1-PHASE UPS
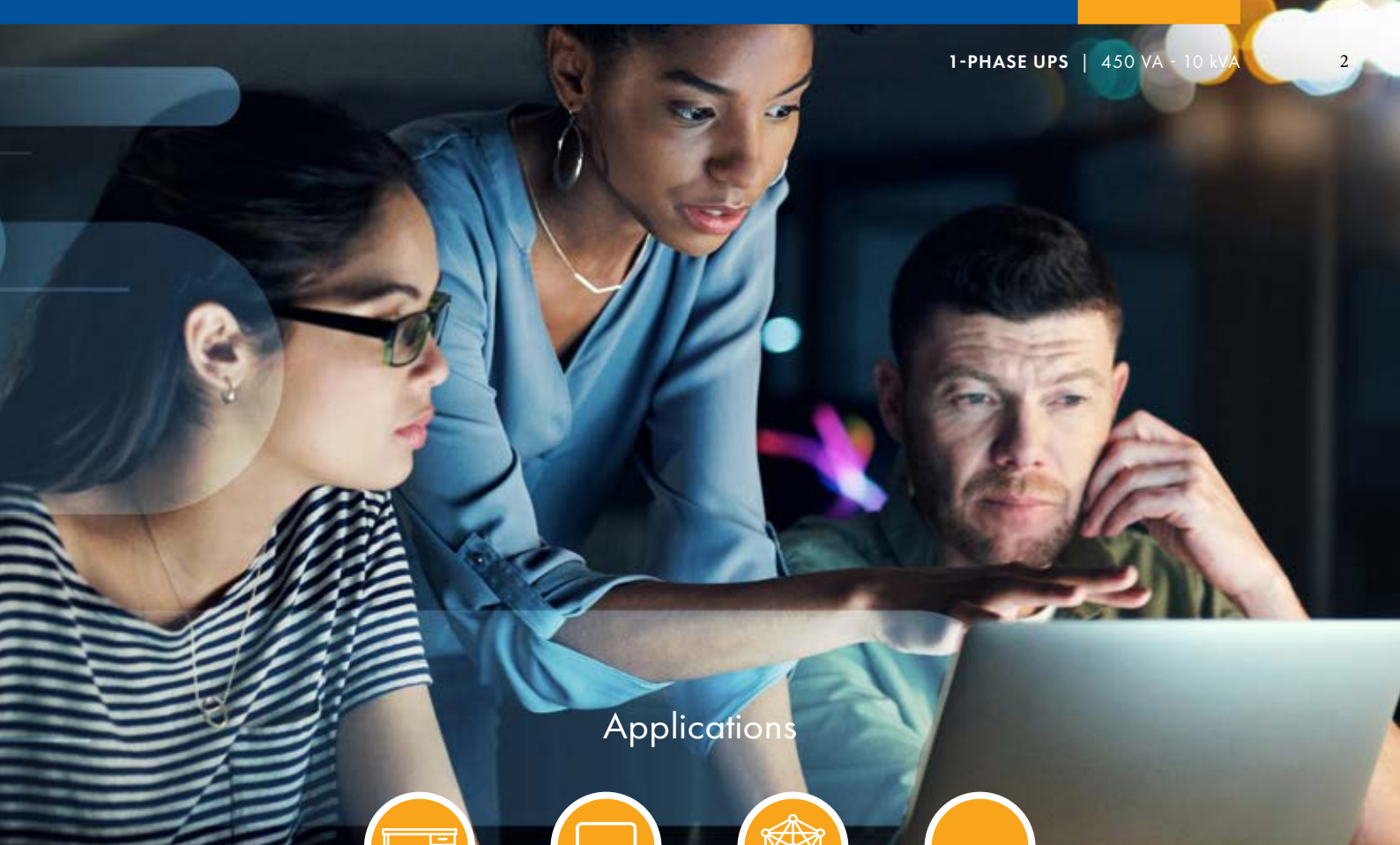
from **450** ^{VA} ——————— to **10** ^{kVA}

Applications

| Home office | Computers & Peripherals | Network & Server | Small data centre |

User-friendly

Easy installation and setup for immediate use.

