



Uninterruptible Power Supply Systems

True On-Line Technology. 3 Phase in- 3 Phase out

- State of the art IGBT technology
- Double conversion technology
- Low Input Current Distortion-green load
- Capacity Enhancement and Redundancy guaranteed by Parallel Systems
- Power Economy with ECO-Mode configuration
- Reliability of the battery ensured by Neo-Charger
- Fail safe battery back up
- Meets all EN standards for EMI/EMC
- Synchronization with external source
- Comprehensive communication solutions
- Input power factor correction
- Expandable and variable battery banks
- Incredibly compact and light
- Low installation and operating cost

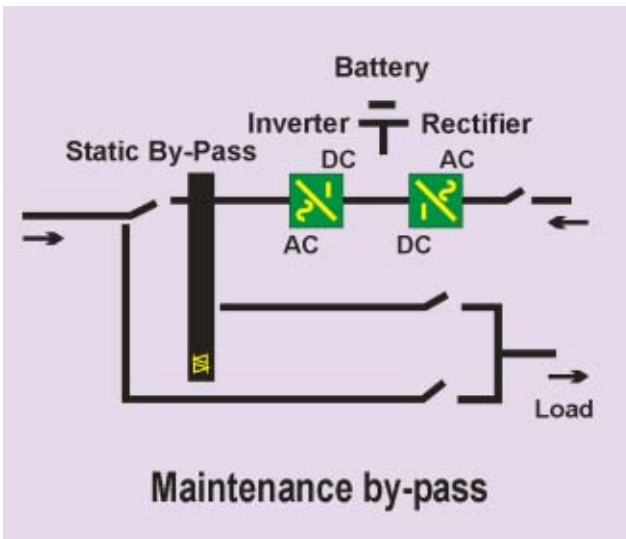




EVEREST-PLUS SERIES

Technology

EVEREST-PLUS uses the latest and most efficient topology integrated with the IGBT PWM technique to provide high current delivering capability while protecting the system against excessive instantaneous overload. The implementation of advanced manufacturing technology such as surface mounted devices, SMDs, have reduced the number and the size of the Printed Circuit Boards. This enhances the system reliability manifold.



The reduction in the number of components has resulted in higher reliability while increasing its immunity to electromagnetic disturbances.

Digital control of **EVEREST PLUS** is an essential factor guaranteeing high quality output voltage of the UPS. **EVEREST-PLUS** is designed for supplying all non-linear loads, and provides the following features :

- Stable voltage <1%
- Low output voltage distortion

This, in turn, limits the effect on the voltage distortion downstream in the distribution network.

EVEREST-PLUS technology is fully compatible with all kinds of distribution networks, including those loads with filtering or power factor compensation systems.

Neo-Charger

Considering the importance of the battery in a UPS system, **EVEREST-PLUS** uses a special technology to maximize its life time. The Neo-Charger provides:

- Intelligent management of the battery recharge,
- Charging voltage control according to the temperature,

- Very low residual, ripple voltage,
- Periodic automatic battery test,
- Protection against slow discharge.
- Protection against over charge

Eco-Mode

The **ECO-MODE** function allows cost-effective operation of **EVEREST-PLUS** systems. In this mode of operation, the load is supplied from the commercial line. In the event of line failure, the inverter takes over the loads and provides supply continuity to the connected systems.

Eco-Mode Operation can be selected manually or programmed through the software. As an example a user, automatically and from a remote PC, could program night-time operation of the UPS in Eco-Mode so that power is drawn from the utility line and day-time operation could be normal in "On-line" mode when power to the more critical loads is needed.

Synchronisation and Feed-Back

Protection

EVEREST-PLUS output is in synchronization with an external auxiliary power source and therefore during the UPS failure, the static bypass ensures instant change over. This system guarantees the operation without break.

System provides feed back protection that monitors possible over voltage feedback in the upstream circuit via the use of electromechanical switching devices.

Teleservice

The state of your UPS System is continuously available for monitoring through the telecom network to the after sales service center. This Tele-service offers information/ features such as:

- consultations from a PC screen
- remote alarms,
- remote diagnostics.
- Battery
- Static By-Pass
- Inverter (DC AC)
- Rectifier (AC DC)

Harmonics Suppression (THCDL)

The Third Harmonic Suppression significantly reduces the harmonic distortion of the input line current to the UPS (as low as 5%). This allows the UPS to draw sinusoidal current from the commercial line even with highly distorting loads connected to the UPS. Input power supply remains unaffected by the line frequency changes or the controlled rectifier load. THCDL is also well adapted to operate with Gen-sets.



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Communication and Remote Control

EVEREST-PLUS provides a complete range of communication links, not only with the users or service personnel, but also with the computer systems themselves.

Automatic Shutdown of Servers

When there is a blackout and line power has failed, the users are informed of the UPS working on the battery back up. Before the end of the battery back up period, **EVEREST-PLUS** software performs an automatic shutdown of the current applications.

