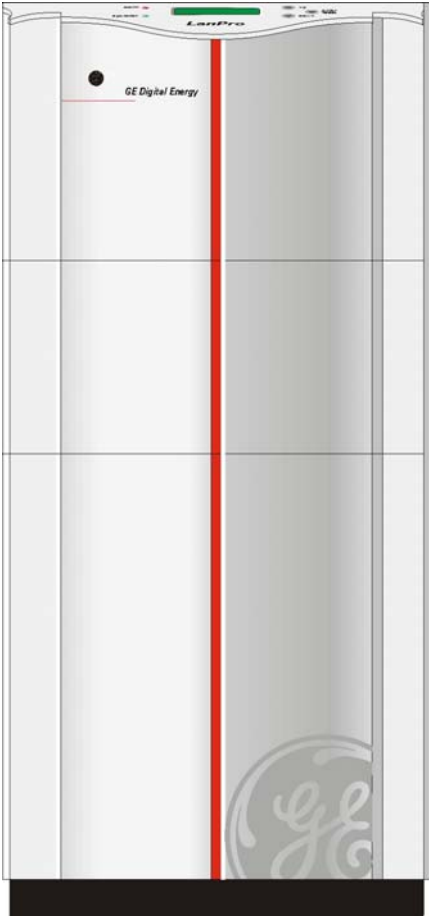


# LP Series 11/31T

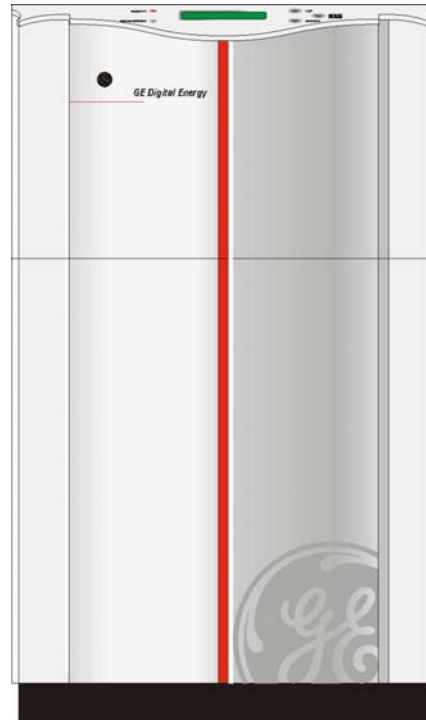
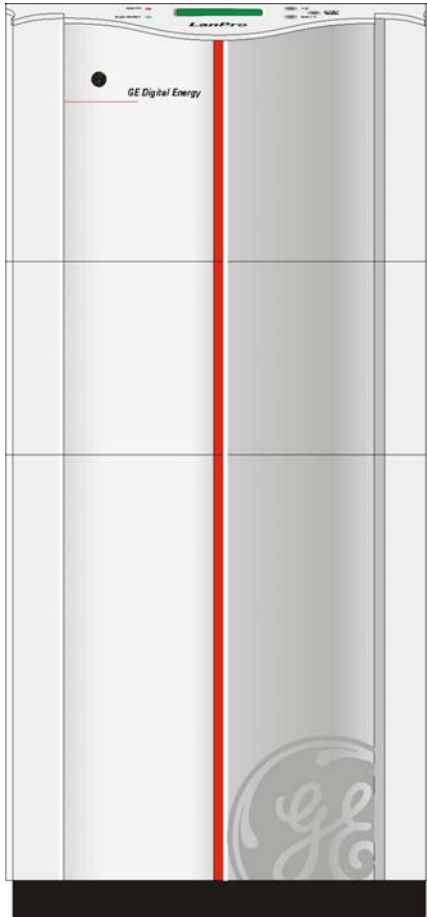
Uninterruptible Power Supply

