Albitek Power Services Pvt Ltd

Brightening up your world

ALBITEK®
Catering To
all your needs

CONTENTS

ALBITEK POWER SERVICES PRIVATE LIMITED

Albitek Power Services Private Limited is one of India's leading Manufacturers and power solutions providers to the related industry.

The company is focused on its strategy towards forging strategic and sustainable collaboration to contribute the value to add the visions to its customers for growth and development.

Albitek Power Services Private Limited has an extremely stable and integrated capability to deliver a wide range of services and products to its valued customers. It is spanning the entire information and communication value chain, including infrastructure and services to enterprises and individuals.

We understand the dynamics and complexities of each industry and are in a position to support and execute the most optimal resolutions. We haven't just bagged some of the most prestigious installations but also completed them efficiently within the given time frame. We endeavor to create new standards in the related field, through creating a benchmark,

We believe in "Building Trust."

Our Passion

"We believe that connectivity and services are essential for the success of every business. Through our services, we make sure that their available when our prestigious customers and clients need them. This is how we provide our solutions to the world"

Our Vision

"To foster long lasting and mutually meaningful partnerships with our customers and business associates by delivering credible, ethical and consistent solutions to their business needs at all times"

INTRODUCTION

ALBITEK group one of the popular online UPS manufacturers provides Online UPS to solve energy problems. With its offices in Delhi, Haryana, UP, Jaipur, Chhattisgarh & other states. Albitek products range from online UPS, inverters, CVT, Servo, and other customized products. ALBITEK Online UPS solutions are designed and developed using double-conversion technology. These indigenously manufactured machines are on for high performance and high-quality standards and are preferred all over India. ALBITEK is one of the online UPS suppliers who provide solutions needed to protect computers, data processing and telecommunication, medical diagnosis, for sensitive and critical processing units.

'APPLICATIONS'

ABOUT ALBITEK UPS & PRODUCT

Product	Phase	UPS Rating
Back Power IN Series	Offline UPS	1000VA to 1500VA
Back Power Plus LB+ Series	Line Interactive UPS	1KVA to 3KVA
Elite EX+ Series	1:1 Single phase In/Out Online UPS	1KVA to 15KVA
Radiant K+ Series	3:1 Three phase In/ Single phase out	5KVA to 20KVA
Ruftech KT+ Series	3:3 Three phase In/ Three phase out	5KVA to 100KVA
Strom 'Servo'	1:1 Single Phase In/out 3:3 Three phase In/out	2KVA to 50KVA 6KVA to 500KVA
Power Sustain 'CVT'		50VA to 10000VA

ALBITEK OFFLINE UPS - BACK POWER

IN Series Single Phase
1000VA/1500VA

FEATURES

- Built in AVR
- Short circuit protection
- IGBT Base PWM Technology Based
- Cold start provided
- Overload protection
- Low Battery cut-off
- Raw Power Indication
- Low Battery Indication

APPLICATIONS

- ✓ PC's
- ✓ Printers
- ✓ ATM's
- ✓ FAX
- ✓ Home Appliances
- ✓ Fire protection
- ✓ CCTV, Security Systems

Technical Specification

Model	650 IN	1000 IN	1500 IN
DC Bus	24V	24V/48V	24V/48V
Specification			
Input Voltage		200-250AC Volt	
Output Voltage		230AC Volt , ± 2%	
Frequency		50/60Hz ± 0.5%	
Charging Volt		12Volt DC	
Charging Time		6Hrs	
Protection			
		Over Load Over Voltage Protection	
Certification			
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007			
Marking: CE –marking safety 2006/95/EC,2004/108EC			

All specification are subject to change without prior notice.

ALBITEK LI UPS - BACK POWER PLUS

LB+ Series Single Phase
650VA/1/2/3 KVA

STATE OF THE ART UPS

Based on state-of-the-art technology, the Series LB+ UPS systems protect your computers by providing only regulated AC mains voltage. The Series E UPS range has various models to provide back-up power stretching from 10 minutes to 4 hours depending on the connected external battery bank.

