

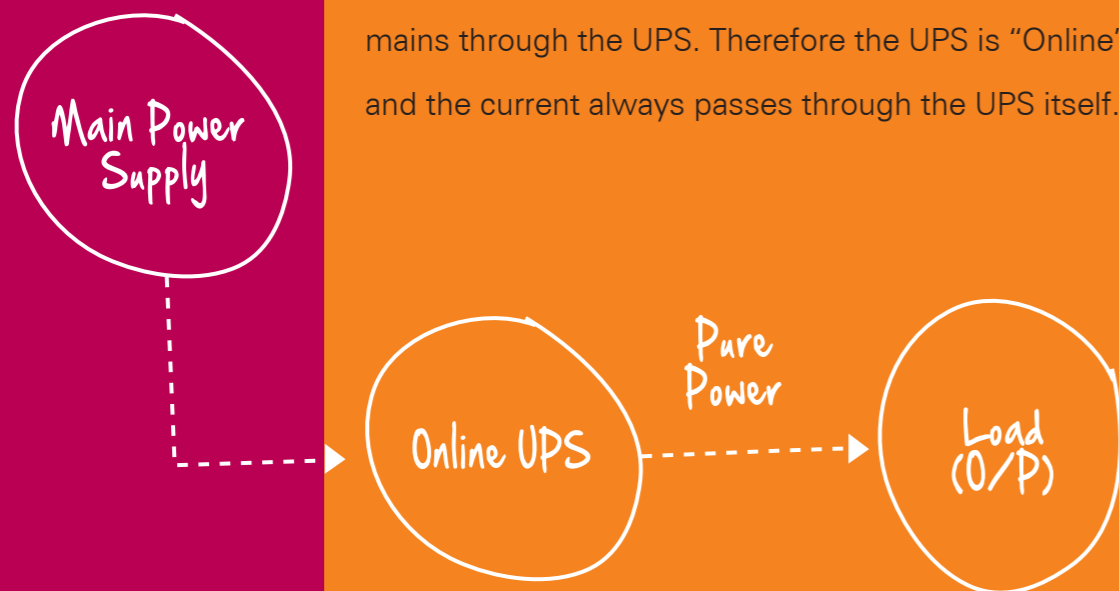
The world is changing but
our power is constant...

... Su-Kam Online UPS

What is "Online" in an Online UPS?

In the case of a regular inverter, the load (appliances and electronic device like computers, air conditioners, etc.) is directly connected to the mains. The power backup comes into play only when the mains go off.

In the case of an Online UPS, the load is connected to the mains through the UPS. Therefore the UPS is "Online" and the current always passes through the UPS itself.



How can Online UPS act as a Stabilizer



An Online UPS not only provides constant power backup, but it also works to improve your power supply. When the mains are on, it converts the AC (Alternate Current) into DC (Direct Current) and then reconverts it to AC. This removes the fluctuations and other disturbances present in the mains current, and protects your load. You can say it acts as a stabilizer for your load. This process is called 'Double Power Conversion'.

Security Check for your Current!

Double Conversion is like a security X-ray machine installed at an airport. The luggage going in through the entry is like mains AC. It is converted to DC and corrected for fluctuations and disturbances, just like the X-ray machine scans for suspicious items in the luggage. The output belt is like the pure AC current which is then transferred to the load.



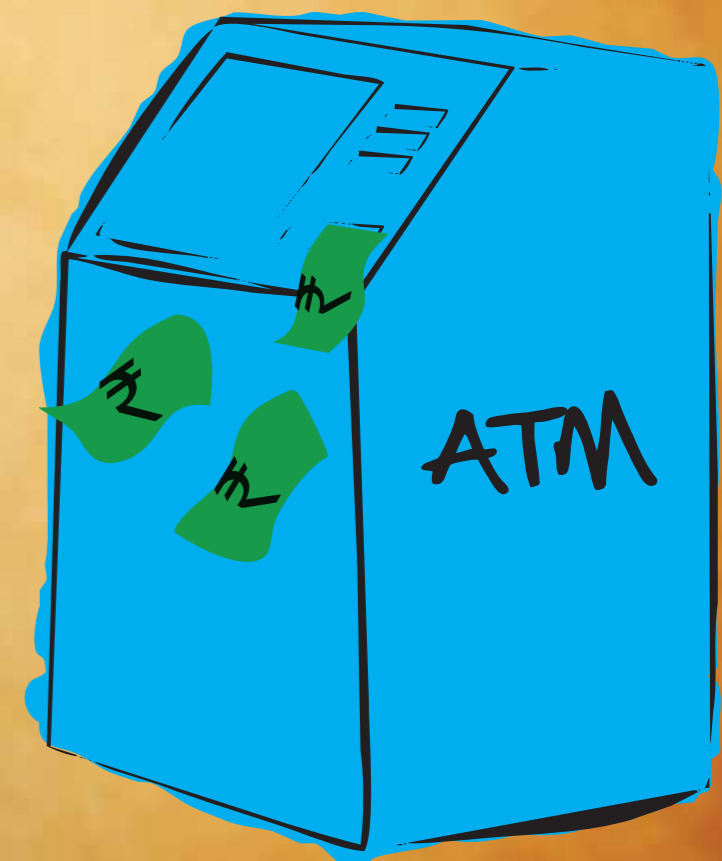
How quick is an Online UPS?

Your Online UPS takes next to no time in switching on! Because the UPS is already online, the switchover time from mains to UPS in case of a power cut is zero.

Zero Switchover Time makes the Su-Kam Online UPS the first choice when it comes to mission critical devices, where even a fraction of a second matters. For example, in a hospital, where sensitive medical equipment must always runs at specified voltages and power. Even at

home, power disturbances may damage high-end electronic equipment like home theatre systems LCD/Plasma TV etc. Any break in supply or fluctuation can cause problems. Therefore, an Online UPS is absolutely critical, which ensures no break in power even in the case of a power cut.