Product Management



imagination at work

# LP Series



On-line hardwired  
UPS single phase  
3-10kVA  
CE Marked

# Introduction

## Contents

- Range
- Product description
- “Hot buttons”
- Specifications
- Features & Benefits
- Options
- RPA ( Redundant Parallel Architecture)
- Segments and Applications

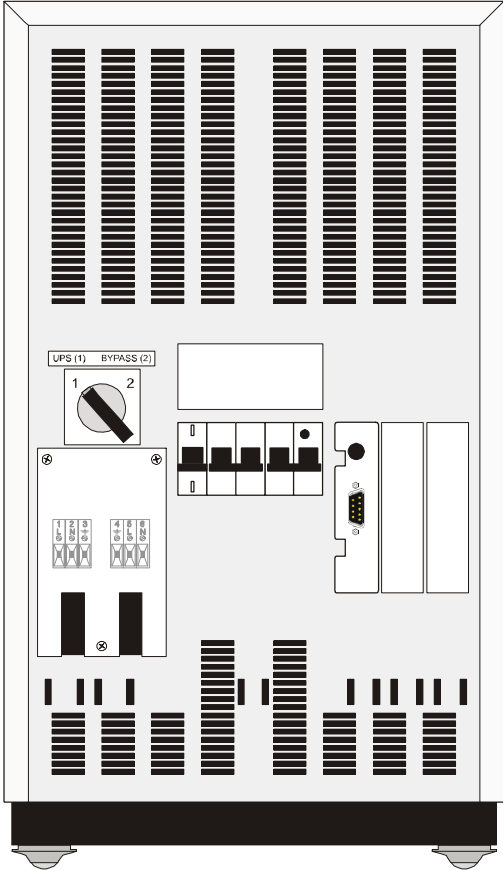
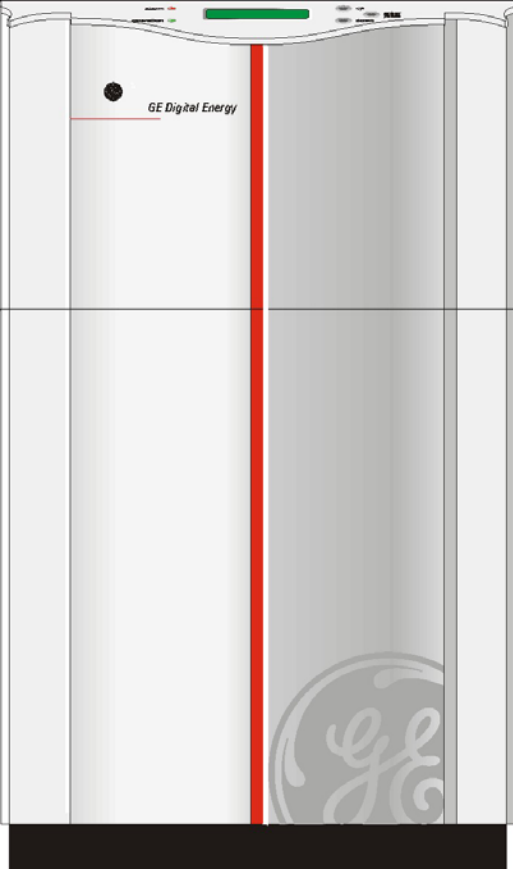
# Range

- **LP-11 Series 3/5/6/8/10:**  
230 Volt single phase in and out
- **LP-31T Series 5/6/8/10:**  
400 Volt three phase in and  
230 Volt single Phase out

# Product Description

- **True on-line double conversion**
- **Power factor 0.99 at input**
- **Electronic and manual bypass**
- **Fully isolated output**
- **Easy maintenance**

