Power protection solutions

for oil and gas, mining industry,
petrochemical,
power generation and utilities

BORRI®

Oil and gas, petrochemical, power generation and utilities projects need reliable and uninterrupted power to secure several mission-critical applications sometimes in extreme circumstances. High quality engineered tailor made systems can protect your investment.

Borri's engineered solutions can continuously supply and protect your industrial systems against a full range of power problems, even in hazardous locations.

Why choose us

80 years experience in the oil and gas sector

Recorded in more than 40 vendor lists

Highly skilled custom engineering

1000-plus worldwide installations for critical applications

Areas

Offshore and onshore oil and gas

Upstream: exploration, drilling, production, storage, offloading.
Midstream: transportation and storage, pipeline compressor stations, pressure reduction stations, oil & gas terminals, special vessels.
Downstream: refining and distribution refineries, crackers, aromatics units, monomer units, polymer units, gas processing units, storage units, oil & gas products retail.

Power plants and utilities

Hydroelectric, geothermic and thermoelectric plants.
High voltage and medium voltage transmission lines and substations.

Petrochemical

Refining, cracking, synthesizing and processing.

Applications

- Instrumentation & process control
- Gas turbine control
- Switchgear tripping
- Motor starting
- Lube-oil pump supply
- Power generation, transmission and distribution
- Navigational aids
- Helideck lighting
- ESD systems
- Fire & gas detection systems
- Fire fighting
- Emergency shutdown
- Emergency lighting
- Signalling
- Radio & telecommunications
- Data processing
- DCS & SCADA
- HVAC

