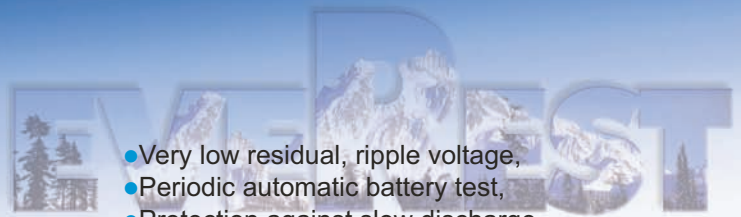


Uninterruptible Power Supply Systems

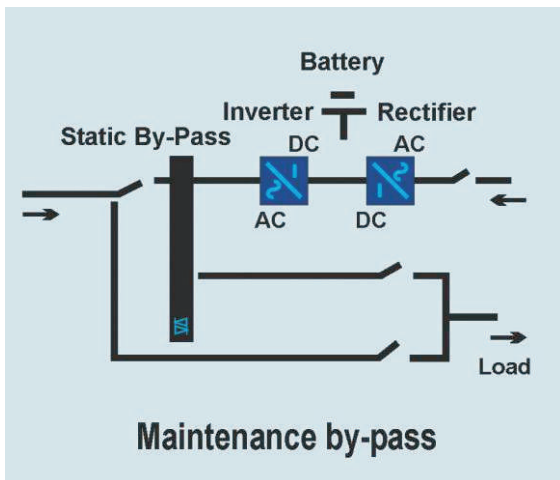
DSP controlled True On-Line Technology. *3Phase in- 3Phase out*

- State of the art IGBT technology
- Double conversion technology with >94% efficiency
- Digital signal processor controlled (DSP)
- 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
- Built-in Galvanic Isolation Transformer
- Expandable and variable battery banks
- Incredibly compact and light
- Low installation and operating cost



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 use of digital signal processors and 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.



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

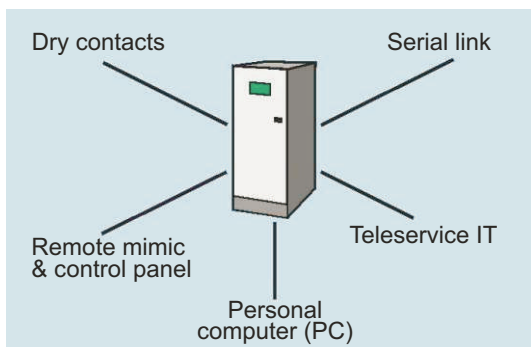
SNMP agent of the UPS software allows the **EVEREST-PLUS** system to be monitored like any other computer peripheral; remote and gives real-time access for information to the running status of the **EVEREST- PLUS**.

SERIAL PORT

The serial port allows the communication with Building Management Software System (BMS). 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.

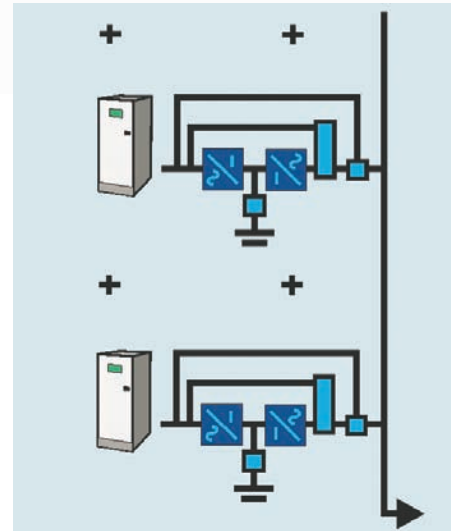


The panel with a display gives access to all **EVEREST PLUS** functions.

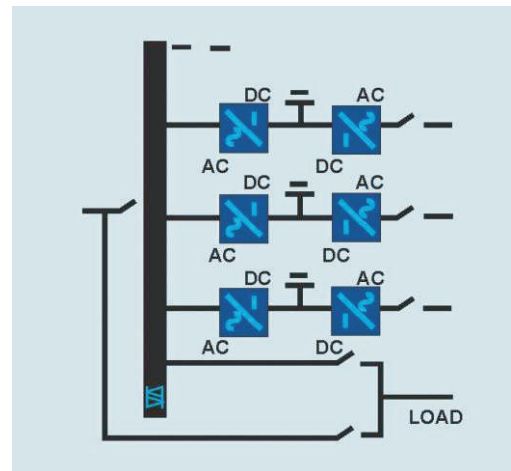
PARALLEL OPERATION WITH N+1 REDUNDANCY

EVEREST PLUS offers wide choices of parallel system configuration:

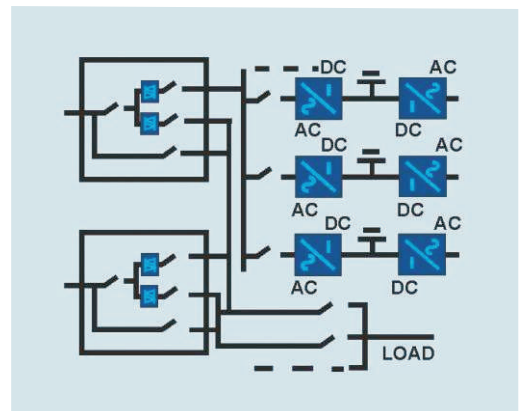
Modular system



Central by-pass system



Multi by-pass system





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.

TECHNICAL SPECIFICATIONS

MODEL		EP100	EP120	EP160	EP200	EP250	EP300	
	Output KVA	100	120	160	200	250	300	
	Power Factor	0.8						
INPUT	Voltage	380V/400V/415V 3 phase						
	Tolerance	±15%						
	Frequency	45 to 65Hz						
	Tolerance	±10%						
	Voltage	380V/400V/415V 3 phase						
OUTPUT	Tolerance (static condition)	<1%						
	Tolerance (dynamic condition)	±2%, -4%						
	Harmonic Distortion Rate on linear load	Global <4%						
	Crest Factor	3 : 1						
	Frequency	50 or 60Hz						
	Frequency Tolerance	±0.2%						
	Overload		100% -125% load 10 min					
			125% -150% load 1 min					
	Overall Efficiency	94%						
	Eco-mode Efficiency	97.5%						
	BATTERY	Battery Voltage (nominal)	30 Battery (360V DC) typical/30-34 battery (360-408V DC) 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	1560	1800	
	Dimensions WxDxH mm	800 x 800 x 1930				1600 x 800 x 1920		
ENVIRONMENT	Audible Noise	63 to 66dBA						
	Standards	EN 50091-1(safety), EN50091-2 (EMC), EN62040-3 UPS classification according IEC 62040-3						
OPTIONS	Battery cabinet, parallel redundancy, SNMP interface, remote signaling and control unit, communication software, remote signaling interface, common by-pass for parallel systems, galvanic Isolation, 12 pulse rectifier, serial port interface, dry contact interface							

We pursue a policy of continuous development & product improvement. Specifications & front panel controls, may be subject to change, without notice



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