

Why install a UPS?

Electrical Power failures and the consequences:

In over 40% of cases, data is lost due to problems with the electrical power supply! Supplying power directly to computers and microprocessing equipment poses a real risk, and some disruption to the electrical supply system is inevitable.

The different types of UPS technologies:

Passive Stand-By (Off-Line)

The most frequently used technology for protecting PCs in low interference environments.

In the normal mode, the UPS supplies power to the application from the mains supply, simply filtered but without any conversion of energy. Its principle of operation is sequential (via the mains supply/via the battery). In the event of a black-out, low or high voltage, the UPS utilises energy from its battery in order to deliver a stabilised power supply. It is not suitable for use in the case of frequent disruptions (industrial or severely disrupted environments)

Line-interactive

In normal mode. The device is controlled by a microprocessor which monitors the quality of the electrical system and reacts to any variations. A booster, a fader and voltage compensation circuits are activated in the event of any variation in voltage amplitude.

Double-conversion (On-Line)

Double conversion, a technology designed for the centralised protection of servers, pc's and microprocessor equipment. Ensuring consistent quality regardless of any disruptions from the mains power supply. In the On-Line UPS, the permanent double conversion feature eliminates electrical interference which can damage sensitive equipment: the power is entirely regenerated by transformation from AC to DC and back to AC. It is indispensable for protecting vital systems in a company and provides continuous protection. The On-Line UPS is compatible with any type of load, since it does not generate any transients during the changeover to the battery.

To protect your applications from electrical disturbance.

Under-voltages, transients and black-outs:

- > sudden shutdown of machinery;
- > loss of electronic data
- > unsatisfactory operation of some types of machinery.



Over-voltages:

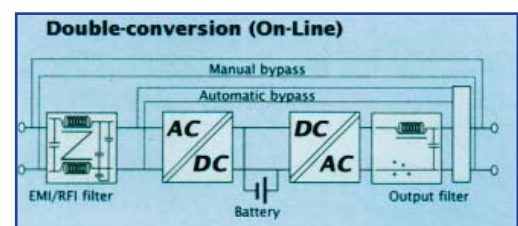
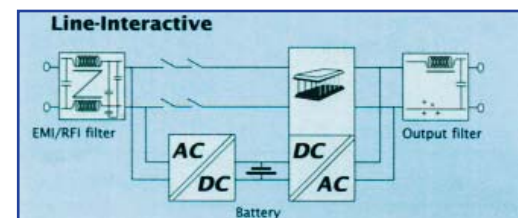
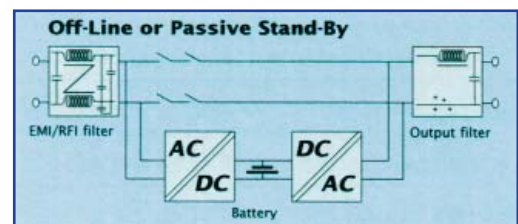
- > overheating and accelerated ageing of the equipment and its components;
- > destruction of the equipment and components.

Frequency variations:

- > destruction of sensitive equipment (PCs, measuring instruments, etc.);
- > loss of electronic data.

High-frequency interference:

- > malfunctions, random faults.



PREMIER 31L (10-20kVA Three Phase Input, Single Phase Output)



- ◆ Online double conversion technology, <5ms eco-mode
- ◆ 32-bit DSP implementing full digital control
- ◆ Digitally controlled transformerless IGBT Bridge, minimises the harmonics reinjected into the mains reducing the harmonic distortion of the current to less than 4%
- ◆ Power factor correction technology resulting in a power factor of greater than 0.99
- ◆ Lightweight, small size, on wheels
- ◆ Up to 30 minutes autonomy with the internal batteries
- ◆ Integrated advanced self-diagnostic program
- ◆ Step-by-step procedures described on the LCD display for ease of use
- ◆ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◆ Mimic flow display to show the operating status of the UPS
- ◆ Battery test included as standard
- ◆ Parallel redundant configurations of up to four units