How we can help you

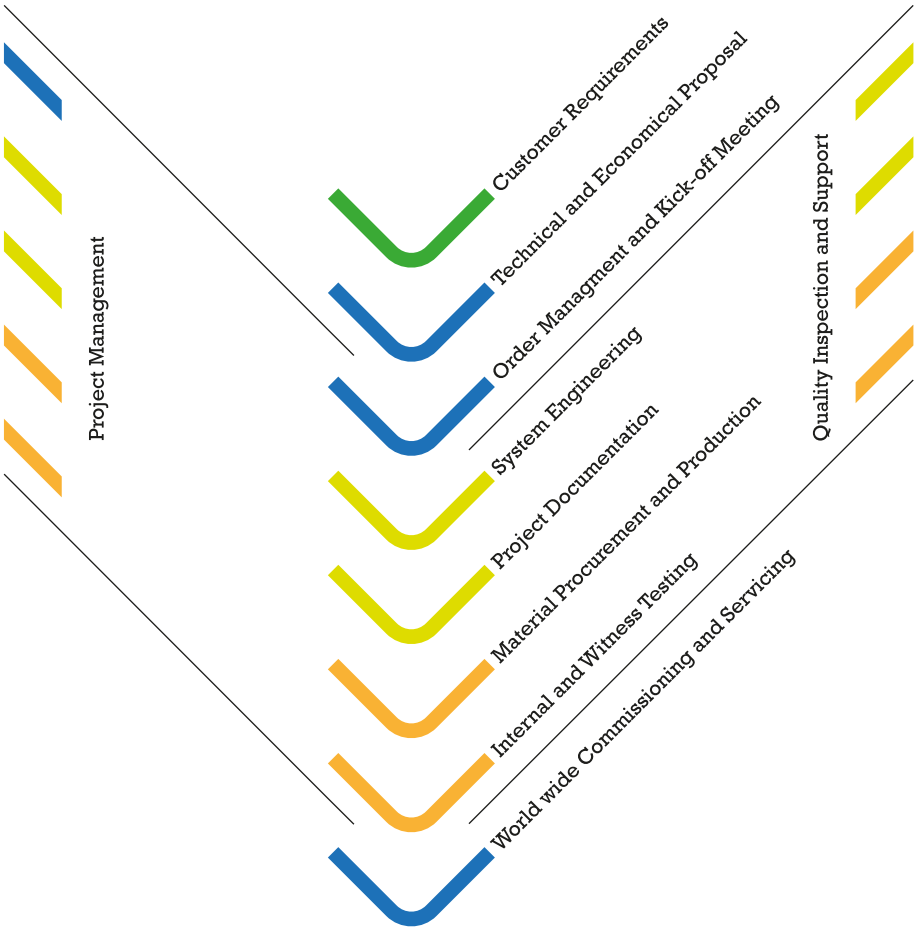
If you need

- Industrial layout.
- Protection of different types of critical loads.
- Very long autonomy and expected lifetime of batteries.
- Different dc and ac voltages, (typically 220/125/110Vdc battery voltage, 220/120/110Vac output voltage, 50/60Hz).
- High capability of custom user interface (displays, mimics, meters, lamps, relays, transducers).
- High capability of integration (distribution panel, isolation transformer, voltage stabiliser, harmonic reduction, higher IP, entry cable).

We can offer you

- Industrial layout with full front access for very easy maintenance.
- High capability of customer's spec fulfilment, with high personalizing of user interface (displays, mimics, meters, lamps, relays, transducers) and integration (distribution panel, isolation transformer, voltage stabilizer, harmonic reduction, higher IP, entry cable).
- Full digital control implementing highly accurate and reliable algorithms.
- Unique reverse operation feature, the rectifier bridge can operate as an automatic, controlled discharger of the battery into the AC mains providing cost and energy savings.
- Modularity: rectifier, inverter and bypass modules can individually be sized according to customer requirements.
- Enclosure protection degree up to IP54 for UPS.
- High power range for rectifiers/chargers and single phase UPS's.
- Wide range of connectivity options (e.g. Modbus and relay cards for BMS).

How we can assist you



Project management

- Technical and economic proposal
- System engineering
- Project documentation
- Expediting and inspection during manufacturing
- Witness tests
- Worldwide supervision for commissioning and start-up (engineering for off-shore service activities, licence available).

Order processing

- Order confirmation
- Engineering
- Preliminary drawings for info (layout and dimensions)
- Manufacturing drawings for approval
- Release for manufacturing
- Procurement, manufacturing and testing
- Notification for Factory Acceptance Test (FAT)
- Release for shipment
- Supervision of commissioning and start-up.

Pre-sales support

- Technical description of the proposed systems
- Battery sizing calculations
- Filled-in data sheets
- General arrangement drawings
- Single line diagram
- Spare part list for commissioning and 2, 5 or 10 years operation
- Quality assurance and quality control manuals documentation.

Technical documentation

- General arrangement and footprint drawings
- Data sheets
- Manufacturing schedule (Gantt)
- Functional and schematic diagrams (power wirings, terminal boards, list of components)
- Operations and maintenance manuals
- Inspection and test plan
- Test procedures
- Test reports
- Final data book (including "as built" drawings, manuals, components and equipment certifications, test reports etc.).

Our solutions

We offer a complete line of customized products to meet exactly your need for secure power supply and critical load protection.

AC power supply systems

- UPS
- Inverters
- Voltage regulators
- LV distribution panels
- Frequency converters.

DC power supply systems

- Rectifiers
- Battery chargers
- DC/DC converters
- Distribution panels

Batteries

- Lead acid
- Nickel cadmium

Monitoring and telecontrol for local and remote service

Single AC ups

Single inverter

Dual battery charger

Battery box
Explosion proof

Distribution board

AC solution benefits

- Full isolation of DC Bus from the mains, and the output throught input/output transformers.
- Active power load sharing between paralleled UPS.
- Full compliance with all international standards.
- Design life of 20 years.

E2001.e/E3001.e (1ph or 3ph output) UPS series

Industrial UPS designed to provide continuous power supply to critical 1ph and 3ph AC loads.

IMB.e/ITB.e (1ph or 3ph output) series

Industrial inverters, designed for critical applications requiring stabilized AC power supply.

DC solution benefits

- Natural cooling to increase systems' reliability.
- Full isolation of battery circuit from the mains through an input transformer.
- Active power load sharing between paralleled rectifiers.
- Full compliance with all international standards.
- Design life of 20 years.

RTB.e and RCB.e series: rectifier battery chargers

Industrial, heavy duty rectifier, designed for critical applications requiring DC power supply and very accurate battery recharge.

Approvals, registration standards and customer references

ISO 14001:2004

BS OHSAS 18001:2007

ISO 9001:2008

CE, Gost, IQNet / CSQ x ISO 9001 (Quality Assurance), ISO14001 (Environmental), BS OSHAS 18001 (Health & Safety), TÜV.

