



PRODUCT
GUIDE
POWER PROTECTION



PowerControl



PowerControl

▶ INDUSTRY LEADERS

POWER CONTROL LTD HAS OVER 25 YEARS OF EXPERIENCE IN DELIVERING EMERGENCY POWER SOLUTIONS WHERE UPS (UNINTERRUPTIBLE POWER SUPPLY) SYSTEMS HAVE ALWAYS BEEN AT THE HEART OF OUR BUSINESS.

Working with some of the world's leading manufacturers, our UPS portfolio spans from 800VA through to 6.4MVA. Frontline intelligence coupled with leading edge technologies enables us to supply ultimate power resilience and efficiency for the needs of today and the future.

Offering single phase, three phase tower and modular UPS solutions, the technologies from Power Control have been expertly selected to ensure the right solutions are designed and delivered for users' power protection requirements. We have installed and commissioned 1000s of UPS systems across a wide spectrum of markets, including medical, public sector, data centre, retail and IT.

An unparalleled understanding of the sophisticated intricacies that make up power protection frameworks have positioned Power Control as not just a leading UPS specialist but as an expert in planning, design and commissioning of complex power protection solutions. It is a core provider of batteries, bypass switches, air conditioning, other ancillaries and tailored design solutions.



► MAINTENANCE SUPPORT

PowerControl provides maintenance support for over 3500 sites in the UK. With flexible service packages available for all business sizes, our offering also integrates maintenance for other associated server room infrastructure equipment including UPS and batteries, electrical installation testing, air conditioning services, generator servicing, fire suppression equipment and door entry systems

Our team of experienced engineers and technical specialists are on call 24/7 to provide immediate initial diagnosis of faults and offer step by step phone assistance. They are also positioned across the country and are fully equipped to undertake emergency reactive maintenance if required.

	BRONZE LEVEL	SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL	TAILORED LEVEL
RESPONSE TIME	Same Day* Mon - Fri 9am - 5pm	Same Day* Mon - Fri 8am - 8pm	Within 8 hours 24 hours 7 days a week	Within 4 hours 24 hours 7 days a week	Same Day 24 hours 7 days a week
EMERGENCY CONTACT	Mon - Fri 9am - 5pm	Out of hours included	Out of hours included	Out of hours included	Out of hours included
TECHNICAL SUPPORT	24 hours	24 hours	24 hours	24 hours	24 hours
TRAVEL & LABOUR	Included	Included	Included	Included	Included
PARTS	Level 1 parts included * (up to £200) exc. consumables	Level 1 parts included * (up to £200) exc. consumables	Level 1 parts included * (up to £200) exc. consumables	All parts included Excludes batteries & consumables	Tailored to requirements
VISITS	1 preventative visit p/a	1 preventative visit p/a	1 preventative visit p/a	1 preventative visit p/a	As required

* Same day call out applies to calls logged before 10am. First fix repair per unit up to £200 - excludes consumables.
Preventative maintenance visit during normal working hours - 6kVA and above.

► TECHNICAL SERVICES

WHILST UPS SYSTEMS FORM THE BACKBONE OF POWER CONTROL, OUR EXPERIENCE EXTENDS ACROSS THE ENTIRE ELECTRICAL PATH.

Renowned industry wide for providing turnkey project solutions, technical advice and support, and lifetime ownership maintenance, we have proudly set the benchmark for quality.

As the preferred trade consultant for an array of businesses across the country we work closely with our clients to design and deploy a clearly defined power protection strategy for their infrastructures.

Our partnerships with leading industry contractors, project engineers and specialist manufacturers allow us to provide an even wider portfolio of products and services for clients looking beyond the electrical infrastructure. From SME to multinational corporates, we facilitate a proven five-step approach to develop bespoke design solutions that achieve all specific technical and commercial drivers.

5 STEP APPROACH



► ENVIRONMENTAL CONSIDERATIONS

UNDERSTANDING THE PHYSICAL ENVIRONMENT IN WHICH A UPS SOLUTION WILL BE OPERATING IS KEY TO ENSURING OPTIMUM PERFORMANCE. IT IS IMPORTANT TO ASCERTAIN HEIGHT AND WEIGHT LIMITATIONS, VENTILATION RESTRICTIONS AND EXAMINE PHYSICAL SPACE.

It is also essential that the UPS chosen can cope with the total electrical load that will be used not just now but in the future. Planning for future growth will help achieve greater TCO (total cost of ownership) values. We recommend that an additional 20-25% capacity is included to account for any surges in power and allow for future growth.

UPS TECHNOLOGIES

WHEN CHOOSING UPS SYSTEMS, THERE ARE MANY FACTORS TO CONSIDER. POWER CONTROL HAS DECADES OF EXPERIENCE IN DELIVERING THE CORRECT SOLUTIONS.

OPERATING MODES

Offline (stand-by): Voltage and frequency dependant (VFD), this type of technology provides limited protection from spikes and transients and has a 10-20mS load break under mains interruptions. Although this entry level UPS solution is available at very low costs, it is a relatively obsolete option.

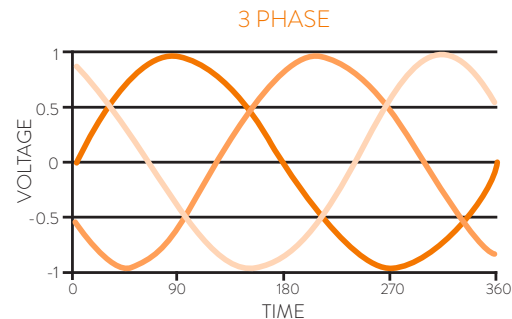
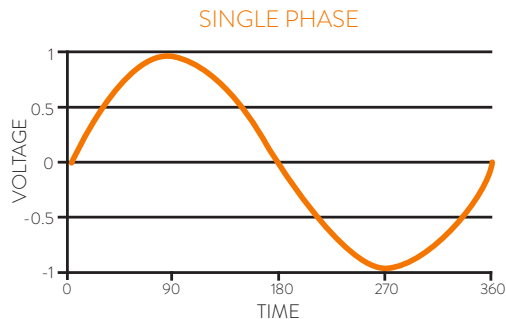
Line Interactive: This is also a low cost, entry level UPS solution and as it is voltage independent, these fluctuations are stabilised by regulation devices, giving a typical 10mS load break. Line interactive technology is typically chosen to support PCs, small file servers, phone systems, modems, switches and routers.

Online Double Conversion: As this technology is independent from the input voltage and frequency there is no break in power supply during mains interruptions. Power is regulated and there is an option to extend battery capacity.

SINGLE PHASE VS THREE PHASE

The term single phase and three phase relates to the number of inputs.

Single phase technology is generally used by households and small businesses. Whereas three phase solutions are more commonplace in large organisations. There can be some confusion as UPS solutions between 10kVA – 20kVA in size can be configured as either a single phase or three phase input.



UPS TYPES

RESILIENCE SHOULD ALWAYS BE THE TOP PRIORITY WHEN IT COMES TO SELECTING THE CORRECT UPS. VAST IMPROVEMENTS IN TECHNOLOGY HAVE ALSO ALLOWED EVEN THE MOST RELIABLE UPS SYSTEMS TO ACHIEVE SIGNIFICANT OPERATING EFFICIENCY LEVELS.

THREE PHASE STANDALONE TOWER UPS

These systems have led the way in terms of reliability and resilience. Many are under the opinion that three phase tower, in particular transformer based systems, deliver absolute power protection against data loss.