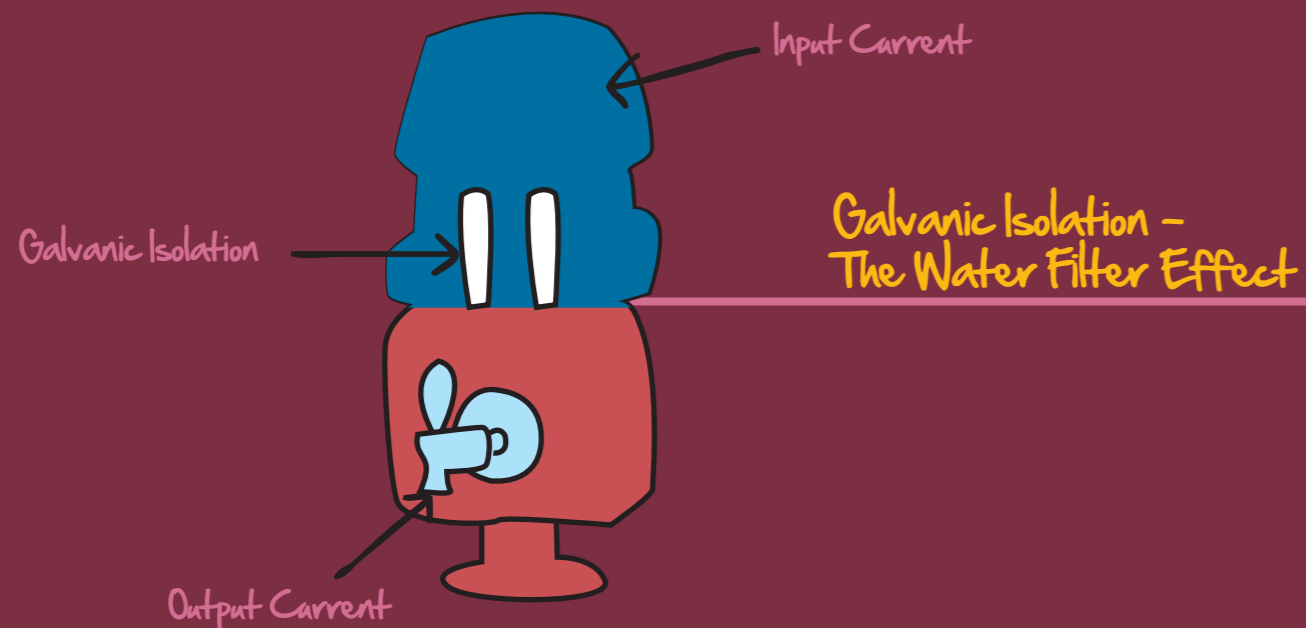
Where's my cash?
Have you ever experienced the "cashless" problem at the ATMs. You may have put in your PIN and desired amount, but the ATM transaction is cancelled. Even a millisecond of delay in power backup can cause such problems. With an Online UPS installed at ATMs, this problem can be easily solved!



How does an Online UPS protect the load?

Your Online UPS not only provides you power backup when you need it, but it also protects the load from disturbances or fluctuations. It does this by a process called **Galvanic Isolation**.

This means that there is a complete physical separation between the Input and Output. This is important, because any disturbance in the mains supply is not allowed to pass through the separation and travel to the load. In an industrial environment, the level of power distortions can be very high. Also, even at home, sometimes heavy electrical work in neighbouring areas like welding work etc. can disturb the power supply. Galvanic Isolation ensures maximum security for the load in such circumstances. In fact, with Galvanic Isolation, the Output can be grounded, in accordance with to international and local standards.



HOW CAN YOU KEEP AN EYE ON your Online UPS?

Su-Kam offers you what no other Online UPS can. With Su-Kam UPS systems, you can actually control and monitor the UPS performance. This can be done through the **Power Doc** UPS monitoring system, which is a unique innovation by Su-Kam.

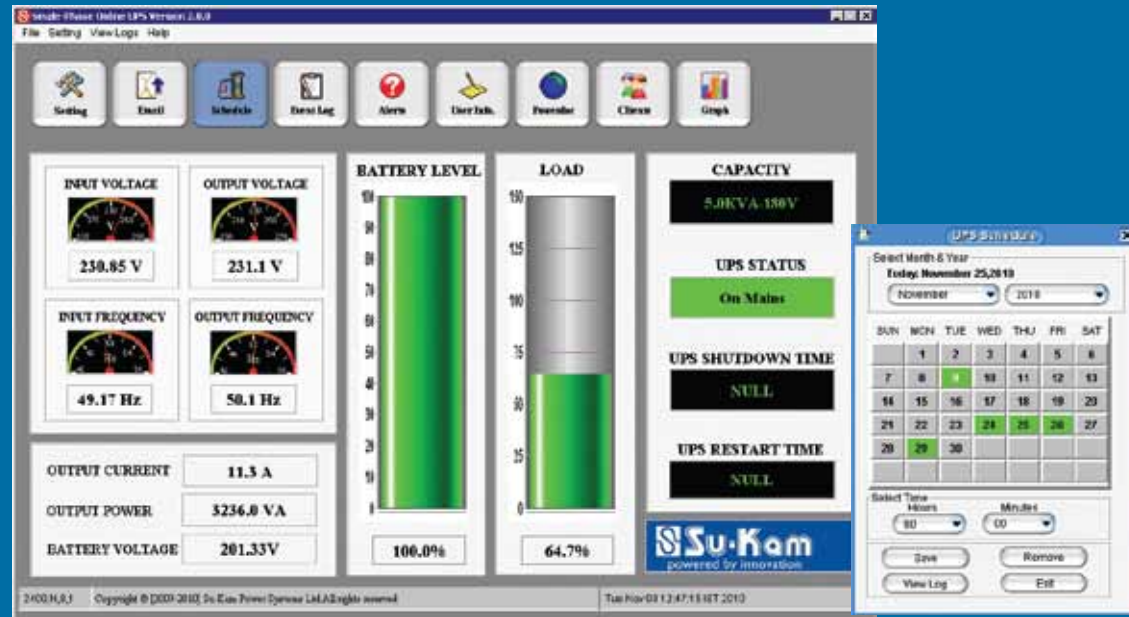
This ensures maximum safety for high-risk applications like satellite systems, air traffic control systems, internet nodes, bank transactions, etc. It also protects your system from valuable data loss, interruption, errors, crashes or shutdowns.