# Product Description



# Product Description



LC display, 2 LEDs  
3 push-buttons

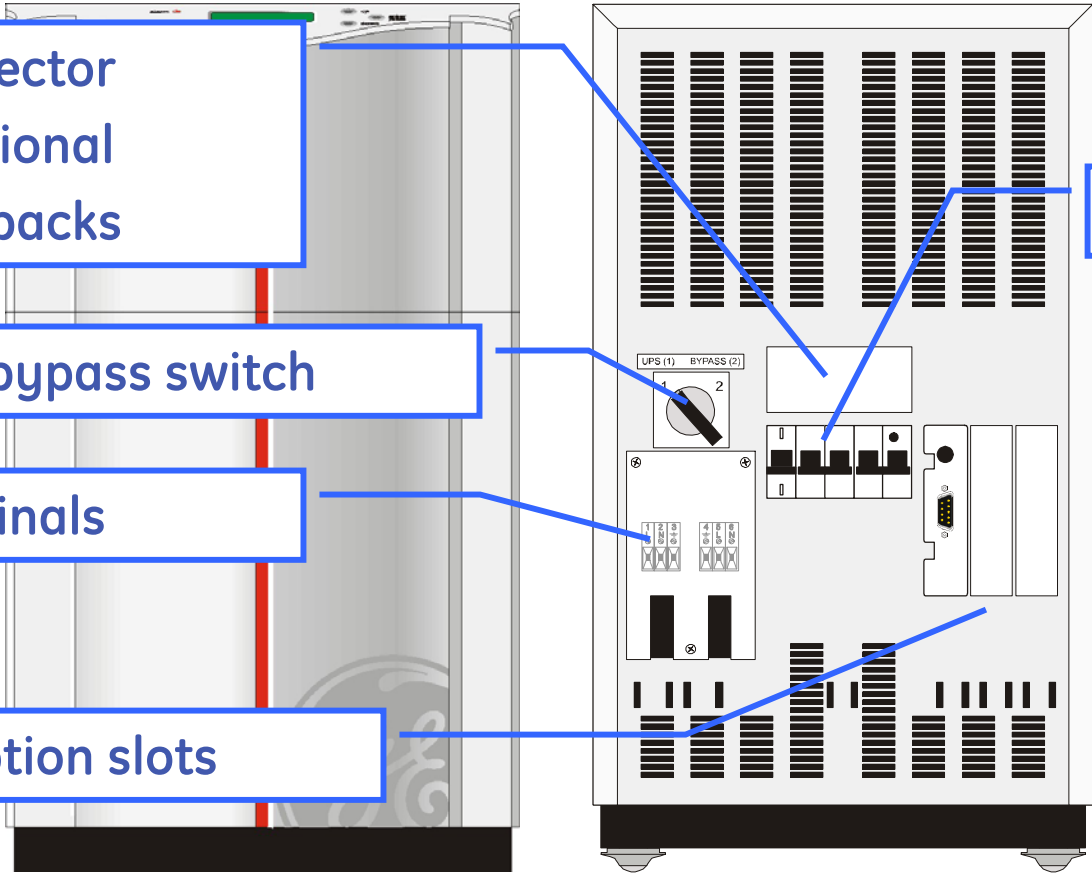
DC connector  
for additional  
battery packs

Manual bypass switch

I/O terminals

Three option slots

Input fuses



# Hot Buttons

- Power factor corrected input
- Automatic bypass
- Maintenance bypass switch
- Maintenance bypass preserves voltage conversion & isolation
- Cold start (unit can be started with no AC present)
- Multi language display
- Unique RPA

# Hot Buttons (continued)

- LCD screen
- Automatic battery testing –every 500 hrs.
- No load shutdown
- No load inrush current
- Superior overload handling
- Easy to service
- Backfeed relay in 31T versions

# Specifications

- LP Series 3-11 3 kVA- 2.4 kW
- LP Series 5-11 / 31T 5 kVA - 4 kW
- LP Series 6-11 / 31T 6 kVA - 4.8 kW
- LP Series 8-11 / 31T 8 kVA - 6.4 kW
- LP Series 10-11 / 31T 10 kVA - 8 kW

