E3001 Compact
Industrial 3-Ph UPS

From 5 to 30 kVA

AC UPS

UPS version with options

Borri AC Industrial 3-Ph Uninterruptible Power System E3001 Compact is designed and manufactured to withstand harsh environment and operating conditions of industrial applications with state-of-the-art technology, providing reliable and customizable AC power backup in a compact standardised solution.

Borri's E3001 Compact is a heavy-duty on-line double conversion AC Industrial UPS with full galvanic isolation. The UPS design ensures very high reliability and safe operations; its internal constructions allows for front and easy maintenance.
The design flexibility and the wide range of configurable options allows it to meet almost any customer specification.
E3001 Compact UPS is a cost-effective solution delivering reliability, availability and maintainability in almost any conditions.

Industrial Power

Applications

- Oil & Gas.
- Power Generation.
- Transportation.
- Water Desalination.
- Chemical Industries.
- Marine.
- Other Heavy Industries.

Main features

- Rugged rectifier thyristor bridge with input isolation transformer.
- Large LCD panel with mimic diagram and history.
- Wide selection of alarms, indications and measurements.
- Built-in isolation transformer.
- PWM IGBT Inverter Bridge.
- Built-in manual bypass.
- Advanced battery management.
- Flexible in-built features.
- Widely configurable.
- Easy maintenance and serviceability.

