

### About us

We take this Opportunity to introduce ourselves as an "ISO 9001 - 2000 Certified Organization" & a registered DGS&D, NSIC, D&B and SSI Unit engaged in Manufacturing, Exports and Marketing of all types of Power Conditioning Equipments.

Our D U N - 5 No is 72-513-8288. We are also exporting these products to various countries like Australia. Canada. USA. South Africa. Peru. Sudan. Abu Dhabi, Sharjah, Sweden, Nigeria, Sudan, UAE, Bangladesh, Tanzania, Egypt, Saudi Arabia, Bahrain, Dubai, Nepal, Bhutan etc

Purevolt Products Pvt. Ltd. was launched by a group of hardcore power electronic engineers and professionals with an objective of providing single source solutions for solving all power problems faced by Industries, Domestic and Computer users.

All these systems manufactured, marketed and supported by PUREVOLT are based on the State of the art technologies keeping abreast with the ISO Standards.

### **Our Products**



### **SERVO VOLTAGE STABILIZERS :**

Servo Voltage Stabilizers essentially employ a Solid-State circuit, which controls the Servo Motor. The motor is mechanically coupled to the arm of a continuously variable Auto Transformer (Variacs) that feeds to the primary of a series control Buck-Boost transformer. The stabilizer / regulator output voltage is then compared with the reference voltage and the resultant error signal controls the Servo Motor providing true proportional control systems rather than On/off circuits.

RATING : 1 KVA -1500 KVA (Single / Three Phases)

### SERVO VOLTAGE STABILIZER (3 IN - 1 OUT)

There are lot of equipments which run on single phase supply, but sometimes the input supply available is 3 Phase, so in those case we can use the 3 IN 1 Out Servo Voltage Stabilizers. We offer high grade Three Phase Input Single Phase Output Servo Voltage Stabilizer, which are impeccably designed by us in our sophisticated infrastructure using latest technology.

: 6 KVA - 300 KVA





RATING

### **ISOLATION TRANSFORMER**

We manufacture Isolation Transformers, Step up Transformer, Step down Transformer which reduce the effects of power Line problems like noise, spikes, surges, transients and neutral, to a minimum. Isolation transformer is one that contains two windings: Primary and Secondary winding, that are separated from each other but wound on the same Iron core. The secondary that governs the output is, in this manner, separated from the input. Input and output are totally independent of each other except for the magnetic linkage between the two. RATING

: 1 KVA - 500 KVA (Single / Three Phases)

### ONLINE UPS SINE WAVE

Purevolt's Online UPS is an advanced True On-line Uninterrupted Power system, which produces reliable and pure sine wave power to use Equipment, ranging from Computers, Data Processing, Tele-Communication, Medical Diagnostic, Biomedical equipments, Medical Activities, Sensitive / Critical Processing Units (CNC's/PLC's). The On-Line design enables the system to adjust & filter power fluctuations continuously and automatically under power normal conditions. During Power Failure, It can provide immediate back up power from batteries without any interruption. Once the power is restored the system shall again work on mains & will charge the batteries.

Rating Available : 1 KVA - 60 KVA





### **CONSTANT VOLTAGE TRANSFORMER (CVT)**

In PUREVOLT CVT, the AC mains power 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 characteristic and this energy storage operate in conjunction with mains capacitor to produce self-generated AC flux Field which is indirectly extracted from the Input Winding. All problems related to variation / fluctuation in Voltages are effectively handled because of this principle and a constant voltage output of  $\pounds \pm 1\%$  is given.

### Rating Available: 150 VA - 10 KVA (Special ranges available on request)

### Automatic Voltage Stabilizer (AVR)

Voltage fluctuations play havoc with all equipments, especially sophisticated home equipments like TV, VCR, Air Conditioners, Refrigerators. To fight this menace of fluctuating voltage supply PUREVOLT has developed these Voltage stabilizer. Our Automatic Voltage stabilizer ensures efficient working and safety of costly household electronic and electrical gadgets, giving you peace of mind and assuring a long undisturbed life of your valuable and costly equipments. Purevolt Stabilizers can be designed to handle large input voltage fluctuations and will faithfully deliver a steady output voltage.

### Rating Available : 500 VA - 30 KVA (Main line)

: 3 KVA - 5 KVA (Wall Mountable for Ac's)





### VARIABLE AUTO TRANSFORMER (VARIACS)

Variable Auto Transformer, manufactured by us is the most useful and effective device for step less, break less and continuous control of A.C voltage and therefore, for control of various other parameters, dependent on A.C voltage. It is ideal controlling device for numerous applications in laboratories and in industrial & commercial fields **RATING** : 4 AMP - 600 AMP (Single / Three Phases)

### OFFLINE UPS LINE INTERACTIVE

Offline Ups is specially designed for sensitive electronic systems & is economical Data Saver with latest power conversion techniques. Now. Keeping in view of customer's requirement to use large capacities batteries for longer backup time, we have developed this special series. These UPS comes with **Separate Heavy Duty CCCV Charger** of around 8 10 Amps & batteries of upto 150 AH can be used with these UPS comfortably. These Heavy Charger Ups comes with external battery provision & is available in **Rating Available : 600 VA - 3000 VA** 





### **EI / TOROIDAL TRANSFORMER**

We are manufacturing transformers for various diversified industries such as Cellular Industries, UPS, Invertors and Custom Design CVT's, Ultra Isolation Transformers. We have created over the years enough capacity to serve diversified customers, even meeting their distress and heavy volume requirement. We are can supply in heavy quantum orders as all the plant & machinery is available in the factory.

### SINE WAVE INVERTER

Sine Wave Inverter is a totally different concept. It consists of 2 in 1 product ie Inverter + UPS and fully eliminates the need to have separate power back-up solutions for your home as well as your personal computer ie PC's.

