

B8031 FXS - B8033 FXS

3/1-PHASE and 3/3-PHASE UPS
from 10 to 20 kVA



YOUR CRITICAL POWER SOLUTION PARTNER.

Borri has been developing and building uninterruptible power systems since 1932 and is a global provider of power electronics systems and solutions for harsh industrial and demanding critical power requirements.

— Borri's R&D vast expertise in all facets of firmware, power electronics and mechanical design provides innovative solutions for tomorrow's problems in Industrial and Critical Power applications.

— The company prides itself on its first-class service and superior engineering disciplines. To ensure sustained quality, Borri manages all its processes in house from feed studies to design, production and after sales service technology.

— Based in Bibbiena, Italy with over 15,000 m² production area, Borri operates across all five continents with subsidiaries in USA, Canada, UAE, India and Malaysia.

— Our strong trained and certified distributor network in every continent is able to provide on-site service support and technical guidance indicative of our own capabilities.




Critical Power Solutions

Designing and building mission critical UPS's 1- and 3-Phase up to 21 MW.




Industrial Power Solutions

Designing, engineering and building customised AC and DC power supply systems for harsh industrial applications.



Service

Borri team of experts support you to the highest standards no matter where you are in the world.



OUR DEDICATION TO SUSTAINABLE POWER

At Borri, our commitment to sustainability and energy efficiency drives our constant pursuit of innovation, cutting-edge design, and advanced technology.

Our mission is to make a positive impact on the environment by ensuring the sustainability of our Uninterruptible Power Supplies (UPSs) throughout their entire lifecycle.



Borri is dedicated to putting its environmental commitment into action throughout the organization.

This includes actively promoting a low carbon footprint culture among our team members and customers, as well as developing sustainable products. Our approach involves all internal processes, from daily activities to the design of new products, with the goal of minimizing pollution and waste while maximizing product performance with minimal carbon footprint.



RESPONSIBLE DESIGN

Responsible design is at the heart of sustainable solutions: from efficiency to durability, from easy maintenance to a responsible component selection. Our Research and Development (R&D) and Engineering teams daily work to incorporate sustainability into every aspect of our products. To demonstrate our commitment, we have chosen to certify our major critical power products through a 3rd-party declaration with the PEP Association. For instance, our Ingenio Max series (ranging from 200 to 600 kW) has undergone an independent verification process, assessing the environmental impact at every stage of the product's lifecycle.

Design for Sustainability criteria play a pivotal role in the PEP score, considering factors such as material selection, minimized bill of quantities, high operational efficiency, repairability and reusability, as well as packaging design and short routes shipping strategies, to name a few. Borri has been ISO 14001 certified since 2011. The international standard "specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance". Additionally, our entire UPS range complies with the IEC/EN 62040-4 Product Standard.

The PEP, or Product Environmental Profile, is a manufacturer's declaration of a product's sustainability, according to a specific protocol outlined by the European Company Eco Passport. This protocol includes a comprehensive life cycle assessment, evaluating, by means of a quantitative analysis, greenhouse gas emissions and other environmental impact indicators, according to a "cradle-to-grave" approach. Customers can easily access this information online.



EMBRACING ENVIRONMENTALLY FRIENDLY PROCESSES

While product sustainability is crucial, Borri recognizes that environmental responsibility extends to our industrial processes and facilities. In line with our Group's E-less policy, we are dedicated to achieving annual reductions in energy consumption. Our efforts have included a thorough review and replacement of HVAC equipment, as well as the implementation of automatic lighting systems.

Some of our facilities feature a photovoltaic power plant, and we have ambitious plans to expand our solar power capacity and implement special energy storage systems for efficient utilization.

In our critical power testing area, where energy consumption can be significant, we have been using regenerative active loads since 2010. These loads enable us to massively reduce the energy typically consumed during testing of our Critical Power UPSs, which would otherwise be lost if using resistor-based loads.

Borri actively participates in our Group's Corporate Social Responsibility Program, taking concrete steps to address the environmental challenges of our time. We remain committed to intensifying our efforts in support of a more responsible and sustainable future.