Intuitive LCD display

Providing easy-to-read UPS status and power information.

Convertible design

Online UPS's can be used in both tower and rack configurations.

Suitable for a variety of Small-Office and Home-Office applications, Borri 1-phase UPS's Giotto, Galileo and Leonardo have been designed to prevent power interferences and to keep your small and medium equipment running.

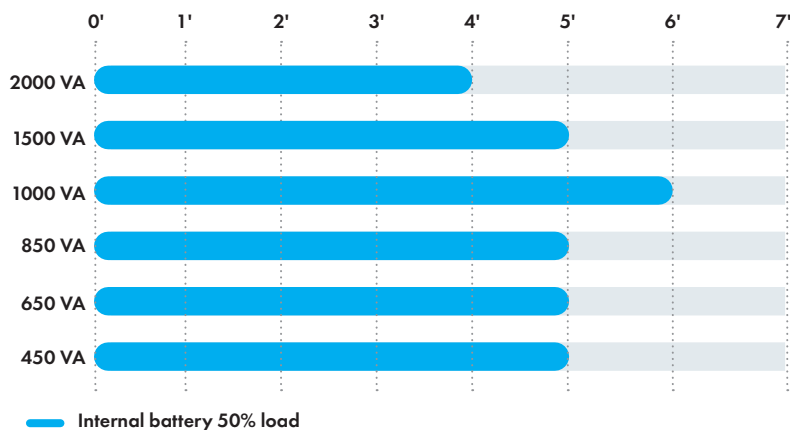**BORRI**

GIOTTO

from **450** VA ⎯ to **2000** VA

Line interactive 1-Phase UPS ideal for home and small office, computers and peripherals.

Features and benefits

- User-friendly UPS ensuring compact protection for a wide range of needs:

  - Best power protection for PC from 450 to 850 VA with one output receptacle (IEC 320-C13) and one Schuko.

  - Advanced power protection from 1000 to 2000 VA with four output receptacles (IEC 320-C13) and one Schuko for high performance PC and peripherals.

- Instantaneous battery back-up power and electrical interference protection.

- Plug and Play installation easy to set up also for first-time users.

- Compact and noise-free running to be placed anywhere at home or office.

- Energy efficient ensuring lowest impact on energy costs.

- Intuitive LCD display provides easy-to-read UPS status and power information.

- Audible alarm alerts upon utility power and UPS status change.

- Easy User-replaceable battery.

- AVR technology stabilizing output voltage to protect your electronics over a wide range of mains quality issues.

- Advanced battery management extending battery life.

- Internet Modem / LAN protection via RJ-11/45 plug.

- USB communication port providing UPS managements.

- Cold start for powering loads when mains are not available.

- Borri Power Guardian user-friendly UPS management software free downloadable at www.borri.it/download (for more info see p.20/21).

Back up time with internal batteries

	0'	1'	2'	3'	4'	5'	6'	7'
2000 VA								
1500 VA								
1000 VA								
850 VA								
650 VA								
450 VA								

━ Internal battery 50% load

GIOTTO technical data

Rating (VA)		450	650	850	1000	1500	2000
Nominal Power (W)		270	380	500	600	900	1200
UPS dimensions WxDxH (mm)		100x292x140			148x315x198		
UPS weight (kg)		4	5	5.5	9	10.5	11.8
Input							
Connection type		IEC 320-C14					
Nominal voltage		230 Vac 1-phase					
Voltage range		160 to 290 Vac					
Frequency and range		50/60 Hz, 45 to 65 Hz					
Output							
Connection type		1 IEC 320-C13 and 1 Schuko			4 IEC 320-C13 and 1 Schuko		
Nominal voltage		230 Vac 1-phase					
Frequency		50/60 Hz					
Wave form		Simulated sine wave					
Battery							
Autonomy time (min.) ◊	50% load	5	5	5	6	5	4
	100% load	3	3	3	3	3	2
Connectivity and function extensions							
Front panel		LCD, ON/OFF button					
Communication		**Included:** USB **Compatible platforms:** Windows, Linux, Mac					
Environmental							
Operating temperature range		0°C to +40°C					
Altitude (AMSL)		< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m					
Audible noise at 1 m (dBA)		< 40					
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					
Marking		CE					

◊ Measurement conditions: optimised parameters, fully charged battery, 0.6 PF

GALILEO

from **1000** ^{VA} ── to **3000** ^{VA}

On-line 1-Phase UPS with Tower and Rack/Tower convertible design ideal for small and medium businesses, networks and servers.