Rating Available : 600 VA - 3000 VA

### SOLAR HYBRID INVERTER

This Solar Inverter comes with the choice of charging of batteries by both solar as well as mains utility (Hybrid Solar Inverter), with automatic change over from mains to battery and from battery to mains like a regular inverter. It employs an inverter circuitry, two-level battery charging from mains, Solar Charge Controller

### FIELDS OF APPLICATION

Our Products are virtually required at all such places where controlled and pure voltage is one of the most important requirements

Hospitals Air Conditioning **Cement Plants** Laboratories **Data Processing Textile Industries** life saving & testing equipments Electronics based Industrial **Moldings** units Pharmaceuticals Educational institutes Hotels/Restaurant **Research Institutes** Food processing units Farms houses Defense Paper plants **Offices/Commercial Complexes** Telecommunications Footwear and Leather industrial Residences/ housing apartment **Our Prestigious Customers** 





**PUREVOLT PRODUCTS (P) LIMITED** 

D- 9 / 6, Okhla Industrial Area, Phase - I New Delhi - 110 020, India Email: purevolt@yahoo.com, info@purevoltindia.com Web : www.purevoltindia.com



# PUREVOLT

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PUREVOLT

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PEREVOUT

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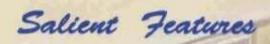
AUTOMATIC VOLTAGE STABILISER

AUTOMATIC VOLTAGE STABILISER

PUREVOLT

AUTOMATIC VOLTAGE STABILISER





Digital I C Controlled circuit

Low loss Toroidal transformer with German technology has reduce no- load losses to make it the most economical stabiliser in its class.

Inter-turn insulation tested to withstand five times the norma voltage and frequency.

High & low voltage cut-off for compressor protection.

Easy to install, operate , maintain & service.

Safety to compressor through intelligent time delay system between shut down & restarts.

Elegant, sleek, attractive & compact design with aesthetics to match any decor

Tested to IS 8448 :1994

### **AUTOMATIC VOLTAGE STABILISER**

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PUREVOLT AUTOMATIC VOLTAGE STABILISER

Where quality & reliability are the watchwords **PUREVOLT** HI-EFFICIENCY "wall mounting" Voltage Stabiliser For Air Conditioner, with the latest Digital Control technology to give you peace of mind with un-compromised protection for your air-conditioner's.

### TECHNICAL SPECIFICATIONS

Working Voltage- Input	: 145-290V 120-270V
Output	: 195-245V 195-245V
Mains Frequency	:50Hz+/-5%
Cut-Off Voltage High	:252+/-2V
(Output) Low	:192+/-2V
Time Delay	: 3 minutes between shut down & Subsequent Starts
Indications-Output	7 3 Digit 7 Segment LED Display
Time Delay	: Red Blinking LED
Cut-Off	: No Output Voltage on DPM
Input Cable	: 2 Meter (3 Core)
Output Termination	: Terminal Block of 30 Amp.
Models	: 3 KVA / 4KVA / 5KVA
Accessories	Two Plugs with screws & clamp Plate for wall mounting

**Dimensions** (mm)

Air Conditoners

Refrigerations

- Communication Systems
  VCRs
- Medical Equipments

: L x W x H (112 x 315 x258)

- ▼ Pholo
- OTHER PRODUCTS
- Constant Voltage Transformers (CVT)
- Uninterrupted Power Supply (UPS)
- Isolation Transformers

### **Purevolt Products Pvt. Ltd.**

D-9/6, Okhla Industrial Area, Phase-1, New Delhi-110020 Ph.: 011-41609760, 41609761, Fax: 011-26811037, Mob.: 9810032305 E-mail: purevolt@yahoo.com Website: www.purevoltindia.com

- Fully solid state circuit with quality components.
- Elegant design, latest technology.
- High quality transformer ensures less heating and enhanced life of voltage stabiliser.
  - Constant display voltmeter, continuously indicating output/input voltage.
- Fully automatic, requires no routine maintenance.

BEVOL

Rigorous stage wise tested.

### TECHNICAL SPECIFICATIONS

Input voltage	160-260 V	140-280 V	110-280
Output voltage	200-240 V	200-240 V	200-240
Rating	available : 0	5 KVA - 10.0 KVA	10000

### **OPTIONAL FEATURES**

- High/low voltage cut off Protection
- Time delay Relay (TDR) Circuit
- MCB
- By Pass Switch

### FIELDS OF APPLICATION

- Water Coolers
- Deep freezers
- Photo Copiers
- ♦Televisions
- Music Systems
- Servo Voltage Stabilisers
- Power Inverters

t to change without prior notice)

Custom Built Transformers

Authorsied Dealer



**CONSTANT VOLTAGE TRANSFORMER (CVT)** 

9001-

### THINK WHATS BEHING YOUR DOWCE STABILITY

#### SALIENT FEATURES

No semiconductor or moving part used, hence very high reliability.

No feed back control used.

Intrinsic current limiting and short circuit protection.

Energy storage for line lose up to 3 ms at typical load.

Short term over load capacity.

Higher input voltage control range . for load less than rated low.





PUREVOLT

### PUREVOLT PRODUCTS PVT. LTD

### PUREVOLT CONSTANT VOLTAGE TRANSFORMER

n a Purevolt CVT, the AC mains powers the input winding. which 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 with is indirectly excited from the input winding.



### TECHNICAL SPECIFICATION

D	Input Voltage		180 V - 260 V
10	Line Frequency		50 Hz
	Output Voltage	1	220 - 230 ± 1%
.0	Output Step Load Response	4	2 cycles (30 to 40 milliseconds)
0	Efficiency	12	90% (approx) under full load conditions
a	Output Wave Form		Sinewave
	Wave from Distortion	4	5% (approx) under full load conditions
0	Load Power Factor		0.75% lag to 0.9 % lead
U	Ambient Temperature		-10°C to 50°C
	Transformer Type	1	Ferro-Resonant
۵	Effect of Frequency		1.6 (approx) change in output voltage for every 1% change in line frequency.

#### RANGE :

Purevolt CVT is available in wide range ....from 50 VA to 10,000 VA with load test conducted at 0.8 power factor for all rating.

#### **RECOMMENDATIONS:**

- Keep magnetic storage and display device like Diskettes, Spools, Monitors etc. away from the CVT.
- Always 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 Hz ± 1Hz.
- Switch off the CVT when not in use.

