
 - Integrated SCADA and fibre-optic communication
 - 15–20 year design life with minimal maintenance



HYBRID INVERTER

- RATED POWER:** 3–12 kW (single-phase) / 10–50 kW (three-phase)
- OPERATION:** DC to AC conversion with built-in battery management and grid interaction
- APPLICATION:** Best for homes or businesses wanting solar + battery storage, backup power during outages, time-of-use optimisation, or future off-grid capability.
- FEATURES:**
 - Seamless on-grid / off-grid switching
 - Compatible with lithium batteries (LG, BYD, Pylontech, etc.)
 - Multiple MPPT trackers + smart load management
 - Peak shaving and export control
 - Advanced EMS with app control
 - 10–12 year warranty





LUX POWER INVERTERS WITH TAU

- TYPE:** Solar hybrid inverters
- OPERATION:** Energy storage systems with real-time online monitoring; remote configuration, firmware updates, and mode switching; live power flow diagrams, battery SoC, solar generation, load stats, and grid import/export overview.
- APPLICATION:** Monitoring system performance remotely, early issue detection, energy generation and usage tracking; monthly reports for optimization; smart notifications via app or email for faults; compliance with SANS 10142-1 & NRS-097; TAU installation, maintenance, and technician dispatch for warnings or faults; affordable and reliable for solar energy systems.



ECCO 3.5kW 24V MPPT HYBRID SOLAR INVERTER



- TYPE:** Compact Hybrid Converter
- RATED POWER:** 3.5 kW (3500W continuous output)
- BATTERY VOLTAGE:** 24V DC system
- SOLAR CHARGER TYPE:** Built-in MPPT
- AC OUTPUT:** 230V single-phase pure sine wave
- EFFICIENCY:** ±93–95% peak efficiency
- TRANSFER TIME:** <10ms UPS-style switching
- APPLICATION:** Perfect for small homes, cabins, and off-grid systems needing stable AC output with integrated solar charging and basic battery backup. Suitable for lights, routers, TVs, and small appliances.



FEATURES:

- Pure sine wave output
- Built-in MPPT controller
- Lithium & lead-acid compatible
- Overload & short-circuit protection
- LCD monitoring display
- Compact wall-mount design



LIGHTING



SOLARFLOOD HIGHMAST

- TYPE:** LED solar lighting highmast solution
- OPERATION:** Off-grid solar-powered with Monocrystalline solar modules, MPPT charging, lithium (LiFePO4) energy storage; adjustable solar module inclination; Optidim programmable dimming profiles; up to 20m mounting height with fixed or ring mast layouts.
- APPLICATION:** Off-grid areas, highmast lighting, car parks, squares & pedestrian areas, security lighting; IP66/IK07 rated, withstands 144km/h winds; autonomy up to 2 days; circular economy 3-star rating; warranty up to 5 years; designed for various African locations; high efficiency up to 227 lm/W; custom optics and configurations available.



FLXL-20B15-1SP220D-6FL6SP-BEKA360-R1

- TYPE:** 20m sectional pole with floodlight mast and solar panels
- OPERATION:** Fixed floodlight mast with solar panels (6x BEKA), external ladder, platform, and battery box; sectional steel pole assembly with welds and cleats.
- APPLICATION:** Solar-powered highmast lighting structures; suitable for BEKA Schröder solar flood systems; dimensions include 20m height, base channel, and sectional details for installation in various terrains; certified for up to 45m/s wind speed in specific conditions.



RIIGE-SSL-500W-CW SOLAR STREET LIGHT

- TYPE:** 500W LED solar street light
- OPERATION:** Separate solar and lighting components; intelligent optical control + remote control; 6–8 hours charge time, 12–16 hours discharge time; high brightness LED chip; cool white 6500K.
- APPLICATION:** Gardens, residential areas, courtyards, roads & parking lots; IP65/IP66 protection; 20–30 meters mounting height; 3–5 days support in rainy/cloudy conditions; 50,000 hours lamp life; 5 years minimum warranty; CE, ISO9001, ROHS certified; pole excluded.



ENERGY STORAGE SYSTEMS

TITAN-645kWh+250kW BESS



i TYPE: 20 Feet Commercial & Industrial Battery Energy Storage System (BESS)

⚙️ OPERATION: Integrated ESS with 645kWh rated energy, 768V rated voltage, 0.5P multiplier; PV side with 50kW MPPT; AC side 250kW output; air cooling, perfluorohexanone fire protection; cycle life ≥ 10000 cycles.

🏢 APPLICATION: Peak-shift, peak-cut, frequency regulation, solar EV charging, high-powered industry, energy arbitrage, microgrids; high efficiency 97.6%; easy installation, multi-level safety; IP55 protection; certifications UL1973/IEC62619/UL9540A/TUV/CE.

TITAN-860kWh+500kW BESS



i TYPE: 20 Feet Commercial & Industrial Battery Energy Storage System (BESS)

⚙️ OPERATION: Integrated ESS with 860kWh rated energy, 768V rated voltage, 0.6P multiplier; PV side with 50kW/single MPPT module rated power, 10 MPPT modules, voltage range 250–600V; AC side 500kW output; air cooling, perfluorohexanone fire protection; cycle life ≥ 10000 cycles ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 0.35C, 80%DOD@85%EOL).

🏢 APPLICATION: Peak-shift, peak-cut, frequency regulation, solar EV charging, high-powered industry, energy arbitrage, microgrids; high efficiency 97.6%; easy installation, multi-level safety; IP55 protection; certifications UL1973/IEC62619/UL9540A/TUV/CE.



TITAN-1.075MWh+500kW BESS



- i TYPE:** 20 Feet Commercial & Industrial Battery Energy Storage System (BESS)
- ⚙ OPERATION:** Integrated ESS with 1.075MWh rated energy, 768V rated voltage, 0.5P multiplier; PV side with 50kW/single MPPT module rated power, 12 MPPT modules, voltage range 250–600V; AC side 500kW output; air cooling, perfluorohexanone fire protection; cycle life ≥ 10000 cycles ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 0.35C, 80%DOD@85%EOL).
- 🏢 APPLICATION:** Peak-shift, peak-cut, frequency regulation, solar EV charging, high-powered industry, energy arbitrage, microgrids; high efficiency 97.6%; easy installation, multi-level safety; IP55 protection; certifications UL1973/IEC62619/UL9540A/TUV/CE.