- Intuitive LCD display providing easy-to-read UPS status and power information.

- Audible alarm alerts upon utility power and UPS status change.

- Smart cooling system ensuring further energy savings.

- Programmable switched outlet group for setting load priorities.

- Active harmonic power quality control ensuring up to 0.99 input PF and THDi<3% for maximum compatibility with sources.

- Automatic self test and advanced battery management maximizing battery performance and extending battery life.

- Remote power off for immediate UPS shutdown in case of emergency.

- USB communication port providing UPS management.

- One slot auto-sensing communication cards.

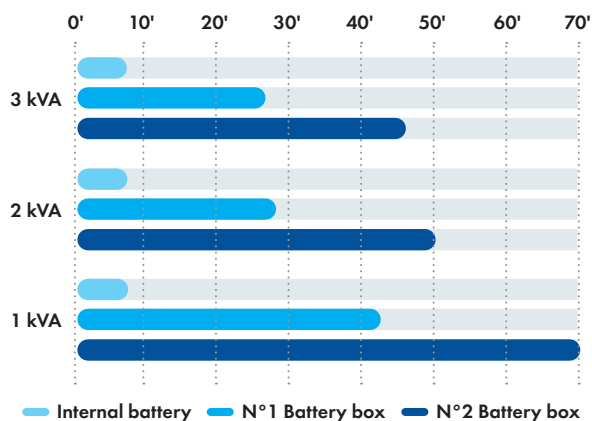- Cold start for powering loads when mains are not available.

- Borri Power Guardian user-friendly UPS management software with alerts upon main power failures and system shutdown notification via SMS and email, free downloadable at www.borri.it/download (for more info see p.20/21).
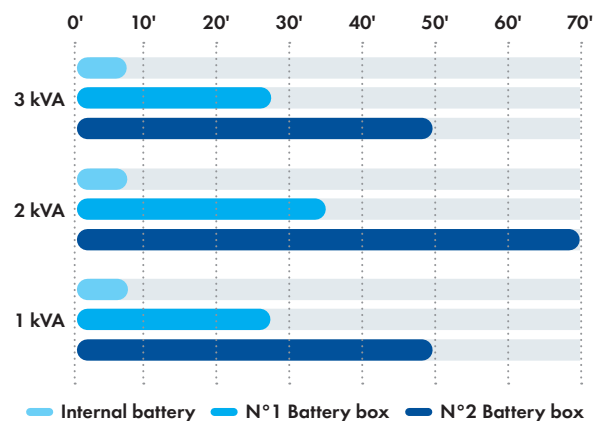
Main options

- SNMP card 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 and to receive SMS or e-mail alerts from the UPS on any portable device.

- Contact relay card to send UPS status to PLC's, SCADA's or AS400's by voltage free SPDT contacts.

- Battery extension box allowing additional autonomy time to be quickly added.

- Additional battery charger for external battery box.

- Rail kit Rack/Tower.

- Rack PDU with external sockets and manual bypass switch.

Features and benefits

- On-line double conversion UPS from 1000 to 3000 VA, Tower and 2U Rack/Tower from three to six output receptacles (IEC 320-C13) and one or two Schuko.

- Rack/Tower convertible design to protect your investment when migrating from tower to rack-mount environment. Both UPS and display panel can be rotated.

- Easy installation and set up, user-replaceable and upgradable battery.

