LINDEMANN-REGNER

Your Leading EPC Partner And Manufacturer Of Energy Systems In Europe

LND ENERGY GMBH PROFILE

A Tier 1 Global Transformer and SST Manufacturer

CONTACT US

Contact Phone: +49 8131 6149236

Email: info@lindemann-regner.de

Address: Liebig Str. 5, 85757 Karlsfeld, Germany

Official Website: www.LND-Energy.de

COMPANY PROFILE

LND ENERGY GMBH (Headquartered in Munich, Germany)

– is a global manufacturer of transformers and solid-state transformers (SST),
The company represents top-level quality in the European power engineering industry.

With profound technical expertise and rigorous quality standards, LND Energy has set a benchmark for precision and reliability in electrical manufacturing. The company operates a joint production center in Jiangsu Province, China, establishing a globally integrated model of "German headquarters + Chinese production. " This approach combines German engineering excellence with flexible, globally oriented manufacturing and service capabilities.

CORE BUSINESS

Power Infrastructure Solutions
company specializes

European / Middle Eastern
Key Markets

EPC Services

The EPC business provides full-cycle services from load calculation, system design, equipment selection, and standardized installation to commissioning, operation, and acceptance. These services cover a wide range of applications including renewable energy integration, grid modernization, industrial high-reliability power distribution, and commercial power supply systems. This approach helps shorten project timelines and reduce coordination costs. For the European market, CE and EN standards are strictly followed, while for the Middle East market, special emphasis is placed on high-temperature endurance and sand-resistance design. Multiple benchmark projects have been successfully delivered.

Power Equipment Manufacturing

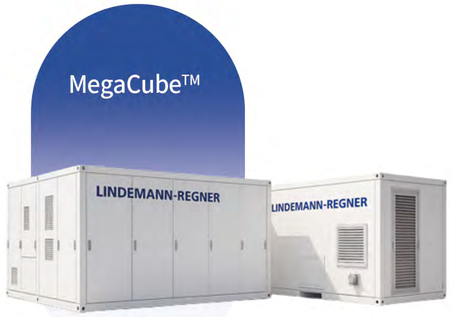
The product range includes transformers, power distribution systems, and other key electrical components. All products are developed and manufactured according to international standards, ensuring high efficiency, reliability, and operational safety.

PHILOSOPHYCORPORATE

Based on the principle of "German standards and global collaboration," LND Energy provides integrated power solutions covering product development, manufacturing, engineering, and project execution.

The company aims to contribute to global energy transformation and grid modernization, becoming a reliable partner in international power infrastructure development.

CORE PRODUCTS



Transformers: Oil-immersed and dry-type transformers compliant with DIN 42500 and IEC 60076 standards, featuring high reliability, low losses, and long service life. Rated capacities range from 100 kVA to 200 MVA with voltage levels from 400 V to 430 kV.

MegaCube™: An integrated, independent pre-installed energy storage system combining E-House (prefabricated cabin) and containerized battery cabinets, with core component integration, wiring and commissioning completed in-factory. Compliant with mainstream EU/US wiring standards and communication protocols for compatibility and reliability. On-site, no complex wiring/commissioning-basic installation enables "plug-and-play", ensuring efficient deployment and a revolutionary solution for energy storage project

Distribution Systems: E-houses, ring main units, and high and low-voltage switchgear compliant with EN 62271, characterized by intelligent control, modular design, and high operational safety.

Other Products: AIDC power supply systems, control and monitoring units, and solid-state transformers designed to cover multiple stages of the power system chain.

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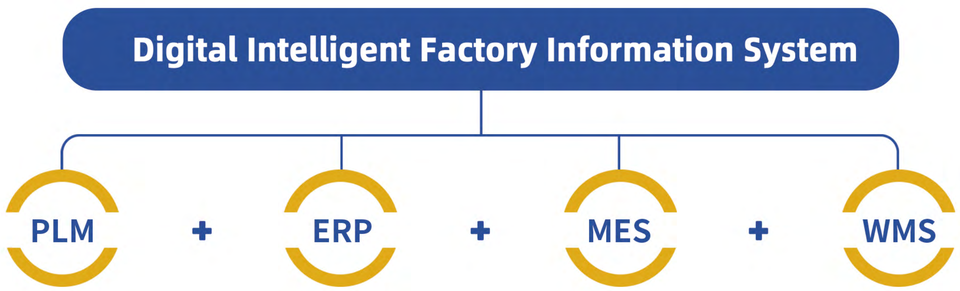
INTELLIGENT MANUFACTURING WORKSHOP