#### **OTHER PRODUCTS:**

- Servo Voltage Stabilisers
- Uninterrupted Power Supply (UPS) Custom Built Transformers

#### Automatic Voltage Stabilizers Auto Transformers (variacs)

### PUREVOLT PRODUCTS PVT. LTD.

RZ - 58 / 8, Lane No - 9, Tughlakabad Extn. New Delhi : 110 019. Tel. 011-2607 5487 Telfax : 011-2608 3124 E-mail : purevolt@yahoo.com Website : www.indiamart.com/purevolt

#### FIELD ON APPLICATION :

- Computers
- Data Processing Equipment
- Color Photography Labs
- **Bio-Medical Equipment** .
- PA Equipment

Isolation Transformers

- Electronic Type Writer
- Telecommunication

AUTHORISED DEALER |

- TV, VCD / DVD recorders & players
- Fax Machine and all other sensitive electronic devices

Power Inverters



### OUR OTHER PRODUCTS

- Servo Voltage Stabilizer
- Automatic Voltage Regulator (AVR)
- Static Voltage Regulator
- Isolation
  Transformer
- Variable Auto Transformer
- Constant Voltage Transformer (CVT)
- On-line UPS

### TYPES OF SOLAR CHARGE CONTROLLERS

### 1. Pulse Width Modulation (PWM)

More modern charge controllers use Pulse Width Modulation (PWM) to slowly lower the amount of power applied to the batteries as the batteries get closer and closer to fully charged. This type of controller allows the batteries to be more fully charged with less stress on the battery, extending battery life. It can also keep batteries in a fully charged state (called "float") indefinitely. PWM is more complex, but does not have any mechanical connections to break.

97.5%

#### **Features:** 1. Input panel voltage

- 15V to 168V \_\_\_\_\_ 12V,24V,36V,48V,60V,72V,96V
- 2. Battery Voltages
- 3. Solar Charging currents
- 4. Charging efficiency
- 5. Casing
- 6. Input/Output terminals7. DC output
- ABS plastic casing / Metal casing copper wires with thimbles
- 5 Amp DC output with battery low cut available in 12V and 24V models.

10 Amp, 20 Amp, 30 Amp and 40 Amp

### 2. Maximum Power Point Tracking or MPPT

The most recent and best type of solar charge controller is called Maximum Power Point Tracking or MPPT. MPPT controllers are basically able to convert excess voltage into amperage. This has advantages in a couple of different areas.

Our MPPT Charger employs the latest digital signal processing technology for accurate & definite tracking of the maximum Power Point (MPP) irrespective of environmental factors such as temperature & Solar Irradiation. A high speed modified P & O algorithm has been implemented to optimally harvest & transfer maximum energy from the connected Solar Panel to the Batteries. The charger is also equipped with the following safety features for lasting Performance.

### Features:

- Lightning protection
  Battery Reverse protection
- Battery Reverse protection
  Panel reverse protection
- Panel reverse protection
  Over Current protection
- <u>5. Battery over charger protection</u>
- 6. Wide battery voltage range (12V to 96V)
- 7. Wide charging current range (10 Amp to 100 Amp)
- 8. Built in Reverse Panel current protection during nights.
- 9. Zero battery discharge during nights.
- 10. Efficiency Greater than 96%
- 11. Compact size: 23 X 27 X 9 (cm)
- 12. Up to 30% energy conversion efficiency as compared to ON/OFF or PWM type.
- 13. Battery can be charged faster, in shorter duration
- 14. Even in cloudy weather, battery can be charged faster.
- 15. Higher voltage PV panel can be used to charge lower voltage battery



### PUREVOLT PRODUCTS (P) LIMITED

D-9/6, Okhla Industrial Area, Phase-I, New Delhi-110 020, India Phone: +(91)-(11)-41609760 / 41609761 Mobile: +(91)-9810032305 / 9811593007 Email: info@purevolt.in Web : www.purevoltindia.com



# SINE WAVE/SOLAR INVERTERS

DSP BASED DESIGN







### YOUR BEST ACCESS TO POWER BACKUP

FUREVOLT

DSP SINEWAY

### FEATURES LIST OF DSP SINEWAVE/SOLAR INVERTER

- 1. DSP based Design ; less components, small size less electricity bill more efficiency
- Soft start features; protects appliances at startup.
- Supply the highest quality pure sine wave power; protects your expensive household appliance and sensitive office equipments.
- Highly cost effective design.
- Efficiency >80%.
- Charging from 100VAC to 290VAC.
- Over load and D.C. low protection.
- Software controlled Auto self testing
- Inverter and UPS operation (PC Compatible).
- Intelligent Auto sense; continuously monitors health of system.
- 11. AC Input low and high voltage cut off protections in both, inverter and U.P.S. modes.
- 12. Constant voltage/Constant current pulse charging with wide Input range (130-280) V. (Charging current-10Ampr)
- 13. Silent operation of fans, tube light or appliances.
- Quick change over from Mains to inverter mode.
- Software controlled Auto reset feature for over load, short ckt and low battery

### TECHNICAL SPECIFICATIONS

MODEL	100VA/200VA/300VA/400VA/ 600VA/800VA/12V	1000VA/1500VA/24V	2000VA/36V	2500VA/3000VA/48V,4000VA/ 5KVA/72V,6KVA/96V, 7.5KVA/96V
Input voltage (UPS)	180-260V	180-260V	180-260V	180-260V
Input voltage (INV)	90-280V	90-280V	90-280V	90-280V
Output voltage on mains mode	Same as input	Same as input	Same as input	Same as input
Out voltage on inverter mode	220 ±5%	220 ±5%	220 ±5%	220 ±5%
Output frequency on inverter mode	50Hz ±0.1Hz	50Hz ±0.1Hz	50Hz ±0.1Hz	50Hz ±0.1Hz
Switching from mains to inverter and from inverter to mains.	Automatic	Automatic	Automatic	Automatic
Switching from mains to UPS and from UPS to Mains	Automatic	Automatic	Automatic	Automatic
Output waveform on mains mode.	Same as input	Same as input	Same as input	Same as input
Output waveform on inverter mode.	PURE SINE WAVE	PURE SINE WAVE	PURE SINE WAVE	PURE SINE WAVE
Battery charging current	Constant charging approx 6% of the rated battery current in AH.	Constant charging approx 6% of the rated battery current in AH.	Constant charging approx 6% of the rated battery current in AH.	Constant charging approx 6% of the rated battery current in AH.
Charger	Power factor controlled boost technology			
Efficiency	> 80%	> 80%	> 80%	> 80%
Inverter overload	120%	120%	120%	120%
Inverter short circuit	300%	300%	300%	300%
Technology	DSP BASED DESIGN.	DSP BASED DESIGN.	DSP BASED DESIGN.	DSP BASED DESIGN.
Auto reset features	Yes	Yes	Yes	Yes
		SOLAR SPECIFICATON		
PV Panel Voc Max.	23V	45V	68V	92V/138V/184V
PV Panel on load V Output	15.5V	31V	46.5V	62V/93V/124V
Output Current	10 to 40 Ampr			
Battery Full Charge Cutoff	13.8 VDC	27.6 VDC	41.4 VDC	55.2/82.8 /110.4VDC