Q. How does the Power Doc work?

The Power Doc works with the help of a simple software installed in your PC called the **Power Manager**. This software acts as a transmitter that keeps you constantly updated about your UPS system.

1. The Power Manager constantly updates information regarding the output voltages, battery voltages and other important parameters.
2. The software keeps a log of important data like input and output voltage, input and output frequency, battery voltage, etc. so that the user can check the UPS performance at any time. This can also help predict any future problems.
3. The user can shut down the system automatically without individually switching off each PC. In fact the user can also prioritise the shutdown procedure allowing for a sequential shutdown of various system components, thereby protecting critical data and also unsaved files.
4. The software uses the standard TCP/IP communication protocol and supports all operating systems including Windows.

1 Phase ONLINE UPS Monitoring software



3 Phase ONLINE UPS Monitoring software



Software Functions

Graphical Monitoring of the UPS status: An easy to use powerful tool that allows monitoring and controlling the UPS systems. Input Voltage, Input Frequency, Output Voltage, Output Frequency, Battery Status, Load Status and Overload Status can be automatically monitored by it. There are graphical versions for both Windows and Linux.

Detailed Display of all the UPS Data: Provides on screen, all the data required to make an accurate and speedy diagnosis of the UPS operation.

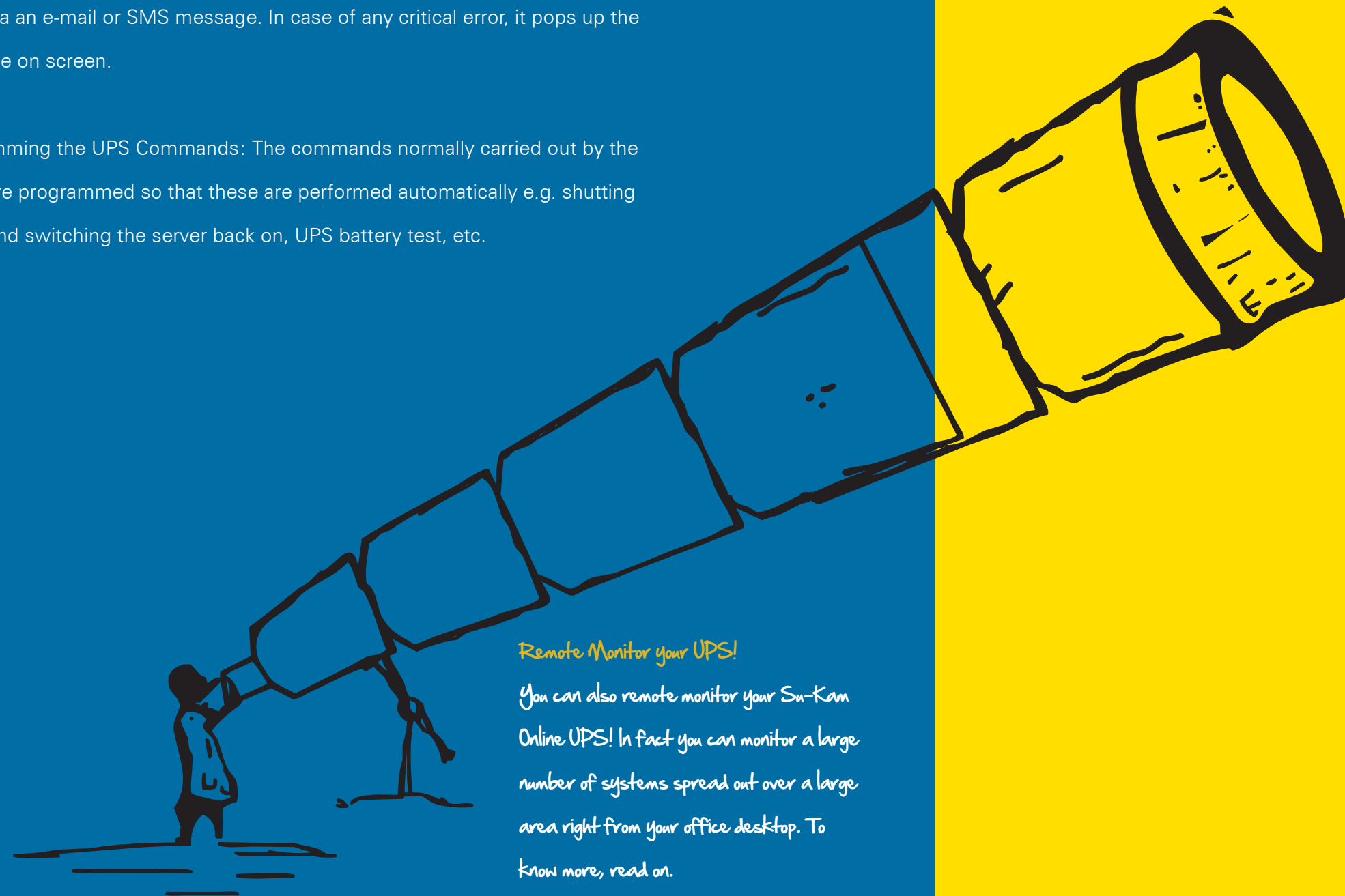
Alarm Notification via e-mail and SMS: Can be configured to automatically notify an alarm via an e-mail or SMS message. In case of any critical error, it pops up the message on screen.