MES "INTELLIGENT BRAIN"

Enhance efficiency and monitor production in real time

The equipment has been integrated with SAP, PLM and MES systems to ensure the balance of production processes and material flow, further improving efficiency, quality and fulfillment capabilities. To break through the efficiency bottlenecks in the entire chain from "design - production - management and control", the company achieves multi-level optimization through multi-system interaction. Design data is directly connected to production, eliminating the need for paper-based transmission of BOM and process routes. PLM and 3D software enable automatic processing by equipment, achieving seamless integration between design and manufacturing. In terms of production planning, MES decomposes the main plan from ERP into three-level online plans, and APS automatically generates work orders and intelligently selects materials, enhancing efficiency and reducing inventory. On-site management is facilitated by the informatization of production lines and WMS systems, accelerating operations and material transfer, and ensuring full control over production scheduling, logistics and execution, significantly improving operational efficiency.



CORE PROCESSES

CORE TECHNOLOGY FOR TRANSFORMERS

Silicon steel transverse cutting / fully automated transverse cutting line

Silicon steel longitudinal cutting / fully automated longitudinal cutting line

Core stacking / fully automatic robotic stacking system

Winding casting / intelligent vacuum casting system

CORE PROCESSES FOR RING MAIN UNITS (RMU)

Cabinet assembly / fully automated assembly and production line

Cabinet welding / TRUMPF laser welding system, Germany

Cabinet cutting / TRUMPF laser cutting system, Germany

Gas leakage inspection / SEILER automatic helium leak detection system, Germany

STANDARDS COMPLIANCE & CERTIFICATION

Supported by an intelligent, process-controlled manufacturing system and comprehensive final testing at the intelligent inspection center, all products are guaranteed to comply with **German standard DIN 42500** and **international quality standard IEC 60076**.

LOW VOLTAGE SWITCHGEAR/SWITCH CABINET

Intelligent Digital Switchgear

Voltage: 400/690 V AC

LE Series Intelligent Digital Switchgear

Overview

The LE-SWG-M, cabinet adopts a modular structure, with each functional compartment combined as required.
The cabinet height is based on a 25 mm modular unit (IE-25 mm). The standard cabinet height is 2200 mm, with an effective component installation height of 72E, equivalent to 1800 mm.
Each LE-SWG-M switchgear cabinet consists of several functional compartments, including a busbar compartment, functional unit compartment (switch compartment), cable termination compartment, and auxiliary equipment compartment.
An independent control bus channel is provided at the upper front section of the cabinet, effectively preventing signal interference and ensuring electromagnetic shielding.
The cabinet’s overall dimensions depend on the configuration and combination of these functional compartments.
According to customer requirements, the LE-SWG-M cabinet can be classified into partition forms 2b / 3b / 4a / 4b, providing effective protection for personnel and equipment.
For convenient inspection and maintenance, removable partitions are used between compartments, with some partitions made of transparent PC panels for easy visual observation.
① Busbar Compartment
② Functional Unit Compartment
③ Cable Termination Compartment
④ Auxiliary Compartment

Internal Equipment

- In the LE-SWG-M switchgear, all switching devices are mounted on a robust installation plate.
- The combination of the installation plate and the installed devices forms a functional unit, performing a clearly defined electrical function.
- According to IEC 60439-1, a functional unit is the part of a low-voltage switchgear assembly comprising all electrical and mechanical components that jointly perform a specific function.
- The height of a functional unit is determined by the number of 25 mm modular units (IE-25).
- Each cabinet includes 72 modules, each with a height of 25 mm.
- A systematically applied engineering method ensures that the selection and arrangement of electrical components are consistent and error-free, providing high reliability, safety, and design repeatability.
- This modular concept reflects the precision and engineering excellence associated with German technology.

