MADE IN ITALY

50 ANNIVERSARY
1973 • 2023

Heavy-duty solutions for critical applications

Oil & Gas

Utilities

Industrial

AC UPS
DC UPS – DC CHARGERS
DC/AC INVERTERS

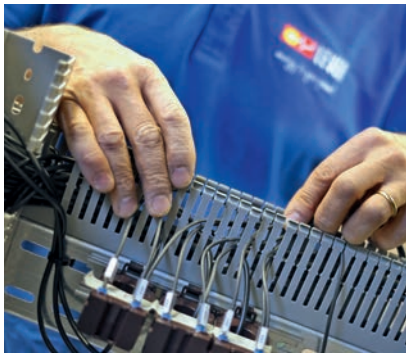
LEVER®
power solutions
since 1973

Who we are:

LEVER is a global leader in power solution technologies for critical applications, i.e. Oil & Gas, Utilities and Industrial. Based in Verona, Italy, the Company was founded in 1973 and nowadays operates worldwide, with focus on Europe, Middle East, Russia, Africa and South America. We offer a complete range of solutions, covering various electrical applications in different areas of business:

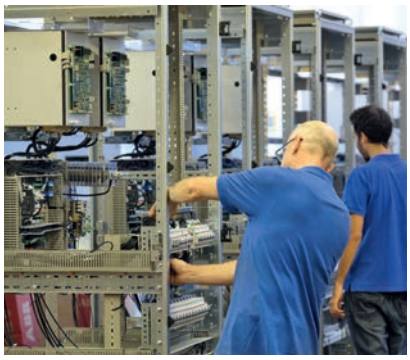
- DC Chargers/DC UPS, output current from 5 A to 2500 A with 24, 48, 110, 125, 220 Vdc output voltage
- Customized AC UPS, mainly for Oil & Gas applications, input 3Ph, output power from 5 to 600 kVA
- AC and DC distribution boards
- BMS, battery monitoring system
- NiCd and Lead Acid battery
- Battery steel racks and battery cabinets
- ATEX/Ex explosion-proof battery disjunction box
- Engineering, Testing & Commissioning and After Sales Service

LEVER's success has been driven by a strong focus on research and development: the Company maintains its research center in Verona and has been continuously investing in R&D.
The result is a long track record of innovation. Many of the technologies that underlie our modern society, from industrial AC UPS to DC rectifiers battery chargers, were engineered and commercialized by LEVER. Today, LEVER stands as one of the main manufacturers of industrial AC UPS and DC Chargers, recognized by some of the most important EPCs and End Users all over the World.



Innovation & Experience

Production



Custom-made solutions

LEVER world presence

TOP LEVER MARKET
RELEVANT LEVER MARKET

>30% GRADUATES

>5% OF ANNUAL REVENUES IN R&D

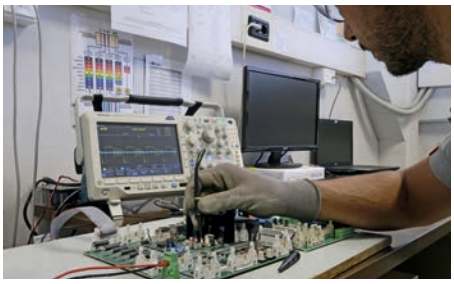
>3000m² BUILDING AREA

100% MADE IN ITALY
ITALIAN ENGINEERING AND MANUFACTURING

PRODUCTS APPROVED BY THE MOST REPUTED END-USERS IN EUROPE AND MIDDLE EAST

Project-Oriented organization for EPC contractors

In LEVER, during the order execution, each internal process is monitored to ensure either that the final product will be exactly as agreed with the Customer, as well as the deadline given by the customer is respected. We pay a lot of efforts to ensure the documents availability at any time of the process, per specific needs of the job or of the Client. All the activities are made following a Project Plan, agreed with the Customer. Documents for approval, Manufacturing clearance, Factory Acceptance Test (FAT), Delivery, Testing & Commissioning, Site Acceptance Test (SAT), drawings as built and final book are usually managed by LEVER.



