

# INGENIO COMPACT

Uninterruptible Power Supply

3ph from 10 to 20 kVA



## Applications

- Networks and servers
- Small and medium data centers
- Telecommunication

## Highlights

- On-line double conversion
- Transformer free
- Full IGBT technology
- Parallel redundant configuration
- Built-in batteries



**BORRI**

# INGENIO COMPACT

Uninterruptible Power Supply  
3ph from 10 to 20 kVA



## Features and benefits

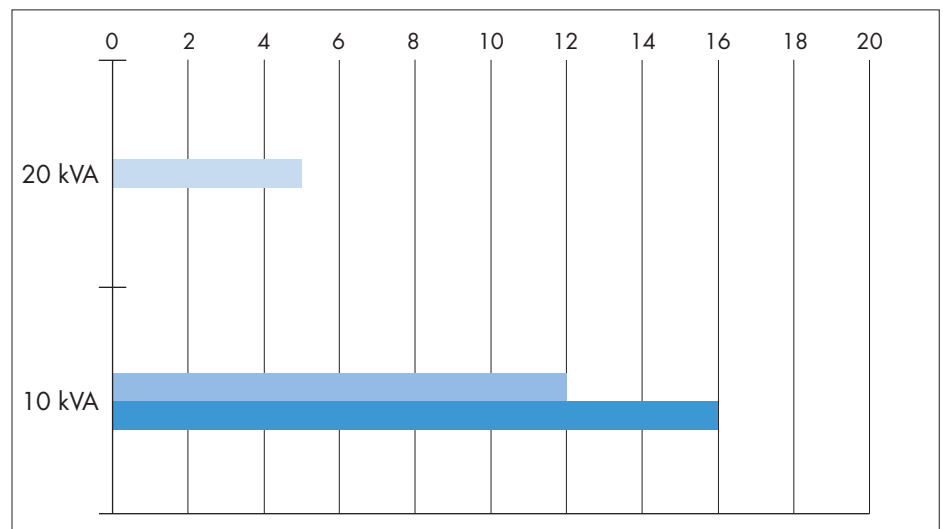
- VFI-SS-111 classified on-line double conversion mode for total load protection.
- ECO mode for low running costs and environmental impact.
- Full rated output power, ensuring optimal UPS sizing and utilization.
- Transformer free design for light small size layout.
- Full IGBT technology and electronic PFC, ensuring 0.99 input PF and THDi<3% 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.
- Parallel-redundant up to six units, to increase system redundancy.
- 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.

## 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 kit.
- Common battery.



## Autonomy time in minutes with different types of internal batteries



## INGENIO COMPACT technical data

Rating (kVA)	10	20
Nominal power (kW)	10	20
UPS dimensions WxDxH (mm)	440x810x800	
UPS weight (kg)	76	78
External battery module dimensions WxDxH (mm)	440x840x1390	
Battery configuration	Internal, 192 to 228 cells; external, 192 to 240 cells, VRLA	

### Input

Connection type	Hardwired 4w (rectifier)
Nominal voltage	400 Vac 3-phase with neutral
Voltage tolerance	± 20%
Frequency and range	50/60 Hz (45 to 65 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
Voltage regulation	Static: ± 1%; dynamic: IEC/EN 62040-3 Class 1
Power factor	1
Overload capacity	Inverter: 125% for 10 min, 150% for 1 min, >150% for 3 s; bypass: 150% continuous, 1000% for 1 cycle
Efficiency (AC/AC)*	Up to 98%
Classification as per IEC/EN 62040-3	VFI-SS-111

### Connectivity and function extensions

Front panel	Touch screen display
Remote communication	Included: serial RS232 and USB; 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 7016
Installation layout	10 cm wall-gap, side by side installation allowed
Accessibility	positioning casters

\*according to IEC/EN 62040-3

## Other features


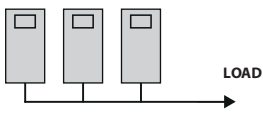
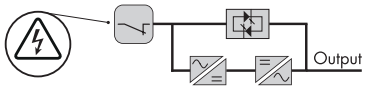
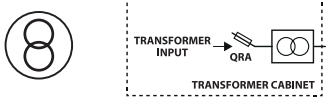

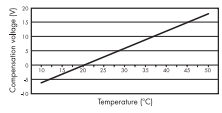




### Environmental

Operating temperature range	0°C to +40°C
Storage temperature range	-10°C to +70°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 1% per 100 m
Audible noise at 1 m (dBA)	<52

### Standards and certifications

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
Protection degree	IEC 60529
Marking	CE

## INGENIO COMPACT series options

	Description	When do I use it
 	Parallel kit	When the unit is to be paralleled for load sharing
	Backfeed protection contactor	To be fully protected against backfeed energy upon static bypass failure
	Input isolation transformer in extended cabinet	To galvanically isolate UPS from load or to change system's earth arrangement
 	Internal battery temperature probe	When the unit has internal batteries, for charging voltage compensation with temperature
	External battery temperature probe	When the unit has external batteries, for charging voltage compensation with temperature (10 m cable length)
	Dry contact relay card	To send UPS status to PLC's, SCADA's or AS400's by voltage free SPDT contacts
	RS485 ModBus-RTU port	To send UPS status to BMS's by RS485 connection and ModBus-RTU protocol. For telemonitoring and teleservice
	Web/SNMP Adapter	To send UPS status to BMS's by Ethernet connection and SNMP or ModBus over IP protocol. To monitor UPS status by any internet browser from workstations. To receive SMS or e-mail alerts from the UPS on any portable device
 <p style="text-align: right;"><b>Included</b></p>	Input terminal block for remote EPO	When the Emergency Power Off (EPO) has to be commanded by a remote control button