UPS 3/1-PHASE and 3/3-PHASE

B8031FXS B8033FXS

from 10 kVA ———— to 20 kVA



Applications



Network
& Server



Industrial
controls & process
automation



Medical
equipment



Building
automation

Robust and compact

Full IGBT technology providing smooth sinusoidal input current cuts all upstream oversizing costs.

Low running costs

High efficiency and ECO mode reduce overall power losses and thus energy costs.

Easy to install and maintain

Removable power modules and simple handling for low installation and mean time to repair.

Robust, customisable and easy-to-maintain UPS, available as either 3-phase in/1-phase out or 3-phase in/3-phase out. B8031 FXS and B8033 FXS series is suitable for server rooms, IT equipment, industrial controls, medical equipment and process automation.

B8031FXS - B8033FXS: featuring extremely small dimensions and one of the smallest footprint in its range.

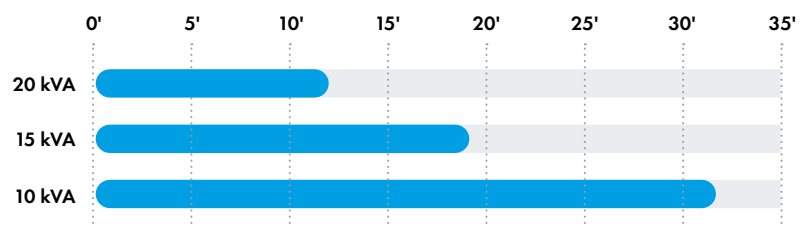


Features and benefits

- High double conversion efficiency and ECO mode for low running costs and environmental impact.
- Transformer free design for light small size layout.
- Removable power modules architecture and built-in diagnostics for easy maintenance and very low MTTR.
- Hot connection/disconnection of parallel units for easy system resizing.
- Full IGBT technology and electronic PFC, ensuring 0.99 input PF and low THDi for maximum upstream sources compatibility.
- Wide range of configurations with internal batteries for low TCO compact solutions.
- High power battery charger, suiting long autonomy applications.
- Dual DSP plus microcontroller logics for top performance and reliability.
- CAN-bus based distributed parallel control ensuring high load sharing accuracy and no single point of failure.
- Comprehensive set of communication options for total remote monitoring of equipment operation.
- Included bypass contactor for complete backfeed protection and operators' safety without additional installation costs.
- Fully compliant with all international product standards for maximum quality guarantee.



Back up time with internal batteries



Main options

- Isolation transformer.
- Transformers/autotransformers for voltage adjustment.
- Battery voltage temperature compensation.
- External maintenance bypass wall-mounted box.
- Battery fuse switch wall-mounted box.
- Associated battery cabinets for long autonomy times.
- Parallel redundant up to 6 units for system redundancy
- Load-sync option.
- Input terminals for remote EPO, external manual bypass auxiliary contact, diesel mode.
- Separate bypass input for B8033FXS.