UPS Rating	(kVA/kW)	10/8	15/12	20/16
Nominal Voltage (Ph-N) (Vac)		3 Phase + Neutral 230 (+10%-20%)		
Current (Nom/Max) (A)		12/24	19/36	23/36
Frequency (Hz)		50 - 60 (+/-5)		
Power Factor		> 0.99		
Efficiency (%)		> 92		
Heat Dissipation (W)		695	1040	1390
Int. Battery Autonomy (Max)		30 minutes	20 minutes	20 minutes
Ambient Temperature (°C)		0 to +40		
Audible Noise Level (EN50091)		< 52 dB		
EMC Compatibility		According to EN50091-2 (CE Label)		
Output				
Nominal Voltage (Vac)		220 - 230 - 240 (On request)		
Current (0.8/1.0 pf) (A)		43/35	65/52	87/70
Frequency (Hz)		50 - 60		
Harmonic Distortion (%)		< 2		
Overload Capability		125% for 10 min, 200% for 100ms		
Short Circuit Current (A)		70	104	140
Bypass Overload Capability		200% Continuously, 1000% for 1 cycle		
Crest Factor		3:1		
Dimensions and Weight				
Height (mm)		1200		
Width (mm)		450		
Depth (mm)		650		
Weight UPS/UPS & Bat (kg)		90/250	100/260	100/260

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 31 (30kVA Three Phase Input, Single Phase Output)



- ◇ Online double conversion technology
- ◇ Digital Signal Processor implementing full digital control
- ◇ High quality output power, provided under any condition of input power and loads
- ◇ Complete filtering of main power noise
- ◇ Stable output frequency, independent from input frequency
- ◇ Full access from the front and top for maintenance
- ◇ Up to 10 minutes autonomy with the internal batteries
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to six units

UPS Rating	(kVA/kW)	30/24
Nominal Voltage	(Vac)	380 - 415 +/- 10% (Selectable)
Current (Nom/Max)	(A)	50/60
Frequency	(Hz)	50 - 60 (+/-5%)
Power Factor		> 0.8
Efficiency	(%)	> 90
Heat Dissipation	(kW)	2.67
Int. Battery Autonomy	(Max)	10 minutes
Ambient Temperature	(°C)	0 to +40
Audible Noise Level (EN50091)		< 58 dB
EMC Compatibility		According to EN50091-2 (CE Label)
Output		
Nominal Voltage	(Vac)	220 - 240 (Selectable)
Current (0.8/1.0 pf)	(A)	130/104
Frequency	(Hz)	50 - 60 (Selectable)
Harmonic Distortion	(%)	< 2
Overload Capability		125% for 10 min, 150% for 1 min, 200% for 100ms
Short Circuit Current	(A)	208
Bypass Overload Capability		150% Continuously, 200% for 1 minute, 2000% for 1 cycle
Crest Factor		3:1
Dimensions and Weight		
Height	(mm)	1350
Width	(mm)	690
Depth	(mm)	870
Weight UPS/UPS & Bat	(kg)	349/650

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 33L (10-20kVA Three Phase Input, Three Phase Output)



- ◇ Online double conversion technology, <5ms eco-mode
- ◇ 32-bit DSP implementing full digital control
- ◇ Digitally controlled transformerless IGBT Bridge, minimises the harmonics reinjected into the mains reducing the harmonic distortion of the current to less than 4%
- ◇ Power factor correction technology resulting in a power factor of greater than 0.99
- ◇ Lightweight, small size, on wheels
- ◇ Up to 30 minutes autonomy with the internal batteries
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to four units

UPS Rating	(kVA/kW)	10/8	15/12	20/16
Nominal Voltage (Ph-N) (Vac)		3 Phase + Neutral 230 (+10%-20%)		
Current (Nom/Max) (A)		12/24	19/36	23/36
Frequency (Hz)		50 - 60 (+/-5)		
Power Factor		> 0.99		
Efficiency (%)		> 92		
Heat Dissipation (W)		695	1040	1390
Int. Battery Autonomy (Max)		30 minutes	20 minutes	20 minutes
Ambient Temperature (°C)		0 to +40		
Audible Noise Level (EN50091)		< 50 dB		
EMC Compatibility		According to EN50091-2 (CE Label)		
Output				
Nominal Voltage (Ph-N) (Vac)		220 - 230 - 240 (On request)		
Current (0.8/1.0 pf) (A)		15/12	22.5/18	30/24
Frequency (Hz)		50 - 60		
Harmonic Distortion (%)		< 1		
Overload Capability		125% for 10 min, 200% for 100ms		
Short Circuit Current (A)		24	36	48
Bypass Overload Capability		200% Continuously, 1000% for 1 cycle		
Crest Factor		3:1		
Dimensions and Weight				
Height (mm)		1200		
Width (mm)		450		
Depth (mm)		650		
Weight UPS/UPS & Bat (kg)		90/250	100/260	100/260

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 33L (30-40kVA Three Phase Input, Three Phase Output)