DEFINITION:

Fixed capacity UPS, which can be increased when additional UPS units are connected in parallel.

TECHNOLOGY:

IGBT rectifier. DSP control.
Transformer and transformer free.

Three phase standalone tower UPS are ideally suited to sites where a fixed requirement is known, or when scaling is pre-planned. It is important to note that the initial switchgear capacity should be future proofed to allow for easy installation and additional units to be connected in parallel. Standalone tower UPS units are not of modular construction but can be utilised in this way to achieve an overall modular build.

Redundancy and resilience is also provided by connecting additional units in parallel, this does offer complete redundancy opposed to modular redundancy. These type of UPS are scalable rather than modular.

They can be transformer based or transformer free, depending on the model, and each is suited to different applications. The main advantages of a transformer-free UPS are they are lighter, smaller, lower in cost, and more efficient. The main advantage in a transformer based UPS is that they provide galvanic isolation to the load, can accept harsh loads, and they can accept two different independent supplies as the rectifier input does not require a neutral connection.





MODULAR UPS

Modular UPS solutions have been around for quite some time now and the technology has been perfected to become much more reliable than those available 15 years ago.

Today's modular UPS systems are ideal for new build datacentres where the load will increase.

DEFINITION:

Modular construction, scalable power capacity in module size increments up to a fixed overall frame capacity.

TECHNOLOGY:

There are lots of varying types and architecture, which are constantly evolving. Typically offering vertical scalability and use transformer free topology. High efficiency IGBT rectifier and 3-level inverter, with increasing efficiencies at lower loads.

Modular UPS power capacity can grow as demand grows or be reduced as requirements alter. This not only delivers flexibility advantages but also ensures peak efficiency is always achieved.

In addition, the modular approach offers a smaller footprint, greater usability, easy manageability, inherently greater availability, and scalability throughout its operational life.



STANDALONE TOWER UPS



POWER CONTROL IS THE SOLE UK DISTRIBUTOR FOR RENOWNED ITALIAN UPS MANUFACTURER BORRI SPA.

WE SUPPLY:

Three phase 10kVA – 6.4MVA UPS systems

Centralised/tower/static/solid state UPS have long been recognised as the industry choice for resilience. Whilst these have been the root of power protection for many years and where once their efficiencies were poor, advances in technology now mean these models boast ultra-high efficiencies combined with unfailing power protection

The Borri three phase range of solid state UPS are internationally renowned for their power resilience and are able to achieve over 96% efficiency in online double conversion. Power Control offers the Borri B8000FXS and Ingenio transformer free ranges and the B9000FXS and B9600FXS transformer based solutions.



BORRI® B8031FXS 10-20kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Server rooms, IT equipment, industrial control and process automation

RATING	10kVA	15kVA	20kVA
DIMENSIONS W X D X H (mm)	450W x 650D x 1200H		
WEIGHT (Kg)	100		110
INPUT			
VOLTAGE	400VAC		
VOLTAGE TOLERANCE / RANGE	-20% / +15%		
FREQUENCY	50/60Hz		
FREQUENCY TOLERANCE / RANGE	45-65Hz		
OUTPUT			
POWER FACTOR	0.9		
WAVEFORM	Sinewave		
VOLTAGE	220VAC / 230VAC / 240VAC		
FREQUENCY	50-60Hz (Sync with mains ±2Hz)		
EFFICIENCY	>98% (Eco mode)		
BATTERY			
DC VOLTAGE	720VDC or 744VDC		
CHARGER CAPACITY	6A	10A	10A
MECHANICAL			
OUTPUT CONNECTION	Hardwired		
ENVIRONMENTAL			
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C		
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C		
RELATIVE HUMIDITY	<95% (non-condensing)		
OPERATING ALTITUDE TOLERANCE	<1000m		
FEATURES			
COMMUNICATION	USB, RS232 and Modbus		
OPTIONAL COMMS	SNMP / VFC		
PARALLEL	Up to 6 (others on request)		
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Mimic LCD and keyboard, Dual Input		



3 PHASE IN / SINGLE PHASE OUT

BORRI® B8033FXS 10-20kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Server rooms, IT equipment, industrial control and process automation

RATING	10kVA	15kVA	20kVA
DIMENSIONS W X D X H (mm)	450W x 650D x 1200H		
WEIGHT (Kg)	100		110
INPUT			
VOLTAGE	400VAC		
VOLTAGE TOLERANCE / RANGE	-20% / +15%		
FREQUENCY	50/60Hz		
FREQUENCY TOLERANCE / RANGE	45-65Hz		
OUTPUT			
POWER FACTOR	0.9		
WAVEFORM	Sinewave		
VOLTAGE	380VAC / 400VAC / 415VAC		
FREQUENCY	50-60Hz (Sync with mains ±2Hz)		
EFFICIENCY	>98% (Eco mode)		
BATTERY			
DC VOLTAGE	720VDC or 744VDC		
CHARGER CAPACITY	6A	10A	6A
MECHANICAL			
OUTPUT CONNECTION	Hardwired		
ENVIRONMENTAL			
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C		
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C		
RELATIVE HUMIDITY	<95% (non-condensing)		
OPERATING ALTITUDE TOLERANCE	<1000m		
FEATURES			
COMMUNICATION	USB, RS232 and Modbus		
OPTIONAL COMMS	SNMP / VFC		
PARALLEL	Up to 6 (others on request)		
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Mimic LCD and keyboard		



3 PHASE IN / 3 PHASE OUT

BORRI[®] INGENIO PLUS 30-160kVA

ONLINE DOUBLE CONVERSION UPS SYSTEM

SUITABLE FOR:

Ideal for small to medium size data centres, critical network applications, Industrial applications and process control

RATING	30kVA	40kVA	60kVA	80kVA	100kVA	125kVA	160kVA
DIMENSIONS W X D X H (mm)	465W x 670D x 1230H			560W x 940D x 1800H			
WEIGHT (Kg)	120	140	250	300	320	360	380
INPUT							
VOLTAGE	400VAC						
VOLTAGE TOLERANCE / RANGE	-20% / +15%						
FREQUENCY	50/60Hz						
FREQUENCY TOLERANCE / RANGE	45-65Hz						
OUTPUT							
POWER FACTOR	1						
WAVEFORM	Sinewave						
VOLTAGE	380VAC / 400VAC / 415VAC						
FREQUENCY	50-60Hz (Sync with mains ±2Hz)						
EFFICIENCY	>98% (Eco mode)						
BATTERY							
DC VOLTAGE	720VDC or 744VDC						
CHARGER CAPACITY	10A	10A	15A	15A	15A	20A	20A
MECHANICAL							
OUTPUT CONNECTION	Hardwired						
ENVIRONMENTAL							
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C						
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C						
RELATIVE HUMIDITY	<95% (non-condensing)						
OPERATING ALTITUDE TOLERANCE	<1000m						
FEATURES							
COMMUNICATION	USB, RS232 and Modbus						
OPTIONAL COMMS	SNMP / VFC						
PARALLEL	Up to 6 (others on request)						
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Mimic LCD and keyboard, DCM charging, Green conversion charging						