BORRI®

E3001 Compact
Industrial 3-Ph UPS

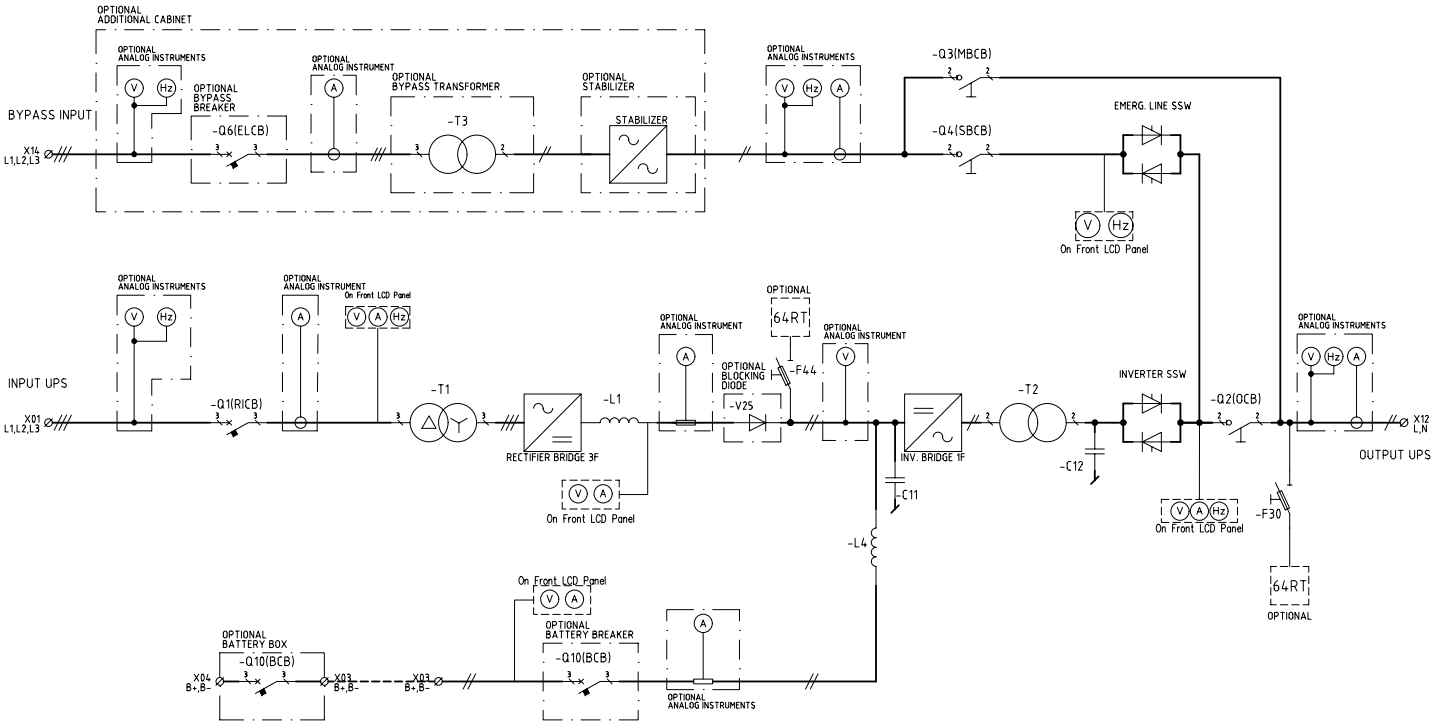
E3001 Compact technical data

Rating (kVA) @ P.F. 0.8 vs DC Rated Voltage

110 Vdc	**5**	**10**	**15**	**20**	**30**
220 Vdc	**5**	**10**	**15**	**20**	**30**
Nominal power kW	**4**	**8**	**12**	**16**	**24**

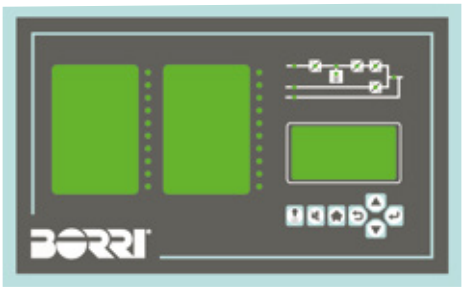
Input		
Input voltage	380/400/415 Vac 3-phase ±10% (others on request), 50/60 Hz ±10%	
Power Factor	> 0,75 (depending on rectifier technology)	
Bypass input voltage	200/208/220 or 380/400/415 Vac 3-phase ±20% (adjustable according to inverter output voltage)	
Battery		
DC voltage	110 Vdc (90÷160 Vdc range) / 220 Vdc (180÷300 Vdc range)	
Input voltage	Floating: 2.27 (VRLA), 2.2÷2.3 (VLA), 1.4÷1.5 (Ni-Cd) V/cell adjustable Boost: 2.4÷2.45 (VLA), 1.5÷1.65 (Ni-Cd) V/cell adjustable Equalizing: up to 2.35 (VRLA), up to 2.7 (VLA), up to 1.7 (Ni-Cd) V/cell adjustable	
Battery technologies	Maintenance free Lead Acid and Ni-Cd / Vented Lead Acid and Ni-Cd, Li-Ion battery compatible	
Output		
Nominal voltage	200/208/220 or 380/400/415 Vac 3-phase	
Frequency	50/60 Hz (selectable), ±0.001 Hz free running, ±2 Hz synchronized with mains	
Voltage regulation	±1% static; ±5% dynamic (80% load change), <40 ms recovery time	
Overload capacity	125% for 10 min; 150% for 1 min; 200% for 100 ms	
Harmonic Distortion THDv	<2% linear load; <5% non-linear load	
System		
Dimensions WxDxH (mm)	600x640x1900	800x800x2100
Cooling	Forced ventilation (optional redundant fans)	
Colour	RAL 7035 (optional other colours)	
Protection degree	IP 20 as per IEC 60529 (optional up to IP 42)	
Operating temperature	-10° C to 40° C (up to 55° C with de-rating) / Storage: -20° C to 70° C	
Altitude	< 1000 m (up to 2000 m de-rating according to EN 62040-3)	
Audible noise at 1 meter (dBA)	<65	
User Interface		
Front panel	Graphic display, mimic LED panel, function keys, local EPO	
Connectivity	Included: USB, alarm relay card, terminal block for auxiliary contacts	
Standards	Quality assurance, environment, health and safety: ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007; Safety: IEC EN 62040-1; EMC: IEC EN 62040-2; Environmental aspects: IEC EN 62040-4; Test and performance: IEC EN 62040-3 VFI-SS-111; Marking: CE; Optional: CSA/UL Certified	

E3001 Compact schematic



Standard features

- Rugged 6-pulse thyristor bridge with isolation transformer.
- 4 level battery charging including optional manual charge.
- Active parallel configuration via CAN bus connection.
- Standard configuration for cost-effective, short lead time solutions.
- Electronic current limit.
- 20 programmable alarm and status LEDs.
- Built-in inverter transformer.
- Communication ports and potential free contacts.
- Bottom cable entry.