Back up time for **Rack/Tower UPS**

Back up time for **Tower UPS**

Internal battery   N°1 Battery box   N°2 Battery box

BORRI

www.borri.it

GALILEO technical data

UPS Type	T *	T *	T *	RT (2U) **	RT (2U) **	RT (2U) **
Rating (VA)	**1000**	**2000**	**3000**	**1000**	**2000**	**3000**
Nominal Power (W)	**900**	**1800**	**2700**	**900**	**1800**	**2700**
UPS dimensions WxDxH (mm)	144x367x236	151x444x322	189x444x322	440x390x88	440x475x88	440x600x88
UPS weight (kg)	11.2	18.8	24.9	12.0	17.0	26.5

Input

Connection type	IEC 320-C14		IEC 320-C20	IEC 320-C14		IEC 320-C20
Nominal voltage	230 Vac 1-phase					
Voltage range	195 to 260 Vac					
Frequency and range	50/60 Hz, 45 to 65 Hz					
Power factor	0.98			0.99		
Current distortion (THDi)	<3%					

Output

Connection type	3 IEC 320-C13 1 Schuko	3 IEC 320-C13 2 Schuko	6 IEC 320-C13 2 Schuko	3 IEC 320-C13	6 IEC 320-C13	
Nominal voltage	230 Vac +/-1% 1-phase					
Frequency	50/60 Hz					
Power factor	Up to 0.9, without power derating					
Overload capability	105% continuous, 120% for 30 seconds, 150% for 10 seconds, >150% transfer to bypass					
Mode of operation	On-line, Eco mode					

Battery

Autonomy time internal battery (min.) ◊	50% load	12	13	15	12	13	15
	100% load	6	6	6	6	6	6

Connectivity and function extensions

Front panel	Display LCD, status LED, function keys
Communication	**Included:** USB, EPO, RS232. **Optional:** dry contact card, SNMP card. **Compatible platforms:** Windows, Linux, Mac

Environmental

Operating temperature range	0°C to +40°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m
Audible noise at 1 m (dBA)	< 50

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
Marking	CE

*Tower **Rack/Tower ◊ Measurement conditions: optimised parameters, fully charged battery, 0.7 PF

90°

GALILEO T 1 kVA

GALILEO T 2 kVA

GALILEO T 3 kVA

GALILEO **RT 2/3 kVA**

GALILEO **RT 1 kVA**

BORRI

LEONARDO

from **6** kVA —————— to **10** kVA

High-power on-line
1-phase UPS with Rack/Tower convertible design, ideal for networks and servers, small data centres.

Features and benefits

- On-line double conversion UPS from 6 to 10 kVA, Tower and 2U or 3U Rack/Tower.

- Parallel redundant configuration maximizing the availability.

- Rack/Tower convertible design to protect your investment when migrating from tower to rack-mount environment. Both UPS and display panel can be rotated.

- Easy installation and set up, user replaceable and upgradable battery.

- Intuitive LCD display providing easy-to-read UPS status and power information.

- Audible alarm alerts upon utility power and UPS status change.

- Smart cooling system ensuring further energy savings.

- Active harmonic power quality control ensuring 0.99 input PF and THDi<3% for maximum compatibility with sources.

- Automatic self test and advanced battery management maximizing battery performance and extending battery life.

- Remote emergency power off to guarantee your piece of mind in critical applications.

- Internal manual bypass for safe and easy maintenance.

- RS232 communication port providing UPS management.

- Two slots auto-sensing communication cards.

- Cold start for powering loads when mains are not available.

- Borri Power Guardian user-friendly UPS management software with alerts upon main power failures and system shutdown notification via SMS and email, free downloadable at www.borri.it/download (for more info see p.20/21).

Main options

- SNMP card 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 and to receive SMS or e-mail alerts from the UPS on any portable device.

- Contact relay card to send UPS status to PLC's, SCADA's or AS400's by voltage free SPDT contacts.

- Battery extension box allowing additional autonomy time to be quickly added.

- Additional battery charger for external battery box.

- Parallel kit.

- Rail kit Rack/Tower.