TITAN-2.15MWh+1MW BESS



- i TYPE:** 40 Feet Commercial & Industrial Battery Energy Storage System (BESS)
- ⚙ OPERATION:** Integrated ESS with 2.15MWh rated energy, 768V rated voltage, 0.6P multiplier; PV side with 50kW MPPT rated power, 2*10 channels; AC side 1MW output; air cooling, perfluorohexanone fire protection; cycle life ≥ 10000 cycles ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 0.35C, 80%DOD@65%EOL).
- 🏢 APPLICATION:** Peak-shift, peak-cut, frequency regulation, solar EV charging, high-powered industry, energy arbitrage, microgrids; high efficiency 97.6%; easy installation, multi-level safety; IP55 protection; certifications UL1973/IEC62619/UL9540A/TUV/CE.



BATTERIES

DEEP-CYCLE LEAD-ACID BATTERY (AGM OR FLOODED)



RATED CAPACITY: 100–5000 Ah (at 12/24/48 V)



OPERATION: Traditional lead-acid electrochemical storage



APPLICATION: Perfect for budget solar installations, small off-grid cabins, RVs, marine use, and backup systems where low upfront cost matters more than cycle life.



- Lowest initial purchase cost
- 500–1500 cycles at 50% DoD
- Extremely robust against occasional deep discharges
- Proven technology available worldwide
- Requires periodic maintenance on flooded versions
- 70–85% round-trip efficiency
- 3–8 year typical lifespan

VANADIUM REDOX FLOW BATTERY (VRFB)



RATED CAPACITY: 10 kWh – multi-MWh (power and energy independently scalable)



OPERATION: Liquid electrolyte redox flow electrochemical storage



APPLICATION: Designed for large commercial solar farms, utility-scale projects, microgrids, and long-duration storage (4–24+ hours) where daily deep cycling and 20+ year life are essential.



FEATURES:

- 20,000+ cycles with virtually zero capacity fade
- Non-flammable, water-based electrolyte
- Power (kW) and energy (kWh) can be sized separately
- Fully recyclable with no degradation from deep discharge
- 75–85% round-trip efficiency
- Extremely low maintenance and 20–30 year design life



LITHIUM IRON PHOSPHATE (LiFePO₄) BATTERY



RATED CAPACITY: 5–200 kWh (modular rack or wall-mount)



OPERATION: Lithium-ion electrochemical storage



APPLICATION: Ideal for residential solar + storage, off-grid homes, daily cycling systems, and any installation where safety, longevity, and low maintenance are the top priorities.



FEATURES:

- 6000–12,000 cycles at 80–90% DoD
- 95–98% round-trip efficiency
- Built-in advanced BMS with cell balancing and thermal protection
- Maintenance-free, no gassing, non-flammable chemistry
- Lightweight (half the weight of lead-acid)
- 10–20 year calendar life with excellent high-temperature tolerance

NICKEL MANGANESE COBALT (NMC) LITHIUM-ION BATTERY



RATED CAPACITY: 8–150 kWh (compact modules)



OPERATION: High-energy-density lithium-ion electrochemical storage



APPLICATION: Best for space-limited urban rooftops, EV-coupled solar systems, portable solar generators, and applications needing maximum energy in the smallest footprint.



FEATURES:

- Highest energy density (160–250 Wh/kg)
- 3000–6000 cycles at 80% DoD
- Fast charging capability (up to 2C)
- 92–96% round-trip efficiency
- Good power output for surge loads
- 8–15 year warranty
- Widely used in automotive-grade packs



TOOLS & EQUIPMENT

Power tools, mechanical items, and general equipment for construction and maintenance.





POWER TOOLS & EQUIPMENT

1 MAKITA BREAKER



TYPE:
Electric demolition breaker

OPERATION:
Heavy-duty hammering for concrete breaking.

APPLICATION:
Construction, demolition, civil works; industrial grade; 12-month warranty equivalent.

2 ROTARY HAMMER



TYPE:
SDS rotary hammer drill

OPERATION:
Rotary drilling with hammer action for masonry and concrete.

APPLICATION:
Construction and maintenance work; heavy-duty use; 12-month warranty equivalent.

3 HEAVY DUTY JUMPER CABLE



TYPE:
Battery booster cables

OPERATION:
Transfers power from one battery to another for engine starting.

APPLICATION:
Automotive, mining vehicles, heavy equipment; insulated clamps; 12-month warranty equivalent.

4 AWELCO TORNADO 160 ARC WELDER



TYPE:
Portable single-phase AC MMA electrode welding machine

OPERATION:
Generates an electric arc for melting and joining metals using rutile electrodes, with continuous current regulation via shunts and built-in thermostat for safety.

APPLICATION:
Metal fabrication, repairs, and construction welding in workshops or on-site; suitable for hobbyists and professional use with electrodes up to 3.2mm.



ANGLE GRINDER:

A handheld power tool used for grinding, cutting, sanding, and polishing materials like metal, stone, or concrete. It features a rotating abrasive disc powered by an electric motor, often with adjustable guards and handles for safety and precision in construction, metalworking, or DIY projects.



2 RECIPROCATING SAW

RATING: 12A | 0-3000 SPM | 1-1/8" stroke

OPERATION: Versatile cutting tool for demolition and pruning.

APPLICATION: Plumbing, electrical, tree trimming; tool-less blade change; 12-month warranty equivalent.



3 PRESSURE WASHER

RATING: 2000 PSI | 1.5 GPM | Electric

OPERATION: High-pressure water cleaner for removing dirt.

APPLICATION: Cleaning vehicles, patios, farm equipment; adjustable nozzle; 12-month warranty equivalent.