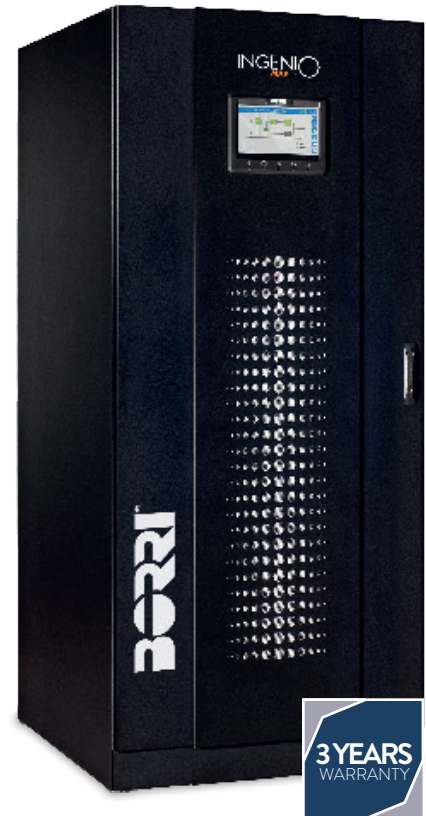
BORRI[®] INGENIO MAX 200- 300kVA

ONLINE DOUBLE CONVERSION UPS SYSTEM

SUITABLE FOR:

Ideal for medium to large size data centres, critical network applications and Industrial applications

RATING	200kVA	250kVA
DIMENSIONS W X D X H (mm)	850W x 955D x 2000H	
WEIGHT (Kg)	720	850
INPUT		
VOLTAGE	400VAC	
VOLTAGE TOLERANCE / RANGE	-20% / +15%	
FREQUENCY	50/60Hz	
FREQUENCY TOLERANCE / RANGE	45-65Hz	
OUTPUT		
POWER FACTOR	1	
WAVEFORM	Sinewave	
VOLTAGE	380/400/415VAC	
FREQUENCY	50-60Hz (Sync with mains ±2Hz)	
EFFICIENCY	>98% (Eco mode)	
BATTERY		
DC VOLTAGE	720VDC or 744VDC	
CHARGER CAPACITY	30A	40A
MECHANICAL		
OUTPUT CONNECTION	Hardwired	
ENVIRONMENTAL		
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C	
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C	
RELATIVE HUMIDITY	<95% (non-condensing)	
OPERATING ALTITUDE TOLERANCE	<1000m	
FEATURES		
COMMUNICATION	USB, RS232 and Modbus	
OPTIONAL COMMS	SNMP / VFC	
PARALLEL	Up to 6 (others on request)	
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Touchscreen LCD, DCM charging, Green conversion charging	



BORRI[®] INGENIO ECS 60-160kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Small data centres, IT equipment, industrial control and process automation.

Emergency lighting applications, fire and life converter (Complies to EN50171)

RATING	60kVA	80kVA	100kVA	125kVA	160kVA
DIMENSIONS W X D X H (mm)	560W x 940D x 1800H				
WEIGHT (Kg)	250	300	320	360	380
INPUT					
VOLTAGE	400VAC				
VOLTAGE TOLERANCE / RANGE	-20% / +15%				
FREQUENCY	50/60Hz				
FREQUENCY TOLERANCE / RANGE	45-65Hz				
OUTPUT					
POWER FACTOR	1				
WAVEFORM	Sinewave				
VOLTAGE	380/400/415VAC				
FREQUENCY	50-60Hz (Sync with mains ±2Hz)				
EFFICIENCY	>96% (Eco mode / changeover mode)				
BATTERY					
DC VOLTAGE	720VDC or 744VDC				
MECHANICAL					
OUTPUT CONNECTION	Hardwired				
ENVIRONMENTAL					
OPERATING TEMPERATURE TOLERANCE	UPS 0 -40°C / VRLA Batteries 20-25°C				
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C				
RELATIVE HUMIDITY	<95% (non-condensing)				
OPERATING ALTITUDE TOLERANCE	<1000m				
FEATURES					
COMMUNICATION	USB, RS232 and Modbus				
OPTIONAL COMMS	SNMP / VFC				
PARALLEL	Up to 6 (others on request)				
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Mimic LCD and keyboard, Temperature compensated charging				



BORRI® E8031 ECS 10-20kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Emergency lighting applications, fire and life safety application (Complies to EN50171)

RATING	10kVA	15kVA	20kVA
DIMENSIONS W X D X H (mm)	450W x 650D x 1200H		
WEIGHT (Kg)	100		110
INPUT			
VOLTAGE	400VAC		
VOLTAGE TOLERANCE / RANGE	-20% / +15%		
FREQUENCY	50/60Hz		
FREQUENCY TOLERANCE / RANGE	45-65Hz		
OUTPUT			
POWER FACTOR	0.9		
WAVEFORM	Sinewave		
VOLTAGE	220VAC / 230VAC / 240VAC		
FREQUENCY	50-60Hz (Sync with mains ±2Hz)		
EFFICIENCY	>96% (Eco mode)		
BATTERY			
DC VOLTAGE	720VDC or 744VDC		
CHARGER CAPACITY	6A	10A	10A
MECHANICAL			
OUTPUT CONNECTION	Hardwired		
ENVIRONMENTAL			
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C		
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C		
RELATIVE HUMIDITY	<95% (non-condensing)		
OPERATING ALTITUDE TOLERANCE	<1000m		
FEATURES			
COMMUNICATION	USB, RS232 and Modbus		
OPTIONAL COMMS	SNMP / VFC		
PARALLEL	Up to 6 (others on request)		
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Mimic LCD and keyboard, Temperature compensated charging		



BORRI® E8033 ECS 10-20kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Emergency lighting applications, fire and life safety application (Complies to EN50171)

RATING	10kVA	15kVA	20kVA	30kVA	40kVA	50kVA
DIMENSIONS W X D X H (mm)	450W x 650D x 1200H					
WEIGHT (Kg)	100	110		140		170
INPUT						
VOLTAGE	400VAC					
VOLTAGE TOLERANCE / RANGE	-20% / +15%					
FREQUENCY	50/60Hz					
FREQUENCY TOLERANCE / RANGE	45-65Hz					
OUTPUT						
POWER FACTOR	0.9					
WAVEFORM	Sinewave					
VOLTAGE	380VAC / 400VAC / 415VAC					
FREQUENCY	50-60Hz (Sync with mains ±2Hz)					
EFFICIENCY	>98% (Eco mode)					
BATTERY						
DC VOLTAGE	720VDC or 744VDC					
CHARGER CAPACITY	6A	10A	10A	15A	15A	25A
MECHANICAL						
OUTPUT CONNECTION	Hardwired					
ENVIRONMENTAL						
OPERATING TEMPERATURE TOLERANCE	UPS 0 -40°C / VRLA Batteries 20 -25°C					
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C					
RELATIVE HUMIDITY	<95% (non-condensing)					
OPERATING ALTITUDE TOLERANCE	<1000m					
FEATURES						
COMMUNICATION	USB, RS232 and Modbus					
OPTIONAL COMMS	SNMP / VFC					
PARALLEL	Up to 6 (others on request)					
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Mimic LCD and keyboard, Temperature compensated charging					



BORRI® B9000FXS 60-300kVA

ONLINE DOUBLE CONVERSION TRANSFORMER BASED UPS SYSTEM

SUITABLE FOR:

Medium size data centres, large industrial applications, factory processes and mechanical loads