- Special charging algorithm to enhance battery life.
- Fully protected against short circuit of AC mains with output.
- Phase to phase short circuit protection.
- Very low no load current for prolonged battery operation under standby.
- Cooling fan improves reliability of system.
- 21. Secure operation; No tension for night charging.
- Intelligent charging; adapts itself to low, high battery, more and less power cut areas, battery health conditions.
- Can even charge 6.4 volt deep discharged battery.
- 24. Reverse battery protection (optional).
- Generator compatible.
- Charging current adjustable from 0 to 20 Amp.

#### Solar Features

- Auto switchover between solar and mains charging.
- Zero drop solar charger (10-40) Amp.
- Simultaneous charging through mains as well as solar panel.
- Short charging time.
- Long battery backup.

### SOLAR INVERTER **VS SOLAR PCU**

### Solar Inverter:

Solar Inverter has priority for solar charging similar to PCU. However during solar day, battery will be charged through solar but in presence of mains the load will be fed through mains through bypass mode. Solar energy stored in battery can be utilized when AC mains is absent (in Inverter mode). This way solar energy will be stored in the battery and can be utilized when AC mains gets cutoff. As long as the mains is present solar power is kept stored.

### Solar PCU

In Solar PCU, solar charging of battery takes priority during solar day. Battery charges through solar until it reaches full charge voltage (typically 14.2V). After battery is fully charged, the load is fed via battery in inverter mode thus AC power is not used in presence of solar power. After the battery gets fully discharged (upto say 11V), the mains takes over charging as well as the load is fed through mains only. This way solar energy will be used first on priority and mains energy will be utilized only after the solar energy is fully exhausted.

### SOLAR SUPER CONVERTER

Solar Super Converter is a Solar Priority Charger & charges the Battery up to a Preset Max cut off voltage. After reaching this voltage, the AC output is disconnected & the load is supported from the Battery, As the Battery voltage drops down and reaches a lower cut off voltage, the AC output is reconnected & the load is supplied from Mains. The Battery status is thus maintained within a healthy range prolonging the life of the Battery, while the harvested Solar Power is used optimally to supply the load thereby reducing Power bills, a PCU functionality.

A SOLAR CHARGE CONTROLLER or regulator is a small box consisting of solid state circuits pcb which is placed between a solar panel and a battery.

Solar Charge Controller Has Mainly Three Basic Functions:

- 1) To Limit The Voltage From The Solar Panel And Regulate The Same So As Not To Overcharge The Battery
- 2) Not To Allow The Battery To Get Into Deep Discharge Mode While Dc Loads Are Used
- 3) To Allow Different Dc Loads To Be Used And Supply Appropriate Voltage.

### SOLAR CONVERTER

We offer solar converter cum solar charge controller for existing inverters. If you own an inverter system then by connecting our solar converter you can convert your existing non solar inverter system into a solar inverter.

This gives priority to solar charging and allows only the solar panel or mains to charge the battery at a time.

The switch over between solar and mains is automatic.

- Some of the features of solar converter are:
- (1) Coverts existing non solar inverter into a solar inverter.
  - (2) 12V and 24V systems are available
  - (3) 10 Amp, 20 Amp, 30 Amp and 40 Amp models are available
  - (4) Auto switch over between solar and AC mains.
  - (5) Manual selection also available in case solar charging is not sufficient in cloudy weather.
  - (6) LED display for charging status
  - (7) Housed in a rugged steel cabinet.





### **Isolation Transformer**

PUREVOLT manufacture ISOLATION TRANSFORMERS, STEP UP TRANSFORMER, STEP DOWN TRANSFORMER which reduce the effects of power Line problems like noise, spikes, surges, transients and neutral, to a minimum.

Isolation transformer is one that contains two windings: Primary and Secondary winding, that are separated from each other but wound on the same Iron core. The secondary that governs the output is, in this manner, separated from the input. Input and output are totally independent of each other except for the magnetic linkage between the two.

Owing to inductive loads, capacitive loads, SMPS loads, electronic ballasts and with PWM Switching systems, the present AC Power lines are superimposed with dangerous spikes, Surges, transients, sags and RFI noise and harmonics. As a result failure rates of electronic equipment are on the rise. Without adequate protection, All electronic equipment is at a great RISK.

#### Key Features of PUREVOLT Isolation Transformer :

- High efficiency, high reliability and accuracy. Compact, rugged in construction, free standing, floor mounting model and housed in sturdy metal casing with sufficient ventilations.
- High insulation values.
- Suitable for use with modern sophisticated micro processor based equipment, CNC machines, computers and other Industrial processing.
- Isolates the equipment from noisy power line.
- Reduces Power line noise, surges, spikes & transient.
- Provides the complete electromagnetic & electro static shielding

#### The results of an Ultra Isolation transformer are:

- It provides a perfectly balanced neutral at 'zero' potential and neutral can be used by grounding it.
- The supply of the output is free from all surges/spikes and so called electrical noise, which predominantly is present on the input side.
- Since the output is totally isolated from the input, any short circuits or faults on the primary side are not reflected on the secondary, thus avoiding damage to the sensitive electrical equipment.