FEATURES

- Built in AVR
- Short circuit protection
- Cold start provided
- Overload protection
- Low Battery cut-off

APPLICATIONS

- ✓ PC's
- ✓ Printers
- ✓ ATM's
- ✓ FAX
- ✓ Home Appliances
- ✓ Fire protection
- ✓ CCTV, Security Systems

Technical Specification

Model	650LB+	1000LB+	2000LB+	3000LB+
DC Bus	12V	24V	24V	36V
Output Rating VA/W	650/390	1000/600	2000/1200	3000/1800
Input Characteristics				
Input Voltage	155-275V			
Input Frequency	50Hz ± 5%			
Output Characteristics				
Output Voltage	190-230V			
Output Voltage (nom), rms	230VAC			
Output Frequency	50Hz ± 1%			
Output Waveform (PWM)	Quasi Waveform			
Low Battery Audio Alarm	YES			
Transfer Time, Mains to Battery	3 m sec (typical)			
Short Circuit Protection	YES			
Efficiency (Typ.Condition)	>85%			
Environment				
Operation Humidity & temperature	95% RH Max. (Non Considering)			
General				
Battery Mode- Red	Mains Normal			
Main Mode- Green	Main Failure			
Battery Low- Beep	Load on Mains			
	Load on Battery			
Indication				
	Battery Charging			
	Battery Normal			
	Battery Low			
	Red-Overload			
	Green- UPS On			
Certification				
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007				
Marking: CE –marking safety 2006/95/EC,2004/108EC				

All specification are subject to change without prior notice.

ALBITEK ONLINE UPS - ELITE

EX+ Series 1:1 Single Phase In/Out
1-10KVA

STATE OF THE ART UPS SERIES

ALBITEK Elite EX+ Series is latest state of the art Micro controller based High Frequency PWM Technology UPS using IGBT's for higher efficiency and greater reliability. The EX+ Series UPS provide pure sine wave output and is designed for wide input voltage range from 180V to 270V. ALBITEK On-Line EX+ series UPS isolates the critical load from any disturbance by providing complete protection against spike, surges, brown outs, black outs, voltage and frequency variation.

APPLICATIONS

- ✓ PC's, Servers & Printers
- ✓ ATM's
- ✓ Telecom & Communication equipment
- ✓ Medical Equipment
- ✓ Fire protection
- ✓ Security Systems

FEATURES

- True Online Double Conversion type UPS System
- Wide Input Window
- In-built Isolation Transformer
- Generator Compatible
- IGBT Based Hi - Frequency PWM Inverter
- Battery Deep discharge protection
- High crest factor > 3: 1
- Hot Stand-By Mode (Optional)
- Soft Start facility

Technical Specification

Model	EX + 1-15 KVA (1:1)
Phase 1 phase in / 1 phase out	
Capacity	1000 VA / 800 W
Input Characteristics	
Input Voltage	160-270 VAC (1-phase)
Frequency Range	47 ~53 Hz
Power Factor	≥ 0.8 @ 100% load
Rectifier-Charger	Automatic Float Cum Boost Charger, Constant Voltage & Current Type
Output Characteristics	
Output Voltage	220/230 Single Phase
Voltage Regulation	± 1% Under all Line and load conditions
Output Frequency	50.0Hz
Regulation	0.25%
Inverter Efficiency	Better than 85%
Waveform	Pure Sine wave
Harmonic Distortion	Less than 3%
Transient Response	6% Under Step load change of 80%
Transient Recovery	Within 3 Cycle
Overload Capacity	110% for 10 minutes 150% for 10 second
Control Method	Sinusoidal PWM Control
Switching Frequency	More than 10 KHz
Circuit Method	Online Double Conversion UPS, Zero Transfer Time
Environment	
Operation Humidity & temperature	95% RH Max. (Non Considering)
Noise Level	< 55dB @ 1 Meter up to 50KVA
Ambient Temperature	0-50° C
Cooling	Forced Air Type
Physical	
Dimension, L X W X H (CM)	60.96 X 33.02 X 60.96
Net Weight (Kgs)	
Optional Features	
Static By-pass Switch	
Protection	
-Input Over/Under Voltage - DC under*/Over Voltage- - Short Circuit- O/P Under/Over Voltage	
Certification	
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007	
Marking: CE –marking safety 2006/95/EC,2004/108EC	

All specification are subject to change without prior notice.