Busbar

The busbar system is used to distribute and transmit electrical energy throughout the entire switchgear assembly.
Each LE-SWG-M switchgear cabinet includes two types of busbars:
- Main busbars
- Distribution busbars

The rated current of the main busbars determines the depth of the switchgear cabinet.
The busbars are securely mounted on the cabinet frame using insulated support brackets, which have been tested for temperature resistance and flame-retardant performance.
This well-engineered busbar design ensures optimal current distribution, mechanical strength, and operational safety, reflecting the precision and reliability of modern modular switchgear systems.

Technical Parameters

LE-SWG-M-400V AC/690V AC

COMPLIANCE TO STANDARDS-GENERAL CHARACTERISTICS	
Electrical Characteristics	
Rated insulation voltage	690V/1000V
Rated operational voltage	400V AC/690V AC
Rated impulse withstand voltage	8kV
Overvoltage category	III
Degree of pollution	3
Frequency	50/60Hz
Main Busbars Rated Current	
Main busbars	Vertical busbars
Rated current	7500A
Rated peak withstand current	105-330kA
Rated short-time current	55-150kA
Surface Protection	
External surface protection	Epoxy powder polymerised at high temperature
Standard colors	RAL7032/RAL7035

Applications for Distribution, Power Factor Correction and Motor Control					
Functionality	Distribution cubicle	Power factor correction cubicle	Fixed-type Motor Control Center(MCC)cubi	Withdrawable -type cubicle	Variable speed drives cubicle
Distribution Busbars					
Rated current	up to 3200A	-	up to 3200A	up to 1600A	up to 3200A
Rated peak withstand current	130-150kA	-	130-150kA	130-150kA	130-150kA
Rated short-time current	60kA	-	60kA	60kA	60kA
Outgoing					
Motor feeders	-	-	-	up to 250kW	up to 250kW
Distribution feeders	up to 7500A	-	up to 7500A	630A	-
Mechanical Characteristics					
Total height	2200mm/2300mm				
Usable height	1800mm				
Width	600/800/1000mm				
Depth	600/800/1000mm				
Functional unit type	FFF	FFF	FFF	WWW	FFF
Forms according	1/2b/3b/4	1/2b/3b/4	1/2b/3b/4	3b/4	1/2b/3b/4
Degree of protection according	IP30、IP31、IP40、IP41、IP42、IP44、IP54			IP30, IP31, IP40 IP41, IP42, IP44 IP54	IP30, IP31 IP42, IP54

SST SOLID-STATE TRANSFORMER R&D

Next-generation semiconductor-based power conversion

To reinforce our European premium quality DNA, the company has established an R&D center for European electrical and SST standards in China. The core technical team is led by senior engineers from China, Germany, and the Czech Republic, integrating the latest technological developments from both Europe and China. Our manufacturing base is certified to DIN EN ISO 9001, ensuring the synergy of German design and efficient Chinese production.

Ultra-High Efficiency

⩾98.5% efficiency reduces energy losses and operational costs

Compact Size

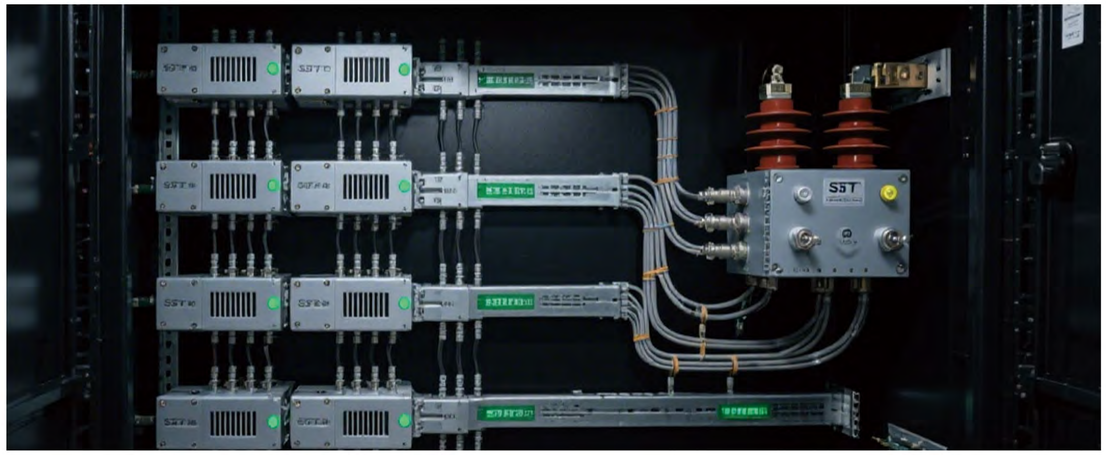
60% smaller footprint compared to traditional transformers