- ◇ Online double conversion technology, <5ms eco-mode
- ◇ 32-bit DSP implementing full digital control
- ◇ Digitally controlled transformerless IGBT Bridge, minimises the harmonics reinjected into the mains reducing the harmonic distortion of the current to less than 4%
- ◇ Power factor correction technology resulting in a power factor of greater than 0.99
- ◇ Lightweight, small size, on wheels
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to four units

UPS Rating	(kVA/kW)	30/24	40/32
Nominal Voltage	(Vac)	3 Phase + Neutral 400 (+10%-20%)	
Current (Nom/Max)	(A)	38/58	50/72
Frequency	(Hz)	50 - 60 (+/-5)	
Power Factor		> 0.99	
Efficiency	(%)	> 92	
Heat Dissipation	(W)	2080	2780
Ambient Temperature	(°C)	0 to +40	
Audible Noise Level (EN50091)		< 60 dB	
EMC Compatibility		According to EN62040-2 (CE Label)	
Output			
Nominal Voltage	(Vac)	380 - 400 - 415 (On request)	
Current (0.8/1.0 pf)	(A)	45/36	60/48
Frequency	(Hz)	50 - 60	
Harmonic Distortion	(%)	< 1	
Overload Capability		125% for 10 min, 200% for 100ms	
Short Circuit Current	(A)	72	96
Bypass Overload Capability		150% Continuously, 500% for 1 cycle	
Crest Factor		3:1	
Dimensions and Weight			
Height	(mm)	1200	
Width	(mm)	450	
Depth	(mm)	650	
Weight	(kg)	141	141

Options

Parallel cards for redundancy/higher capacity systems
 Battery temperature voltage compensation
 Signalling remote card (voltage free contacts)
 SNMP (simple network management protocol) adaptor
 Monitoring software
 UPS management software
 External bypass panel (recommended)

PREMIER 33 (30-80kVA Three Phase Input, Three Phase Output)



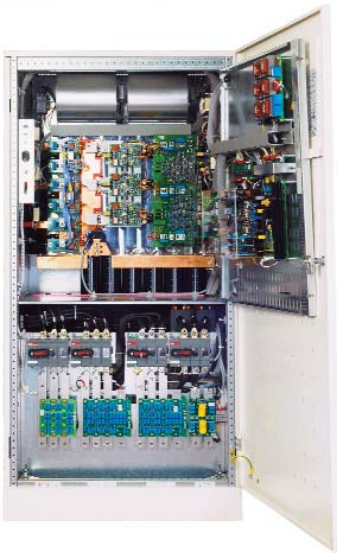
- ◇ Online double conversion technology
- ◇ Digital Signal Processor implementing full digital control
- ◇ High quality output power, provided under any condition of input power and loads
- ◇ Complete filtering of main power noise
- ◇ Stable output frequency, independent from input frequency
- ◇ Full access from the front and top for maintenance
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to six units

UPS Rating	(kVA/kW)	30/24	40/32	60/48	80/64
Nominal Voltage	(Vac)	380 - 415 +/- 10% (Selectable)			
Current (Nom/Max)	(A)	50/60	66/79	100/116	133/149
Frequency	(Hz)	50 - 60 (+/-5)			
Power Factor		> 0.8			
Efficiency	(%)	> 90			
Heat Dissipation	(kW)	2.67	3.55	5.33	7.11
Int. Battery Autonomy	(Max)	10 minutes	n/a	n/a	n/a
Ambient Temperature	(°C)	0 to +40			
Audible Noise Level (EN50091)		< 58 dB	< 62 dB		
EMC Compatibility		According to EN50091-2 (CE Label)			
Output					
Nominal Voltage	(Vac)	380 - 415 (Selectable)			
Current (0.8/1.0 pf)	(A)	43/35	58/46	87/70	116/93
Frequency	(Hz)	50 - 60 (Selectable)			
Harmonic Distortion	(%)	< 2			
Overload Capability		125% for 10 min, 150% for 1 min, 200% for 100ms			
Short Circuit Current	(A)	70	92	140	186
Bypass Overload Capability		150% Continuously, 200% for 1 minute, 2000% for 1 cycle			
Crest Factor		3:1			
Dimensions and Weight					
Height	(mm)	1350			
Width	(mm)	690			
Depth	(mm)	870			
Weight UPS/UPS & Bat	(kg)	335/669	389	450	511

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 33 (100-160kVA Three Phase Input, Three Phase Output)