ALBITEK ONLINE UPS - RADIANT

K+ Series 3:1 Three phase In/Single phase Out
5-20KVA

ABILITY TO WORK WITH ALL LOADS

An obvious choice for IT applications, the heavy duty design of the K+ Series also works equally well with other loads such as motor driven loads, medical equipment, communication products which are often damaged by inferior UPSs with step wave or square wave output.

GENERATOR COMPATIBLE

As a rugged series designed for Indian power conditions, the K+ Series UPSs scores over most other systems in the market, affording high compatibility with most types of generators.

HOT STAND-BY MODE

In rare instances where the primary UPS system goes out of order the standby UPS instantly takes on the connected load without transferring to bypass. This configuration is available on selected models at an additional cost.

APPLICATIONS

- ✓ Storage devices and critical Workstations
- ✓ Local Area Networks (LAN)
- ✓ Medical equipment
- ✓ Industrial processes & critical machinery loads
- ✓ Telecommunication systems
- ✓ ATM machines

FEATURES

- True Online Double Conversion type UPS System
- High Frequency PWM design Using IGBT/MOSFET.
- Compact and Well-engineered architecture.
- Ultimate protection against all power line Disturbance.
- Wide Input voltage tolerance range.
- Suitable for all types of Capacity of batteries.
- Neat and clean wiring.
- Pure Sine wave Output.
- Generator Compatible.
- Soft Start Facilities.
- Complete annunciation on the front Panel.
- Excellent Dynamic response for step load change.
- Short-Circuit/ Overload Protected.
- Fast Correction rate for line and local regulation. High In-rush Peak current loading Capability.
- Easy to Install, Use, Maintain.
- Lowest running and operational expenditure.
- Superior performance to price analysis.

ALBITEK®

Technical Specification

Model	K+ Series 5-20 KVA (3:1)
Phase 3phase in / 1phase out	
Capacity	5000 VA / 4000 W
Input Characteristics	
Input Voltage	300-470 VAC (3-phase/1-phase out)
Frequency Range	47 ~53 Hz
Power Factor	≥ 0.8 @ 100% load
Rectifier-Charger	Automatic Float Cum Boost Charger, Constant Voltage & Current Type
Output Characteristics	
Output Voltage	400/415 Three Phase/Single phase
Voltage Regulation	± 1% Under all Line and load conditions
Output Frequency	50.0Hz
Regulation	0.25%
Inverter Efficiency	Better than 90%
Waveform	Pure Sine wave
Harmonic Distortion	Less than 3%
Transient Response	6% Under Step load change of 80%
Transient Recovery	Within 3 Cycle
Overload Capacity	110% for 10 minutes 150% for 10 second
Control Method	Sinusoidal PWM Control
Switching Frequency	More than 10 KHz
Circuit Method	Online Double Conversion UPS, Zero Transfer Time
Environment	
Operation Humidity & temperature	95% RH Max. (Non Considering)
Noise Level	< 55dB @ 1 Meter up to 50KVA
Ambient Temperature	0-50° C
Cooling	Forced Air Type
Optional Features	
Static By-pass Switch	Series RS 232 Interface
Protection	
-Input Over/Under Voltage - DC under*/Over Voltage -	Short Circuit- O/P Under/Over Voltage
Certification	
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007	
Marking: CE –marking safety 2006/95/EC,2004/108EC	

All specification are subject to change without prior notice.

ALBITEK ONLINE UPS - RUFTECH

KT+ Series 3:3 Three phase In/Three phase out
5-100KVA

THE HEAVY DUTY SERIES

The KT+ Series includes the 5KVA to 100KVA (3 phase input, 3 phase output) double conversion On-Line UPS with an isolation transformer. The Load is supplied continuously by the inverter with clean, stabilized and regulated sine wave output power.

STATE OF THE ART TECHNOLOGY

Input & Output filters protect the load from Voltage fluctuation and surges. Its applications include mission critical load like IT, Call Centres, Hospitals, CNC machines etc.

Thanks to state-of-the-art microprocessor based high frequency PWM technology.