4 BELT SANDER

RATING: 3" x 21" belt | 8-11A | Variable speed

OPERATION: Power tool for smoothing large surfaces.

APPLICATION: Woodworking, floor refinishing, metal deburring; dust collection; 12-month warranty equivalent.





JACK HAMMERS



1 HEAVY-DUTY ELECTRIC JACKHAMMER



RATED SIZE:

1500–3000 W, 20–60 J impact energy, 10–35 kg



OPERATION:

220–240 V AC powered demolition hammer with SDS-Max or 1-1/8" Hex shank



APPLICATION:

Ideal for indoor and outdoor concrete breaking, asphalt cutting, brickwork demolition, foundation work, and renovation projects where a power outlet is available.



FEATURES:

Anti-vibration technology, variable speed control, soft start, overload protection, ergonomic D-handle, tool-free bit change, dust extraction port, constant-speed electronics



2 INDUSTRIAL PNEUMATIC JACKHAMMER



RATED SIZE:

30–90 lb class, 1000–2000 BPM, 40–100 J impact energy



OPERATION:

Compressed air powered (90–120 PSI, 30–60 CFM)



APPLICATION:

Ideal for road repair, mining, quarrying, heavy concrete demolition, and continuous outdoor use in harsh industrial environments.



FEATURES:

Lightweight heat-treated alloy body, built-in lubrication oiler, vibration-dampened handle,moil point and chisel bits included, rugged steel construction, exhaust deflector



1 EXCAVATOR-MOUNTED HYDRAULIC JACKHAMMER



RATED SIZE:

Suited for 5–20 ton carriers, 500–5000 J impact energy, 50–200 L/min oil flow



OPERATION:

Hydraulic system powered directly from excavator or skid-steer



APPLICATION:

Ideal for large-scale rock breaking, foundation excavation, trenching, quarrying, and heavy civil demolition where maximum breaking force is required.



FEATURES:

Nitrogen-charged accumulator, auto-greasing system, silenced housing, quick-coupler ready, reinforced front head, vibration and noise suppression, high-alloy steel piston



2 PORTABLE GAS-POWERED JACKHAMMER



RATED SIZE:

32–52 cc 2-stroke engine, 30–55 J impact energy, 1500–2300 BPM



OPERATION:

Petrol-driven handheld demolition tool (no electricity or compressor needed)



APPLICATION:

Ideal for remote sites, rural construction, landscaping, emergency repairs, and any location without access to power or compressed air.



FEATURES:

Integrated fuel tank, recoil easy-start, anti-vibration rubber mounts, point and flat chisels included, low-emission engine, lightweight aluminium body, throttle control





1 COMPACT JACK HAMMER



RATED SIZE:

Suited for 1–3 ton carriers, 200–400 J impact energy, 15–45 L/min oil flow



OPERATION:

Hydraulic system powered directly from excavator or skid-steer



APPLICATION:

Ideal for small-scale concrete breaking, pavement removal, utility work, and light demolition tasks where precision and portability are key.



FEATURES:

Nitrogen-charged accumulator, auto-greasing system, silenced housing, quick-coupler ready, reinforced front head, vibration and noise suppression, high-alloy steel piston



2 MEDIUM-DUTY JACK HAMMER



RATED SIZE:

Suited for 3–10 ton carriers, 800–1500 J impact energy, 30–60 L/min oil flow



OPERATION:

Hydraulic system powered directly from excavator or skid-steer



APPLICATION:

Ideal for medium-scale concrete demolition, road repair, landscaping, and utility trenching where balanced power and maneuverability are essential.



FEATURES:

Nitrogen-charged accumulator, auto-greasing system, silenced housing, quick-coupler ready, reinforced front head, vibration and noise suppression, high-alloy steel piston





SAFETY & PPE

Protective
clothing and gear for
hazard
prevention.





PPE CLOTHING

1 HIGH-VISIBILITY SAFETY VEST



RATED SIZE: S–5XL



OPERATION: Day/night visibility enhancement



APPLICATION: Ideal for solar farm construction, rooftop installations, road-adjacent sites, and any outdoor work near moving vehicles or machinery.



FEATURES: ANSI/ISEA 107 Class 2 or 3 compliant
Fluorescent polyester or mesh fabric with 360° silver retro-reflective stripes
Breathable mesh back for heat dissipation
Multiple tool pockets and ID badge holder
Machine washable and quick-dry



2 TYPE I SAFETY HARD HAT



RATED SIZE: One size fits most (adjustable 6½–8)



OPERATION: Head impact and falling-object protection



APPLICATION: Mandatory for all solar panel mounting, racking assembly, and any construction or maintenance work at height.



FEATURES: ANSI Z89.1 Type I & CSA Z94.1 certified
High-density polyethylene shell with rain gutter
6-point ratchet suspension for comfort and stability
Vented options available for hot climates
Accessory slots for face shields, earmuffs, and chin straps





1 STEEL-TOE SAFETY BOOTS



RATED SIZE: 5–14 (US men/women)