#### Technical Information

Input Range	Output Range	Ratings Available
415V AC 3-Ph	415 V AC 3-Ph	1KVA 3-Ph and up to 500 KVA 3-Ph
415V AC 3-Ph	220 V AC 3-Ph	1KVA 3-Ph and up to 500 KVA 3-Ph
230 V AC 1-Ph	230 V AC 3-Ph	500VA 1-Ph and up to 100 KVA 1-Ph
230 V AC 1-Ph	110 V AC 3-Ph	500VA 1-Ph and up to 100 KVA 1-Ph

### **Technical Specifications**

Sr. No	System Connections	Delta / Star or Star / Delta
01	Ratios	1:1 and 2:1
02	Regulation	Better than 3.5 %
03	Di-electric strength	2500 V AC for 120 Sec
04	Insulation resistance	More than 1000 Mega Ohms
05	Coupling Capacitance	0.1 PF for 100 db
06	Common Model attenuation	100 db
07	Construction Standards	As per IS 2026

#### PUREVOLT PRODUCTS (P) LIMITED



D-9 / 6, Okhla Industrial Area, Phase - I New Delhi - 110 020, Delhi, India Phone: +(91)-(11)-41609760 / 41609761 / 26811037 Fax: +(91)-(11)-26811037 Mobile: +(91)-9810032305 / 9811593007 Email: purevolt@yahoo.com, info@purevoltindia.com Web : www.purevoltindia.com

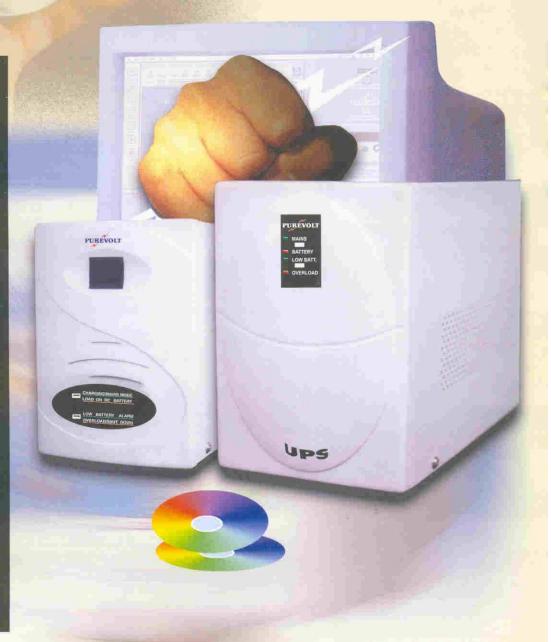






### **PRODUCT HIGHLIGHTS**

- Built in mains voltage regulator.
- UV/OV Cut off protection.
- Overload protection in normal / battery mode.
- Protection of battery against low voltage.
- Buzzer on low battery.
- Generator compatible.
- Computer grade power.
- Float cum boost charger.
- Soft start facility.
- Clear indication of power/battery mode.
- Compact, sleek design.
- External battery models also available. (for higher backup)



### UNINTERRUPTIBLE POWER SUPPLY Millennium Series

### PUREVOLT UNINTERRUPTIBLE POWER SUPPLY - (OFFLINE)

### TECHNICAL SPECIFICATIONS

### INTRODUCTION

Purevolt" UPS, specially designed for sensitive electronic systems, is economical data saver with latest power conversion techniques. Its output is quasi - square wave and based on PWM technology, used for power conversion. Its inbuilt single transformer arrangement permits lowest change over time, greater system efficiency and high reliability. Audio and visual indications are provided for operator's convenience. Overload/ short circuit protection and boost charger are provided to protect electronic current limiting and battery charging respectively. Indeed, "Purevolt" UPS is just perfect for personal, Pentium, micro, mini computers and biomedical equipments.

	RATING	500VA 625VA / 1000VA
INPUT	voltage Frequency DC Voltage	150-175 V AC      150-175 V AC        47 - 53 Hz      47 -53 Hz        12V      24V
OUTPUT	Voltage	220 V AC ± 7%(under mains mode 220 V AC ± 3%(under battery mode)
BATTERY	Frequency Low alarm Cut -off	50 Hz +/- 1%    50 Hz ±1%      10.5 V DC    20.5 V DC      9.5 V DC    19.5 V DC
BUILT IN BATTERY SMF	1	1X12 V 7AH 2 x 12V - 7AH-625VA 2/4 x 12V-7AH-1000VA
MAX. CHARGING VOLTAGE		13.8 V 27.6 V
TRANSFER TIME	na an a' l	< 3m sec.
EFFICIENCY		>85%
INDICATIONS	-	MAINS BATTERY LOW BATTERY OVER LOAD
PROTECTIONS		SHORT CIRCUIT OVER LOAD LOW BATTERY.

Note :- External Battery Model UPS For 1-4 Hrs. backup time are also availavle.

### OUR RANGE OF PRODUCTS



AUTHORISED DEALER

Please Contact:-PUREVOLT PRODUCTS PVT. LTD. D9/6, OKHLA INDUSTRIAL AREA, PHASE-I, NEW DELHI-110 020 TEL.: 011-51609760, 51609761 TELEFAX: 011-26811037 E-mail: purevolt@yahoo.com Website: www.indiamart.com/purevolt Website: www.purevoltindia.com

### THINK WHATS BEHIND YOUR POWER STABILITY



# PUREVOLT

### AN ISO 9001 - 2000 COMPANY

### Salient Features :

- v Wide Input Window
- v Generator Compatible
- v Computer Grade Power
- v Soft Start Facility.
- v Eprom / Micro Controller Design.
- v Float Cum Boost Charger.
- IGBT Based Hi Frequency PWM inverter.
- v Distortion <3%.
- v Inverter Efficiency >92%
- v High crest factor > 4 : I.
- v Crystal controlled output frequency 50 Hz <u>+</u> 0.01%
- v Low noise < 50 db upto 10 KVA.

PUREVOLT

alligned lands an

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- v Compact, sleek design.
- v Unlimited backup.

1

PUREVOLT

v Computer Interface.

### solution

### IGBT ON LINE UPS SYSTEM Range Available : 1 KVA to 60 KVA

### SINGAL PHASE / THREE PHASE

### Computer Grade Line

### Conditioning with Isolation

Superior full time isolation is built into all "PUREVOLT" UPS. Output is fully isolated by double conversion & isolation transformer. No need to have extra isolation transformer as required for Imported Systems. Remote Monitoring & Control through SNMP / Internet.

### PUREVOLT UPS are available in following configuration :

v Stand Alone True Online UPS.

- v Single Phase Input / Output.
- v Dual Redundant Hot Standby types UPS.
- v Parallel Redundant load sharing type UPS.

