

Power protection solutions for process, infrastructure and service industry



80 years experience in power systems

Highly skilled custom engineering

Multidisciplinary R&D and Italian manufacturing

1000-plus worldwide industry application specific solutions

In the manufacturing and services industry some processes just cannot be stopped. Some others can be stopped only after a controlled shutdown procedure has been carried out, in order to avoid product loss, service stops and even casualties. Most machinery is sophisticated and sensitive to mains disturbance but even a simple electric motor can suffer serious damage from an unexpected voltage fluctuation.

There are also regenerative machine tools which can not be protected by a common UPS, because they require ad-hoc power protection solutions to manage energy flows back to the mains.

Borri, thanks to its multidisciplinary know-how in the field of static energy conversion and its proven customising expertise, it's able to supply power protection solutions also for regenerative machine tools, including frequency conversion option as required in the various worldwide markets.

These applications need reliable and robust power supply solutions, able to condition unstable grid power, feeding high quality power to different kinds of highly varying electric loads.



#### Areas

- Process manufacturing
- Discrete manufacturing
- Packaging
- Logistics
- Healthcare
- Transport and marine
- Building
- ullet Infrastructure industry

#### **Applications**

- Process automatic equipment
- Industrial controls (SCADA, PLC and industrial computers)
- Control & security rooms
- Communications
- Medical equipment
- Building automation
- Lifts
- Emergency safety and security systems:
- Fire & gas detection and fighting
- Emergency shutdown and lighting
- Monitoring and signalling systems
- UPS systems for stationary and transportable prefabricated buildings
- Machine tools (also for regenerative type)

How we can help you

If you need to feed high quality power to mission critical equipment, guarantee continuity to uninterruptible processes and services, or keep alive emergency, safety and security systems, we have a solution fit for you.

#### If you need

- Reliable, robust, and stable electric supply
- Application specific solutions
- Full power needs coverage
- Low cost of ownership



#### We can offer you

- Products made to last. Italian design and manufacture. Strict factory tests and burn-in. High quality components procurement plan. Commissioning on-site tests.
- Custom system arrangement and auxiliary cabinets. Frequency conversion and galvanically isolated configurations.
- A comprehensive range of continuity systems, from 10 kVA to 4.8 MVA.
- State-of-the-art technology, high efficiency products. Low and easy maintenance design. Predictive maintenance program.



## assist Can We How

#### Project management

Project manager teams can analyze and develop solutions to a wide spectrum of edge system requirements



- Comprehensive system analysis
- Specification guidelines.

#### Pre-sale support

- Equipment selection and sizing
- Product customization to specific requirements
- Preliminary system integration assessment technical description of the proposed systems battery sizing calculations
- General arrangement drawings, single line diagram, filled-in data sheets.

#### Post-sale support

- Supervision of system commissioning and
- Spare parts list for commissioning and 2 years
- Predictive maintenance programs
- Maintenance personnel training plans
- Teleservice.



STS100/300, 1/1 and 3/3 phase Static Transfer Switch. Automatic, seamless power transfers between two independent sources, up to 3000 A.



B9600FXS Series, 3/3 phase UPS, 400 to 800 kVA. On-line double conversion, galvanic protection, full IGBT technology, parallelability up to 4.8 MVA.

#### Project management

- Engineering of custom auxiliary equipment and switchgear
- Preliminary drawings (layout and dimensions)
- Manufacturing drawings
- Factory Acceptance Tests (FAT) on request.





3/3 and 3/1 phase UPS, 10 to 100 kVA On-line double conversion, transformer-free topology, full IGBT technology, parallelability up to 600 kVA.





Reliable power supply solutions to ensure continuous operation to all industrial type loads, medical equipment and control, emergency, safety and security systems.

B9000FXS Series, 3/3 phase UPS, 60 to 300 kVA. On-line double conversion, galvanic protection, full IGBT technology, parallelability up to 1.8 MVA.

#### Benefits

- Inverter transformer and transformer-free based architectured series
- Low cost of ownership
- High efficiency
- Distributed and centralized maintenance/static bypass option
- Smart parallel management for load sharing and load synchronization

- Reduced footprint
- Comprehensive range of monitoring options
- Full compliance with all international product standards.

# references customer and registration standards Approvals,









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

### 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)

## A list featuring some of our most recent installations

CERN, Switzerland
Times of India, India
Pain d'Or, Congo
TDK-Fujitsu, Philippines
Papworth Hospital, UK
ZF Lemforder manufacturing, UK
Gems TV, UK
Croatian Railways, Croatia

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 m² 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.



1932 2012

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