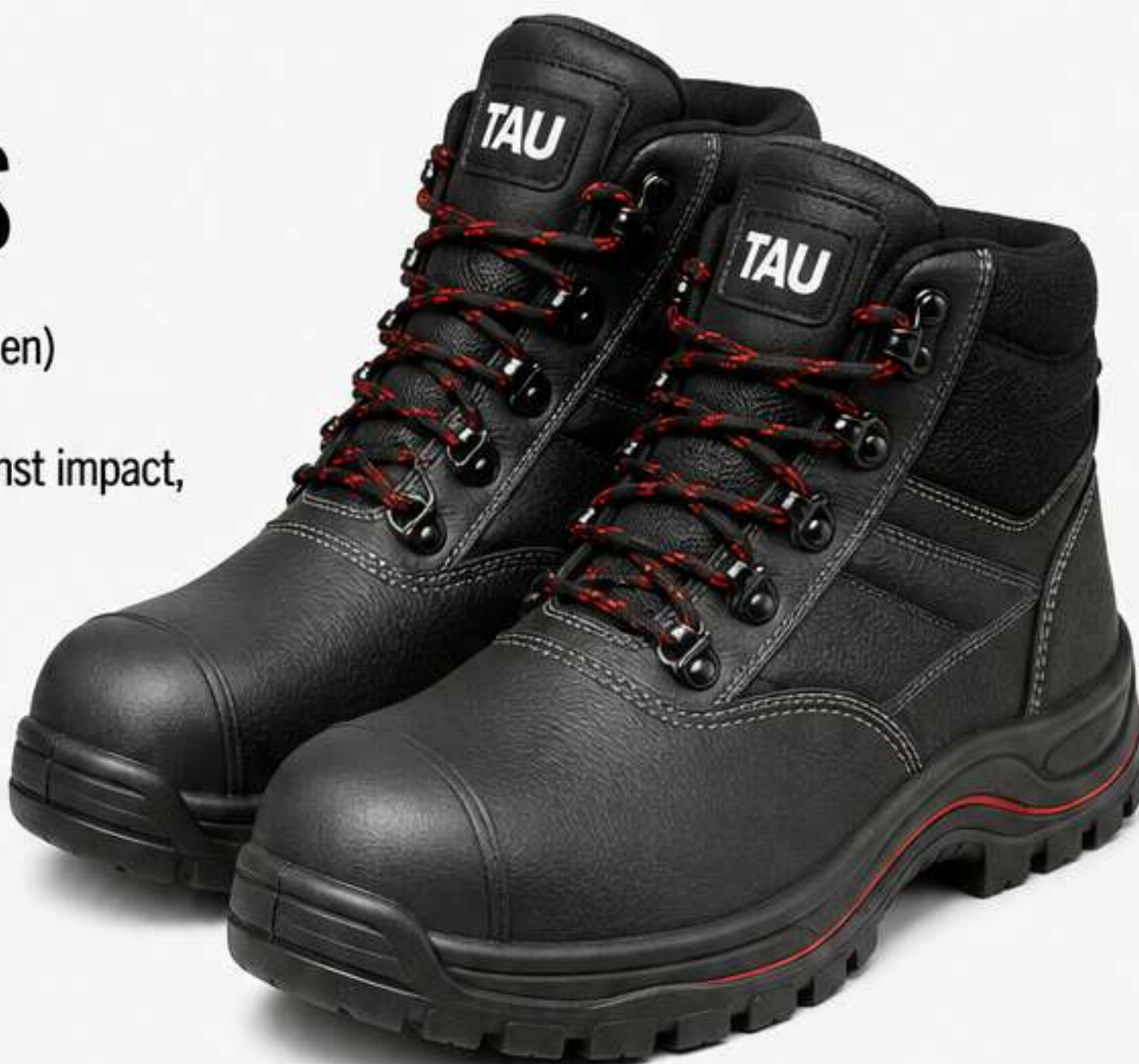
OPERATION: Foot protection against impact, puncture, and slip



APPLICATION: Perfect for solar installers handling heavy panels, tools, ladders, and working on roofs or ground-mount sites.



FEATURES:
 ASTM F2413-18 compliant steel toe
 Puncture-resistant composite plate
 Slip-resistant oil- and water-resistant outsole
 Electrical hazard (EH) rated versions available
 Waterproof leather or composite upper with breathable lining



2 CUT-RESISTANT WORK GLOVES



RATED SIZE: 6–11 (or S–XXL)



OPERATION: Hand protection against cuts, abrasions, and punctures



APPLICATION: Essential when handling sharp solar panel edges, glass, metal frames, tools, and wiring during installation and maintenance.



FEATURES:
 ANSI/ISEA 105 Cut Level A3–A5
 High-dexterity HPPE knit with nitrile palm coating
 Touchscreen-compatible fingertips
 Reinforced thumb and index finger
 Breathable, machine-washable, and reusable





1 FULL-BODY SAFETY HARNESS



RATED SIZE: Universal adjustable (fits 5'4"–6'6")



OPERATION: Fall arrest, restraint, and positioning.



APPLICATION: Required for all rooftop solar installations, elevated racking work, and any work above 6 ft / 1.8 m.



FEATURES: ANSI Z359.11 & OSHA 1926.502 compliant
5-point design with dorsal D-ring and front attachment Shock-absorbing lanyard included
Padded leg, shoulder, and waist straps
Quick-connect buckles and tool lanyard loops.



2 ARC-RATED FLAME-RESISTANT COVERALLS



RATED SIZE: S–3XL



OPERATION: Thermal and arc-flash protection.



APPLICATION: Critical for solar electricians, PV technicians, and anyone working on live DC/AC systems, inverters, or combiner boxes.



FEATURES: NFPA 70E & ASTM F1506 compliant (ATPV 8–12 cal/cm² or higher)
Inherently flame-resistant fabric (no chemical treatment) Two-way zipper, multiple pockets, and elastic waist Lightweight, breathable, and moisture-wicking Available in long-sleeve or short-sleeve versions





1 ELECTRICAL GLOVES – INSULATING



OPERATION:

Protective gloves made from rubber or dielectric materials designed to provide insulation against electrical currents, typically worn with outer leather protectors to prevent punctures or tears; require visual inspection, air testing for leaks, and compliance with voltage class ratings before use.



APPLICATION:

Essential for electricians and workers handling energized equipment to prevent electrocution and arc flash injuries; used in installation, maintenance, and repair of electrical systems; meets safety standards like OSHA 1910.137 and ASTM D120 for various voltage levels.



2 ARC BALACLAVA – PROTECTIVE



OPERATION:

Arc-rated fabric garment that covers the head, neck, and face (except eyes), worn tucked into clothing or under a hard hat with face shield; inspected for damage before each use to ensure protection against thermal hazards.



APPLICATION:

Provides defense against arc flash burns in electrical work environments; required for tasks near exposed energized parts per NFPA 70E and OSHA 1910.269; ideal for utility workers, electricians, and maintenance personnel in high-risk settings.