Programming the UPS Commands: The commands normally carried out by the users are programmed so that these are performed automatically e.g. shutting down and switching the server back on, UPS battery test, etc.

Can you monitor your Online UPS long distance?

If you have several UPS systems spread out over a large geographical area, it becomes difficult to monitor all of them simultaneously. Therefore Su-Kam offers you the unique Ethernet Based UPS Monitoring Software. Operating through your Local Area Network (LAN), you can monitor all your systems through a single window.

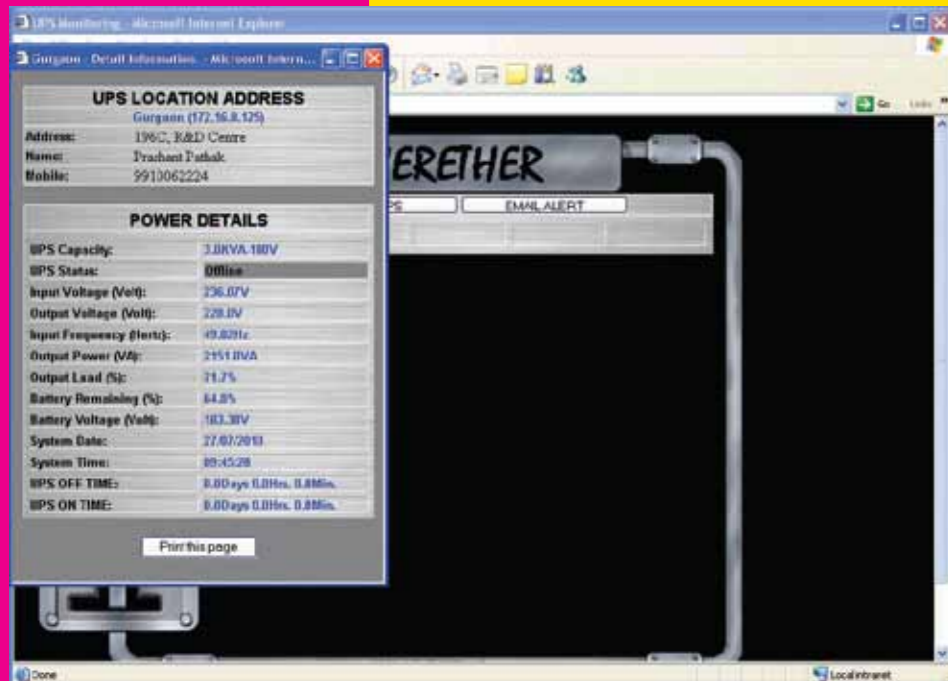
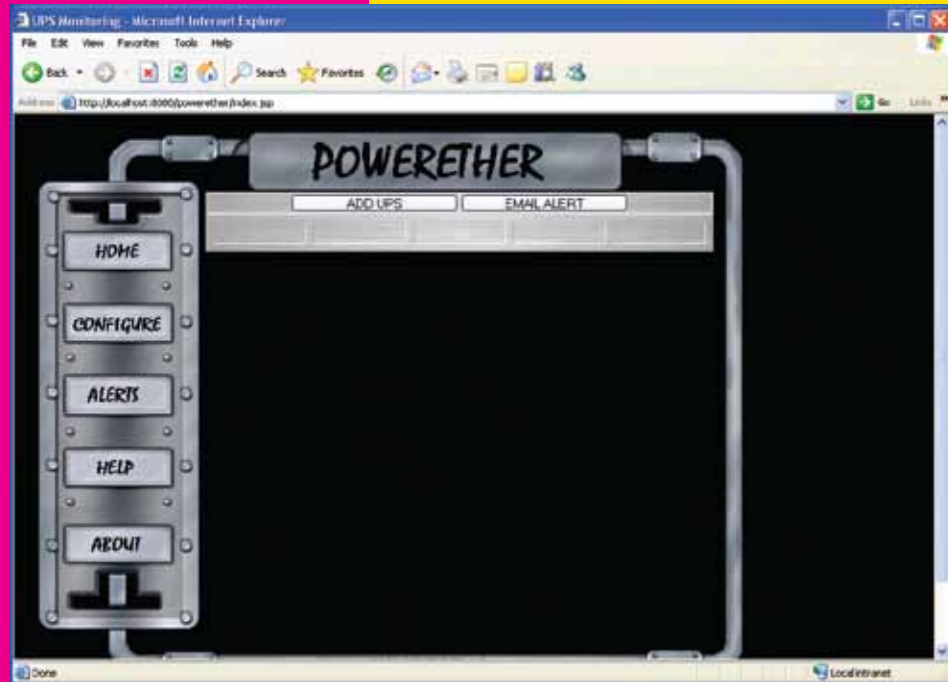
The software generates an automatic e-mail in case of any alert, providing you the contact person and contact details at the site of installation, so that problems can be immediately rectified.



Remote Monitor your UPS!

You can also remote monitor your Su-Kam Online UPS! In fact you can monitor a large number of systems spread out over a large area right from your office desktop. To know more, read on.

Ethernet Based UPS Monitoring Software



Can your UPS "bypass" the mains voltage?

The Su-Kam Online UPS comes equipped with a **Bypass** feature, which allows the load to run on main supply, when the UPS is under maintenance or service upgradation. Thus it ensure uninterrupted power supply for the load.

How does my Su-Kam UPS have extra stamina?

The Su-kam UPS is like a long distance runner. It has a Heavy Duty Charger that allows for faster charging. The faster the battery can be charged, the bigger the battery you can use. Therefore, the UPS can deliver sustained power for longer periods of time. It is like a long distance runner who utilizes minimum energy to deliver maximum performance.