APPLICATIONS

- ✓ Network servers
- ✓ Data Centres
- ✓ Printing machines
- ✓ Industrial PLC's
- ✓ Industrial Processes
- ✓ Elevators
- ✓ Medical Equipment
- ✓ Metro

FEATURES

- True Online Double Conversion type UPS System
- High Frequency PWM design Using IGBT/MOSFET.
- Compact and Well-engineered architecture.
- Ultimate protection against all power line Disturbance.
- Wide Input voltage tolerance range.
- Suitable for all types of Capacity of batteries.
- Neat and clean wiring.
- Pure Sine wave Output.
- Generator Compatible.
- Soft Start Facilities.
- Complete annunciation on the front Panel.
- Excellent Dynamic response for step load change.
- Short-Circuit/ Overload Protected.
- Fast Correction rate for line and local regulation. High In-rush Peak current loading Capability.
- Easy to Install, Use, Maintain.
- Lowest running and operational expenditure.
- Superior performance to price analysis.

ALBITEK®

Technical Specification

Model	KT + Series 5-100 KVA (3:3)
Phase 3phase in / 3phase out	
Capacity	5000 VA / 4000 W
Input Characteristics	
Input Voltage	300-470 VAC (3-phase)
Frequency Range	47 ~53 Hz
Power Factor	≥ 0.8 @ 100% load
Rectifier-Charger	Automatic Float Cum Boost Charger, Constant Voltage & Current Type
Output Characteristics	
Output Voltage	400/415 Three Phase
Voltage Regulation	± 1% Under all Line and load conditions
Output Frequency	50.0Hz
Regulation	0.25%
Inverter Efficiency	Better than 90%
Waveform	Pure Sine wave
Harmonic Distortion	Less than 3%
Transient Response	6% Under Step load change of 80%
Transient Recovery	Within 3 Cycle
Overload Capacity	110% for 10 minutes 150% for 10 second
Control Method	Sinusoidal PWM Control
Switching Frequency	More than 10 KHz
Circuit Method	Online Double Conversion UPS, Zero Transfer Time
Environment	
Operation Humidity & temperature	95% RH Max. (Non Considering)
Noise Level	< 55dB @ 1 Meter up to 50KVA
Ambient Temperature	0-50° C
Cooling	Forced Air Type
Optional Features	
Static By-pass Switch	Series RS 232 Interface
Protection	
-Input Over/Under Voltage - DC under*/Over Voltage - Short Circuit- O/P Under/Over Voltage	
Certification	
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007	
Marking: CE –marking safety 2006/95/EC,2004/108EC	

All specification are subject to change without prior notice.

ALBITEK 'SERVO' – STROM

1:1 Single phase In/Single phase out
2-50KVA

3:3 Three phase In/Three phase out
6-500KVA

SERVO 'STROM'

A Servo Stabilizer is a popular replacement for low high rating appliances used in both commercial and residential places, homes and industries that provides unmatched voltage supply to protect your fragile equipment. Servo has both single-phase and three-phase systems coming in Oil cooled and Air-cooled units.

FEATURES

- Output A.C Voltage correction for wide input variations
- 1% regulation
- No output waveform distortion
- Fast correction of output voltage: 20V/sec.
- Output self-adjustable for a range of ±5%
- Auto/manual operation facility
- Under-voltage and over-voltage cut-out arrangement
- Voltmeter with facility to read input or output voltage
- High efficiency
- Compact and modular construction for ease in servicing
- M.C.B. on input circuit

APPLICATIONS

- ✓ CNC Machines
- ✓ Xerox Machines
- ✓ Embroidery Machines
- ✓ Printing Machines
- ✓ Packaging Machines
- ✓ Plastic Molding Equipment
- ✓ Telecommunication exchanges
- ✓ Electro Medical Equipment
- ✓ Scientific Instruments
- ✓ A/C Plants
- ✓ Escalators and Elevators
- ✓ Precision Industrial Machinery