# Specifications

## Voltages and Frequencies

Input Voltage LP 11

187 - 285 Vac 1 phase

Input Voltage LP 31T

340 - 470 Vac 3-ph / 4 wire

Output Voltage LP 11 and LP 31T

220 / 230 / 240 Vac 1 phase

Output Frequency

45-65 Hz

# Specifications

## Voltage and Frequency Independent

### True On-Line - double conversion

- HF PWM technique
- No load (< 2%) shutdown with no utility
- Bypass enable / disable
- Programmable frequency tracking range (2%, 4%, 6%)

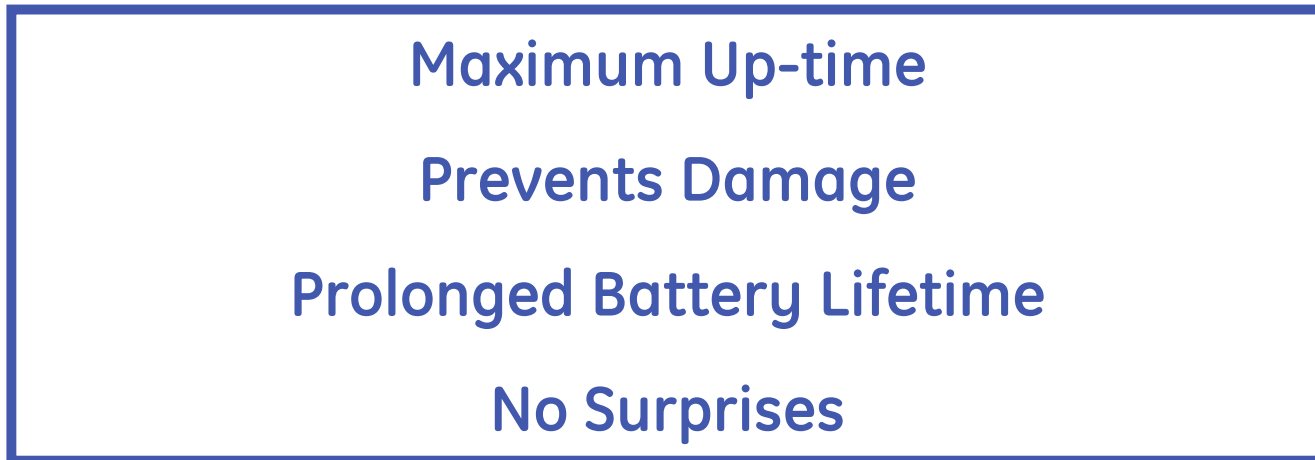
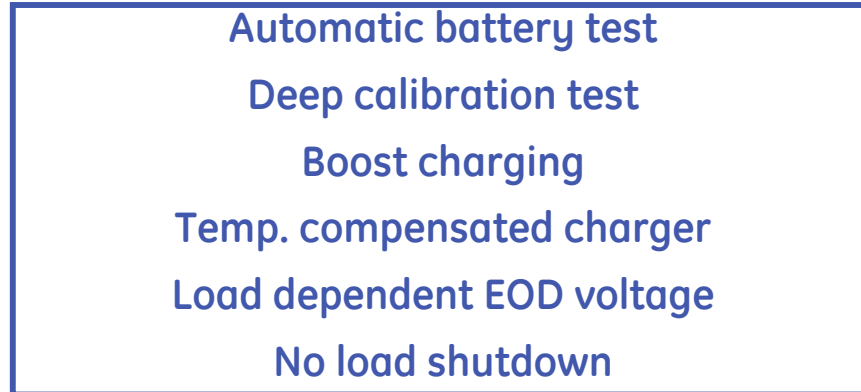
# Features & Benefits

## Superior Battery Management

- Automatic battery test
- Battery calibration test
- Boost charging
- Temp. compensated charger
- Load dependent EOD voltage
- No-load shutdown