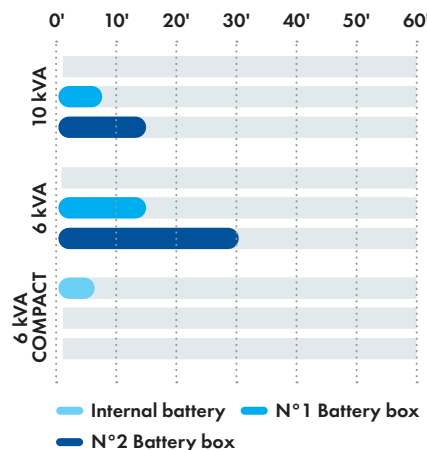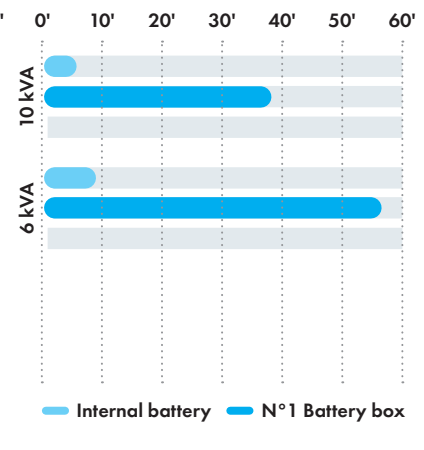- Rack PDU with external sockets and manual bypass switch.

Back up time for Rack/Tower UPS

Back up time for Tower UPS

Internal battery   N°1 Battery box
N°2 Battery box

Internal battery   N°1 Battery box

LEONARDO technical data

UPS Type	T *	T *	RT (2U) ***	RT (4U) **	RT (3U) ***
Rating (kVA)	**6**	**10**	**6**	**6**	**10**
Nominal Power (kW)	**5.4**	**9**	**5.4**	**5.4**	**9**
UPS dimensions WxDxH (mm)	290x645x748	290x645x748	440x680x88	440x680x176	440x680x132
UPS weight (kg)	86	96	24	52	26

Input					
Connection type	Hardwired 2w (rectifier), 2w (bypass)		Hardwired 2w		
Nominal voltage	230 Vac 1-phase				
Voltage range	160 to 280 Vac				
Frequency and range	50/60 Hz, 45 to 65 Hz				
Power factor	0.99				
Current distortion (THDi)	<6%				

Output					
Connection type	Hardwired 2w				
Nominal voltage	230 Vac +/-1% 1-phase				
Frequency	50/60 Hz				
Power factor	Up to 0.9, without power derating				
Overload capability	104% continuous, 150% for 160 seconds, >150% transfer to bypass				
Mode of operation	On-line, Eco mode				

Battery						
Autonomy time internal battery (min.) ◊	50% load	25	17	external battery	15	external battery
	100% load	9	6	external battery	6	external battery

Connectivity and function extensions	
Front panel	Display LCD, status LED, function keys
Communication	**Included:** USB, RS232 card, EPO. **Optional:** dry contact card, SNMP card, RS485 card. **Compatible platforms:** Windows, Linux, Mac

Environmental	
Operating temperature range	0°C to +40°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m
Audible noise at 1 m (dBA)	< 50