R&D – Engineering and Technical Department

FAT, Start-up & Commissioning

Training center

After Sales Service

LEVER service maintenance engineering

Our Service team is composed by experts and skilled engineers, trained to provide a high level technical support and very efficient after-sales service. LEVER's Service team supports Clients with:

- direct contact with LEVER Service organisation. Service personnel is always available and ready to provide advices and assistance regarding systems installation and maintenance
- fast on-site interventions, guaranteed by using advanced technologies and the professionalism of our Service personnel and Authorised Assistance Centers. LEVER Service guarantees that all the spare parts are original, tested and will come on time.
- offshore interventions: our personnel attended International Maritime Organization STCW/95 training courses and this enables us to work on offshore platforms.
- full assistance during the systems installation, start-up and commissioning, including on-site personnel training. Technical Service engineers can also verify site's safety and suitability.
- maintenance contracts, to minimise the risks and costs connected with UPS breakdowns. Several types of maintenance contracts are available, going from periodic inspections to comprehensive cover, including labour and materials.
- technical training courses, provided to the Client and to the Authorised Assistance Centre technicians, at the LEVER Training Centre.

Environment Safety and Quality

LEVER's solutions and services are designed according to the Client's requirements and centred around improving reliability and increasing industrial productivity, while lowering environmental impact. We are 100% committed into minimizing environmental impact of our technologies and products, transferring this expertise also to our Clients and Suppliers and, at the same time, we aim to ensure that our manufacturing processes are safe and energy-efficient. Some of LEVER's efforts toward a cleaner world consists in reducing the use of energy and raw materials, phasing out hazardous materials, designing eco-efficient products and enhancing Suppliers' performance. LEVER ensures all manufacturing facilities and processes are **certificated ISO 9001:2015, ISO 14001:2015, ISO 45001:2018** international Standards on the management of quality, environment, health and safety risks.

CUSTOM INDUSTRIAL AC UPS

OUTPUT POWER 5 KVA - 200 KVA, INPUT 3PH, OUTPUT 3PH OR 1PH - DCBUS 110V-220-360 VDC

DPS

ONLINE HEAVY-DUTY INDUSTRIAL DIGITAL AC UPS SYSTEM

Applications:

- Oil & Gas onshore and offshore
- Refineries and petrochemical plants
- Utilities & Power Generation
- Transportations
- Water desalination and treatment
- All the industrial and process control applications

High flexibility and maximum industrial reliability

DPS model is LEVER digital online AC UPS, specifically designed to power critical loads which require high quality of AC voltage waveform and the maximum reliability in harsh environmental conditions.
Fully digital technology-based with double microprocessor control, one for the rectifier unit and one for the inverter unit, LEVER DPS is fully custom-made, with a wide range of options to comply with Client's Technical Specifications and it can be supplied in redundant N+1 configuration.
DPS features two main operating modes: "On-Line", where the inverter unit is in operation and supplies power to the loads, and "Line-Interactive", where the output voltage is supplied by the emergency mains through the bypass to increase the efficiency of the system.
DPS is classified VFI-SS-111, it complies with IEC 62040 Standards and it has been accordingly type-tested by CESI SpA, Italy.

Technical Features

- Output power from 5 to 200 kVA
- Input voltage: 3Ph 400 – 440 – 480 Vac
- Output voltage: 1Ph 115 – 230 Vac, 3Ph 400 – 440 – 480 Vac
- Pure sinewave output AC voltage with THDv < 1%
- Clean and stable battery DC voltage, with voltage ripple <1% RMS
- "On-Line", "Line-interactive" (inverter unit in hot stand-by) and "Manual" operating modes
- Rectifier thyristor SCR-based, 6 or 12-pulse total controlled bridge
- IGBT-based full bridge technology inverter unit
- Thyristor SCR-based static bypass switch, < 2 ms transfer time
- Equipped with a manual switch for maintenance without disconnecting the load
- Provided with input and output isolation transformers
- Natural cooling
- Three programmable levels of charge: floating, boost and commissioning charge
- Equipped with a 4.3" HMI display, featuring an accurate overview of the system status, alarms, measurements and allowing system settings adjustments
- Wide range of communication interfaces: Ethernet, Modbus, dry contact SPDT board
- Modular floor standing cabinet 2200mm high
- Compatibility with lead acid VRLA, AGM, Gel and NiCd batteries
- Back up time: as required, from few minutes to several hours