# Features & Benefits

## Superior Battery Management



# Features & Benefits

- ECO-mode

*High efficiency (97%) , low energy costs*

- On board event logging

*Easy and fast diagnostic*

- Multi-lingual LC display

*Shows all operational parameters in language to choose from GB / NL / D / IT / ES*

- Design front

*Elegant design, fits with all modern ICT products*

# Features & Benefits

- **Emergency power off (standard)**  
*Emergency shutdown in case of fire or water alarms*
- **Excellent Overload Behavior**  
*Withstands most toughest conditions*
- **Isolation transformer**  
*Ultimate protection from disturbances*
- **Tracking speed is selectable**  
*Optimized for generator supply*

# Options

- **Redundant Parallel Architecture**  
*Unique RPA system*
- **SNMP plug-in card (web enabled)**  
*For direct integration into networks*
- **Relay card (plug-in)**  
*Integration into third party systems*
- **Additional battery packs**  
*Longer runtimes*
- **Backfeed protection relay**  
*Safe maintenance*

# RPA

## Redundant Parallel Architecture

- Up to 4 units in parallel
- Bypass and batteries redundant
- Control logic redundant
- Field-upgradeable (single>parallel)

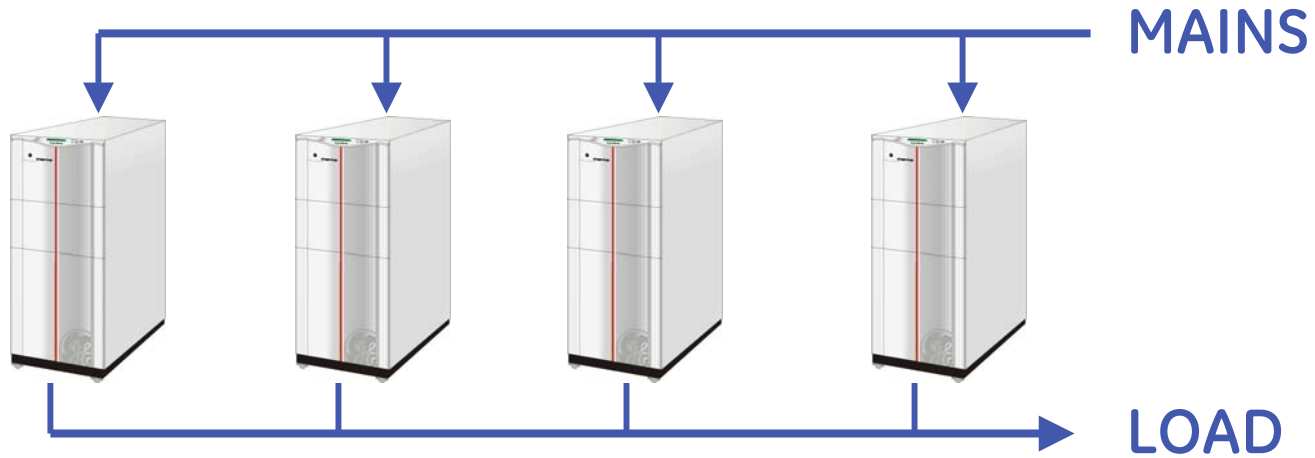
# RPA



- Reliability
- Flexibility
- Serviceability

As well as the UPS, the bypass, the batteries and the control logic are redundant. This provides real redundancy. The result is a high system reliability.