1 PADLOCK SECURITY SEALS – TAMPER-EVIDENT

OPERATION:

Single-use locking mechanisms resembling padlocks, applied by inserting the shackle through hasps or loops and securing it; breaks upon removal to indicate unauthorized access without reusable keys.

APPLICATION:

Secures containers, doors, meters, and inventory to prevent theft and tampering; widely used in logistics, utilities, storage facilities, and transportation for compliance and asset protection.



2 SECURITY SPIKE RINGS – ANTI-CLIMB

OPERATION:

Rotating barriers formed by steel spikes welded to collars threaded on a central shaft, installed on top of fences or walls; spins unstably when pressure is applied, deterring climbing attempts.

APPLICATION:

Enhances perimeter security for properties, buildings, and restricted areas to prevent unauthorized entry and scaling; suitable for high-security installations like prisons, warehouses, and commercial sites.



3 ELECTRIC FENCE ENERGIZER

RATING: 5 Joule output | Solar or mains powered | Covers up to 10km of fence

OPERATION:

Device that powers electric fencing to deliver non-lethal shocks for deterrence.

APPLICATION:

Farm and property boundary security against intruders or animals; integrated alarm; durable for outdoor use in South African conditions; 12-month warranty equivalent.





1. METAL DETECTORS

Three security metal detectors: handheld wand for precise secondary screening, walk-through arch for full-body access control, and ground search coil for terrain exploration, used for detecting concealed metals in high-security environments.



2. MAGTOUCH KITS AND ACCESSORIES

Guard patrol monitoring kits: compact baton with USB downloader and pouch, ID checkpoints with magnetic tags, and software upload station, plus accessories like extra checkpoints and chains, used for tracking and verifying security guard routes in real-time.



3. CHEST-MOUNTED BODY CAM

A durable body camera typically clipped or mounted to the chest for frontline recording in law enforcement.



4. SHOULDER-MOUNTED BODY CAM

A stable wide-angle camera attached to the shoulder for consistent capture during security operations.



5. HEAD-MOUNTED BODY CAM

A flexible POV camera worn on the head for hands-free footage in dynamic situations.



6. ALCOHOL BREATHALYSERS

Portable semiconductor for quick personal checks, fuel cell for accurate professional screening, and evidential breath test device for legal courtroom evidence, used for measuring blood alcohol content to ensure road safety.



MEDICAL & FIRST AID



SECTION



DESCRIPTION

**Medical
supplies and
emergency
equipment.**



1. OXYGEN REGULATOR:

A teal-colored oxygen flow regulator with a pressure gauge displaying PSI, a flow control lever, and a barbed outlet for tubing connection. It has a black yoke for attaching to an oxygen cylinder.



2. SPIDER STRAP SYSTEM:

A red patient restraint system consisting of multiple adjustable straps with buckles and handles, designed for securing a patient to a spine board. It features black webbing and colorful pull handles (orange, blue, black).



3. AUTOMATED EXTERNAL DEFIBRILLATOR (AED)

A portable AED unit (model: AED Plus) with a color screen displaying ECG waveform, control buttons, and two attached defibrillation pads (one orange, one black) with coiled cables.



4. ALCOHOL PREP PADS AND GAUZE

A stack of folded white gauze pads and a small silver foil packet labeled "New Isopropyl Alcohol Wipe," used for cleaning skin or surfaces in medical settings.



5. FOLDABLE SPINE BOARD

A black plastic spine board with multiple hand slots and strap holes, shown folded in half for compact storage, used for patient immobilization and transport.



1. IV ADMINISTRATION SET

A sterile packaged IV drip set including a clear plastic tube, drip chamber, roller clamp, and injection port, labeled for medical use.



2. OXYGEN CYLINDERS

Two black portable oxygen tanks of different sizes (small and large), each with a white top valve and hazard labels, used for supplemental oxygen delivery.



3. LARYNGOSCOPE SET

A black zippered case containing a laryngoscope handle and multiple curved metal blades (Miller type) in various sizes, branded "CriTi Care Laryngoscope Set."



4. VACUUM SPLINT MATTRESS

A teal full-body vacuum immobilization mattress with multiple-colored straps (red, yellow, blue, black) and handles, accompanied by a blue pump strap below.



5. BURN FIRST AID KIT

A green-themed burn treatment kit (Burn-EAZ) including a spray bottle, gel packets, dressings, bandages, and instructional materials for burn care.



6. EMERGENCY THERMAL BLANKET

A folded silver mylar emergency blanket designed to retain body heat, commonly used in first aid for shock or hypothermia prevention.



1. SURGICAL SCISSORS SET

Four stainless steel medical scissors in various styles and sizes, including straight, curved, and blunt-tipped, for cutting bandages or clothing.



2. SAFETY LANCETS

Two colorful safety blood lancets (pink and blue) with protective caps and spring-loaded needles for fingertip blood sampling.



3. IV CATHETERS

Four sterile packaged IV cannulas in different gauge sizes (color-coded: orange, gray, pink, blue), each with a needle and catheter tube.



4. SCOOP STRETCHER

A blue adjustable scoop stretcher with black straps, aluminum frame, and small wheels at one end, used for lifting and transferring patients without excessive movement.



5. BAG VALVE MASK (BVM)

A manual resuscitator (Ambu bag) with a transparent face mask, white squeeze bag, red valve assembly, oxygen reservoir bag labeled "RESER," and connecting tubing.



6. NON-CONTACT INFRARED THERMOMETER

A white handheld infrared thermometer (model: Jumper) with a digital LCD screen displaying 36.8°C, trigger, and mode buttons for forehead temperature measurement.



1. BODY BAG

A black vinyl body bag with multiple handles, zipper closure, and folded design, used for transporting deceased individuals.



2. PORTABLE AED CASE

An open red and grey carrying case containing a blue Saver One P AED unit with screen, pads, and accessories, designed for emergency cardiac response.



3. TRAUMA SHEARS IN HOLSTER

Black heavy-duty medical shears with serrated blades and a plastic handle, attached to a black holster with belt clip and oxygen wrench feature.