RATING	60kVA	80kVA	100kVA	125kVA	160kVA	200kVA	250kVA	300kVA
DIMENSIONS W X D X H (mm)	820W x 825D x 1670H					1200W x 860D x 1900H		
WEIGHT (Kg)	570	600	625	660	715	970	1090	1170
INPUT								
VOLTAGE	400VAC							
VOLTAGE TOLERANCE / RANGE	-20% / +15%							
FREQUENCY	50/60Hz							
FREQUENCY TOLERANCE / RANGE	45-65Hz							
OUTPUT								
POWER FACTOR	0.9							
WAVEFORM	Sinewave							
VOLTAGE	380/400/415VAC							
FREQUENCY	50-60Hz (Sync with mains ±2Hz)							
EFFICIENCY	>95% (Eco mode)							
BATTERY								
DC VOLTAGE	600 or 624VDC							
CHARGER CAPACITY	15A	15A	15A	20A	20A	30A	40A	40A
MECHANICAL								
OUTPUT CONNECTION	Hardwired							
ENVIRONMENTAL								
OPERATING TEMPERATURE TOLERANCE	UPS 0 -40°C / VRLA Batteries 20-25°C							
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C							
RELATIVE HUMIDITY	<95% (non-condensing)							
OPERATING ALTITUDE TOLERANCE	<1000m							
FEATURES								
COMMUNICATION	USB, RS232 and Modbus							
OPTIONAL COMMS	SNMP / VFC / Modbus							
PARALLEL	Up to 6 (others on request)							
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Mimic LCD and keyboard, DCM charging, Boost charging							



BORRI® B9600FXS 40-800kVA

ONLINE DOUBLE CONVERSION TRANSFORMER BASED UPS SYSTEM

SUITABLE FOR:

Large size data centres, large industrial applications, factory processes and mechanical loads

RATING	400kVA	500kVA	600kVA	800kVA
DIMENSIONS W X D X H (mm)	1990W x 950D x 1920H	2440W x 950D x 2020H		3640W x 950D x 2020H
WEIGHT (Kg)	1820	2220	2400	3600
INPUT				
VOLTAGE	400VAC			
VOLTAGE TOLERANCE / RANGE	-20% / +15%			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	45-65Hz			
OUTPUT				
POWER FACTOR	0.9			
WAVEFORM	Sinewave			
VOLTAGE	380/400/415VAC			
FREQUENCY	50-60Hz (Sync with mains ±2Hz)			
EFFICIENCY	>95% (Eco mode)			
BATTERY				
DC VOLTAGE	600 or 624VDC			
CHARGER CAPACITY	60A	80A	80A	120A
MECHANICAL				
OUTPUT CONNECTION	Hardwired			
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C			
STORAGE TEMPERATURE TOLERANCE	-10 - +70°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	USB, RS232 and Modbus			
OPTIONAL COMMS	SNMP / VFC / Modbus			
PARALLEL	Up to 6 (others on request)			
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Mimic LCD and keyboard, DCM charging, Boost charging			





SOFTWARE & ACCESSORIES

PRODUCT TYPE	B8-SNMPI B9-SNMP ING+SNMPI	B8-VFC B9-VFC E8-VFC	ING+VFC ING-E-VFC	B8-MODBUS B9-MODBUS ING+MODBUS E8-MODBUS	B8RL ING+RL	B8-BTP B9-BTP ING+BTP E8-BTP ING-E-BTP	B8PK B9PK ING+PK E8PK ING-E-PK	ING+SYNC ING-E-SYNC B9-SYNC
DESCRIPTION	Internally fitted SNMP card (Simple Network Management Protocol).	Internally fitted volt-free contact card	Internally fitted volt-free contact card	Internally fitted RS485 Modbus card.	Dual input card (must come from same source)	Battery temperature compensation probes	Parallel kits for capacity or redundancy parallel connection	Synchronisation kits
APPLICATIONS	For connecting the UPS to LAN via IP address. Allows for programming of remote shutdown parameters and auto-test procedures. Allows live monitoring of UPS status via provided software. Comes with 1x shutdown license as standard	For connection to a site BMS for remote alarm signalling. The B8000FXS & B9000FXS cards offer up to 8 alarms via volt-free contacts	For connection to a site BMS for remote alarm signalling. The INGENIO Plus/Max/ECS cards offer up to 5 alarms via volt-free contacts	For connection to BMS to provide remote status & alarm updates via basic coding. Customer should have understanding of Basic programming language in order to benefit from Modbus	Dual input card for separate rectifier and bypass terminal inputs to units up to 40kVA. Inputs must come from the same source due to internally linked neutral	Offers temperature compensated voltage adjustment to battery charging voltage	Allows units to be connected in parallel (1 parallel kit required per unit). As standard, up to 6 units can be connected in parallel for capacity or redundancy	Allows units to be synchronised (1 sync kit required per unit). If groups of units are to be synchronised an additional piece of switchgear is required for connected to two groups (max 3 units per group)
UPS SUPPORT	B8000FXS B9000FXS B9600FXS INGENIO Plus INGENIO Max INGENIO ECS E8000ECS All Borri Units	B8000FXS B9000FXS B9600FXS E8000ECS	INGENIO Plus INGENIO Max INGENIO ECS	All Borri units	B8000FXS (3:3 models) & INGENIO Plus 30/40kVA	All Borri units	All Borri units	INGENIO Plus INGENIO Max INGENIO ECS B9000FXS B9600FXS

► MODULAR UPS

POWER CONTROL IS AN EXCLUSIVE UPS VALUE ADDED PARTNER FOR INTERNATIONAL INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) GIANT HUAWEI TECHNOLOGIES CO LTD.

WE SUPPLY:

Modular three phase 25KVA – 1200kVA UPS systems



UPS solutions offer a flexible and scalable approach when it comes to UPS investment and present reduced operating costs and easier overall maintenance. Engineering works can be quickly undertaken, which integrates hot swappable power, bypass, control and monitor modules, allowing them to be removed or replaced without disturbance to the load. This in turn can mean a more reliable power supply.

The modular UPS provided by Power Control are manufactured by Huawei and use a centralised static switch technology. Where Huawei differ from other manufacturers who use this type of technology, their static switches are hot-swappable, and they also have a redundant control module (both being hot-swappable) so do not have any single point of failure other than the main input / output terminals. All Huawei modular UPS have unity power factor.

Huawei modular UPS are available in four different versions. Battery integrated UPS - available up to 75kVA N+1, a 125kVA frame using 25kW modules and the UPS5000-E and UPS5000-S series, which are available in the same capacity configurations with 50kW modules.

The high capacity FusionPower-5000S is available to 1200kVA, ideal for larger facilities.





UPS5000-E-BATTERY INTEGRATED 25- 75kVA

ONLINE DOUBLE CONVERSION MODULAR UPS SYSTEM

SUITABLE FOR:

Ideal for small data centres and server rooms

MAXIMUM CAPACITY	25kVA	50kVA	75kVA
DIMENSIONS W X D X H (mm)	600Wx1100Dx2000H		
INPUT			
VOLTAGE	380 / 400 / 415VAC		
VOLTAGE TOLERANCE / RANGE	138-485VAC		
FREQUENCY	40/70Hz		
OUTPUT			
POWER FACTOR	1		
WAVEFORM	Sinewave		
VOLTAGE	380VAC / 400VAC / 415VAC		
FREQUENCY	50-60Hz (Sync with mains \pm 2Hz)		
EFFICIENCY	Up to 96.5% (AC-AC)		
BATTERY			
BATTERY QUANTITY	4 Modules per string. Up to 4 strings internal		
EXTENDED RUN TIME	Additional battery cabinet. 8 strings per cabinet. Up to 4 cabinets in parallel		
MECHANICAL			
OUTPUT CONNECTION	Hardwired		
ENVIRONMENTAL			
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C		
STORAGE TEMPERATURE TOLERANCE	-40 - +70°C		
RELATIVE HUMIDITY	<95% (non-condensing)		
OPERATING ALTITUDE TOLERANCE	<1000m		
FEATURES			
COMMUNICATION	USB, RS232, Modbus, SNMP and VFC		
OTHER FEATURES	Hot swap batteries and power modules		
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Touchscreen LCD		