Options

Borri's engineer can help you to design the best solution for your application with a wide range of options, some of which are:

System

- Redundant/Parallel Load Sharing Configuration.
- Redundant/Parallel with Common battery bus.
- AC & DC distribution.
- AC and DC earth-fault monitoring.
- 12-pulse rectifier with isolation transformer.
- Battery circuit breaker in rectifier.
- Battery circuit protection box (MCCB/fuse) also EEx-d.
- Low voltage disconnect.
- Temperature dependent battery charging with temp. probe.
- Battery monitor.
- Battery management system (single cell type).
- External manual bypass switch.
- 3-position rotary switch for bypass.
- Bypass isolation transformer.
- Bypass voltage stabiliser.

Alarms and measurement

- Analogue meters.
- Additional LED alarm indicators.
- Additional relay board NO/NC contacts.
- Low battery electrolyte level alarm.
- Temperature alarm.
- Battery circuit failure alarm.
- Ground fault alarm.
- High rate interlock.
- Fan failure alarm.

Communication interfaces

- RS-232/485 interface.
- SNMP adapter for Web browser-based monitoring.
- Modbus protocol on RS-485 or TCP/IP.
- IEC 61850 protocol.
- Protocol converters Profibus DP.

Mechanical

- Protection up to IP 42.
- Vermin proof.
- Increased structure/panel thickness up to 3 mm.
- Special cable marking (both ends).
- 100% redundant ventilation.
- Interior cabinet light.
- Cabinet heater.
- Special colour.
- Ambient temperature maximum 55°C (+131 °F) with derating.
- Altitude up to 2,000 m asl (13,000 ft) with derating.

Batteries

Borri has over 80 years of experience in designing and supplying AC and DC UPS systems with batteries.
With our vast experience in battery technologies and our close technical and commercial relationships with the world largest manufacturers of Nickel Cadmium, Lead Acid and Lithium ion Industrial batteries we are able to offer expert advice on the specifying, selection, operation and testing of batteries to best suite your application and needs.

Service

Customer's expectation defines Borri's priority from the early analysis of the project requirements to a worldwide commissioning and service.
Many thousands of systems have been successfully installed and maintained globally, with continuous support from a highly trained team of expert, certified technicians and engineers.

From the professional set-up of Borri's training centre or on site, the training and service team stand ready to provide support and contribute to tailored training at Borri or on site.
You can be assured of Borri support to the highest standards no matter where in the world you are.

Planning, installation, commissioning

Borri assist you in every single step of your project.
Our R&D team can analyse and develop solutions to a wide range of edge system requirements.

Maintenance

Preventive maintenance guarantees uninterrupted operations and optimized system efficiency.

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 efficiency to the UPS and avoid potential failures.
Borri delivers high quality and performing batteries to assure smooth operations.

Repair & spare parts

All spare parts supplied by Borri are original, tested and guaranteed to be fully compliant with Borri solutions.

Training

Borri offers distributors and customers a service training structured in 3 levels.
Courses can be held in Borri training centres or on-site.

Who we are

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 is a brand of Legrand, a publicly traded company and a global specialist in electrical and digital infrastructures, offering high-value-added products and solutions for commercial, residential and industrial buildings.
Borri's R&D vast expertise in all facets of firmware, power electronics and mechanical design provides innovative solutions for tomorrows 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 20,000 m² production area, Borri operates across all five continents with subsidiaries in USA, Canada, Germany, UAE, India and Malaysia.
It has also established a strong distributor network, able to deliver on site support and technical guidance indicative of our own capabilities.

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For more information about Borri and its network please visit **www.borri.it**