4. SUTURE INSTRUMENT KIT

A black zippered pouch containing stainless steel instruments: scalpel handle, forceps, needle holder, scissors, and blade, for minor surgical procedures.



5. SANITIZING WIPES BUCKET

A white plastic bucket with red lid and handle, labeled "Sani-Safe High Alcohol Sanitising Wipes" containing 80% ethanol wipes for disinfection.



1. HANDHELD PATIENT MONITOR

A portable vital signs monitor with color screen displaying SpO2 (98%), PR (120 bpm), temperature (38°C), and waveform, docked on a white base.



2. PORTABLE OXYGEN KIT

A black portable oxygen cylinder in a matching carrying bag labeled "OXYGEN," with green regulator, nasal cannula, and mask accessories.



3. EMS VESTS

Four high-visibility tactical vests in black, navy, pink, and blue with reflective strips, pockets, and EMS symbols, for emergency responders.



4. ADVANCED AIRWAY KIT

A comprehensive airway management set including laryngoscope blades and handle, endotracheal tubes, stylets, syringes, forceps, tape, and other intubation tools spread out.



5. ENDOTRACHEAL TUBES

Seven sterile packaged endotracheal tubes in various sizes, color-coded at the tips (yellow, green, black, etc.), for airway intubation.



1. PORTABLE SUCTION UNIT

A red and white battery-powered suction device (model: OB3000) with canister, gauge, tubing, and shoulder strap, for clearing airways.



2. METAL FIRST AID BOX

A white metal first aid kit box with green cross symbol, handle, and latch, designed for wall mounting or portable use.



3. OXYGEN FACE MASK

A transparent adult oxygen mask with green elastic strap, reservoir bag, and long tubing with green connectors, for oxygen delivery.



4. COMBAT TOURNIQUET

A black one-handed tourniquet (CAT style) with windlass rod, buckle, and "TIME" label for recording application time, used to control severe bleeding.



5. IV START KIT

A sterile blue field with packaged supplies including IV catheter, tourniquet, alcohol preps, gauze, tape, and drape, for starting intravenous lines.



1. MODULAR MEDICAL POUCHES

A set of colorful zippered pouches (red, blue, black, green, yellow) with transparent fronts, used for organizing medical supplies in kits.



2. TRAUMA JUMP BAG

A red EMS backpack labeled “Criti Care Jump Bag AmbuPAC” with reflective strip, multiple compartments, and paramedic symbol, for advanced life support.



3. DIGITAL BLOOD PRESSURE MONITOR

A white automatic upper arm BP monitor with LCD screen, cuff (22-42 cm), and buttons, displaying systolic, diastolic, and pulse readings.



4. FIRST AID KIT CONTENTS

Laid-out supplies including bandages, gauze, tapes, scissors, gloves, burn gels (Burn-EAZ), splints, and instructional booklets for emergency care.



1. MULTI-COLOR SPIDER STRAP

A color-coded webbing system with Velcro closures for quick and efficient patient immobilization, providing multiple attachment points to hold patients firmly on backboards.



2. BASKET STRETCHERS

Three rescue basket stretchers: black metal frame with mesh, orange plastic with straps, and white scoop-style, used for rugged terrain patient transport.



3. KINESIO TAPES

Three different kinesio tapes: classic cotton in beige for general muscle support and healthy skin, performance blend in blue polyester-cotton for sensitive areas and higher tension, and synthetic pro in black for durability in extreme conditions, used for pain relief, injury prevention, and athletic performance enhancement.

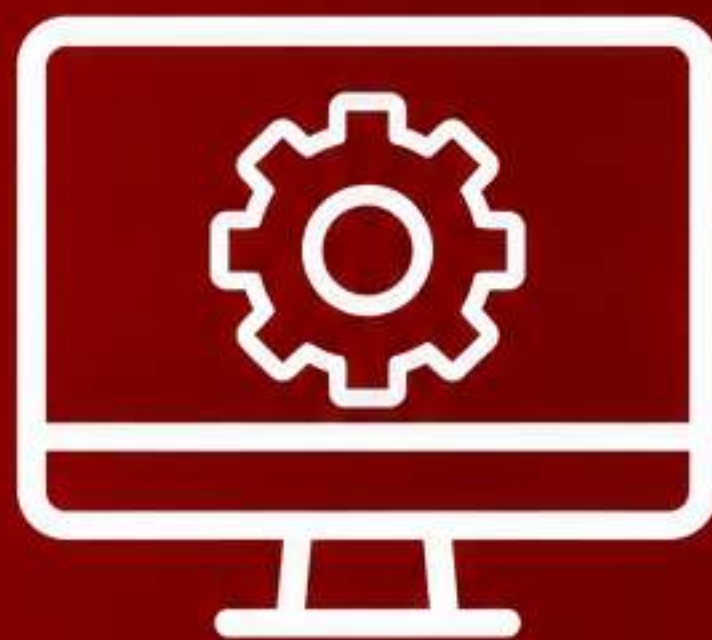


4. SHORT SPINE BOARD

An orange plastic short spine board (head-to-torso length) with multiple strap slots and hand grips, used for extrication and immobilization.

TAU

QUALITY • RELIABILITY • INNOVATION



IT PRODUCTS AND SOLUTIONS

IT hardware, software licenses
and networking
solutions.





1. POWEREDGE RACK SERVER

Enterprise-grade rack server delivering high-performance computing, scalability, and reliability for data centres and mission-critical industrial operations.



2. LAPTOP

Fully rugged laptop engineered to withstand extreme dust, water, drops, and harsh African field conditions in mining and construction environments.



3. NETWORK SWITCH

High-performance managed switch providing fast, secure, and reliable connectivity across large industrial sites and office networks.



4. NEXT-GEN FIREWALL

Advanced security appliance offering threat protection, VPN, and comprehensive network security for businesses across Southern Africa.



5. DESK WORKSTATION

Powerful, compact workstation optimised for CAD, engineering software, data analysis, and heavy professional workloads.



6. WI-FI 6 ACCESS POINT

High-speed wireless access point delivering seamless, secure, and high-capacity coverage for warehouses, mines, and large facilities.