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
Marking	CE

*Tower with internal battery   **Rack/Tower with internal battery   ***Rack/Tower without internal battery
◊ Measurement conditions: optimised parameters, fully charged battery, 0.7 PF
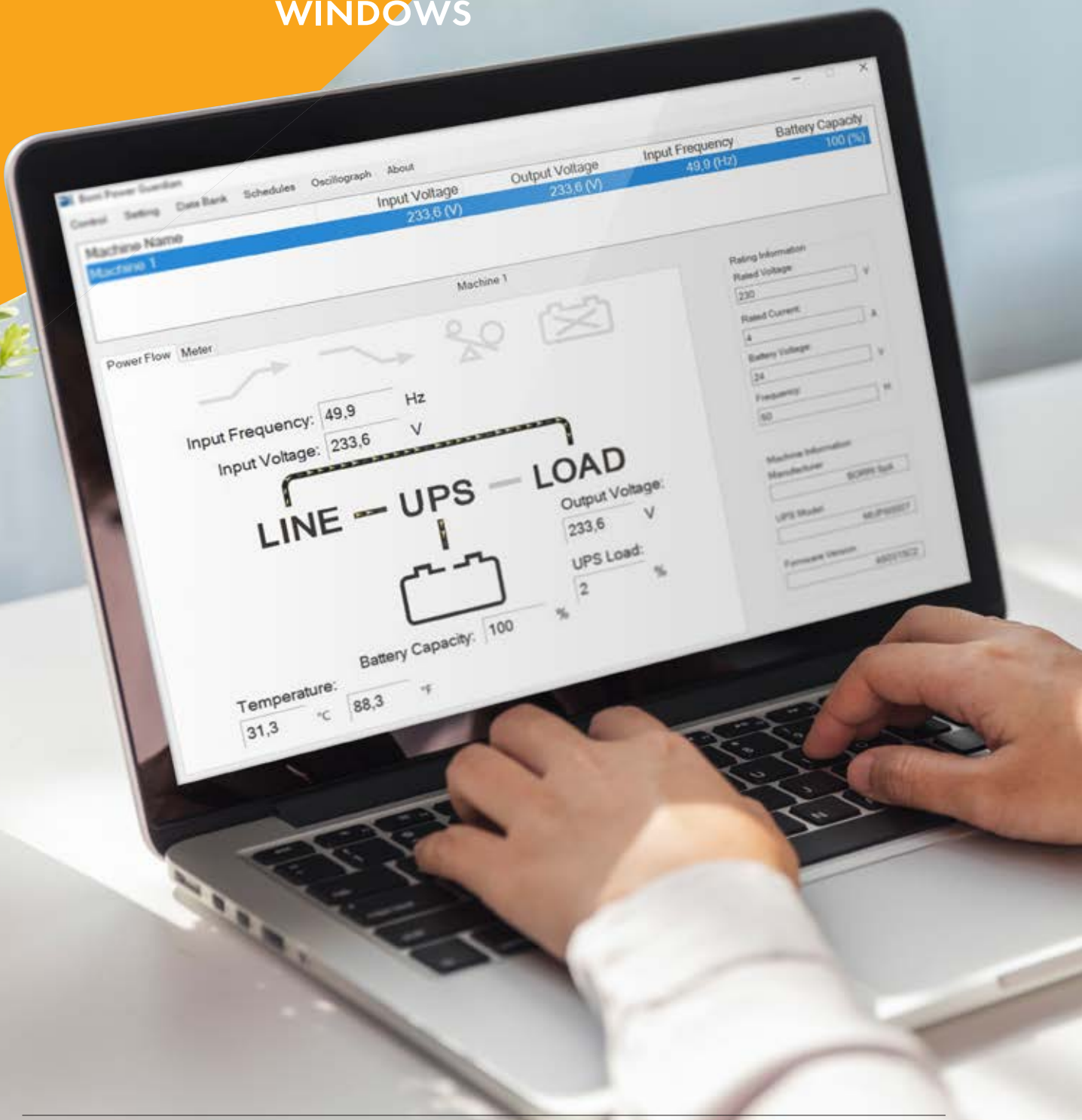

LEONARDO **T 6/10 kVA**

LEONARDO **RT (4U) 6 kVA**

LEONARDO **RT (3U) 10 kVA**

LEONARDO **RT (2U) 6 kVA**

BORRI

POWER GUARDIAN
1-PH UPS MONITORING SOFTWARE

available for **MAC** and **MICROSOFT WINDOWS**

Borri Power Guardian is a **free user-friendly** UPS software, providing monitoring of the UPS status and automatic safe system shutdown during power outages.

Features and benefits

- Fast, easy installation and configuration via USB or RS232 even for first-time users.

- Automatic orderly application and system shutdown.

- Preventing potential data corruption and hardware damage.

- Alerts on main power failures and system shutdowns notification via SMS and email.

- Automatic self-test of UPS and battery status ensuring early detection of anomalies.

- UPS parameters and power status at a glance. It summarizes graphically and numerically power problems such as blackouts or electrical noise over time and UPS information such as input and output voltage, frequency, temperature, loads and battery capacity.

- Customised settings for tailor-made solutions.

- Available for MAC and Microsoft Windows operating systems (complete list at www.borri.it/download).

- Download Borri Power Guardian free software at www.borri.it/download.

www.borri.it