ALBITEK®

Technical Specification

Model	'Strom' Servo 2-50 KVA (1:1)	Strom' Servo 6-500 KVA (3:3)
	Phase 1phase in / 1phase out	Phase 3phase In/ 3phase out
Capacity	2KVA-50KVA	6KVA-500KVA
Input Characteristics		
Input Voltage	175 to 260 VAC	305 to 450 VAC
Output Characteristics		
Output Voltage	230VAC	400 VAC
Output Voltage Adjustment	220 to 240VAC Ph to Ph	380 to 415 VAC Ph to Ph
Supply Frequency	47 to53 Hz	47 to53 Hz
Load & Line Regulation	1%	1%
Waveform Distortion	Nil	Nil
Effect of Load Power Factor	None	None
Output Rating [KVA]	1;2;3;4;5;7.5;10;15	6;9;12;15;22.5;30;45
Correction Speed	20V/Sec	20V/Sec
Environment		
Ambient Temperature	0 to 45º C	0 to 45º C
Environment	Designed for Continuous Indoor use	Designed for Continuous Indoor Use
Optional Features		
Also special Model with wider input range of 130 to 270 VAC in 1/2/3/ & 5KVA rating		
Certification		
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007		
Marking: CE –marking safety 2006/95/EC,2004/108EC		

All specification are subject to change without prior notice.

ALBITEK 'CVT' – POWER SUSTAIN

Servo 60 Watt to 10000 Watt

CVT 'POWER SUSTAIN'

In an Albitek CVT, the AC mains powers the input winding which is widely separated physically from the isolated output winding. The input winding normally runs at very moderate Flux linkage levels. The output winding exhibits an intrinsic energy storage characteristic and this energy storage operates in conjunction with mains capacitor to produce self-generated AC flux field which is indirectly excited from the input winding.

The result is instantaneous voltage regulation. No transient and spikes. Sine wave output. A perfect answer and remedy for every electronic equipment.

FEATURES

- No semiconductors or moving parts used, hence very high reliability
- No feedback control used
- Intrinsic current limiting and short circuit protection
- Output voltage correction within ½ Cycle (10ms) from no load to full load for specified load and line variation
- Short term over load capability
- Energy storage for line loss up to 3ms at typical loads
- Higher input voltage control range, for loads less than rated load
- Very high line transient/spike rejection capability and excellent input to output isolation characteristics

APPLICATIONS

- ✓ Computers
- ✓ Data Processing equipment
- ✓ Color Photography Labs
- ✓ Bio-medical equipment
- ✓ PA equipment
- ✓ Telecommunication
- ✓ TV
- ✓ VCD/DVD recorders & players
- ✓ Teleprinters
- ✓ Fax machines and all other sensitive electronic devices.

ALBITEK®

Technical Specification

Model	'POWER SUSTAIN' CVT 50VA to 10000VA
Capacity	50VA to 10000VA
Input Characteristics	
Input Voltage	180 to 260 VAC (other choices on request)
Output Characteristics	
Output Voltage	220/230 ± 1%
Output Step load response	2 cycle [30 to 40 milliseconds]
Line Frequency	50 Hz
Efficiency	90% [approx.] under full load conditions
Waveform Distortion	5% [approx.] under full load conditions
Load Power Factor	0.75% lag to 0.9% lead
Output Waveform	Sinusoidal
Effect of Efficiency	1.6% [approx.] change in output voltage for every 1% change in line frequency
Transformer Type	Ferro- Resonant
Environment	
Ambient Temperature	-5º C to 50º C
Optional Features	
Also special Model with wider input range of 130 to 270 VAC in 1/2/3/ & 5KVA rating	
Certification	
Quality: ISO 9001:2015, ISO14001:2015, OHSAS 18001:2007	
Marking: CE –marking safety 2006/95/EC,2004/108EC	

All specification are subject to change without prior notice.

RECOMMENDATIONS

- Keep magnetic storage and display devices like Diskettes, Spools, Monitors etc. away from the CVT
- Switch on the CVT before switching ON the attached peripherals and while switching off, switch OFF attached peripherals first and then the CVT
- Avoid using the CVT for high inductive loads.
- Check frequency before using the CVT with a generator. Recommended frequency: 50± 1Hz
- Switch OFF the CVT when not in use.