1. WIRELESS KEYBOARD & MOUSE COMBO

Ergonomic full-size wireless keyboard and mouse set offering reliable connectivity, long battery life, and comfortable typing for daily office and field use.



2. USB-C MULTI-PORT DOCKING STATION

8-in-1 USB-C hub with dual 4K HDMI, Ethernet, USB ports, SD card reader and power delivery – perfect for expanding laptop connectivity in the office or on site.



3. WIRELESS BLUETOOTH HEADSET

Professional noise-cancelling headset with microphone, ideal for clear calls, Microsoft Teams, and remote collaboration in noisy industrial environments.



4. BUSINESS WEBCAM

Full HD 1080p webcam with autofocus, light correction, and built-in privacy shutter for professional video conferencing and virtual meetings.



5. PROFESSIONAL CABLE MANAGEMENT KIT

Complete set of cable sleeves, clips, ties, and under-desk trays to keep workspaces tidy, reduce trip hazards, and maintain a professional IT setup.



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Full HD 1080p webcam with autofocus, light correction, and built-in privacy shutter for professional video conferencing and virtual meetings.



5. PROFESSIONAL CABLE MANAGEMENT KIT

Complete set of cable sleeves, clips, ties, and under-desk trays to keep workspaces tidy, reduce trip hazards, and maintain a professional IT setup.



INTERNATIONAL FOOTPRINT

We are a proudly international company, headquartered in England, United Kingdom, with operations extending across Southern Africa, Central Africa and Europe.

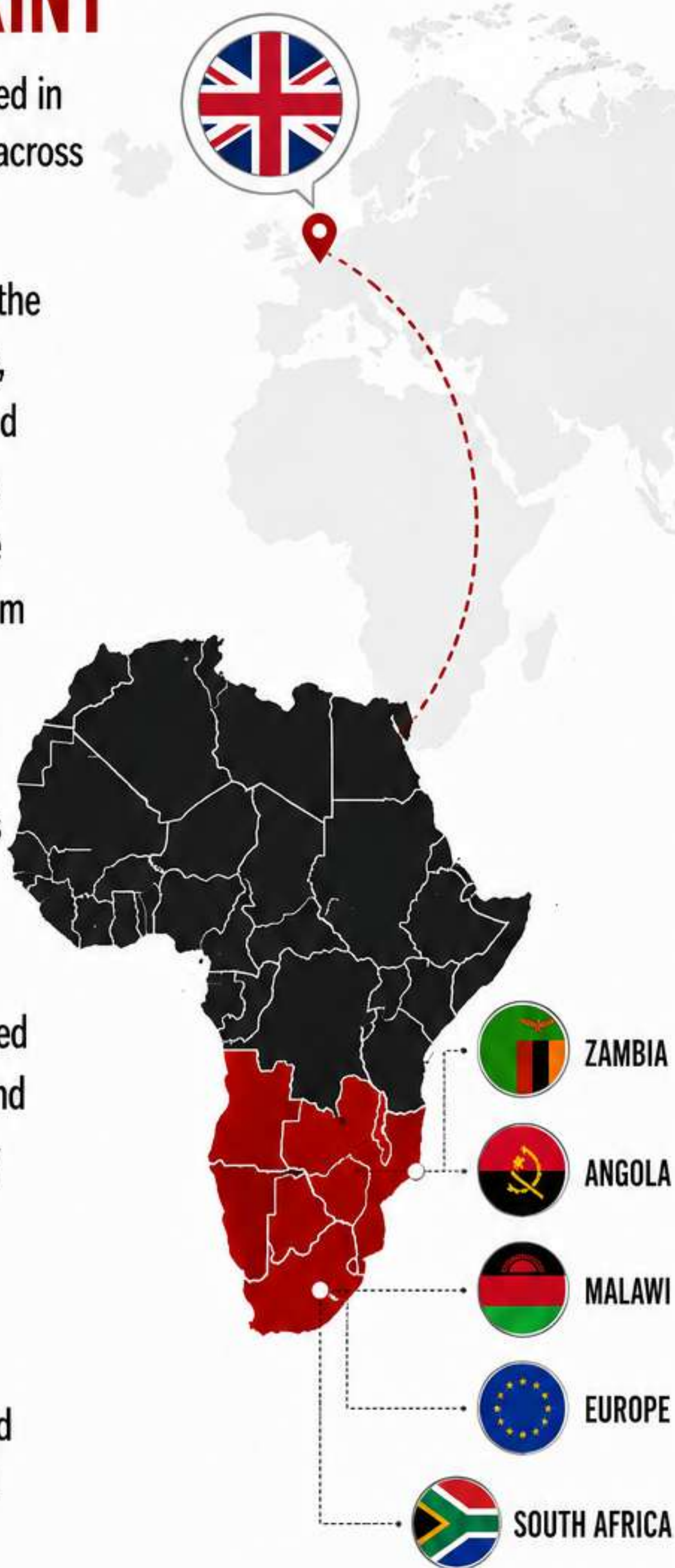
Established in 2021 as a Level 2 B-BBEE contributor, the company delivers engineering, infrastructure upgrades, energy, mining supplies, construction, maintenance, and consulting solutions in key regional markets, including Zambia, Angola, Malawi, Europe and South Africa. We ensure seamless execution in diverse environments, from urban commercial sites to remote industrial and agricultural operations.

This expanding footprint supports a wide range of services tailored to local regulations and international standards, such as SANS and IEC guidelines.

In South Africa, the core focus includes insurance-aligned maintenance and repairs for residential, commercial, and sectional-title properties, alongside sustainable energy installations like solar PV systems and high-voltage transmission infrastructure.

Regionally, the company emphasizes mining supplies, renewable energy projects (including hybrid and off-grid solar systems), and construction services (from general building to substations and roofing).

This cross-border capability enables efficient supply chain management, risk mitigation, and value-driven outcomes, fostering sustainable development, operational resilience, and long-term client partnerships across the continent.