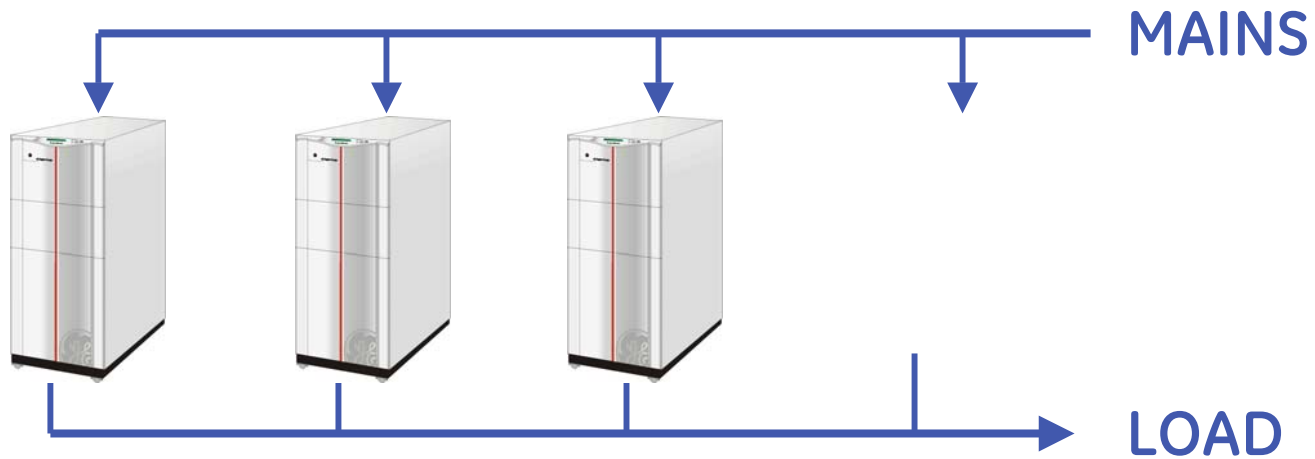
# RPA



- Reliability
- Flexibility
- Serviceability

By adding units you can upgrade the total power rating of the system. This can be performed on-site by a service engineer.

# RPA



- Reliability
- Flexibility
- Serviceability

In a redundant system 1 unit can be removed for service purposes.

The other units still supply the load, providing full protection.

# Segments and Applications



SEGMENTS AND APPLICATIONS

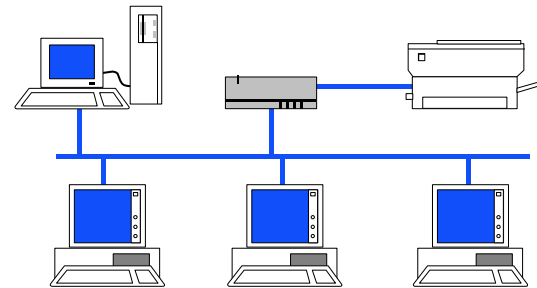
## LP Series

# Main Segments

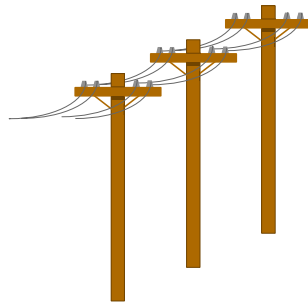
- Industry



- Information Technology



- Telecom



# Industry

## Industry applications:

- Airports/Railroads
- Tunnels
- Building Control
- Process Automation



# Industry

## Requires:

- Easy installation
- Low operational cost
- Service friendliness
  
- Information on the spot
- Compatibility with other systems
- Generator operation

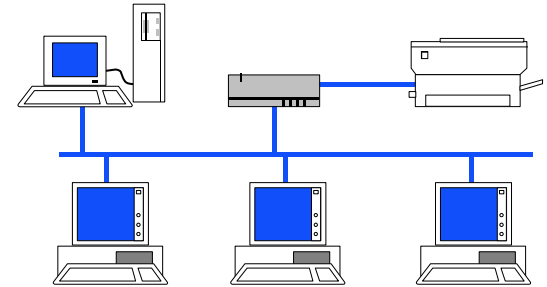
## LP Series offers:

- Small and light
- SBM and ECO-mode
- Complete UPS on one printed circuit board
- Multi-lingual LCD
- Intelligent interface, relay contacts, EPO
- Adjustable bypass window and tracking rate, optimal for genset