How do I choose my Su-Kam UPS?

Su-Kam Online UPS systems comes in two ranges, namely the IntelliQ and the Sinclair-I Series. The IntelliQ Series operates at lower frequencies and the Sinclair-I Series works at higher frequencies. In fact, the IntelliQ Series comes in three different phase options:

- 1 phase in – 1 phase out
- 3 phase in – 1 phase out
- 3 phase in – 3 phase out

If you consider the UPS to be a city road, then the Bypass Switch is like a flyover which passes the mains current directly to the load through flyover under maintenance or service upgradation.

ROAD MAINTENANCE? USE THE FLYOVER!

IntelliQ

1 phase in - 1 phase out



Salient Features:

- DSP based PWM technology using IGBT
- Double Conversion VFI technology
- True Galvanic Isolation
- Overload handling capacity up to 300% for 1 sec.
- LCD Panel for Input/Output Voltage, Input/Output Frequency, Power & Current
Battery Voltage, Mains Fail, UPS on Battery, Inverter ON/OFF, Battery Low/High,
Output Low/High Voltage, Overload/Short Circuit etc.
- User settable Output Voltage (220/230/240V)
- RS-232 Interface software for advanced Power Manager
- Fixed settable heavy duty charger for long backup
- Generator compatible

Range: 1KVA – 10KVA

LCD DISPLAY MESSAGES

I/P VOLT: 201.5V
I/P FREQ: 48.0Hz

O/P VOLT: 230.15V
O/P CRNT: 23.4A

* ATTENTION *
OVERLOAD >150%

D. C VOLT : 204.1V
INVERTER ON

O/P PWR: 3775VA
O/P FREQ: 50.0Hz

SELF TEST IN
PROGRESS ...

SYSTEM CAPACITY
10KVA-192V

* PROTECTION *
BATTERY LOW

1 Phase Input - 1 Phase Output

TECHNICAL SPECIFICATIONS

Type	1 Phase Input - 1 Phase Output					
Series	IntelliQ Online UPS					
Technology	DSP based Double Conversion Online UPS system with true galvanic isolation					
Ratings	1 KVA	2 KVA	3 KVA	5 KVA	7.5 KVA	10 KVA
Model	IQ111K	IQ112K	IQ113K	IQ115K	IQ117.5K	IQ1110K
Capacity	1 KVA	2 KVA	3 KVA	5 KVA	7.5 KVA	10 KVA
INPUT						
No. of Phases	1Phase-3Wire P,N,E					
Voltage Range	170 V - 280 Volts AC					
Input Frequency Range	47 to 53Hz.					
OUTPUT						
Power	700 W	1600 W	2400 W	4000 W	6000 W	8000 W
Load PF Range	0.8 lagging					
Phase	1 Phase -2 Wire (P,N)					
Output Waveform	Pure Sine Wave					
Voltage	230 V +/-1%					
Frequency	50Hz +/-0.1%					
Load Crest Factor	> 3:1					
Output Voltage THD	< = 3% on Linear Load					
Loading Capacity	110% for 2 Minutes					
BY-PASS						
Maintenance By-Pass	Available					
BATTERIES						
No. of 12V Batteries	4	15	15	15	16	16
Voltage	48 VDC	180 VDC	180 VDC	180 VDC	192 VDC	192 VDC
Battery Charging current	0.8 Amp to 8 Amp	1 Amp to 10 Amp				
Battery Recommendation	From 7.2 Ah to 200 Ah					
Battery Self Test	Automatic & Manual					
USER INTERFACE						
Communication port	RS-232 Server and Client					
Operating System	Windows95/98/NT/2000/XP					
GENERAL						
Indication	LCD panel					
Alarm	Mains Failure, Battery Low, Over Load Short Circuit					
Protection	Short Circuit , Over Voltage & Under Voltage Protection.					
Cooling	Forced Air Cooling					
UPS Efficiency	> 85%					
Operating Temperature	0-45DegC					
Operating Humidity	95% Condensing					
Monitoring Software	Additional Software available for remote monitoring					
Accoustic Noise	< 45 Db at 1 meter					
Protection Class	Ip20					
UPS Weight	32Kg (Without Batteries)	40Kg (Without Batteries)	57.5Kg (Without Batteries)	71.5Kg (Without Batteries)	93Kg (Without Batteries)	108Kg (Without Batteries)
Dimension (L X W X H)	(490 X 225 X 350)MM	(550 X 350 X 325)MM	(475 X 350 X 610)MM	(475 X 350 X 610)MM	(550 X 350 X 660)MM	(550 X 350 X 660)MM

IntelliQ

3 phase in – 1 phase out



Salient Features:

- DSP based PWM technology using IGBT
- Double Conversion VFI technology
- True Galvanic Isolation
- UPS Auto Self Test on L CD Panel
- User settable Output Voltage (220/230/240V)
- Static Bypass Switch (optional)
- Hot Standby (optional)
- RS-232 Interface software for advanced Power Manager
- Works on any input phase sequence
- Field settable heavy duty charger for long backup

Range: 10KVA – 25KVA

LCD DISPLAY MESSAGES

DSP ONLINE UPS IntelliQ Series	SU-KAM WELCOMES YOU	O/P PWR: 24775VA O/P FREQ: 50.0Hz	SELF TEST: PASS
AUTO MODE	O/P VOLT: 230.15V O/P CRNT: 35A	SYSTEM CAPACITY 10KVA-360V DC	DC VOLT: 406.0V INVERTER ON

PROTECTION MESSAGES

* PROTECTION * BATTERY LOW	* PROTECTION * OUTPUT SHORT CKT	* PROTECTION * BATTERY HIGH	* PROTECTION * OVERLOAD SHUTDOWN
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WARNING MESSAGES