KEY OPERATIONAL HIGHLIGHTS:



ENGLAND - UNITED KINGDOM (HEAD OFFICE):

We specialize in end-to-end solar PV solutions (design, supply, installation, hybrid systems, cleaning, and maintenance), while leveraging our group's broader expertise in electrical infrastructure, high-voltage systems, mining support, and construction in these regions.



SOUTH AFRICA, ZAMBIA, ANGOLA, AND MALAWI:

Extended delivery of mining supplies, sustainable energy solutions, construction, renovations, infrastructure upgrades, high-voltage transmission towers and substations, with a focus on compliance, safety, and performance in demanding remote settings.



We continue to grow our presence to meet rising demand for renewable energy, mining efficiency, and infrastructure resilience, positioning ourselves as a trusted African partner built on integrity, accountability, and excellence.



COMPREHENSIVE SUPPORT SOLUTIONS

In addition to providing high-quality circuit protection equipment, we offer a range of value-added services designed to support our clients throughout every stage of their projects, including:



CUSTOM PANEL BUILDING –

Tailored solutions to meet your specific electrical requirements.



SWITCHGEAR CONTROL INTEGRATION –

Seamless integration for efficient and reliable power management.



INSTALLATION SUPPORT & COMMISSIONING –

Expert guidance to ensure smooth setup and optimal performance.



MAINTENANCE & FAULT DIAGNOSIS –

Proactive and reactive services to maximize system reliability and longevity.



COMPREHENSIVE SUPPORT SOLUTIONS

At Tau Maintenance & Farm Consulting, we don't just provide services—we build lasting partnerships founded on trust, reliability, and performance. Our unwavering commitment to excellence and customer satisfaction distinguishes us in the maintenance, agricultural, and industrial sectors. Here's why businesses and farms consistently choose us as their preferred service provider:



1. TRUSTED INDUSTRIAL EXPERTISE

With extensive hands-on experience across diverse industries—including mining, agriculture, commercial properties, and manufacturing—we bring unparalleled technical expertise and practical skills to every project. Our team of highly trained professionals understands the unique challenges and demands of industrial environments, allowing us to deliver solutions that are efficient, compliant, and sustainable.



2. UNCOMPROMISING COMMITMENT TO QUALITY

At Tau, quality is non-negotiable—it is a core principle that underpins everything we do. We strictly adhere to industry standards and employ only proven materials, methods, and technologies to ensure lasting results. Every project, regardless of size, is executed with meticulous attention to detail and a commitment to excellence. Our clients trust us to consistently deliver reliable, high-quality service.



3. COMPETITIVE PRICING WITHOUT SACRIFICING QUALITY

We recognize the importance of balancing cost with quality. That's why we provide competitive pricing models that deliver exceptional value while upholding the highest standards of service. By working closely with our clients, we develop cost-effective strategies tailored to their specific needs and budgets—without ever compromising on safety, efficiency, or results.



4. A CLIENT-FOCUSED APPROACH

Our clients are at the center of everything we do. We take the time to understand your business, objectives, and challenges, enabling us to deliver the most relevant and practical solutions. Our reputation is founded on responsiveness, reliability, and respect. With Tau, you're not just a client you're a valued partner. Tau Maintenance & Farm Consulting is your trusted partner in creating sustainable, productive, and efficient operations. Let us help you move forward with confidence.



5. TAILORED SOLUTIONS—DESIGNED FOR YOUR BUSINESS, YOUR SITE, AND YOUR INDUSTRY

At Tau Maintenance & Farm Consulting, we recognize that every business and work environment is unique. A farm operates differently from a factory, and a mine has distinct requirements compared to a workshop. That's why we don't offer one-size-fits-all services. Instead, we develop custom solutions tailored to your specific operations, challenges, and objectives. We take the time to engage with each client, gaining a thorough understanding of their operation—whether it's a mine, commercial farm, processing plant, or industrial facility. By asking the right questions, inspecting the environment, and evaluating risks and requirements, we deliver services that are precisely suited to your needs—nothing more, nothing less.



DEDICATED EXPERTISE FOR MINING SITES

Operating in the mining industry demands more than standard maintenance. Mines face strict health and safety regulations, heavy machinery, hazardous and dusty environments, and critical equipment that must operate continuously. Our team possesses hands-on experience working on and around mining sites, giving us the expertise to maintain safety, optimize efficiency, and ensure maximum uptime.

OUR TAILORED SERVICES FOR MINING OPERATIONS INCLUDE:

	ROUTINE SITE MAINTENANCE – Monthly and weekly schedules to ensure consistent operational efficiency.
	EQUIPMENT SERVICING – Comprehensive maintenance of pumps, motors, compressors, and conveyors.
	ELECTRICAL SOLUTIONS – Fault finding, rewiring, and panel upgrades for uninterrupted power.
	CABLE SERVICES – Installation and repair of cables, both surface and underground.
	TOOLS & EQUIPMENT MANAGEMENT – Regular inspections and upkeep to maintain peak performance.
	COMPLIANCE & AUDITS – Detailed technical audits and compliance reporting to meet regulatory standards.
	EMERGENCY STANDBY SUPPORT – Rapid response to minimize downtime and operational disruption.
	ZERO DOWNTIME COMMITMENT – We prioritize safety, efficiency, and proactive planning to ensure mining operations run continuously without interruptions.



SOLUTIONS DESIGNED FOR YOU

Whether you operate a farm, factory, mine, or estate, we design maintenance and consulting packages that are:

- ✓ **FLEXIBLE** – Select the services you need and adjust them as your business evolves.
- ✓ **PRACTICAL** – Recommendations are grounded in your real working environment.
- ✓ **AFFORDABLE** – We balance quality and cost to ensure maximum value.
- ✓ **RELIABLE** – We adhere to timelines and maintain clear communication with your team.

Our goal goes beyond simply addressing problems. We aim to prevent breakdowns, extend equipment life, and optimize the efficiency and safety of your operations every day.

With Tau Maintenance & Farm Consulting, you gain more than a service provider—you gain a longterm partner committed to crafting solutions around your business needs.