### Complete Blac kout and Brownout Protection

According to Study by Bells Labs, under voltage & sudden dips represent the majority of power problem. Wide Input range & Online design of "PUREVOLT" UPS prevent data loss caused by outrages and brown outs.

### Network Interface Port

Provided the security of an automatic shut down to all m a j o r n e t w o r k operating systems including Novells, Window NT/Window, Unix etc.(Optional Kit may be required).

### PUREVOLT PRODUCTS PRIVATE LIMITED

### **PUREVOLT** IGBT ON LINE UPS SYSTEMS

### AC INPUT PARAMETERS

**AC Input Voltage** a) 230V - 20% + 15% Single Phase or any Voltage Range as per

Frequency a) 50Hz ± 10% Customer requirement

Can also Work on Generators

230V AC Single Phase

### AC OUT PARAMETERS

- a) Output Voltage
- Adjustable Range b)
- Voltage Stability C)
- d) Frequency
- e) Waveform
- Harmonic Distortion f)
- g) Efficiency
- Power Factor h)
- i) Overload
- **Crest Factor** j)
- Transient recovery k)

Audible Noise I)

50 Hz ± 0.05 Hz (Crystal Controlled) or 60 Hz ± 0.06 Hz or any Optional Frequency

± 1% for DC Input Variation & Output

Sinewave

± 10V AC

Load Variations.

- Less than 3 %
  - > 93% for 360V DC & Above > 90% for 180V DC > 85% for 48V DC/72V DC
- 0.8 Lagging to Unity

II0% for 10 minutes. 200% for 5 Cycles. 400% for 1/2 Cycles. or as per Customer's Requirement

- > 4 : 1
- Within 3 Cycles.

Less than 55 db at I metre upto 10 KVA Less than 60 db at I metre above 10 KVA

### **OTHER PRODUCTS:**

- SERVO VOLTAGE STABILISERS
- CUSTOM BUILT TRANSFORMERS
- AUTOMATIC VOLTAGE STABILISERS
- ISOLATION TRANSFORMERS

### AUTO TRANSFORMERS (VARIACS)

- CVT
- POWER INVERTERS

### AUTHORISED DEALER

D-9/6, Okhla Industrial Area, Phase-1, New Delhi-110020 Ph. : 011-41609760, 41609761, Fax : 011-26811037, Mob. : 9810032305 E-mail : purevolt@yahoo.com urevo Itindia.c om Website : g.w w w

**Purevolt Products Pvt. Ltd.** 

**Optional Features :** 

- w Static by Pass Switch
- w Remote On / Off Panel.
- w Auto File Shut Down.
- w Serial RS 232 Inerface.
- w Remote Indicator Panel.
- w Microprocessor Based Digital

#### Self Test & Diagonostic Features

An electronics circuit with digital logics continuously searches for the following faults & trips the system with audio - visua indication.

- a) Battery Over Voltage.
- b) Output Under Voltage.
- c) Output Overload / Short Circuit.
- d) Output AC Over Voltage.

#### Indicators

w Mains on. w Load on batteries. w Battery low. w Inverter overload. w Load on Mains. w Battery boost. w Battery Level graph w Load Level geaph.

#### Ambient conditions

a) Operating - 0°C - 50 °C.

- b) Relative  $0^{\circ}$ C  $60^{\circ}$ C.
- c) Operating Altitude upto 2000 meters.
- d) Relative Humidity 95% RH.

#### Metering

Digital metering available for output voltage / battery voltage / battery current output frequency or any other as per requirement.

## **Online UPS** 1Phase Out



### **HX Series**

03~10KVA (1:1 Phase)

### **HXII** Series

10~20KVA (3:1 Phase), 4 No. can be paralleled

Application: Server and other networking equipments, Industrial Use

### Features:

- True double conversion online UPS
- Adopted IGBT and output Transformer for isolation
- Wide Input Voltage Range •
- User-friendly digital LCD display
- Cold Start Function
- Paralleling Possible in HX II Series



### Technical Specifications

Model No. Specification	HX-1103IB HX-1103L4	HX-1105IB HX-1105L 16	HX-1106IB HX-1106L 16	HX-1108IB HX-1108L 16	HX-1110L16	HX-3110L16 HX-3115L 16 HX II 3110L 16 HX II 3115L 16	HX-3120L16 HX II-3120L16
INPUT FEATURES							
Voltage (VAC)		160-275VAC (1	40-300VAC-Optio	nal)		380/400/4	15+-25%
Power Factor				0.90 (with option	al filter)		
Phase		1phase ir	1phase out			3 phase in 1phas	e out
Efficiency				>9(	)%		
Frequency (Hz)		50 ± 5%					
OUTPUT FEATURES							
Voltage (VAC)		220 ± 1%					
Frequency (Hz)		50 or 60 ± 0.5% (Battery mode)					
Power Factor		0.7 std. (0.8, 0.9 optional)					
Overload Capacity		125% load for 60s, 150% load for 40ms					
COMMUNICATIONS							
Interface (Optional)		RS485/RS232 data and relay dry connection, supporting power manager software and SNMP adapter			oter		
Panel Display	LCD displ	LCD display Indicates Input voltage, Output voltage, Load Level, Battery Voltage ect; / LED indicates running status					
Parallelability	NA NA Upto 4 units						
Capacity (KVA)	3	5	6	8	10	10/15	20
Battery Voltage (VDC)	48			16 x 12V = 192V			
Dimension(WxDxH)mm	230x620x470	230x620x470 230x635x690 300x740x700 360x735x800 400x800x1			400x800x1180		
Weight (Kg.)	41	52	56	60	76	120/135	170



### SERVO VOLTAGE STABILIZER



# PUREVOLT

### About us

We take this Opportunity to introduce ourselves as an "ISO 9001 - 2000 Certified Organization" & a registered DGS&D, NSIC, D&B and SSI Unit engaged in Manufacturing, Exports and Marketing of all types of Power Conditioning Equipments.

Our D U N - S No is 72-513-8288. We are also exporting these products to various countries like Australia, Canada, USA, South Africa, Peru, Sudan, Abu Dhabi, Sharjah, Sweden, Nigeria, Sudan, UAE, Bangladesh, Tanzania, Egypt, Saudi Arabia, Bahrain, Dubai, Nepal, Bhutan etc

Purevolt Products Pvt. Ltd. was launched by a group of hardcore power electronic engineers and professionals with an objective of providing single source solutions for solving all power problems faced by Industries, Domestic and Computer users.