Management in an SNMP Network

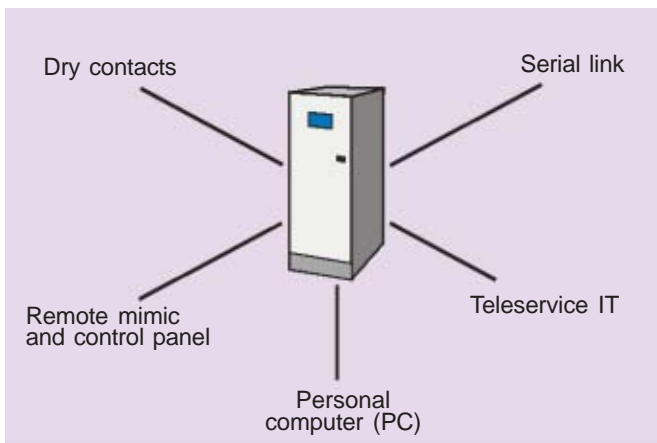
SNMP agent of the UPS software allows the **EVEREST-PLUS** system to be monitored like any other computer peripheral; remote and gives real-time access for information to the running status of the **EVEREST- PLUS**.

Serial Port

All the information on the **EVEREST-PLUS** database such as: status, measurements, alarms as well commands are transmitted on a RS 232, RS 422 or RS 485 serial port.

Remote Monitoring and Management

EVEREST-PLUS provides between 7 and 14 dry contacts that can be set on request. External inputs are available to manage the following operations: gen-set on, battery charge stop, emergency stop, and other options.

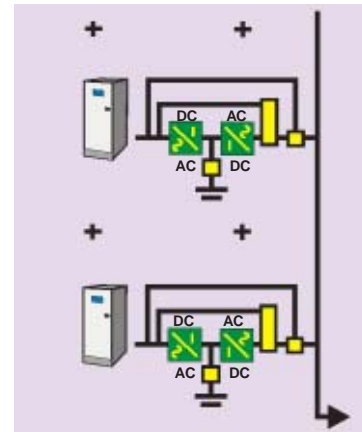


The panel with a display gives access to all **EVEREST PLUS** functions.

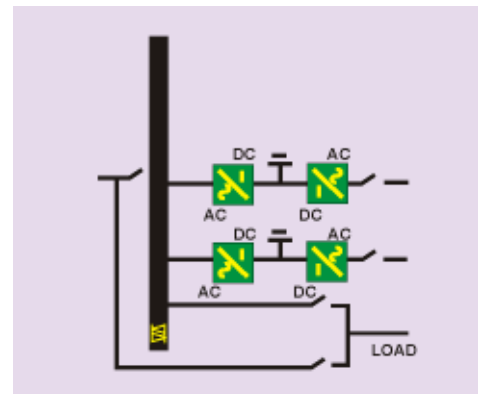
Parallel Operation with Redundancy

EVEREST PLUS offers wide choices of parallel system configuration:

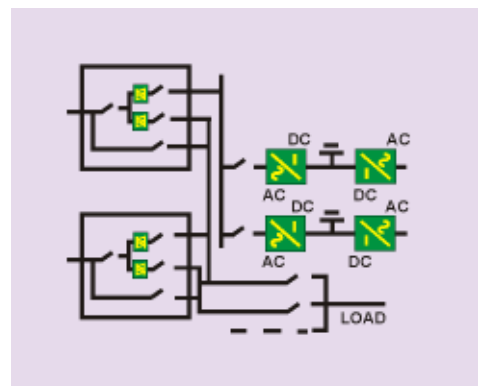
Modular system



Central by-pass system



Multi by-pass system





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Maintenance

Given the vital importance of UPS, offering prompt Quality Service is just as important as the Product Quality. In order to increase reliability by reducing MTTR (Mean Time to Repair) by way of simple and rapid

maintenance, **EVEREST PLUS** incorporates :

- A socket enabling maintenance engineers to connect a personal computer to carry out checks, diagnostics and configuration of sub-units.
- Modular design with easily accessible components and subassemblies.

Specifications

	MODEL	EP100	EP120	EP160	EP200
	Output KVA	100	120	160	200
	Power Factor	0.8			
INPUT	Voltage	380V/400V/415V 3 Phase			
	Tolerance	±15%			
	Frequency	45 to 65Hz			
	Current Harmonic Distortion	<5% (THCDL version)			
OUTPUT	Voltage	380V/400V/415V 3 Phase			
	Tolerance (static condition)	<1%			
	Tolerance (dynamic condition)	+2%, -4%			
	Harmonic Distortion Rate on non linear load	Global <4%			
	Crest Factor	3 : 1			
	Frequency	50 or 60Hz			
	Frequency Tolerance	±0.02%			
	Overload	100% -125% load		10 min	
		125% -150% load		1 min	
	Overall Efficiency	94%			
	Eco-Mode Efficiency	97.5%			
	Battery Voltage (nominal)	30 Battery (360V DC) typical/30-34 battery (360 - 408VDC) variation if reqd.			
GENERAL	Protection	Overload/Short circuit, DC Over/Under voltage and Over heat			
	Indication	Line on, Battery on, Mains abnormal, Load on Inv., Load on Aux. and Inv. trip			
	Metering	Input volt., Batt. volt., Output volt., Bal. batt. autonomy, Output freq. and Load power (%)			
PHYSICAL	Weight W/o Battery (Kg)	750	810	970	1170
	Dimensions W x D x H (mm)	1100 x 800 x 1650			
ENVIRONMENT	Audible Noise	63 to 66dBA			
	Standards	EN 50091-1 (safety), EN 50091-2 (EMC), EN 62040-3 UPS Classification according IEC 62040-3			
OPTIONS	Battery Cabinet, Parallel Redundancy, SNMP Interface, Remote Signaling and control Unit, Communication Software, Remote Signaling Interface, Galvanic Isolation, 12 Pulse Rectifier				

Aplab Limited reserves all right to specifications and are subject to change without notice



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