ACCREDITATION

ISO 9001:2015

ISO 14001:2015

CE Certified

ISO 45001:2018

- ✓ **ISO 9001: 2015 – Quality Management System**
- ✓ **ISO 45001: 2018- Occupation Health & Safety Management System**
- ✓ **ISO 14001: 2015- Environment Management System**
- ✓ **CE- Conformite Europeenne Mark (CE)**

Why is a UPS needed? Major Role of UPS.

When there is any failure in main power source, the UPS will supply the power for a short time. This is the prime role of UPS. In addition to that, it can also able to correct some general power problems related to utility services in varying degrees. The problems that can be corrected are voltage spike (sustained over voltage), Noise, Quick reduction in input voltage, Harmonic distortion and the instability of frequency in mains.

TYPES OF UPS

Generally, the UPS system is categorized into On-line UPS, off- line UPS and Line interactive UPS. Other designs include Standby on-line hybrid, Standby-Ferro, Delta conversion On-Line.

What is an Off-line UPS?

This UPS is also called as Standby UPS system which can give only the most basic features. Here, the primary source is the filtered AC mains. When the power breakage occurs, the transfer switch will select the backup source (shown in dashed path in figure 1). Thus we can clearly see that the stand by system will start working only when there is any failure in mains. In dis system, the AC voltage is first rectified and stored in the storage battery connected to the rectifier.

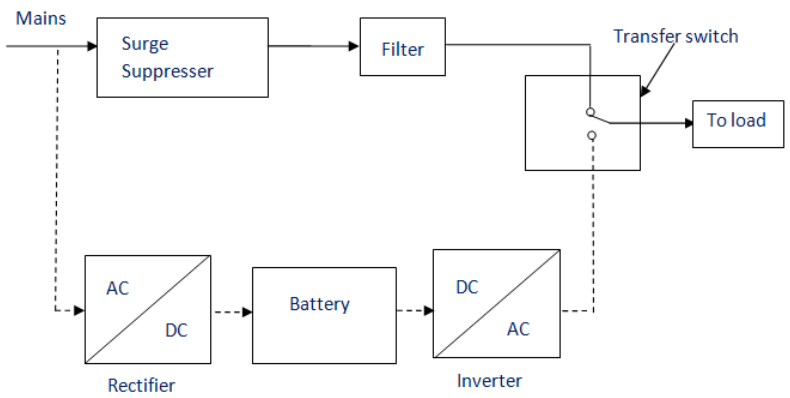


Figure 1

When power breakage occurs, this DC voltage is converted to AC voltage by means of a power inverter, and is transferred to the load connected to it. This is the least expensive UPS system and it provides surge protection in addition to back up. The transfer time can be about 25 milliseconds which can be related to the time taken by the UPS system to detect the utility voltage that is lost.

What is an On-line UPS?

In this **type of UPS**, double conversion method is used. Here, first the AC input is converted into DC by rectifying process for storing it in the rechargeable battery. This DC is converted into AC by the process of inversion and given to the load or equipment which it is connected (figure 2). This type of UPS is used where electrical isolation is mandatory. This system is a bit more costly due to the design of constantly running converters and cooling systems. Here, the rectifier which is powered with the normal AC current is directly driving the inverter. Hence it is also known as Double conversion UPS. The block diagram is shown below.

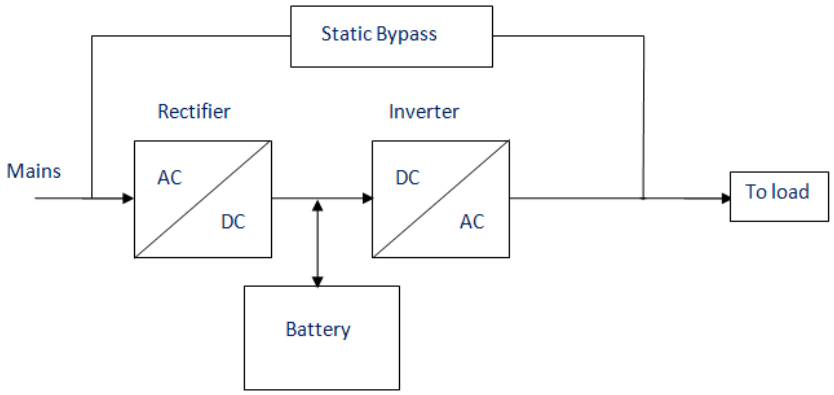


Figure 2

When there is any power failure, the rectifier have no role in the circuit and the steady power stored in the batteries which is connected to the inverter is given to the load by means of transfer switch. Once the power is restored, the rectifier begins to charge the batteries. To prevent the batteries from overheating due to the high power rectifier, the charging current is limited. During a main power breakdown, this UPS system operates with zero transfer time. The reason is the backup source acts as a primary source and not the main AC input. But the presence of inrush current and large load step current can result in a transfer time of about 4-6 milliseconds in this system.