All these systems manufactured, marketed and supported by PUREVOLT are based on the <u>State of the art</u> technologies keeping abreast with the ISO Standards.



### Why you need a Servo Voltage Stabilizer?

It is seen that Inspite of best efforts by various Electricity Boards / Supply undertakings the voltage at consumer's end is never constant. The reason being diverse loading duties arising in transmissions and distribution network. During the day time when the load requirements is more the voltage remains quite low and during night it goes up than the normal.

As a result of these never ending voltage fluctuations there is frequent Tripping / Breakdown of the systems / machines and precious equipment's resulting into low production.

Our Servo Voltage Stabilizer can overcome and control these voltage fluctuations & can provide you with the desired constant output voltages. Our every Servo Voltage Stabilizer rolled out of the factory undergoes strict and rigid inspection and testing.

Our Servo Voltage Stabilizers are duly Tested & Approved by Govt. lab Electronic Test & Development Center (ETDC) & are manufactured As per IS 9815 Standards.

Our Servo Voltage Stabilizer are available in a vast choice of Input and Output Voltage range suitable for various applications in industries, institutions and residences etc. having indigenous, imported sophisticated machines / instrument / gadgets etc.

### How does this Servo Voltage Stabilizer Operate?

Purevolt Servo Voltage Stablizer essentially employs a Solid-State circuit, which controls the Servo Motor. The motor is mechanically coupled to the arm of a continuously variable Auto Transformer (Variac) that feeds to the primary of a series control Buck-Boost transformer. The stabilizer output voltage is compared with the reference voltage and the resultant error signal controls the Servo Motor providing true proportional control systems rather than On/off circuits.

### Type of Servo Voltage Stabilizer?

**UNBALANCED TYPE :** Widely accepted design to suit various conditions. All the phase/s are independently sensed & corrected. Suitable for both balanced/ unbalanced loading & incoming voltage

**BALANCE TYPE :** One phase (master) sensed & all the 3 corrected in accordance to the master phase. Suitable for balanced loading & balanced incoming voltage only (not suitable for unbalanced loading/unbalanced input voltage)

### Fields of Application:

Servo Voltage Stabilizers are virtually required at all such places where controlled and constant voltage is one of the most important ingredients. Like Hospitals, Laboratories, various life saving & testing equipments, pharmaceuticals, Research Institutes, Defense, Telecommunications, Air Conditioning, Data Processing, Electronics based Industrial, Educational institutes, Food processing units, Paper plants, Footwear and Leather industrial, Cement Plants, Textile Industries, Moulding units, Hotels, Farms houses, Offices and residences/ housing apartment etc.



PUREVOLT



### SALIENT FEATURES

- Fully Solid State Control Circuit for High Reliability.
- Synchronous motor drive for high reliability.
- Excellent Regulations as high as + 1 %.
- Use of Professional Grade IC's for better stability.
- Zero Wave Form Distortion.
- Plug in type PCB with Gold Plated fingers for better contacts.
- High Efficiency
- Rugged Construction with Low No Load Losses.
- Auto Manual Operation Facility through selector switch.
- Volts adjust to set / adjust required voltages.
- Increase / Decrease switch to control output voltages in Manual Mode.
- Voltmeters to read Input / Output voltages through Selector switch.
- Indications: Output On, Input High/Low, Output Cutoff.
- Suitable Input / Output connection provision is provided.
- Cyclic & Routine Test done on every unit.

### **OPTIONAL FEATURES**

- 110 V Output can also be supplied.
- Over Under Voltage Cutoff Protection through Contactor.
- Overload / Short Circuit protection through MCB/MCCB.
- Changeover / By-Pass facility.
- Built in spike suppressor.
- Digital Voltmeter / Am-Meter.
- Single Phase / Phase Reversal Protection.

### General Technical Specification of our Servo Voltage Stabilizer

Characteristics	Single Phase	Three Phase (Unbalanced/Balanced Type)	
Input Voltage	200 - 280 V AC 170 - 270 V AC 140 - 280 V AC 110 - 280 V AC	340 - 480 V AC 300 - 460 V AC 240 - 480 V AC 190 - 480 V AC	
Output Voltage	230 V ± 1 %	400 V ± 1 %	
Output Adjustable	220 - 240 V AC	380 - 415 V AC	
Connections		Star / Star	
Frequency		47- 53 Hz	
System Design	As per IS : 9815 : 1994		
Insulation	Class B		
Wave from Distortion	None		
Effect of Load Power Factor	Nil		
Type of Cooling	Air / Oil Cooled		
Speed of Correction	>than 20 V / Sec.		
Regulation	± 1.0% from No Load to full load		
Ambient Temperature	0° to 55° C		
Environment	Designed for indoor continuous operation		
Rating Available	1	KVA to 1500 KVA	

### **Isolation Transformer**

PUREVOLT manufacture **ISOLATION TRANSFORMERS**, **STEP UP TRANSFORMER**, **STEP DOWN TRANSFORMER** which reduce the effects of power Line problems like noise, spikes, surges, transients and neutral, to a minimum.

Isolation transformer is one that contains two windings: Primary and Secondary winding, that are separated from each other but wound on the same Iron core. The secondary that governs the output is, in this manner, separated from the input. Input and output are totally independent of each other except for the magnetic linkage between the two.

Owing to inductive loads, capacitive loads, SMPS loads, electronic ballasts and with PWM Switching systems, the present AC Power lines are superimposed with dangerous spikes, Surges, transients, sags and RFI noise and harmonics. As a result failure rates of electronic equipment are on the rise. Without adequate protection, All electronic equipment is at a great RISK.