Bidirectional Power

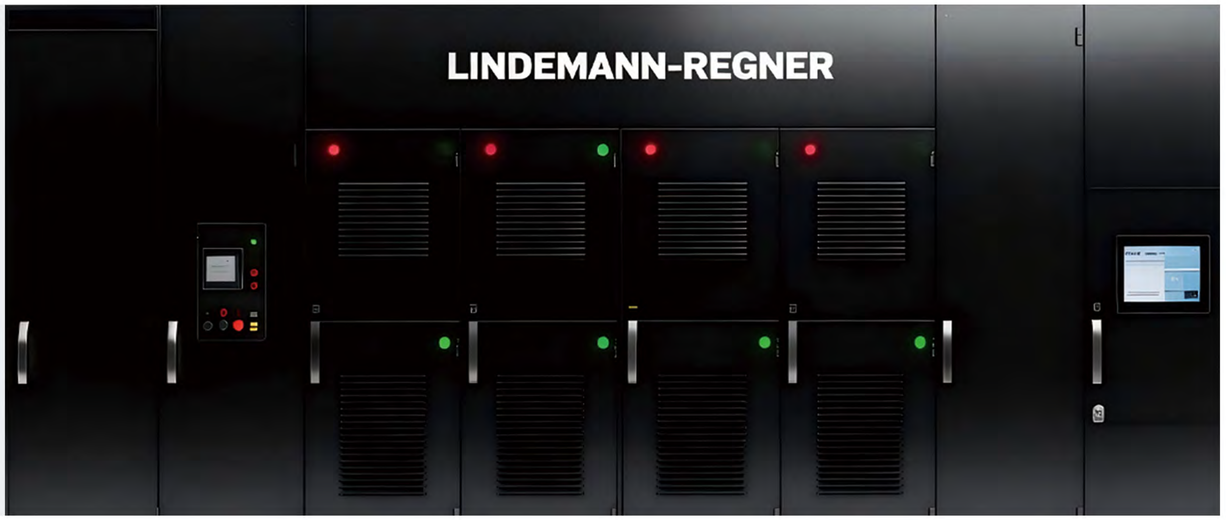
Seamless power flow control for grid stabilization and storage integration

Fast Protection

Millisecond-level protection with <10 ms fault isolation



Currently, the company is conducting in-depth collaboration with globally renowned universities such as TU Dresden (Germany) and Shanghai Jiao Tong University (China), jointly developing SST solid-state transformers and key components. Medium-voltage MW-class products are expected to be launched in 2027, undergoing the most rigorous TÜV performance testing in Germany. With European top-tier quality as its foundation, the technology aims to drive the global power equipment upgrade and contribute to the energy transition through the strength of German engineering and Chinese industrial excellence.



EPC

FULL LIFECYCLE PROJECT MANAGEMENT

The company operates as a German EPC provider (Engineering, Procurement, Construction) within the European and Middle Eastern energy sectors. Its activities focus on comprehensive lifecycle management of complex energy projects, covering all stages from conceptual design to long-term operation. The service portfolio spans the entire value chain of energy infrastructure projects, including offshore wind grid connections, energy storage systems, and large-scale distribution facilities. All projects are executed in accordance with German engineering and safety standards, ensuring efficiency, operational reliability, and sustainability through an integrated management approach.

Technical Consulting and Project Evaluation

Energy audits, feasibility studies, and market assessments form the basis for customized solutions in compliance with DIN,EN,and IEC standards.

Lifecycle-Oriented Planning and Design Optimization

Design and planning are based on total lifecycle cost analysis, combining accurate budgeting with performance-oriented engineering.

Procurement and System Integration

Strict supply chain control and the use of European resources guarantee adherence to the highest quality and energy efficiency requirements.

Digital and Modular Construction

Modular design principles and digital monitoring systems shorten construction time and reduce on-site risks.