Main Recent Project

PROJECT	COUNTRY	APPLICATION	NUMBERS OF UNITS	AC UPS	DC UPS	INVERTER
Battery chargers for plant TRANSGRID	AUSTRALIA	Utilities & Power Plant	2		✓	
C.T. E. "Alessandro Volata" Montalto di Castro (VT)	ITALY	Utilities & Power Plant	11	✓	✓	✓
Neste Rotterdam Site Development	NETHERLANDS	Cogeneration	12	✓	✓	
Baleine Phase 1 Surf	IVORY COAST	Oil & Gas	2	✓		
Dahshour Compression Station Unit No 5&6	EGYPT	Oil & Gas	3	✓	✓	
New Naphtha Complex Project - 076971C	GREECE	Oil & Gas	5	✓	✓	
Butterfly Project UPS ITB 090	GERMANY	Industry	4	✓	✓	
Project N15907 - Water Transmission Scheme from Taweelah to Ajban	UAE	Utilities & Power Plant	14	✓	✓	
DC Charger for KOC Substation at Gathering Centre-15	KUWAIT	Oil & Gas	1		✓	
Al-Ahdab oil field to Al-Zubaydia power station project	IRAQ	Oil & Gas	2	✓		
ENI Bolgiano MV Substations	ITALY	Oil & Gas	6		✓	
Emergency systems for Eni Porto Torres I Solar Power Plant	ITALY	Oil & Gas	4	✓	✓	
Rolling Mill Plant Ukraine	UKRAINE	Steel Plant	2		✓	
UPS for Cape Town Airport I	SOUTH AFRICA	Airport	50	✓		
Antirio, Petalas, Aloina and Molikeio substations	GREECE	Utilities & Power Plant	3		✓	
Tempa Rossa Project	ITALY	Oil & Gas	1	✓		
Rectifiers for Savona Port	ITALY	Port	4		✓	
MEW Shadadiya 400/132 kV and 132/11 kV Substation	KUWAIT	Utilities & Power Plant	15		✓	
Industrial UPS and rectifiers for Airport of Jakarta	INDONESIA	Airport	12	✓	✓	
Geothermal plant Cerro Pabellon project	CHILE	Utilities & Power Plant	14		✓	✓
Zadco Temporary AC industrial system	UAE	Oil & Gas	1	✓		
ENI Clara NW offshore platform	ITALY	Oil & Gas	1	✓	✓	
HVDC interconnection Montenegro-Italy	ITALY MONTENEGRO	Utilities & Power Plant	7	✓	✓	✓

PROJECT	COUNTRY	APPLICATION	NUMBERS OF UNITS	AC UPS	DC UPS	INVERTER
Odidi Node project	NIGERIA	Oil & Gas	3	✓		
Hyosung Sonelgaz Algeria Project	ALGERIA	Utilities & Power Plant	1		✓	
Khor Al Zubair Project	IRAQ	Oil & Gas	4	✓		
Rectifiers for Vietnam Navy	VIETNAM	Military	2		✓	
Industrial Ac Ups For North Sea Tolmount Offshore Platform	UNITED KINGDOM	Oil & Gas	1	✓		
Project Maida And Selargius Substations	ITALY	Utilities & Power Plant	12		✓	✓
Project Tuba Depot Iraq	IRAQ	Oil & Gas	1	✓		
Dpc Industrial Ii And Dahariz Projects	OMAN	Utilities & Power Plant	2		✓	
Project Abu Dhabi Umm Al Nar Power And Desalination Plant	UAE	Utilities & Power Plant	6		✓	
Emergency System For The Offshore Platform In North Field Bravo	QATAR	Oil & Gas	2	✓	✓	
Ac Ups For Taranto Refinery	ITALY	Oil & Gas	2	✓		
Project Abu Dhabi Al Taweelah Desalination Plant	UAE	Utilities & Power Plant	4		✓	
Dc Chargers For Scada Remote Terminal Units In The Burgan Oil Field	KUWAIT	Oil & Gas	22		✓	
Hvdc Interconnection Italy And France Piossasco Substation	ITALY	Utilities & Power Plant	6		✓	✓
Emergency Systems For Petrochemical Plant In Ferrara (Italy)	ITALY	Oil & Gas	7	✓	✓	
Dc Chargers For The Barakah Nuclear Power Plant	UAE	Utilities & Power Plant	6		✓	
Dc Chargers For 132/11Kv Substations In Dubai	UAE	Utilities & Power Plant	12		✓	
Project Val D'agri (Pz) Oil Field	ITALY	Oil & Gas	6	✓	✓	
Dc Chargers For Saudi Electrical Substations	KSA	Utilities & Power Plant	4		✓	
Emergency Systems For Burgas Refinery	BULGARY	Oil & Gas	12	✓	✓	

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power solutions
since 1973

LEVER S.r.l. - Viale del Lavoro, 17 - 37024 Negrar (VR) ITALY
Telephone: +39 045 60 20 202 - sales@lever.it - www.lever.it

The data and photos in the document are purely indicative for commercial purposes

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