What is a Line Interactive UPS?

For small business and departmental servers and webs, line interactive UPS is used. This is more or less same as that of off-line UPS. The difference is the addition of tap changing transformer. Voltage regulation is done by dis tap-changing transformer by changing the tap depending on input voltage. Additional filtering is provided in this UPS result in lower transient loss. The block diagram is shown below

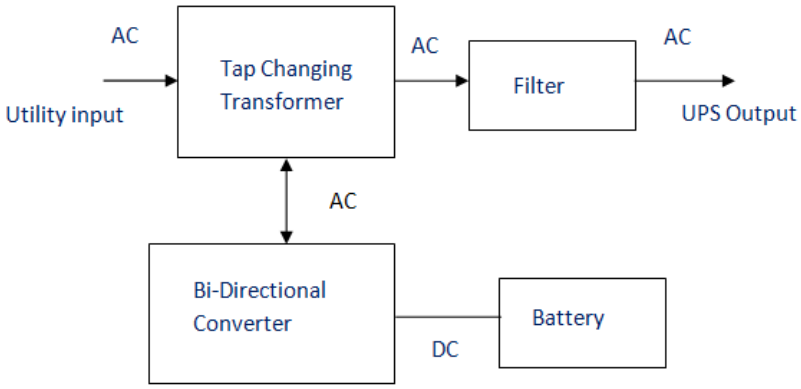


Figure 3

What is a Servo Controlled Voltage Stabilizer?

A Servo Stabilizer is a Servo motor controlled stabilization system that performs optimum voltage supply using a Buck\Boost transformer booster that captures voltage fluctuations from input and regulates current to the correct output. An AC synchronous motor adjusts voltage in clockwise or anticlockwise direction and manages the output voltage with components like control card, dimmer, comparator, transistors, mocs, etc.

Main Components & their Functioning

There are seven main components in a servo voltage stabilizer:-

- Dimmer (Variable Transformer)
- Carbon Brush
- Servomotor – Synchronizing Motors
- Buck Boost Transformer (Series Transformer)
- Contactor or Relay
- MCB, MCCB
- Electronic Circuit

Why do I use a Servo stabilizer?

A Servo Stabilizer is not just a voltage fixing system, but a completely reliable energy device that is advantageous over the traditional relay based stabilizer. We have quite a number of benefits of using Servo:

- High voltage correction accuracy with output of ±1 voltage correction.
- Switch less system to adjust fluctuating voltage at desired levels.
- High load capacity that supports up to 5000 KVA or above.
- Voltage is based on step less correction.
- Perfect stabilization for hospitals best for intricate machineries like X-ray machines, CAT scans, radiation and diagnostic equipment.
- Wide functioning area from schools, offices, homes and industries.
- Oil cooled and air cooled transformers that fit you're budget.
- Eventually, Servo stands the winner because of its unmatched performance and longer life features

Is Servo Stabilizer or Servo Controlled Voltage Stabilizer Same?

Yes, both are the same thing, only in some part of the country It is popular as Servo Stabilizer, and in some parts, it is called Servo Controlled Voltage Stabilizer.