* ATTENTION * LOW BATTERY	* ATTENTION * OVERLOAD > 110%	* ATTENTION * OVERLOAD > 150%
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3 Phase Input - 1 Phase Output

TECHNICAL SPECIFICATIONS

Type	3 Phase Input – 1 Phase Output				
Series	IntelliQ Online UPS				
Technology	DSP based Double Conversion Online UPS with true Galvanic Isolation				
Ratings	7.5 KVA	10 KVA	15 KVA	20 KVA	25 KVA
Model	IQ317.5K	IQ3110K	IQ3115K	IQ3120K	IQ3125K
Capacity	7.5 KVA	10 KVA	15 KVA	20 KVA	25 KVA
INPUT					
No. of Phases	3 Phase- 4 Wire				
Voltage Range	310 V – 480 Volt AC				
Input Frequency Range	45 - 55 Hz				
OUTPUT					
Power	6000 W	8000 W	12000 W	16000W	20000 W
Load PF Range	0.8 lagging				
Phase	1 Phase -2 Wire (P,N)				
Output Waveform	Pure Sine Wave				
Voltage	230V ± 1%				
Frequency	50Hz +/-0.1%				
Load Crest Factor	> 3:1				
Output Voltage THD	< =3% on Linear Load				
Loading Capacity	110% for 5 Minutes/ 125% for 1 Min/ 150% for 10 Sec				
BY-PASS					
Capacity	125% continues				
Maintenance By-Pass	Available				
BATTERIES					
No. of 12V Batteries	30				
Voltage	360 V DC				
Battery Charging current	1 Amp to 10 Amp				
Battery Recommendation	From 7.2 Ah to 200 Ah				
Battery Self Test	Automatic & Manual				
USER INTERFACE					
Communication port	RS-232 Server and Client				
Operating System	Windows95/98/NT/2000/XP				
GENERAL					
Indication	LCD panel				
Alarm	Mains Failure, Battery Low, Over Load Short Circuit				
Protection	Short Circuit , Over Voltage & Under Voltage Protection.				
Cooling	Forced Air Cooling				
UPS Efficiency	> 90%				
Operating Temperature	0-45DegC				
Operating Humidity	95% Condensing				
Monitoring Software	Additional Software available for remote monitoring				
Acoustic Noise	< 45 Db at 1 meter				
Protection Class	Ip20				
UPS Weight	120 Kg (without Batteries)	131 Kg (without Batteries)	156 Kg (without Batteries)	170 Kg (without Batteries)	170 Kg (without Batteries)
Dimension (H X W X D)	(700 X 450 X 700) MM	(450 X 650 X 700)MM	(450 X 650 X 700)MM	(450 X 700 X 730)MM	(450 X 700 X 730)MM

IntelliQ

3 phase in - 3 phase out



Salient Features:

- DSP based PWM technology using IGBT
- Double Conversion VFI technology
- True Galvanic Isolation
- Works on any phase sequence without coming in Battery Mode
- LCD Panel for Input/Output Voltage, Input/Output Frequency and Output Power for all 3 phases simultaneously (very useful for monitoring)
- User settable Output Voltage (380/400/415V)
- RS-232 Interface software
- Remote monitoring analysis & control using Powerdoc Software
- Auto Self test on LCD Panel
- 3-Phase Static Bypass Switch (optional)

Range: 5KVA – 50KVA

LCD DISPLAY MESSAGES

Su-Kam Online UPS
R-O/P Volt: 230.2 V
Y-O/P Volt: 230.4 V
B-O/P Volt: 230.4 V
R-O/P Freq: 49.99 Hz
Y-O/P Freq: 50.04 Hz
B-O/P Freq: 50.04 Hz

Su-Kam Online UPS
R-O/P Volt: 230.3 V
Y-O/P Volt: 230.4 V
B-O/P Volt: 230.5 V
R-O/P Freq: 49.99 Hz
Y-O/P Freq: 50.04 Hz
B-O/P Freq: 50.04 Hz

Su-Kam Online UPS
R-O/P Volt: 230.3 V
Y-O/P Volt: 230.4 V
B-O/P Volt: 230.5 V
R-O/P Freq: 49.99 Hz
Y-O/P Freq: 50.04 Hz
B-O/P Freq: 50.04 Hz

Su-Kam Online UPS
R-O/P Volt: 230.3 V
Y-O/P Volt: 230.4 V
B-O/P Volt: 230.5 V
R-O/P Power: 04180 VA
Y-O/P Power: 04280 VA
B-O/P Power: 04090 VA

Su-Kam Online UPS
R-O/P Volt: 230.6 V
Y-O/P Volt: 230.6 V
B-O/P Volt: 230.6 V
R-O/P Freq: 49.99 Hz
Y-O/P Freq: 50.04 Hz
B-O/P Freq: 50.04 Hz

Su-Kam Online UPS
R-O/P Volt: 230.6 V
Y-O/P Volt: 230.6 V
B-O/P Volt: 230.6 V
R-O/P Freq: 49.99 Hz
Y-O/P Freq: 50.04 Hz
B-O/P Freq: 50.04 Hz

