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INGENIO COMPACT
3-PHASE UPS
from 10 to 20 kW



English



90 YEARS
SINCE 1932

BORRI

INGENIO COMPACT BROCHURE

YOUR CRITICAL POWER SOLUTION PARTNER.

The Borri Group 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 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 15,000 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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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.

UPS **3-PHASE**

INGENIO COMPACT

from **10** kW —— to **20** kW





Applications

Small data centre

Medium data centre

Network & Server

Telecommunication

Innovative design

User-friendly design with built-in LCD touch screen for fast installation and monitoring.

Wide battery range

Internal and external batteries for low TCO compact solutions.

Power factor 1

Full rated output power guaranteeing maximum real power and optimal UPS sizing.

One of the most compact and easy to use solutions on the market, designed for critical power applications such as networks and servers, small and medium data centres, telecommunication. The UPS is available in the 10-20 kW range with online double conversion technology and parallel redundant configuration.

Ingenio Compact: transformer free, high efficiency, compact and easy to install and use.

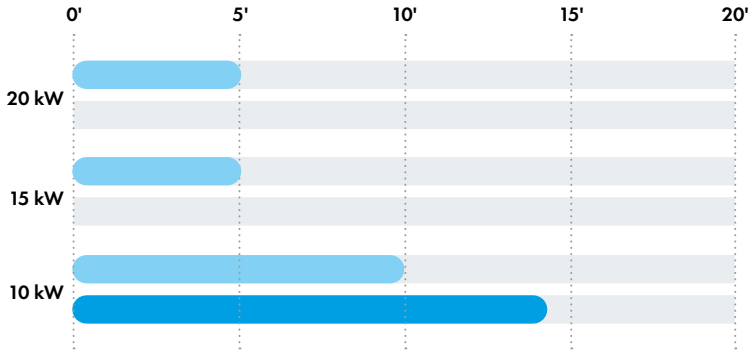


Features and benefits

- On-line double conversion mode for total load protection.
- ECO mode for low running costs and environmental impact.
- Full rated output power (pf=1), ensuring optimal UPS sizing and utilization.
- Transformer free design for light small size layout.
- Full IGBT technology and electronic PFC, ensuring 0.99 input PF and low THDi for maximum upstream sources compatibility.
- Wide input voltage range to save battery life.
- Wide range of configurations with internal and external batteries for low TCO compact solutions.
- Innovative design allows for fast installation.
- Removable tray design for easy battery maintenance.
- Comprehensive set of communication options for total remote monitoring of equipment operation.
- 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.
- External battery cabinets for long autonomy times.
- Parallel redundant up to 6 units for system redundancy.
- Common battery.

INGENIO COMPACT technical data

Rating (kVA)	**10**	**15**	**20**
Nominal Power (kW)	**10**	**15**	**20**
UPS dimensions WxDxH (mm)	440x800x800		
UPS weight (kg)	75	76	76
UPS weight with internal battery (kg)	150	165	165
External battery module dimensions WxDxH (mm)	550x650x1200		
Battery configuration	Internal (standard): 180 cells; external: 156/240 cells	Internal (standard): 216 cells; external: 192/240 cells	
Input			
Connection type	Hardwired 4w		
Nominal voltage	400 Vac 3-phase with neutral		
Voltage tolerance	-20%, +15% (rectifier); ±10% (bypass)		
Frequency and range	50/60 Hz, 40 to 70 Hz		
Power factor	0.99		
Current distortion (THDi)	<3%		
Output			
Connection type	Hardwired 4w		
Nominal voltage	380/400/415 Vac 3-phase with neutral		
Frequency	50/60 Hz		
Power factor	Up to 1, without power derating		
Overload capacity	110% for 60 min, 125% for 10 min, 150% for 1 min		
Efficiency (AC/AC)*	Up to 98%		
Classification by IEC/EN 62040-3	VFI-SS-11		
Connectivity and function extensions			
Front panel	Touch screen display		
Remote communication	**Included**: serial RS232; backfeed protection monitoring contact, remote EPO contact. **Optional:** 2 slots for SNMP adapter, ModBus-RTU, contact relay card		
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; other options on request		
System			
Protection degree	IP 20		
Colour	RAL 9005		
Installation layout	30 cm wall-gap		
Accessibilty	Positioning casters; 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 9001:2015, ISO 14001:2015, BS OHSAS 18001:2007
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



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.

Analytical tests

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

Repair & spare parts

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

Remote monitoring

Guardian Net remote monitoring system allows you to detect any deviation from optimum operation and trigger proper and immediate response, so that anomalies don't evolve into issues.

Maintenance

Preventive maintenance guarantees uninterrupted operations and optimised system efficiency.

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.

Training

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

Since 1932, securing your power with passion and commitment.



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Due to our policy of continuous development, data in this document is subject to change without notice and becomes contractual only after written confirmation

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