Quality Assurance and Maintenance

After the project is put into operation, intelligent monitoring, preventive maintenance and rapid response services will be provided.

Project Refinancing & Operational Performance Support

For operational projects, the company provides financial and technical support, enabling clients to improve profitability, cash flow, and long-term asset performance.

SERVICE

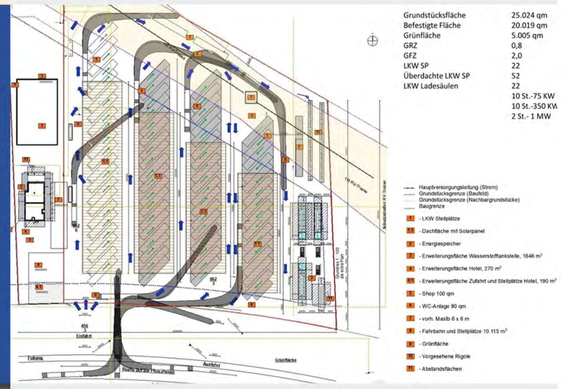
From conceptual planning to long-term operation, LND Energy provides comprehensive lifecycle support based on certified engineering, digital supervision, and on-site service expertise. The company's competence covers EPC implementation, transformer and switchgear manufacturing, as well as smart grid and system integration for utility and industrial power networks.

EPC Project & Installation

Turnkey implementation and safe commissioning of medium- and high-voltage transformers, SST systems, and switchgear in full compliance with IEC and EN standards. All projects follow structured execution procedures ensuring electrical, mechanical, and operational reliability throughout commissioning and service life.

Comprehensive Technical Maintenance

Preventive and corrective maintenance programs defined under Service Level Agreements (SLAs) secure maximum equipment uptime, operational safety, and extended lifecycle performance. Condition monitoring and predictive diagnostics enable proactive maintenance strategies and optimized cost efficiency.



HV/MV Transformer & System Design

Engineering design and simulation for distribution networks, grid interconnections, and microgrids, including load-flow studies, short-circuit analysis, and ROI modeling. System architectures are developed in accordance with European grid codes and regional operating conditions.

GLOBAL DELIVERY & SERVICE NETWORK

Leveraging a coordinated network of German R&D, Chinese intelligent manufacturing, and global logistics, LND Energy has established a rapid delivery and service network ensuring 72-hour service response and 30–90 day core equipment delivery.

After-Sales Service

A service network headquartered in Munich and covering France, the Czech Republic, Hungary, Poland, and Dubai, with more than 20 authorized service partners across Europe, enables 72-hour response times and 24/7 remote technical assistance.

Production Assurance

Regional production and logistics centers in Lübeck, Shanghai, and Dubai maintain strategic inventories of transformers, RMUs, and switchgear systems, guaranteeing continuous supply capability for major grid and EPC projects.

Warehousing Network

Dedicated long-term storage facilities at Lübeck, Shanghai, and Dubai ensure the immediate availability of key components for core regional markets.

Logistics Coordination

Through cooperation with DHL and international logistics providers, a multimodal transport concept—comprising sea, air, and land routes-enables 48-hour dispatch within Europe and 30- to 90-day global delivery. For critical infrastructure projects, the "Global Priority Dispatc" program ensures time-bound delivery and coordinated commissioning support.

LND ENERGY PROJECTS

01 180 kW Ultra-Fast Charging + Customized BESS + LND Energy High-Efficiency Power Conversion

Advanced German grid-boosting technology ensuring efficient and stable charging performance.

02

LND Energy Integrated Off-Grid / Microgrid Solution

Hybrid power supply with solar PV, diesel generation, BESS, and EMS.

03 LND Energy Grid-Connected / Microgrid System

1000 W peak load management + 180 kW ultra-fast charging. Self-developed MP-ESS-200 modular cabinet integrated with 137 kWp PV array.

04

100 kW Stable Microgrid for Irrigation Supply

Reliable operation under extreme temperatures up to 55 °C, integrating PV, diesel generation, BESS, EMS, and active liquid cooling.

05

5 MVA High-Capacity Microgrid with Charging Infrastructure

Grid-connected hybrid solution combining PV generation and dynamic AC/DC load management.