3 Phase Input - 3 Phase Output

TECHNICAL SPECIFICATIONS

Type	3 phase input - 3 phase output									
Series	IntelliQ Online UPS									
Technology	DSP based Double Conversion Online UPS system with True Galvanic Isolation									
Ratings	5 KVA	7.5 KVA	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA	
Model	IQ335K	IQ337.5K	IQ3310K	IQ3315K	IQ3320K	IQ3325K	IQ3330K	IQ3340K	IQ3350K	
Capacity	5 KVA	7.55 KVA	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA	
INPUT										
No. of Phases	3 Phase – 4 Wire									
Voltage Range	310 V – 480 Volt AC									
Input Frequency Range	45 – 55 Hz									
OUTPUT										
Power	4000 W	6000 W	8000 W	12000 W	16000 W	20000 W	24000 W	32000 W	40000 W	
Load PF Range	0.8 lagging									
Phase	3 Phase- 4 Wire									
Output Waveform	Pure Sine Wave									
Voltage	400V ± 2% (P-P), 380V & 45V user selection also available									
Frequency	50Hz +/-0.1Hz									
Load Crest Factor	> 3:1									
Output Voltage THD	<= 3% on Linear Load									
Loading Capacity	110% for 8 Minutes/ 125% for 1 Min/ 150% for 13 Sec									
BY-PASS										
Capacity	125% continues									
Maintenance By-Pass	Available									
BATTERIES										
No. of 12V Batteries	30									
Voltage	360 V DC									
Battery Charging current	1 Amp to 10 Amp									
Battery Recommendation	From 7.2 Ah to 200 Ah									
Battery Self Test	Automatic & Manual									
USER INTERFACE										
Communication port	RS-232 Server and Client									
Operating System	Windows95/98/NT/2000/XP									
GENERAL										
Indication	LCD panel									
Alarm	Mains Failure, Battery Low, Over Load Short Circuit									
Protection	Short Circuit , Over Voltage & Under Voltage Protection.									
Cooling	Forced Air Cooling									
UPS Efficiency	> 90%									
Operating Temperature	0-45DegC									
Operating Humidity	95% Condensing									
Monitoring Software	Additional Software available for remote monitoring									
Accoustic Noise	< 45 Db at 1 meter									
Protection Class	Ip20									
UPS Weight (Without Batteries)	105Kg	125Kg	155Kg	198Kg	210Kg	223Kg	240Kg	423.5Kg	423.5Kg	
Dimension (L x W x H)	(450 X 700 X 700)MM	(450 X 700 X 700)MM	(450 X 700 X 700)MM	(450 X 700 X 700)MM	(450 X 700 X 700)MM	(500 X 800 X 750)MM	(500 X 800 X 750)MM	(810 X 755 X 1460)MM	(810 X 755 X 1460)MM	

Sinclair-I

1 phase in - 1 phase out



Salient Features:

- Microcontroller based High Frequency design using IGBT
- Active Power Factor Correction with input power factor > 0.98 for 10% to 100% load
- Reduced hardware for increased reliability
- High efficiency in both Mains and Battery Modes
- Extra wide Input Voltage window range minimizing battery usage and enhancing battery utilization and life
- Noiseless operation
- SMPS Based Pure DC Charger with extended power, extended battery life and lower maintenance cost
- Inbuilt static bypass
- High crest factor, handles all high-inrush current loads without need for power rating upgrade
- Multiple protection features to ensure load safety
- DC-start function
- User friendly LCD display
- Heavy duty charger for long backup
- Parallel redundancy is available in 6 and 10KVA
- SNMP monitoring (optional)

Choice of Power:

Sinclair-I UPS is available in two variants –

- With External Battery (1-10KVA) for more backup
- With Internal Battery (1-10KVA) for less backup

This is recommended for IT Applications.

1 Phase Input - 1 Phase Output

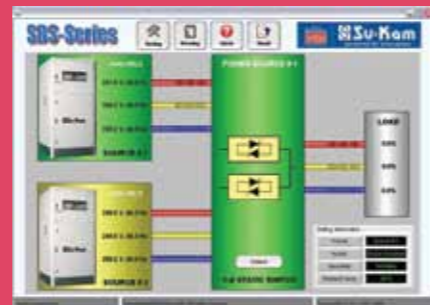
TECHNICAL SPECIFICATIONS

Type	1 Phase Input - 1 Phase Output									
Series	Sinclair-i									
Technology	High Frequency Online UPS									
MODEL	Sinclair-i									
Capacity	1kVA IB	1kVA EB	2kVA IB	2kVA EB	3kVA IB	3kVA EB	6kVA IB	6kVA EB	10kVA IB	10kVA EB
INPUT PARAMETERS										
No. of Phases	1Phase-3Wire (P,N,E)									
Voltage Range	110- 300Volts ± 5Volt(Load dependant)					176 -276Volts ± 5Volt				
Input Power Factor	>0.97 at Full Load					>0.98 at Full Load				
Input Frequency Range	46 to 54Hz.									
OUTPUT PARAMETERS										
Power	700 W	1400 W	2100 W	4200 W	7000 W					
Load PF Range	0.65 lagging to 1.0									
Phase	1 Phase -3 Wire (P,N,E)									
Output Waveform	Pure Sine Wave									
Voltage	220/230/240VAC ± 2% (selectable)									
Frequency	Synchronization Range 46-54Hz, Slew Rate 1Hz/Sec, Battery Mode (50±0.2) Hz									
Load Crest Factor	> 3:1									
Output Voltage THD	<=3% on Resistive full load									
Loading Capacity	110% ~ 150%: for 0.5s , fault after 30s,					105% ~ 130%: Transfer to bypass after 10 min.				
	>150%: fault after 300ms,					>130%: Transfer to bypass after 1s, shutdown after				
	auto recovery					1 min.(Line mode)				
BY-PASS										
Maintenance By-Pass	Static By-Pass									
BATTERIES										
No of 12V Batteries	3	8	8	20	20					
Voltage	36VDC	96VDC	96VDC	240VDC	240VDC					
Charging Current	1A	(8±1)A	1A	(8±1)A	1A	(8±1)A	2A	(4.2±0.2)A	2A	(4.2±0.2)A
GENERAL										
Indication	LCD panel									
Alarm	Mains Failure, Battery Low, Over Load & Short Circuit									
Protection	Short Circuit, Over Voltage & Under Voltage Protection									
Cooling	Forced Air Cooling									
UPS Efficiency	85%	85%	85%	88%	88%					
Operating Temperature	0-45DegC									
Operating Humidity	95% Condensing									
Monitoring Software	Additional Software available for remote monitoring									
Accoustic Noise	<=45db at 1 Metre									
UPS Weight (With Batteries)	13.3kg	7kg	32kg	15kg	32.2kg	14.5kg	84kg	35kg	93kg	38kg
Dimension (W x D x H)	(145 x 220 x 400)mm		(195 x 330 x 455)mm		(195 x 330 x 455)mm		(260 x 717 x 570)mm		(260 x 717 x 570)mm	