UPS5000-E 25- 800kVA

ONLINE DOUBLE CONVERSION MODULAR UPS SYSTEM

SUITABLE FOR:

Ideal for data centres and server rooms



MAXIMUM CAPACITY	125kVA	200kVA	300kVA	400kVA	500kVA	600kVA	800kVA
DIMENSIONS W X D X H (mm)	600Wx850Dx2000H			1200Wx850Dx2000H		1400Wx850Dx2000H	2400Wx850Dx2000H
WEIGHT (Kg)	227-360KG	224-350KG	250-410KG	461-685KG	647-935KG	708-1060KG	1060-1540KG
INPUT							
VOLTAGE	380 / 400 / 415VAC						
VOLTAGE TOLERANCE / RANGE	305-485VAC @ 100% load / 138-485VAC @ 40% load						
FREQUENCY	40/70Hz						
OUTPUT							
POWER FACTOR	1						
WAVEFORM	Sinewave						
VOLTAGE	380VAC / 400VAC / 415VAC						
FREQUENCY	50-60Hz (Sync with mains ±2Hz)						
EFFICIENCY	Up to 96% (AC-AC) and (DC-AC)						
BATTERY							
DC VOLTAGE	384VDC-552VDC						
CHARGER CAPACITY	10A						
MECHANICAL							
OUTPUT CONNECTION	Hardwired						
ENVIRONMENTAL							
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C						
STORAGE TEMPERATURE TOLERANCE	-40 - +70°C						
RELATIVE HUMIDITY	<95% (non-condensing)						
OPERATING ALTITUDE TOLERANCE	<1000m						
FEATURES							
COMMUNICATION	USB, RS232, Modbus, SNMP and VFC						
OPTIONAL COMMS	Extended VFC						
PARALLEL	Up to 8 (exc. 75kW & 125kW chassis)						
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Touchscreen LCD						





UPS5000-S 50-800kVA

ONLINE DOUBLE CONVERSION MODULAR UPS SYSTEM

SUITABLE FOR:
Ideal for data centres and server rooms



MAXIMUM CAPACITY	200kVA	300kVA	400kVA	500kVA	600kVA	800kVA
DIMENSIONS W X D X H (mm)	600Wx850Dx2000H		1200Wx850Dx2000H		1400Wx850Dx2000H	2400Wx850Dx2000H
WEIGHT (kg)	225-354KG	251-416KG	462-693KG	6487-945KG	709-1072KG	1061-1556KG
INPUT						
VOLTAGE	380 / 400 / 415VAC					
VOLTAGE TOLERANCE / RANGE	305-485VAC @ 100% load / 138-485VAC @ 40% load					
FREQUENCY	40/70Hz					
OUTPUT						
POWER FACTOR	1					
WAVEFORM	Sinewave					
VOLTAGE	380VAC / 400VAC / 415VAC					
FREQUENCY	50-60Hz (Sync with mains ±2Hz)					
EFFICIENCY	Up to 97.1% (AC-AC) and (DC-AC)					
BATTERY						
DC VOLTAGE	280-600VDC (without derating)					
CHARGER CAPACITY	30A per installed power module					
MECHANICAL						
OUTPUT CONNECTION	Hardwired					
ENVIRONMENTAL						
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C					
STORAGE TEMPERATURE TOLERANCE	-40 - +70°C					
RELATIVE HUMIDITY	<95% (non-condensing)					
OPERATING ALTITUDE TOLERANCE	<1000m					
FEATURES						
COMMUNICATION	USB, RS232, Modbus, SNMP and VFC					
OPTIONAL COMMS	Extended VFC					
PARALLEL	Up to 8					
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Touchscreen LCD					





FUSIONPOWER 5000-S 1200kVA

ONLINE DOUBLE CONVERSION MODULAR UPS SYSTEM

SUITABLE FOR:
Ideal for data centres and high power



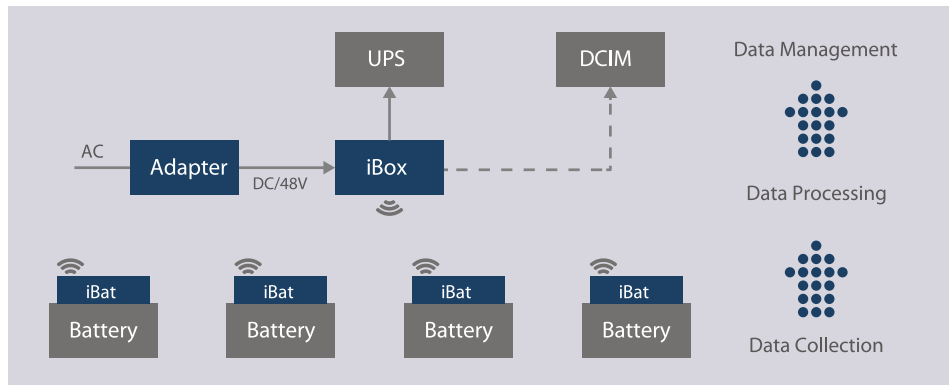
MAXIMUM CAPACITY	1200kVA
DIMENSIONS W X D X H (mm)	2800Wx1000Dx2200H
INPUT	
VOLTAGE	380 / 400 / 415VAC
VOLTAGE TOLERANCE / RANGE	305-485VAC @ 100% load / 138-485VAC @ 40% load
FREQUENCY	40/70Hz
OUTPUT	
POWER FACTOR	1
WAVEFORM	Sinewave
VOLTAGE	380VAC / 400VAC / 415VAC
FREQUENCY	50-60Hz (Sync with mains \pm 2Hz)
EFFICIENCY	Up to 97.1% (AC-AC) and (DC-AC)
BATTERY	
DC VOLTAGE	360-600VDC (without derating)
CHARGER CAPACITY	>30A per installed power module
MECHANICAL	
OUTPUT CONNECTION	Hardwired
ENVIRONMENTAL	
OPERATING TEMPERATURE TOLERANCE	UPS 0-40°C / VRLA Batteries 20-25°C
STORAGE TEMPERATURE TOLERANCE	-40 - +70°C
RELATIVE HUMIDITY	<95% (non-condensing)
OPERATING ALTITUDE TOLERANCE	<1000m
FEATURES	
COMMUNICATION	USB, RS232, Modbus, SNMP and VFC
OPTIONAL COMMS	Extended VFC
PARALLEL	Up to 8
OPTIONS & FUNCTIONS	EPO, Expandable Battery, Touchscreen LCD



iBATT 25- 800kVA

INTELLIGENT WIRELESS BATTERY MANAGEMENT SYSTEM

The iBattery is an intelligent, wireless battery management system. Designed to allow for individual battery readings, the iBatt expertly facilitates pre-emptive fault diagnosis. This ultimately supports the reduction of TCO.