B8031 FXS - B8033 FXS technical data

Rating (kVA)	10	15	20
Nominal Power (kW)	9	13.5	18
UPS dimensions WxDxH (mm)	450x640x1200		
UPS weight (kg)	100	110	110
UPS weight with internal battery (kg)	247	257	257
External battery module dimensions WxDxH (mm)	500x640x1200		
Battery configuration	Internal or external, 360 to 372 cells, VRLA (other options)		
Max autonomy with int. battery 70% load (min)	32	19	12
Input	B8031 FXS (10-15-20 kVA)		B8033 FXS (10-15-20 kVA)
Connection type	Hardwired 4w (rectifier), 2w (bypass)		Hardwired 4w
Nominal voltage	400 Vac 3-phase with neutral (rectifier) 220/230/240 Vac 1-phase (bypass)		400 Vac 3-phase with neutral (rectifier) 380/400/415 Vac 3-phase with neutral (bypass)
Voltage tolerance	-20%, +15% (rectifier); ±10% (bypass)		
Frequency and range	50/60 Hz, 45 to 65 Hz		
Power factor	0.99		
Current distortion (THDi)	<4%		
Output	B8031 FXS (10-15-20 kVA)		B8033 FXS (10-15-20 kVA)
Connection type	Hardwired 2w		Hardwired 4w
Nominal voltage	220/230/240 Vac 1-phase		380/400/415 Vac 3-phase with neutral
Frequency	50/60 Hz		
Voltage regulation	Static: ±1% ; Dynamic: IEC/EN 62040-3 Class 1		
Power factor	Up to 0.9, without power derating		
Overload capacity	Inverter: 125% for 10 min, 150% for 30 s ; Bypass: 150% continuous, 1000% for 1 cycle		
Efficiency (AC/AC)*	Up to 98%		
Classification by IEC/EN 62040-3	VFI-SS-11		
Connectivity and function extensions			
Front panel	Graphic display, mimic LED panel and keyboard, local EPO		
Remote communication	Included: serial RS232 and USB; terminal block for battery breaker auxiliary contact. Optional: input terminal block (remote emergency power off, external maintenance bypass circuit breaker aux. cont., diesel mode aux. cont.); SNMP adapter (Ethernet), Web interface (Ethernet), ModBus-TCP/IP (Ethernet), ModBus-RTU (RS485), from ModBus-RTU to PROFIBUS DP adapter; SPDT contact relay board; remote system monitoring panel; UPS managing and server shutdown software		
Optional function extensions	Isolation transformer; transformers/autotransformers for voltage adjustment; external maintenance bypass; custom battery cabinets; wall-mounted battery fuse switch box; battery thermal probe; parallel kit, load-sync; other options on request		
System			
Protection degree	IP 20		
Colour	RAL 7016		
Installation layout	10 cm wall-gap, side by side installation allowed		
Accessibility	Front and top access, bottom cable entry		

* according to IEC/EN 62040-3

Other features

Environmental	
UPS operating temperature range	0°C to +40°C
UPS storage temperature range	-10°C to +70°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m
Audible noise at 1 m (dBA)	< 52
Standards and certifications	
Quality assurance, environment, health and safety	ISO 9001, ISO 14001, ISO 45001
Safety	IEC/EN 62040-1
EMC	IEC/EN 62040-2
Environment aspects	IEC/EN 62040-4
Test and performance	IEC/EN 62040-3
Protection degree	IEC 60529
Marking	CE

SERVICE & MAINTENANCE

— Borri service team is committed to providing unparalleled expertise and support, ensuring the safeguarding of our customers' investments. Promptly addressing any failures or anomalies in the client's systems, we strive to minimize economic and operational impact in the shortest time.

— Our highly trained team of expert, certified technicians and engineers carry out both preventive and corrective maintenance activities on all Borri UPS, STS models and batteries. By doing so, we guarantee uninterrupted system operation, mitigating any downtime and maintaining peak performance levels.

— From installation and commissioning to maintenance and tailored training at Borri facilities or on site our comprehensive support extends to the highest standards.

At Borri Service, we are focused on customer peace of mind and our goal is to set up the best value-added protection package, to minimize economic and time losses due to site shutdowns along the system entire life cycle.

How we can assist you



Planning, installation, commissioning

Many thousands of systems have been globally installed, with on-site support and technical guidance provided by our team of skilled and experienced engineers.



Maintenance

Preventive maintenance guarantees uninterrupted operation, optimized system efficiency and life expectancy.



Analytical tests

Borri undertakes a series of analytical tests in order to guarantee higher efficiency and continuity to your system operation.



Battery tests

Batteries have a limited time life and their proper maintenance is of high importance to guarantee availability to the UPS and avoid potential failures.



Repair & spare parts

All spare parts supplied by Borri are original, tested and guaranteed to be fully compatible with the equipment.



Training

Borri offers distributors and customers training programs that can be held in Borri training center or on-site.

Maintenance plans for your critical equipment

Features	SERVICE CALL	LIGHT (ONMA)	BUSINESS (ONSI)
1 yearly preventive maintenance visit	•	•	•
Priority service (8 working hours)	•	•	•
Unscheduled maintenance visit (included labour costs and travel expenses)	Flat rate	•	•
Technical updates		•	•
Spare parts (batteries, capacitors, fans not included)			•
Additional preventive maintenance visit	Optional	Optional	Optional
Maintenance outside standard work hours	Optional	Optional	Optional
8 h response time (24/7)		Optional	Optional
4 h response time (24/7)		Optional	Optional



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