



حلول خط الطاقة

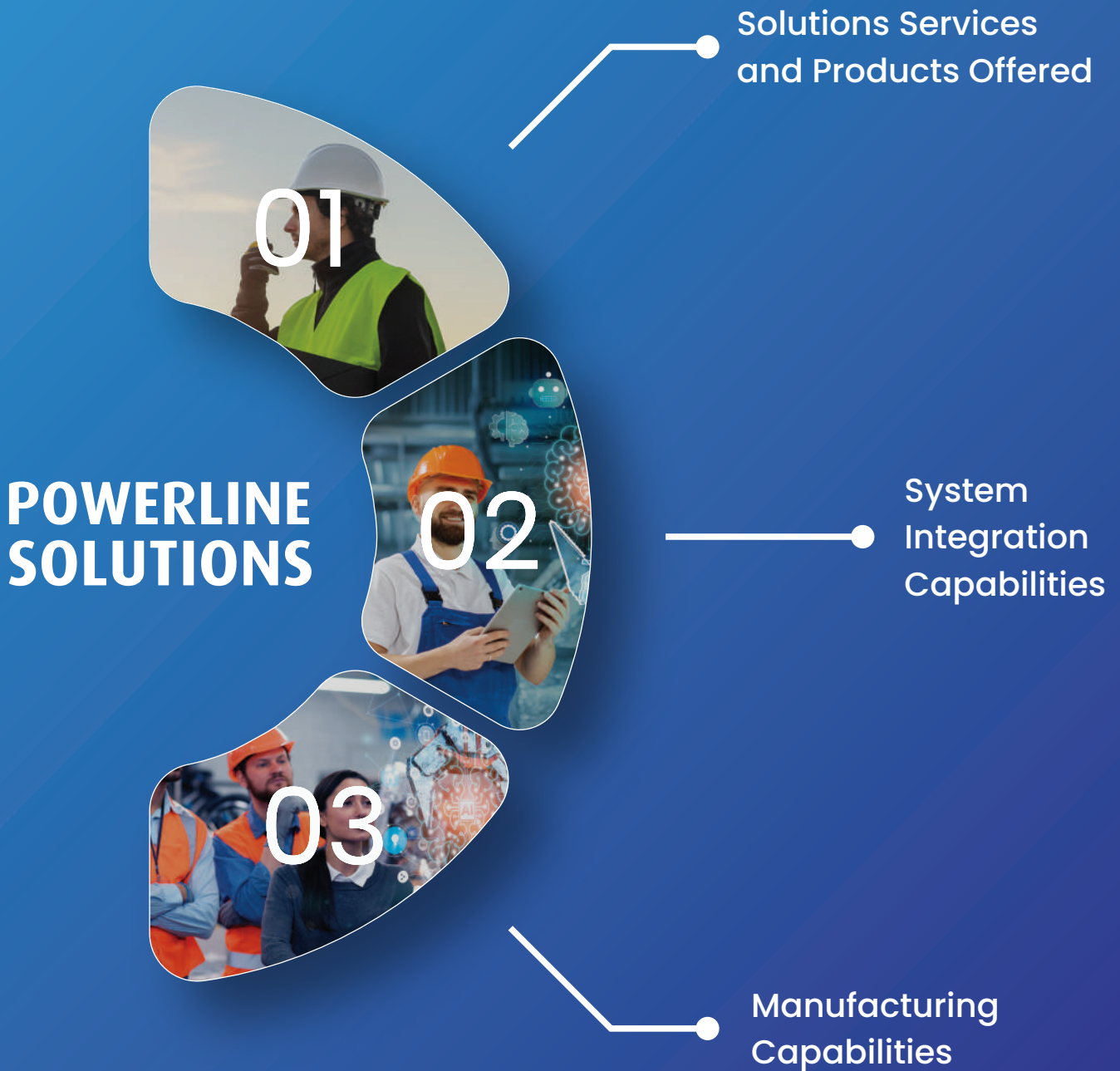
POWERLINE SOLUTIONS

**POWER BACKUP
SOLUTIONS BUSINESS UNIT**

www.powerlinesolutions.com

Commencing its journey in 2007, Powerline Solutions has set the standard for excellence in niche industrial segments, leveraging our expertise and in-depth knowledge. With a proven track record spanning almost two decades in the Saudi Arabian market, we have successfully completed several projects in core industrial segments, with the majority characterized by their challenging nature.

At **Powerline Solutions**, we are founded on the principles of leadership and impeccable commitment to our values, which form the bedrock of our operations. Our core values include Ethics, Safety, Quality, Environmental Integrity, Rigorous Training & Employee Welfare.