- ◇ Online double conversion technology
- ◇ Digital Signal Processor implementing full digital control
- ◇ High quality output power, provided under any condition of input power and loads
- ◇ Complete filtering of main power noise
- ◇ Stable output frequency, independent from input frequency
- ◇ Full access from the front and top for maintenance
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to six units

UPS Rating	(kVA/kW)	100/80	125/100	160/128
Nominal Voltage	(Vac)	380 - 415 +/- 10% (Selectable)		
Current (Nom/Max)	(A)	160/200	200/250	256/325
Frequency	(Hz)	50 - 60 (+/-5)		
Power Factor		> 0.8		
Efficiency	(%)	> 92		
Heat Dissipation	(kW)	6.9	8.7	11.1
Ambient Temperature	(°C)	0 to +40		
Audible Noise Level (IEC 62040)		< 59 dB		
EMC Compatibility		According to EN50091-2 (CE Label)		
Output				
Nominal Voltage	(Vac)	380 - 415 (Selectable)		
Current (0.8/1.0 pf)	(A)	145/116	181/145	231/185
Frequency	(Hz)	50 - 60 (Selectable)		
Harmonic Distortion	(%)	< 2		
Overload Capability		125% for 10 min, 150% for 1 min, 200% for 100ms		
Short Circuit Current	(A)	232	290	370
Bypass Overload Capability		150% Cont, 200% for 1 minute		
Crest Factor		3:1		
Dimensions and Weight				
Height	(mm)	1670		
Width	(mm)	815		
Depth	(mm)	820		
Weight	(kg)	640	730	800

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 33S (60-160kVA Three Phase Input, Three Phase Output)



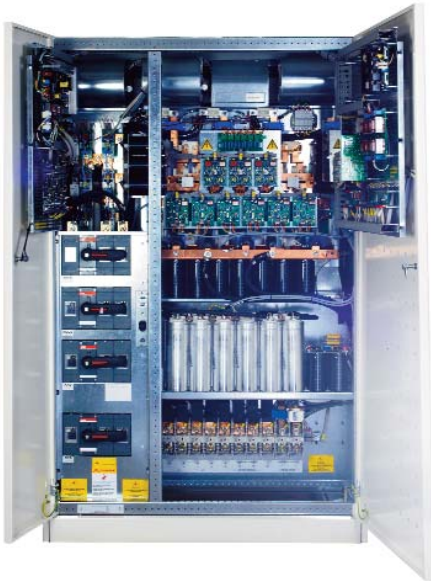
- ◇ Online double conversion technology, <4ms eco-mode
- ◇ 32-bit DSP implementing full digital control
- ◇ Digitally controlled IGBT Bridge, minimises the harmonics reinjected into the mains reducing the harmonic distortion of the current to less than 3%
- ◇ Power factor correction technology resulting in a power factor of greater than 0.99
- ◇ The high efficiency and input power factor reduces the current consumption and operational costs, reducing cable and circuit breaker cost
- ◇ Upstream generator oversizing is not required
- ◇ Dynamic charging mode reduces battery re-charge time
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to six units

UPS Rating	(kVA/kW)	60/48	80/64	100/80	125/100	160/128
Nominal Voltage	(Vac)	400 +10% -20%				
Current (Nom/Max)	(A)	75/94	100/126	125/157	156/196	200/252
Frequency	(Hz)	50 - 60 (+/-5)				
Power Factor		> 0.99				
Efficiency	(%)	> 93				
Heat Dissipation	(kW)	3.8	4.8	6.0	7.5	9.6
Ambient Temperature	(°C)	0 to +40				
Audible Noise Level (EN50091)		< 60 dB				
EMI Compatibility		According to EN62040-2 (CE Label)				
Output						
Nominal Voltage	(Vac)	380 - 415 (Selectable)				
Current (0.8/1.0 pf)	(A)	80/70	116/93	145/115	180/145	232/186
Frequency	(Hz)	50 - 60 (Selectable)				
Harmonic Distortion	(%)	< 1				
Overload Capability		125% for 10 min, 150% for 1 min, 199% for 10 Sec				
Short Circuit Current	(A)	140	186	230	290	290
Bypass Overload Capability		150% Cont, 200% for 1 minute, 1000% for 1 cycle				
Crest Factor		3:1				
Dimensions and Weight						
Height	(mm)	1670				
Width	(mm)	815				
Depth	(mm)	825				
Weight	(kg)	570	600	630	662	720

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

PREMIER 33 (200-300kVA Three Phase Input, Three Phase Output)