SOFTWARE & ACCESSORIES

	INCLUDED AS STANDARD				
PRODUCT TYPE	Huawei-VFC	Huawei-SNMP	Huawei-MODBUS	Huawei-BTP	iBattery
DESCRIPTION	Internally fitted volt-free contact card	Internally fitted SNMP card (Simple Network Management Protocol).	Internally fitted RS485 Modbus card.	Battery temperature compensation probes	Intelligent block-by-block battery monitoring
APPLICATIONS	For connection to a site BMS for remote alarm signalling. The UPS5000-E & UPS5000-S cards offer up to 3 alarms via volt-free contacts	For connecting the UPS to LAN via IP address. Allows for programming of remote shutdown parameters and auto-test procedures. Allows live monitoring of UPS status via provided software.	For connection to BMS to provide remote status & alarm updates via basic coding. Customer should have understanding of Basic programming language in order to benefit from Modbus.	Offers temperature compensated voltage adjustment to battery charging voltage. One probe is required per string	Huawei's iBattery intelligent block by block battery monitoring. Requires 1x UK mains outlet per string UPS, requires Huawei BCB's for communications. The iBattery can be networked wirelessly and monitors individual battery conditions allowing quick identification of faulty batteries.
UPS SUPPORT	UPS5000-E UPS5000-S	UPS5000-E UPS5000-S	UPS5000-E UPS5000-S	UPS5000-E UPS5000-S	UPS5000-E UPS5000-S

› SINGLE PHASE UPS

POWER CONTROL IS A PRESTIGE PARTNER AND PREMIER SERVICE PROVIDER FOR GLOBAL UPS MANUFACTURER CertaUPS.

WE SUPPLY:

Single phase 800VA – 20kVA UPS systems and the CertaUPS three phase system, available from 10 – 30kVA

Single phase technology will provide a perfect backup power source for small office networks and non-essential functions. Where a more resilient three phase UPS solution should be considered for crucial environments such as data centres.

Power Control provides both rackmount and tower single phase UPS solutions. Rackmount options from CertaUPS have been designed to be installed within an IT rack, which is ideal where space is restricted and the power requirement is relatively low. The CertaUPS tower systems are self-contained and do not need installing inside any other enclosure.

CertaUPS



CertaUPS C60 800- 2000VA C200 1000- 2000VA

LINE INTERACTIVE UPS WITH SIMULATED SINEWAVE (C60) & PURE SINEWAVE (C200) OUTPUT

SUITABLE FOR:

Smaller backup power requirements such as CCTV, EPOS, small office hardware and PC workstations

RATING	C60				C200		
	800VA	1000VA	1500VA	2000VA	1000VA	1500VA	2000VA
DIMENSIONS W X D X H (mm)	100W x 285D x 142H - 146W x 397D x 205H				146W x 350D x 160H - 146W x 397D x 205H		
WEIGHT (Kg)	5	8	11	11.5	9	12.5	14
INPUT							
VOLTAGE	220/230/240VAC						
VOLTAGE TOLERANCE / RANGE	162-290VAC						
FREQUENCY	50/60Hz (Auto Sensing)						
OUTPUT							
POWER FACTOR	0.6				0.7		
WAVEFORM	Simulated Sinewave				Sinewave		
VOLTAGE	220/230/240VAC (±10%)						
FREQUENCY	220/230/240VAC (±10%)						
EFFICIENCY	>97%						
BATTERY							
DC VOLTAGE	12VDC	24VDC			24VDC (All models)		
CHARGER CAPACITY	0.5A						
MECHANICAL							
OUTPUT CONNECTION	IEC C13*3 (Battery) & IEC C13*1 (Surge only)				IEC C13*5 (Battery) & IEC C13*1 (Surge only)		
ENVIRONMENTAL							
OPERATING TEMPERATURE TOLERANCE	0 - 25°C						
STORAGE TEMPERATURE TOLERANCE	0 - 40°C						
RELATIVE HUMIDITY	<95% (non-condensing)						
OPERATING ALTITUDE TOLERANCE	<1000m						
FEATURES							
COMMUNICATION	USB						
OPTIONAL COMMS	N/A						
PARALLEL	N/A						
OPTIONS & FUNCTIONS	Off-Mode Charging, AVR, Auto Restart, Cold Start, RJ11 and RJ45 Filters, LCD						



CertaUPS C300R 1000- 3000VA

COMPACT LINE INTERACTIVE UPS FOR TOWER OR RACK INSTALLATION

SUITABLE FOR:

Telephone and security systems, IT servers and networks

RATING	1000VA	1500VA	2000VA	3000VA
DIMENSIONS W X D X H (mm)	440W x 430D x 88H		440W x 600D x 88H	
WEIGHT (Kg)	18	20	28	32
INPUT				
VOLTAGE	220/230/240VAC			
VOLTAGE TOLERANCE / RANGE	176-288VAC			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	±5Hz			
OUTPUT				
POWER FACTOR	0.9			
WAVEFORM	Sinewave			
VOLTAGE	220/230/240VAC (±5%)			
FREQUENCY	50/60Hz			
EFFICIENCY	Up to 97%			
BATTERY				
DC VOLTAGE	36VDC		72VDC	
CHARGER CAPACITY	1.5A			
MECHANICAL				
OUTPUT CONNECTION	IEC C13*8		IEC C13*8 & C19*1	
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20-25°C			
STORAGE TEMPERATURE TOLERANCE	0 - 40°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	RS232 and USB			
OPTIONAL COMMS	SNMP / dry contact relays / Modbus			
PARALLEL	N/A			
OPTIONS & FUNCTIONS	EPO, RJ11 and RJ45 Filters, Expandable Battery Modules, Rack/Tower Flexibility, Rotatable LCDcharging			



CertaUPS C400R 1000- 3000VA

ONLINE DOUBLE CONVERSION UPS FOR TOWER OR RACK INSTALLATION

SUITABLE FOR: Server environments, IT facilities and the telecoms market

RATING	1000VA		2000VA		3000VA	
MODEL	C400R-010-B	C400R-010-C	C400R-020-B	C400R-020-C	C400R-030-B	C400R-030-C
DIMENSIONS W X D X H (mm)	440W x 436D x 88H(2U)				438W x 605D x 88H (2U)	
WEIGHT (Kg)	12	15	15	20	20	30
INPUT						
VOLTAGE	220/230/240VAC					
VOLTAGE TOLERANCE / RANGE	176-276VAC (100% load) / 120-276VAC (50% load)					
FREQUENCY	50/60Hz					
FREQUENCY TOLERANCE / RANGE	±10%					
OUTPUT						
POWER FACTOR	0.9					
WAVEFORM	Sinewave					
VOLTAGE	208/220/230/240VAC					
FREQUENCY	50/60Hz (±10%)					
EFFICIENCY	>95%					
BATTERY						
DC VOLTAGE	36VDC		48VDC		72VDC	
CHARGER CAPACITY	1.5A	6A	1.5A	6A	1.5A	6A
MECHANICAL						
OUTPUT CONNECTION	IEC C13*8				IEC C13*8 & IEC C19*1	
ENVIRONMENTAL						
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20 -25°C					
STORAGE TEMPERATURE TOLERANCE	0 - 40°C					
RELATIVE HUMIDITY	<95% (non-condensing)					
OPERATING ALTITUDE TOLERANCE	<1000m					
FEATURES						
COMMUNICATION	RS232 and USB					
OPTIONAL COMMS	SNMP / dry contact relays / Modbus					
PARALLEL	N/A					
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Rack/Tower Flexibility, Rotatable LCD					



CertaUPS C400 1000 - 3000VA

ONLINE DOUBLE CONVERSION TOWER UPS SYSTEM

SUITABLE FOR:

Data centres Ideal for small to medium sized IT systems, telecom centres and security facilities



RATING	1000VA		2000VA		3000VA	
MODEL	C400-010-B	C400-010-C	C400-020-B	C400-020-C	C400-030-B	C400-030-C
DIMENSIONS W X D X H (mm)	144W x 356D x 228H	102W x 346D x 228H	190W x 400D x 327H	102W x 390D x 327H	190W x 400D x 327H	102W x 390D x 327H
WEIGHT (Kg)	9.2	3.9	17.4	6.4	22.7	6.4
INPUT						
VOLTAGE	220/230/240VAC					
VOLTAGE TOLERANCE / RANGE	176-276VAC (100% load) / 120-276VAC (50% load)					
FREQUENCY	50/60Hz					
FREQUENCY TOLERANCE / RANGE	±10%					
OUTPUT						
POWER FACTOR	0.9					
WAVEFORM	Sinewave					
VOLTAGE	220/230/240VAC (±1%)					
FREQUENCY	50/60Hz (±10%)					
EFFICIENCY	Up to 98%					
BATTERY						
DC VOLTAGE	24VDC		48VDC		72VDC	
CHARGER CAPACITY	1.5A	6A	1.5A	6A	1.5A	6A
MECHANICAL						
OUTPUT CONNECTION	IEC C13*4	IEC C13*3	IEC C13*4	IEC C13*6	IEC C13*4 & C19*1	IEC C13*3 & Hardwired
ENVIRONMENTAL						
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20 -25°C					
STORAGE TEMPERATURE TOLERANCE	0 - 40°C					
RELATIVE HUMIDITY	<95% (non -condensing)					
OPERATING ALTITUDE TOLERANCE	<1000m					
FEATURES						
COMMUNICATION	RS232 and USB					
OPTIONAL COMMS	SNMP / dry contact relays / Modbus					
PARALLEL	N/A					
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Backlit LCD					

CertaUPS C500R 6- 10kVA

ONLINE DOUBLE CONVERSION UPS FOR TOWER OR RACK INSTALLATION

SUITABLE FOR:

Small data centres, server rooms, IT facilities, telecoms and networking

RATING	6kVA		10kVA	
MODEL	C500R-060-B	C500R-060-C	C500R-100-B	C500R-100-C
DIMENSIONS W X D X H (mm)	438W x 698D x 129H (3U)		438W x 704D x 216H (5U)	
WEIGHT (Kg)	46	19	85	26
INPUT				
VOLTAGE	220/230/240VAC			
VOLTAGE TOLERANCE / RANGE	176-276VAC (100% load) / 120-276VAC (50% load)			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	±10%			
OUTPUT				
POWER FACTOR	0.9			
WAVEFORM	Sinewave			
VOLTAGE	208/220/230/240VAC			
FREQUENCY	50/60Hz (±10%)			
EFFICIENCY	Up to 96%			
BATTERY				
DC VOLTAGE	180VDC		240VDC	
CHARGER CAPACITY	1A	8A	1.7A	8A
MECHANICAL				
OUTPUT CONNECTION	IEC C13*2 IEC C19*1 & Hardwired terminals	IEC C13*2 IEC C19*2 & Hardwired terminals	IEC C19*4 & Hardwired terminals	IEC C13*4 IEC C19*2 & Hardwired terminals
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20-25°C			
STORAGE TEMPERATURE TOLERANCE	0 - 40°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	RS232 and USB			
OPTIONAL COMMS	SNMP / dry contact relays / Modbus			
PARALLEL	Up to 2			
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, Rack/Tower Flexibility, Rotatable LCD, Dual Input			



CertaUPS C500 6- 10kVA

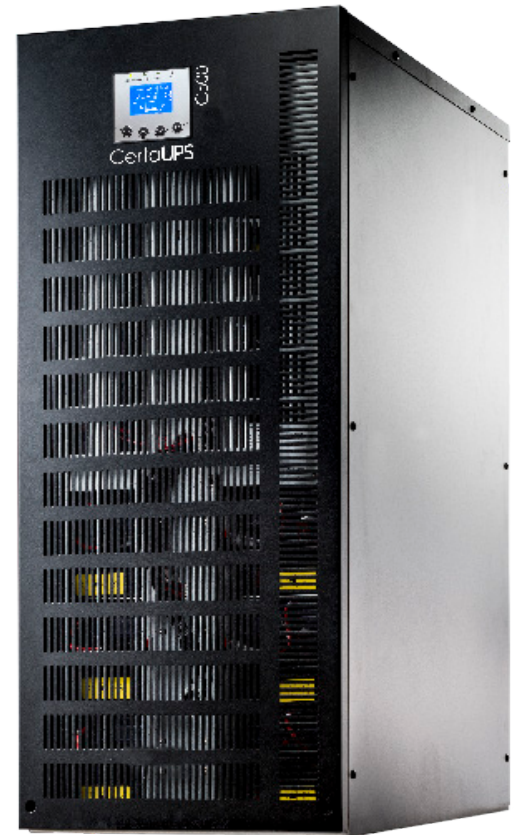
ONLINE DOUBLE CONVERSION TOWER UPS SYSTEM

SUITABLE FOR:

Small data centres, server rooms, IT facilities, telecoms and networking

RATING	6kVA		10kVA	
MODEL	C500-060-B	C500-060-C	C500-100-B	C500-100-C
DIMENSIONS W X D X H (mm)	260W x 550D x 710H			
WEIGHT (Kg)	86	34	92	37
INPUT				
VOLTAGE	220/230/240VAC			
VOLTAGE TOLERANCE / RANGE	176-276VAC (100% load) / 120-276VAC (50% load)			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	±10%			
OUTPUT				
POWER FACTOR	0.9			
WAVEFORM	Sinewave			
VOLTAGE	208*/220/230/240VAC			
FREQUENCY	50/60Hz (±10%)			
EFFICIENCY	Up to 96%			
BATTERY				
DC VOLTAGE	240VDC			
CHARGER CAPACITY	1.2A	4A	1.2A	4A
MECHANICAL				
OUTPUT CONNECTION	Hardwired			
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20 -25°C			
STORAGE TEMPERATURE TOLERANCE	0 - 40°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	RS232 and USB			
OPTIONAL COMMS	SNMP / dry contact relays / Modbus			
PARALLEL	Up to 4			
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, LCD			

* Derate to 90% with 208VAC output voltage



CertaUPS C500E 10- 20kVA

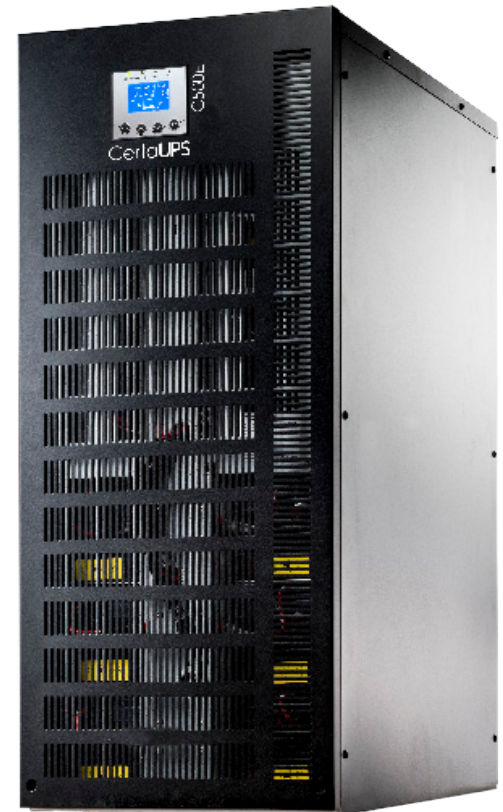
ONLINE DOUBLE CONVERSION TOWER UPS SYSTEM

SUITABLE FOR:

Industry applications requiring larger load protection particularly where space is limited, server rooms and small data centre environments

RATING	10kVA		20kVA	
MODEL	C500E-100-B	C500E-100-C	C500E-200-B	C500E-200-C
DIMENSIONS W X D X H (mm)	350W x 650D x 890H			
WEIGHT (Kg)	125		190	
INPUT				
VOLTAGE	220/230/240VAC or 380/400/415VAC			
VOLTAGE TOLERANCE / RANGE	176-276VAC (100% load) / 120-276VAC (50% load)			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	±10%			
OUTPUT				
POWER FACTOR	0.9			
WAVEFORM	Sinewave			
VOLTAGE	200*/208/220/230/240VAC			
FREQUENCY	50/60Hz (±10%)			
EFFICIENCY	Up to 98%			
BATTERY				
DC VOLTAGE	288VDC			
CHARGER CAPACITY	4A (8A Optional)			
MECHANICAL				
OUTPUT CONNECTION	Hardwired			
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20-25°C			
STORAGE TEMPERATURE TOLERANCE	0 - 40°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	RS232 and USB			
OPTIONAL COMMS	SNMP / dry contact relays / Modbus			
PARALLEL	Up to 4			
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, LCD, Dual Input			

Derate to 90 with 2000VAC output voltage



CertaUPS C800 10- 30kVA

ONLINE DOUBLE CONVERSION SLIMLINE DESIGN UPS SYSTEM

SUITABLE FOR:

Large server rooms and medium sized data centres

RATING	10kVA	15kVA	20kVA	30kVA
DIMENSIONS W X D X H (mm)	250W x 865D x 715H		351W x 738D x 1335H	
WEIGHT (Kg)	52		89	
INPUT				
VOLTAGE	380/400/415VAC			
VOLTAGE TOLERANCE / RANGE	380/400/415VAC			
FREQUENCY	50/60Hz			
FREQUENCY TOLERANCE / RANGE	±10%			
OUTPUT				
POWER FACTOR	1		0.9	
WAVEFORM	Sinewave			
VOLTAGE	380/400/415VAC			
FREQUENCY	50/60Hz (±10%)			
EFFICIENCY	Up to 95%			
BATTERY				
DC VOLTAGE	480VDC			
CHARGER CAPACITY	3.3A	5A	6.6A	10A
MECHANICAL				
OUTPUT CONNECTION	Hardwired			
ENVIRONMENTAL				
OPERATING TEMPERATURE TOLERANCE	VRLA Batteries 20-25°C			
STORAGE TEMPERATURE TOLERANCE	0 - 40°C			
RELATIVE HUMIDITY	<95% (non-condensing)			
OPERATING ALTITUDE TOLERANCE	<1000m			
FEATURES				
COMMUNICATION	USB, RS232, Modbus and VFC			
OPTIONAL COMMS	SNMP			
PARALLEL	Up to 10			
OPTIONS & FUNCTIONS	EPO, Expandable Battery Modules, LCD, Dual Input			



CertaUPS

➤ SOFTWARE & ACCESSORIES

PRODUCT TYPE	C-RELAY C-RELAY (mini)	C300R RELAY	C-DB9 RELAY C-DB9 RELAY (mini)	C-MODBUS C-MOBUS (Mini)	C-NMC C-NMC (Mini)	C-EMP
DESCRIPTION	Internally fitted programmable relay card (hardwired)	Internally fitted programmable relay card (hardwired)	Internally fitted programmable relay card (DB9 Connection)	Internally fitted RS485 Modbus card.	Internally fitted SNMP card (Simple Network Management Protocol)	Environmental Management Probe
APPLICATIONS	For connection to BMS to provide remote alarms via hardwired contacts	For connection to BMS to provide remote alarms via hardwired contacts	For connection to BMS to provide remote alarms via DB9 connector (cable not included)	For connection to BMS to provide remote status & alarm updates via basic coding. Customer should have understanding of Basic programming language in order to benefit from Modbus.	For connecting the UPS to LAN via IP address. Allows for programming of remote shutdown parameters and auto-test procedures. Allows live monitoring of UPS status via provided software.	Offers additional functionality to C-NMC. Take temperature and humidity readings which are transmitted to the SNMP which in turns transmits the data to the software platform. Serves no purpose if a C-NMC is not fitted
UPS SUPPORT	C400 (mini version) C400R C500 C500R C500E	C300R only	C400 (mini version) C400R C500 C500R C500E	C400 (mini version) C400R C500 C500R C500E	C400 (mini version) C400R C500 C500R C500E	C400R C500 C500R C500E

➤ 16A AUTOMATIC TRANSFER SWITCH (ATS)

The CertaUPS 16A ATS offers redundancy in power supply to electrical equipment thanks to a dual input feed. The ATS is supplied with mounting brackets for easy installation into 19" server cabinets, taking only 1U in space.

CertaUPS has designed the ATS to perform as expected, with the mains input being the primary source of power to the equipment. Should the supply become unavailable for any reason the ATS will react automatically to transfer the load to the secondary supply line.

Not only is the exchange automatic, it transfers loads in 9-12 ms ensuring power to the critical load in an optimal timeframe.

An additional function when using the ATS panel is the multiple outlets, meaning the switch can be utilised as a power distribution unit (PDU).

With various connectivity options available, the 16A ATS panel will also communicate with IT equipment, sending alerts when changes are made in the status of the ATS itself. The relay switch and USB connectivity are standard although there is also the option to utilise an additional network management card.

C8PK (10-20VA) C8PK (30kVA)	C8SNMP	C8BTP	C-RAILS C500R-RAILS	ATS-16A	MBS RACK 1-3	MBS TOWER 1-3
Parallel kits for capacity or redundancy parallel connection	Internally fitted SNMP card (Simple Network Management Protocol).	External battery temperature probe	Rail kits for rackmount installation	16A plug and play ATS panel	1000-3000VA external bypass switch (Rackmount)	1000-3000VA external bypass switch
Allows units to be connected in parallel (1 C8PK required per unit). Up to 4 units can be connected in parallel for capacity or redundancy	For connecting the UPS to LAN via IP address. Allows for programming of remote shutdown parameters and auto-test procedures. Allows live monitoring of UPS status via provided software.	Offers temperature compensated voltage adjustment to battery charging voltage.	Allows installation of rackmount UPS Systems into 19" racks	For A & B supply paths allows items to be connected to two supplies, the Automatic Transfer Switch (ATS) then allows switching between these two supplies	Plug and Play bypass switch, allows isolation of UPS from mains supply without having to disconnect the load, allowing works to be carried out on the UPS.	Plug and Play bypass switch, allows isolation of UPS from mains supply without having to disconnect the load, allowing works to be carried out on the UPS.
C800 only	C800 only	C800 only	C300R C400R C500R	C300R C400 C400R C500 C500R	C300R C400R	C300R C400 C400R

1. AC input (A supply)
2. AC input (B supply)
3. Output bank 1: 4 x C13 IEC outlets
4. Output bank 2: 4 x C13 IEC outlets
5. Output 3: C19 IEC outlet
6. Intelligent port
7. USB port
8. RS232 port
9. Relay contacts





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