Solutions, Services and Products Offered:



▴ EPC Projects

▴ Supply of Specialized Equipment & Solutions: We provide a comprehensive range of

- Mechanical Equipments
- Power Transformers
- Switchgears & Protection Upgradation
- Health care systems equipment & solutions.
- Electrical Equipments & Solutions
- Power Quality Devices & Solutions
- Instrumentation Devices & Solutions
- Power Backup Solutions

▴ Expert Service Team: Our highly competent & factory trained service team is equipped to handle any challenges in

- Static & rotating Mechanical Equipments
- Power Transformers
- Industrial Backup Power Systems
- Instrumentation & Control Systems
- Power System Protection
- Industrial Drives
- Power Quality Services
- Health Care Systems

System Integration Capabilities:



- Analyzer shelter & sample handling systems.
- Containerized Emergency Power Backup Solutions.
- Containerized Modular RO Packages & Modular Sewage Treatment Plants
- Modular Engineering packages for process cooling systems, chillers & chemical dosing skids.

Manufacturing Capabilities:



- All types of gas detectors, flame detectors, alarms & controllers.
- Critical control valves for industries such as Oil and Gas, Petrochemicals, Power, Water, Wastewater, Submarine & Cryogenic applications.
- Electrical Panel enclosures & special application switchgear components.
- Diverse range of polymer & rubber products.

Partner with Powerline Solutions for impeccable commitment, unparalleled expertise, reliability, & innovation in industrial solutions & services. Let us empower your success.

Power Backup Solutions & Services

Our Business Unit is comprised of a team of adept professionals, each committed to delivering custom made Power Backup Solutions that cater to the specific requirements of our industrial clients. Upholding our impeccable commitment to safety, reliability and innovation we offer cost-effective solutions accompanied by readily available local support. We bring a wealth of experience to ensure the reliability of your industrial and commercial projects in the Field of Critical Power Backup Systems & Solutions.

We are specialized in AC & DC UPS, Battery Chargers, DC-DC Converters, Inverters, Central Battery Systems, Solar Solutions, Containerized Emergency Backup Power Systems in Mobile Platforms, Energy Storage Solutions, Lead Acid, Nickel-Cadmium, Lithium Batteries etc. Our comprehensive services are below:

- Design, Engineering and Supply
- Local Integration of customized solutions
- Retrofitting and Upgradation
- Live Cutover of Critical loads
- Dismantling & Installation at site
- Diagnosing and Troubleshooting
- Testing and Commissioning
- Preventive Maintenance and Corrective Maintenance
- Annual Maintenance contracts

We understand that every project is unique, which is why we take the time to listen to your specific requirements and tailor our products and services accordingly. We collaborate closely with our clients, leveraging our extensive knowledge and experience to provide top-notch professional services. Our commitment to quality, craftsmanship, cost control and customer satisfaction sets us apart as a reliable partner for all electrical needs. This dedication has earned us heartfelt appreciation & complete satisfaction from our clients.

Services

Design & Engineering

We have extensive knowledge in the design and engineering of Backup Power Systems which involves a comprehensive process to create a system that efficiently protects the critical loads. UPS system is a highly critical equipment in any Industry, and its design must ensure reliability, safety & compliance with industry standards including System Analysis, Load Calculation, SLD preparation, Circuit Configuration, Selection & Design of Batteries, Calculation of Heat Dissipation, Air flow requirements, Drawings etc.

Local Integration & Customized Solutions

We acquired the engineering skills that involve the careful & systematic process of design and putting together the components & associated peripherals of a customized power Backup Solutions at our local facility.



Retrofitting and Upgradation

Industrial backup power systems represent a significant investment, and their reliability is paramount for any facility. Knowing the critical nature and the prohibitive cost of complete replacement, we offer strategic upgrade solutions. Leveraging our immense experience and specialized in-house expertise, we provide detailed analysis, re-engineering, and upgrading of outdated systems to meet contemporary standards. This approach not only extends the operational lifespan of these critical systems but does so in a cost-effective manner, ensuring sustained reliability and performance.

Live Cutover of Critical loads

Ensuring uninterrupted power in industrial plants is essential, and system maintenance or replacement can be unavoidable. Recognizing this, we've crafted cutting-edge solutions for critical scenarios. Our process involves a precise analysis of your unique power needs, followed by the engineering of robust solutions that ensure uninterrupted power supply. We achieve this by adeptly transferring the load to an alternative source in real-time, safeguarding your operations against power interruptions.

Dismantling & Installation at site

Dismantling a running Backup Power System requires exceptional expertise and meticulous preparation, especially in an operational plant and within tight schedules such as shutdowns or turnarounds. With nearly two decades of experience, we have developed in-house capabilities to execute these tasks while adhering to stringent plant safety and reliability standards. We meticulously plan all preparations in advance, including the safe disposal of hazardous materials like batteries. Our team ensures seamless operations and timely completion of the job, avoiding any potential disruptions.

Diagnosing and Troubleshooting

With several years of hands-on experience, continuously updated knowledge through factory



and in-house training, and the use of modern test equipment, we are well-equipped to support our customers during critical failures. Our expertise enables us to diagnose, troubleshoot, and restore the systems efficiently, helping to prevent production losses and ensure smooth operations.