Borri is an approved supplier to many companies such as

ADCO - ADGAS - ADNOC - GASCO - TAKREER (UAE)
Eni - Enel - Terna (Italy)
Gazprom (Russia)
GPIC (Bahrain)
KOC - KNPC (Kuwait)
NCOC - Agip KCO - KPO - TCO (Kazakhstan)
NIGC - NISOC (Iran)
N.O.C. - S.O.C. - N.G.C. - S.G.C. (Iraq)
ONGC (India)
PDO - OGC (Oman)
SEC - SABIC - Marafiq (Saudi Arabia)
Sonatrach (Algeria)
Tüpras (Turkey)
PEMEX (Mexico)
Fewa (UAE)
Sewa (UAE)
Mew (Kuwait)
Petronas (Malaysia)
Pertamina (Indonesia)
Qapco (Qatar)

Main applicable standards

ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007

IEC EN 62040-1, IEC EN 62040-2 (UPS safety and EMC, CE marking, recently harmonized with UL1778)

IEC EN 62040-3 (UPS test & performance)

IEC 60146 (semiconductor converters)

IEC 60439 (low voltage switchboards)

IEC 60076 (power transformers)

IEC 60529 (protection degree)

3rd party inspection authority

ABS, Lloyd Register, Sgs, Bureau Veritas, DNV, Rina Intertek Moody, KEMA, Germanishe Lloyd.

A list featuring some of our most significant installations

ADGAS: OAG-package 1 (UAE)
Suez Tractebel: Barka phase 2 (Oman)
Enel: Torrevaldaliga Nord 2GW power plant (Italy)
SABIC: Ibn Zahr Jubail (Saudi Arabia)
Agip KCO: Kashagan field devlp. (Kazakhstan)
SEC: Qurayyah gas turb power plant (Saudi Arabia)
Cairn Energy: Rajasthan Nord area devlp. (India)
KPO: Karachaganak Uralsk gas pipeline (Kazakhstan)
Terna: HV transmision line (Italy)
Sonatrach: El Merk project (Algeria)
ONGC: Mumbay Win Revamp project (India)
Exxon Mobil: hydro desulfurization proj. (Singapore)
Turkmengas: South Yoloten gas field devlp. (Turkmenistan)
ADCO: Bab Thamama project (UAE)
PEMEX: gasolinas limpias Minatitlan (Mexico)
PDO: Amal power station (Oman)
MEW: Doha West Power Station (Kuwait)

Who we are

Borri is a company specialized in custom design, manufacturing and servicing of power electronics equipment for ICT, industrial, oil & gas and energy applications.
Borri's R&D department is one of the most complete regarding the different disciplines in the field of power conversion.
Long experience in semiconductors and magnetic component design is combined with the most advanced digital regulation algorithms and microcontroller programming know-how.
Borri has a leading position in the oil and gas market thanks to its proven customizing expertise and continuous pursuit of excellence in a state-of-the-art product.
However, wide experience in several branches of power electronics such as UPS systems for data centers and inverters for renewable energy and storage, make Borri a leader in this technology not only for oil and gas applications.
The latest patented three-phase solution based on its green conversion operation can guarantee the best PUE for green data centers: proof of the ongoing company commitment to innovation.
Based in Italy with 12,000 m^2 production space and a large full-testing area, the company can call on more than 80 years of experience.
Borri has a strong global presence and is represented in all 5 continents where it can provide on-site service and technical support.

After Sales

The after-sales support supplied by the manufacturer is one of the most critical factors in the selection of a power system.
This is why our company has chosen to provide qualified and certified continuous assistance for its products, maximising their performance and minimising costs throughout the UPS life-cycle, while maintaining and adding value to the customer's power protection solutions.
This service gives customers an opportunity to receive visits from qualified technicians, assistance during commissioning, technical assistance including systems' repairs on site, training and supply of original spare parts.
The company guarantees that services are provided by skilled personnel trained in system maintenance and repair methods, to ensure the reliability and safety of the products supplied over time. Our technicians are also updated on applicable safety legislation.

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Listening to our customers and delivering state-of-the-art, tailored systems has been our vocation for more than 80 years.

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