# Contractors

- Like it because it is simple to install...
  - Small and lightweight
  - Low cost wiring:
    - Powerfactor =1 input & easy to service.
  - Standard maintenance Bypass
  - LCD shows operational parameters

# Information Technology



## IT applications:

- Server rooms
- Business critical applications
- Midrange computer systems
- Back offices

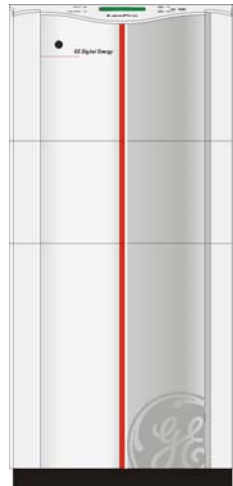
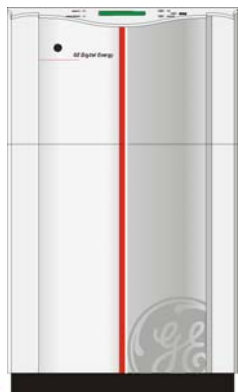
# Information Technology

## Requires:

- 24x7 power availability
- High reliability
- Remote management
- Floor space
- Elegant appearance

## LP Series offers:

- SBM, manual bypass
- RPA (true redundancy)
- JUMP is bundled for free
- Small footprint
- Nice! Isn't it?



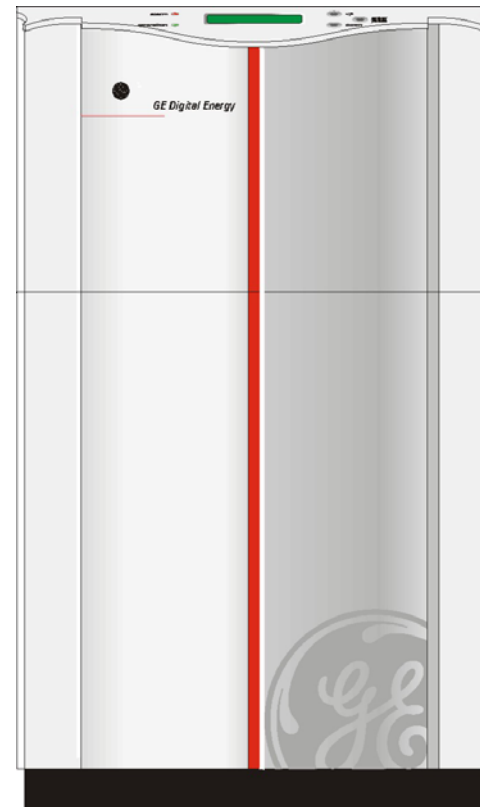
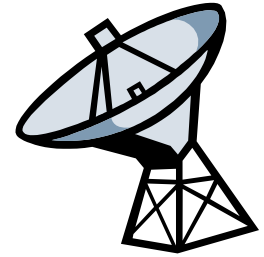
# EDP Managers

- Want a managed solution...
  - Easy to connect to any network
  - Remote modem and snmp management to prevent any disaster.
  - Regular automatic self test
  - Superior Battery Management

# Telecom

## Telecom applications:

- Mobile communication
- Central switch boards



# Telecom

## Requires:

- High reliability
- Battery care
- Maximal runtimes and fast recharging
- Low distortions
- Isolation from mains

## LP Series offers:

- RPA
- SBM and wide input voltage window
- Battery packs (easy to install) and increased charger current available (5/6kVA)
- PF 0.99 at input and THD < 2% at output
- Standard isolation transformer

# Telecom

- Desire approved specifications...
  - Complying to the world's highest standards
  - Most reliable design & remote solutions.
  - Extended runtime versions up to hours
  - Remote diagnostics and service

# Conclusion

## Strengths of LP Series :

- Excellent specifications
- Standard equipped with many features
- Low operational costs
- A winner in tenders