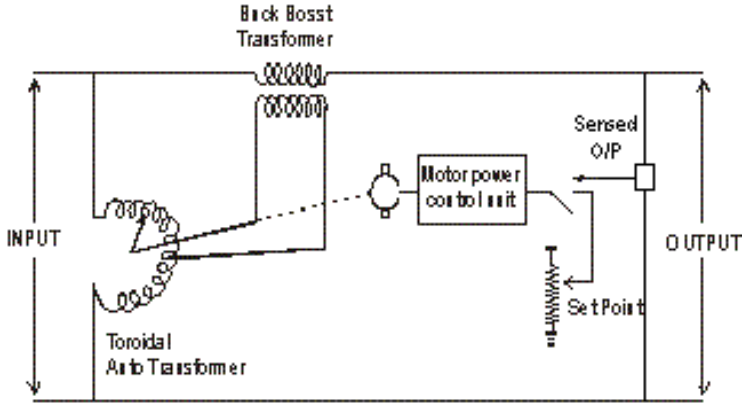
Servo is an electrical motor that is primarily an integral part of the stabilizer, which controls and stabilizes the output voltage supplied by the voltage stabilizer irrespective of the incoming voltage fed to it.

Accordingly, a few people call it as Servo Controlled Voltage Stabilizer while others go short by calling just as a Servo Stabilizer.

How does a voltage stabilizer work?

It is extremely easy to understand the working principal of servo stabilizer. There is the main control circuit which contains a microprocessor that controls the action. When the main circuit receives the input of the automatic voltage regulator, the signal sends feedback to the main control circuitry. The microprocessor continuously receiving input voltages. If there are any fluctuations in the input voltage, the regulator induces the microprocessor to give more trigger to the motor driver. The number of auto windings at the transformer can be increased or decreased based on the servo motor. So voltage flows to the buck-boost transformer. Servo motor shaft is mounted on the buck-boost transformer. So, if there is any change in the voltage level across the primary coil of the buck-boost transformer which results in the change of input level in the secondary coil. The servo motor moves in a perfect way so that the proper voltage can be observed at the primary coil of the Buck-Boost transformer. The output voltage of the servo stabilizer is the voltage across the secondary coil of the buck-boost transformer. This process takes place until it achieves correct input voltages.

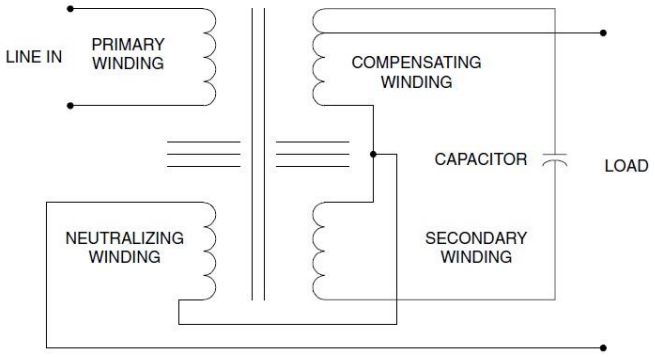
Generally, three phases of the automatic voltage regulator is an independent phase controlled. It is much like the single-phase servo stabilizer.



What is a CVT?

CVTs are basically 1:1 transformers that are excited high on their saturation curves, thereby providing an output voltage which is not significantly affected by input voltage variations. This special characteristic is the foundation of the application of Ferro resonant transformers as power conditioners.

Constant voltage transformers has an auxiliary secondary (neutralizing) winding paralleled with one or more capacitors, forming a resonant circuit tuned to the power supply frequency. The purpose of the circuit (usually called tank circuit) is to mitigate the negative effect of core saturation that results in distortion of the voltage sine wave shape. In other words, the tank circuit serves as a filter to reject harmonics produced by the core saturation and provides the added benefit of storing energy in the form of AC oscillations, which is available for sustaining output winding voltage for up to ½ cycle of input voltage loss.



BRANCHES

- Haryana [Gurgaon/Faridabad]
- Uttar Pradesh [Noida/Lucknow]
- Bihar [Patna/Gaya]
- Chhattisgarh [Raipur]
- Rajasthan [Jaipur]
- Punjab [Chandigarh/Ludhiana]
- Jharkhand [Ranchi/Jamshedpur]
- Madhya Pradesh [Indore]
- Maharashtra [Mumbai/Pune]
- West Bengal [Kolkata]

www.albitekups.com I E-mail: marketing@albitekups.com I Toll free: 1800-532 5323

Albitek Power Services Pvt Ltd
101 Gr Floor, Plot No- B 7, Dev-Pari Shopping Plaza
Near NTPC Gate No-3, Badarpur, New Delhi-110044