- ◆ Online double conversion technology
- ◆ Digital Signal Processor implementing full digital control
- ◆ Digitally controlled IGBT Bridge, minimises the harmonics reinjected into the mains reducing the harmonic distortion of the current to less than 5%
- ◆ Power factor correction technology resulting in a power factor of greater than 0.96
- ◆ The high efficiency and input power factor reduces the current consumption and operational costs, reducing cable and circuit breaker cost
- ◆ Upstream generator oversizing is not required
- ◆ Integrated advanced self-diagnostic program
- ◆ Step-by-step procedures described on the LCD display for ease of use
- ◆ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◆ Mimic flow display to show the operating status of the UPS
- ◆ Battery test included as standard
- ◆ Parallel redundant configurations of up to four units

UPS Rating	(kVA/kW)	200/160	250/200	300/240
Nominal Voltage	(Vac)	400 +10% -20%		
Current (Nom/Max)	(A)	250/280	310/350	375/410
Frequency	(Hz)	50 - 60 (+/-5)		
Power Factor		> 0.96		
Efficiency	(%)	> 93		
Heat Dissipation	(kW)	11.2	14.0	16.8
Ambient Temperature	(°C)	0 to +40		
Audible Noise Level	(EN50091)	< 62 dB		
EMC Compatibility		According to EN50091-2 (CE Label)		
Output				
Nominal Voltage	(Vac)	380 - 415 (Selectable)		
Current (0.8/1.0 pf)	(A)	290/230	360/290	430/360
Frequency	(Hz)	50 - 60		
Harmonic Distortion	(%)	< 2		
Overload Capability		125% for 10 min, 150% for 1 min, 200% for 100ms		
Short Circuit Current	(A)	460	580	720
Bypass Overload Capability		200% Continuously, 1000% for 1 cycle		
Crest Factor		3:1		
Dimensions and Weight				
Height	(mm)	1900		
Width	(mm)	1200		
Depth	(mm)	860		
Weight	(kg)	870	1020	1200

Options

- Parallel cards for redundancy/higher capacity systems
- Battery temperature voltage compensation
- Signalling remote card (voltage free contacts)
- SNMP (simple network management protocol) adaptor
- Monitoring software
- UPS management software
- External bypass panel (recommended)

The CBS Group

The CBS group – founded in the early eighties as Battery Systems International - now a multi-million pound organisation - consists primarily of two companies Computer Battery Services Ltd (CBS) and Premier UPS Services Ltd who specialise in UPS Systems and Services. With the head office located in Surrey there are UK wide locations for sales & service.

CBS group products include UPS, battery products, UPS service for all static UPS systems, UPS switchgear, generator sales & service, load bank testing, site power surveys.

UPS consulting:

We can help you to decide on the best technical solution, supply and install the complete system including switchgear, generators and all ancillaries, and an appropriate service plan to suit your application. So you can rest assured that your critical systems are in safe hands.

We can offer a full installation service for all our UPS systems, or alternatively we will be happy to provide your appointed electrical contractor with any assistance they may require.

UPS maintenance:

There is no such thing as a “maintenance free” power supply system, all UPS systems need to be serviced regularly to ensure that they are operating correctly and that their batteries are in good working order.

At CBS we are proud of our reputation for after sales service. Our custom software based maintenance management system means that we will check and maintain your UPS system automatically on a regular basis, without the need for constant scheduling and call requesting.

There are a range of maintenance plans to suit every customer requirement from simple repair through to 24 hour 365 days a year service contracts with guaranteed response times to site. And every service customer of CBS has access to our 24 hours per day customer support hot-line.

A complete solution for all your power protection requirements from one of the UK's leading supplier and maintainer of emergency and back up UPS power systems, emergency lighting, line conditioners, diesel generators and battery banks.

Battery maintenance:

Batteries are the weak link in any UPS system because they age and are dependant on the operating environment. We undertake routine maintenance tasks which include checking the open-circuit battery and UPS float voltages, inspecting the physical condition of terminals and connections, and logging battery impedance to predict the end of the batteries' useful life.

Battery disposal:

Replacement and disposal of batteries is strictly governed by regulations and must be carried out by licensed disposal companies following prescribed methods. We are experienced in ecologically acceptable removal and disposal of UPS systems and consumable parts, from batteries to complete power systems.

UPS hire:

We can help you in emergency situations with the hire of a temporary UPS with an appropriate service plan to suit your application. So you can rest assured that your critical systems are in safe hands.

We can offer a full installation service for all our UPS systems, or alternatively we will be happy to provide your appointed electrical contractor with any assistance they may require.

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