Testing and Commissioning

Backup Power Systems in industrial applications are highly expensive and designed for a long lifespan of over 20 years. Improper commissioning by unprofessional personnel can lead to system failures and premature battery degradation / failures, resulting in costly replacements. Over the years, we have supplied, tested, and commissioned backup power systems for more than 1,100 projects, totaling over 4,500 systems. Our service engineers and technicians are trained by OEMs and well equipped to conduct on-site testing and commissioning with the highest level of precision and care. With us your critical systems are in safe hands!



Preventive & Corrective Maintenance (PM & CM)

Preventive maintenance is crucial for ensuring systems remain in optimal running condition. During shutdowns, we offer a comprehensive range of services, including inspections, cleaning, tightening connections, repairs / replacements, capacity testing of battery banks, load testing, and more. In addition to preventive care, we also provide corrective maintenance to address failures, which includes trouble shooting and system restoration.

Annual Maintenance Contracts (AMC)

Customers can sign annual or long-term maintenance contracts with us for quarterly, half-yearly, or yearly visits, ensuring planned maintenance and a seamless supply of spare parts at special rates. Our comprehensive services include regular inspections, detailed cleaning, tightening of connections, repairs / replacements, capacity testing of battery banks, and load testing. Additionally, we provide corrective maintenance to troubleshoot and restore systems after failures. These contracts offer cost savings, priority service, and guaranteed parts availability, ensuring your systems remain in optimal condition and minimizing unexpected downtime.

Products

Rectifiers / Battery Chargers & DC-DC Converters

DC UPS systems play a vital role in ensuring the safe operation of an electrical network. We offer a comprehensive range of products that cater to various technologies, ranges, configurations, and applications. Additionally, we provide DC-DC converters to boost or buck DC power supplies, ensuring your systems have the reliable and efficient power support they need.

Product Topology: Thyristor / SCR, IGBT, SMPS etc.

Range: 12VDC / 24VDC / 48VDC / 60VDC / 110VDC / 125VDC / 220VDC

Ratings: 5A to 2500Amps

Configuration: Standalone / Single units, Parallel Redundant, Modular, N+1 etc.

Application: Switchgears, Communication Systems, Powerplants, Substations, Oil & Gas, Petrochemical, water, etc.



Uninterruptable Power Supplies (UPS) & Inverters

AC UPS systems are essential to our daily lives, supporting everything from computer networks, hospitals to commercial buildings and industrial facilities. We offer a comprehensive range of products to cater to all segments of life, encompassing various technologies, ranges, configurations, and applications. Our solutions ensure the safe operation of your critical loads, providing peace of mind during blackouts and brownouts. We also offer a wide range of Inverter solutions for Industrial applications.

Product Topology: Thyristor / SCR, IGBT

Voltage Range: 120VAC, 208VAC, 230VAC, 380VAC, 415VAC, 480VAC

Ratings: 1kVA to 1000kVA

Configuration: Standalone / Single units, Parallel Redundant, Modular, N+1 etc.

Application: Industrial Facilities, Powerplants, Substations, Oil & Gas, Petrochemical, water, Communication Systems, Data Centers, Hospitals etc.



Batteries & Cell Monitoring

Batteries are the backbone of any backup system. We offer an extensive array of battery chemistries and solutions tailored to various applications. Additionally, we provide customized mounting options, including racks and enclosures, to meet specific customer needs. Our expertise extends to cell monitoring systems, which help predict potential failures in advance, ensuring the safety and reliability of your critical loads.

Cell Chemistry:

Lead Acid, Nickel-Cadmium (Ni-Cd), Lithium-ion, Sodium-ion, Nickel-Metal Hydride (NiMH)

Product Range:

Lead Acid Cells & Blocks:

Vented Cells – Tubular, Grid & Planté –
Valve Regulated (VRLA) Gel/AGM, Lead Cristal

Nickel-Cadmium:

Vented Pocket Plate (H, M, L type), Sintered Plate, Ultra Low Maintenance type.

Lithium-ion, Sodium-ion, Nickel-Metal Hydride (NiMH):
Offered as per customer specifications.



Central Battery System

A central battery system is designed to provide a reliable power supply for emergency lighting and other critical systems from a single, centralized location. These systems typically consist of a central battery bank, a charger, and a control unit etc. They offer several advantages, including easier maintenance and testing, as all components are in one place. We offer both AC and DC Central battery systems in accordance with project specifications.

Product Topology: Switch mode / Bidirectional
Voltage Range: 400VAC / 230VAC
(other voltage on request)
Ratings: 2kVA to 225kVA
Battery Options: VRLA, Ni-Cd, Li-ion



Containerized emergency Power Backup Solutions

We have in-house expertise to custom design and integrate emergency backup solutions tailored to customer specifications. Our portfolio includes truck and trailer-mounted solutions supplied to various utility and oil & gas companies. These systems are invaluable during emergencies and startups, providing reliable and efficient backup power when it is needed most.



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