Static Bypass Switch

The Static Bypass Switch takes two sources of power at the input and monitors them continuously to provide the best of the two available power source to the electrical load connected at the output. One source is used as the master and other as the slave. The load runs normally on the master and in case of any deviation of voltage and frequency from defined thresholds the load is instantly transferred to the slave source to provide uninterrupted supply to the load. It is based on solid-state switch's Silicon Controlled Rectifier (SCR) devices so it has no mechanical moving parts and thus requires minimal maintenance. It provides fast transfer time to protect the output load. The input sources can be a combination of UPS supply, mains supply or generator supply providing sinusoidal output. The Static Bypass Switch has high overload handling capability for safety. Typical applications include Servers, Data Centres, Call Centres, Operation Theatre or any other place which requires redundant power supply with fast transfer time so that load connected at the output does not experience any power break. Su-Kam's Single phase and Three phase static bypass switch ensures high reliability and redundancy of power supply to the critical load.



Monitoring Software

Single Phase Static Bypass Switch (SBS)

- Micro-controller based design
- 230 VAC, 50Hz input / output
- Power: 1KVA - 5KVA, 6KVA - 10 KVA
- Provides redundant power to load by two independent power sources
- Operates with two UPS or non-UPS power sources (Grid or Generator) providing a sinusoidal output
- Fast transfer time
- High surge current capability
- Compact and robust design
- Hot swap function of input sources: Servicing of one of the sources can be done without interrupting the power flow to load
- User friendly LED display
- RS-232 Communication for monitoring



Three Phase Static Bypass Switch (SBS)

- Digital Signal Controller based design
- 400 VAC, 50Hz input / output
- Power: 5KVA - 10KVA, 11KVA - 25 KVA
- Provides redundant power source for load
- Operates with any UPS or power source that has a sine wave output
- Fast transfer time
- High surge current capability
- Compact and robust design
- Hot swap function of input sources: Servicing of one of the sources can be done without interrupting the power flow to load
- User friendly LCD display
- RS-232 Communication for monitoring



TECHNICAL SPECIFICATIONS

Specifications of Single Phase (1 phase with neutral) Static By-pass Switch (SBS)

Design	Microcontroller based design
Input Voltage	230V (+ 15% -25%)
Frequency	47 Hz to 53 Hz
Output Rating	5KVA, 10KVA
Efficiency	>98%
Transfer/Retransfer Time	2 to 15 ms (depending on the input condition of source condition - synchronized or unsynchronized)
Overload	125% for 10 min, 150% for 1 min and 300% for 10 msec.
Protection	Input under and over voltage, Output Short Circuit
Environmental	
Operating Temperature	0 - 45°C
Relative Humidity	0 - 95% non-condensing
Audible Noise	< 45dB (A) at 1.5 meters
Indications	Availability of Source 1 & 2 by Graphical LED Display Power flow to load either by Source 1 or 2 Output ON / OFF Overload / Short Circuit
Communication	RS-232 Communication with PC for display and monitoring
Hot swap function of input sources	Servicing of one of the sources can be done without interrupting the power flow to load.

TECHNICAL SPECIFICATIONS

Specifications of Three Phase (3 phase with neutral) Static By-pass Switch (SBS)

Design	Digital Signal Controller Based Design
Input Voltage	400V (+ 15% - 20%)
Frequency	50 Hz \pm 10%
Output Rating	10 KVA, 25 KVA
Efficiency	> 98%
Transfer/Retransfer Time	5 to 18 ms (depending on the input condition of source condition - synchronized or unsynchronized)
Overload	125% for 10 min, 150% for 1 min, 200% for 10 sec and 300% for 10 msec
Protection	Input under and over voltage Output overload, Output Short Circuit
Environmental	
Operating Temperature	0 - 45°C
Relative Humidity	95% non-condensing
Audible Noise	< 45dB (A) at 1.5 meters
Indications	LCD Availability of Source Priority Source 1 & Source 2 - Voltage & Frequency Output ON / OFF Overload / Short Circuit
Communication	RS-232 Communication with PC for display and monitoring
Hot swap function of input sources	Servicing of one of the sources can be done without interrupting the power flow to load

Where all can I use Su-Kam Online UPS?

The Su-Kam Online UPS can be used for a variety of applications, where reliable power backup plays an important role. These include:



Offices, Workstation and Lan Servers



Medical Equipment



Telecommunication System



ATM Machines



Air Traffic Control System



Satellite System



Colour Labs



Embroidery Machines



Offices



Security Systems / Control Room



Plotters



Point of Sale (POS) Systems

PCs, Workstations, Computer Labs, IT Networks, Internet Nodes/Servers, Plotters, Monitors & Modems, Security Equipment, EPABX Systems, Fax Machines, Networking Products, Point of Sale (POS) Systems, Cash Registers, ATM Machines, SOHO (Small Office Home Office), Data Centres/Offices, Industrial Equipment, Security Systems, Overhead Projector, Local Area Networks (LAN), Telecommunication Systems, Electrical Medical Equipment, Biomedical Equipment, Satellite Systems, Industrial Computer-based Machines, Studio Equipment, Video Equipment, Sound Equipment, Printing & Media Equipment, Small Automation Control Equipment, Sensitive electronic or any other computerized systems, Access Control System, and many more.