### Key Features of PUREVOLT Isolation Transformer :

- High efficiency, high reliability and accuracy. Compact, rugged in construction, free standing, floor mounting model and housed in sturdy metal casing with sufficient ventilations.
- High insulation values.
- Suitable for use with modern sophisticated micro processor based equipment, CNC machines, computers and other Industrial processing.
- Isolates the equipment from noisy power line.
- Reduces Power line noise, surges, spikes & transient.
- Provides the complete electromagnetic & electro static shielding

### The results of an Ultra Isolation transformer are:

- It provides a perfectly balanced neutral at 'zero' potential and neutral can be used by grounding it.
- The supply of the output is free from all surges/spikes and so called electrical noise, which predominantly is present on the input side.
- Since the output is totally isolated from the input, any short circuits or faults on the primary side are not reflected on the secondary, thus avoiding damage to the sensitive electrical equipment.

### **Technical Information**

Input Range	Output Range	Ratings Available
415V AC 3-Ph	415 V AC 3-Ph	1KVA 3-Ph to 500 KVA 3-Ph
415V AC 3-Ph	220 V AC 3-Ph	1KVA 3-Ph to 500 KVA 3-Ph
230 V AC 1-Ph	230 V AC 1-Ph	500VA 1-Ph to 200 KVA 1-Ph
230 V AC 1-Ph	110 V AC 1-Ph	500VA 1-Ph to 200 KVA 1-Ph

### **Technical Specifications**

Sr. No	System Connections	Delta / Star or Star / Delta or Delta / Delta
01	Ratios	1:1 and 2:1
02	Regulation	Better than 3.5 %
03	Di-electric strength	2500 V AC for 120 Sec
04	Insulation resistance	More than 1000 Mega Ohms
05	Coupling Capacitance	0.1 PF for 100 db
06	Common Model attenuation	100 db
07	Construction Standards	As per IS 2026



### PUREVOLT PRODUCTS (P) LIMITED

D- 9 / 6, Okhla Industrial Area, Phase - I New Delhi - 110 020, Delhi, India Phone: +(91)-(11)-41609760 / 41609761 / 26811037 Fax: +(91)-(11)-26811037 Mobile: +(91)-9810032305 / 9811593007 Email: purevolt@yahoo.com, info@purevoltindia.com Web : www.purevoltindia.com







# Continously Variable Voltage Auto Transformer

### DESCRIPTION

**Continuosly Variable Voltage Auto Transformer** is the most effective device for stepless, breakless & continuous control of AC voltage & therefore for various parameters, dependent on AC voltage.

These Variable Voltage Auto Transformers, consists of a single layer winding on a toroidal silicon-steel core. As the control knob is rotated, a carbon brush traverses the winding, tapping off a portion of the total voltage across the winding. The brush is in continous contact with the winding. The discrete voltage increments obtained as the knob is rotated are always less than the voltage between turns. Since the brush spans more than one turn, the change in voltage is practically continuous. As output voltage is continously variable, Variable Voltage Auto Transformers are rated in terms of current that can be drawn from the output.

The basic Continously Variable Voltage Auto Transformers is meant for operation from a nominal input voltage of 240 V 1ph AC & can give output voltage anywhere between 0 to 240V or 0 to 270V AC by simple transformer action. Three such Variable Voltage Auto Transformers connected electrically in star and mechanically in tandem, become suitable for operation from a nominal input voltage of 415V 3Ph AC and can give output anywhere between 0 to 415V or 0 to 470V.





### **FEATURES**

### Rating Available: 4 Amps - 1600 Amps

- Simple, rugged construction.
- Coils made from high grade CRGO Silicon Steel & Pure copper.
- Variable DC Output can be given using Diodes & Rectifiers.
- Output voltage variation is smooth, continuous, breakless & linearly proportional to angular rotation.
  - High efficiency.

- Negligible waveform & power factor distortion.
- Excellent short time overload capacity.
- Remote operation possible by motorization.
- Wide range of current ratings.
- High quality carbon brush used for current collection.

### **ELECTRICAL SPECIFICATIONS**



	a) Flush Open Manual (Air Cooled) — F	
MODEL	b) Portable Enclosed Manual (Air Cooled) — P	
	c) In Tank Manual (Oil Cooled) — T 'F', 'P', T suffixed by 'M' means motor operated models.	
OPERATING VOLTAGE	For Single Phase - 240V AC, 50-60 Hz. I- ph.	
	For Three Phase - 415V AC, 50 -60 Hz., 3 - ph - 4wire.	
CURRENT RATINGS	For Oil Cooled models, maximum current & continuous current are Appx. one & the same.	
	For Air Cooled models, The power Factor is Appx. 0.8	
OPERATING TEMP	0° - 45°C.	
INSULATION RESISTANCE	Not less than 5M ohms at 500V DC.	
DIELECTRIC TEST	2.5kV RMS for 1 minute.	
STORAGE TEMP.	-9°C to 70°C	
HUMIDITY	Upto 95% RH	
CONFORMS TO	I.S. 5142.	

### **MECHANICAL CONSTRUCTION**

Single phase Variable Transformers are available in 3 types.

- Portable type (P) with sheet steel enclosure for floor / table use.
- Flush type (F) with open type construction. Suitable for panel mounting.
- Tank type (T) immersed in oil in sheet steel tank with rollers.

Three phase Variable Transformers is usually ganged assembly of 3 coils, available in all 3 types: P, F, T.

Higher rating Continously Variable Voltage Auto Transformers (above 200 Amps) use 2/3/4/5/6 or more coils in parallel with load balancing arrangements.

Tank type (T) immersed in oil in sheet steel tank with rollers.

Motorized Variable Transformers uses 240V AC Step-Syn Motor having 60 rpm speed at 50Hz. With proper gearing higher torque at lower speed can be achieved. Standard

gear ratios used provide sweep time of 8, 15, 30, 45, 60, 120secs.

### **APPLICATIONS**

- Auditorium, Hotels, Conference Halls, Exhibitions, Laboratories etc.,
- Testing of 1/3 Phase AC / DC Motors after Rewinding.
- Rectifiers, Battery Chargers.
- Temperature control of Ovens, Furnaces.
- Testing of Instruments, Relays, Circuit Breakers etc.
- Welding, Electro-plating, Anodizing.
- Colleges & Universities Labs.
- Testing & Calibration of various electrical and electronics equipments.









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D-9/6, Okhla Industrial Area, Phase-I, New Delhi-110 020, India Phone: +(91)-(11)-41609760 / 41609761 Mobile: +(91)-9810032305 / 9811593007 Email: info@purevolt.in; Web : www.purevoltindia.com