

GE Digital Energy Power Quality

Introduction

The LP33 Series is a robust, high performance UPS system suitable for broad range of mission critical applications including small data centers, medical, manufacturing, industrial, telecom and commercial buildings.

Design and Performance

The LP33 Series uses double conversion topology with a true on-line VFI (voltage frequency independent) design. The hybrid IGBT rectifier provides low input THD (total harmonic distortion) and high input power factor. The IGBT inverter section with transformerless output ensures low output distortion and fast transient response.

High Efficiency

The LP33 Series can operate in high efficiency Eco Mode with efficiencies up to 98% across a broad range of the operating load range. Eco Mode operation continuously monitors the output voltage and frequency, and will instantaneously switch to inverter during voltage or frequency disturbance to ensure compliance with the ITI (CBEMA) curve.

Redundant Parallel Architecture™ (RPA™)

Redundant Parallel Architecture™ (RPA™) can be used to parallel up to four (4) LP33 units for redundancy or capacity. The RPA™ system eliminates single points of failure by using redundant controls and integral static switches eliminating centralized bypass cabinets; and allows field addition of future modules for load growth.

Service

The LP33 Series is fully supported by GE's Global Services team, providing world-class, 7x24 emergency service along with preventive maintenance, training, spare parts depots and application expertise.

Features and Benefits

- > **208V Transformerless design** for smaller footprint, less weight and improved efficiency
- > **High Efficiency Eco Mode** up to 98% efficiency for single module configuration
- > **High input power factor (>.98) and low input distortion (<10%)** provided by a hybrid IGBT rectifier, prevents disturbances to other electrical equipment, eliminating the need for filters or oversized feeders
- > **Compact footprint**, front service access, easily transportable, robustly designed system with low audible noise, suitable for both office and industrial environments
- > Utilizes high-frequency PWM (Pulse Width Modulation) IGBT digital control technique, resulting in extremely **low output distortion and fast transient response**
- > **Redundant Parallel Architecture™ (RPA™)** increases system reliability by eliminating single points of failure
- > **Intelligent Energy Management (IEM)** while operating multiple units in RPA™, the IEM optimizes double conversion efficiency
- > **Very wide AC-input voltage and frequency** capability minimizes the need to switch to batteries, resulting in increased battery life
- > **Superior Battery Management (SBM)** enhances battery life and reduces cost of operation
- > Integrated **internal manual maintenance bypass** reduces the need for external equipment

LP33 Series Uninterruptible Power Supply (UPS) 10-100kVA, UL Listed



Options

- > **Remote monitoring and diagnostics** via LAN or internet
- > **UPS management software** facilitates operation and maintenance of the UPS
- > SNMP plug-in card, potential-free relay contacts
- > RPA™ Card: Any single UPS can be easily field-configured for Redundant Parallel Architecture™ (up to 4 units)
- > RS-232 contact interface, providing maximum I/O datapoints
- > **Dual AC input** option
- > **Additional external matching battery cabinets** are available for extended runtime requirements (Contact the factory for details)

Technical Specifications

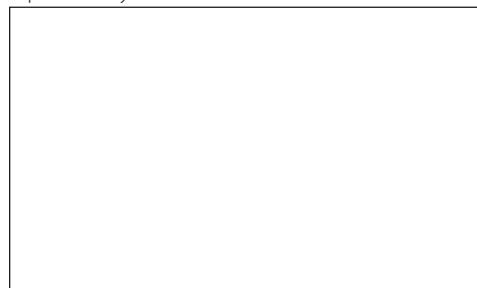
MODEL		LP33-10-UL	LP33-20-UL	LP33-30-UL	LP33-40-UL	LP33-50-UL	LP33-60-UL	LP33-80-UL	LP33-100-UL	
Power Rating	Output Capacity	10kVA / 8kW	20kVA / 16kW	30kVA / 24kW	40kVA / 32kW	50kVA / 45kW	60kVA / 54kW	80kVA / 72kW	100kVA / 90kW	
Power Factor	Output Power Factor	0.8					0.9			
Energy Efficiency	Double Conversion	Up to 90%								
	Eco Mode	Up to 98%								
Physical	Weight w/o batteries (lbs)	397	430	772	816	1015		1323		
	Dims (W x D x H) (inches) (UPS only)	22.7" x 30.7" x 51.6"		23.6" x 29.6" x 71.7"		28.4" x 28.5" x 71.7"		39.4" x 35.4" x 75.0"		
Input	Input Voltage	3 x 208V + N								
	Voltage Range	-25% / +20%		-20% / +15%		-15% / +10%				
	Frequency	60 Hz +/- 10%								
	Input THD	< 8%			< 10%					
	Input Power Factor	> 0.98 lagging								
Output	Output Voltage	120Y / 208 V								
	Frequency	60 Hz (+/- 1%)								
	Crest Factor	> 3:1								
	Voltage Regulation									
	- Static	+/- 1%								
	- 100% Step Load	+/- 1%					+/- 2%			
	Voltage Distortion									
	- 100% Linear Load	< 2% THD		< 1.5% THD		< 2% THD				
	- 100% Non-Linear Load	< 3% THD (EN 50091)								
	Overload Capability									
- Inverter	125% for 10 minutes; 150% for 1 minute									
- Bypass	200% for 2 minutes; 2000% for ½ cycle									
Battery	Battery Type	Valve Regulated Lead Acid (VRLA)								
	Float Voltage	328 VDC @ 68° F (20° C)								
	Min Discharge Voltage	236 VDC (programmable)								
General	Audible Noise db(A)	50	55	61	62	65	65	68		
	Operating Temperature	UPS: 32° to 104° F (0° - 40° C); Battery: 68° to 77° F (20° - 25° C) recommended								
	Humidity	0-95%; non-condensing								
	Safety Classifications & Listings	UL/cUL: UL 1778 / IEC62040 / ISO 9001								
	EMI Classification	FCC Part 15, Class A, IEC 62040-2 Class A								
	Surge Protection	IEEE 587-B / ANSI C62.41-B / IEC 1000-4								
	Communication / Connectivity	RS-232; programmable alarm contacts; open collector outputs; SNMP (optional)								
	Color	White (RAL 9003)								
	Warranty	Twelve (12) months after commissioning or eighteen (18) months after shipment, whichever occurs first *								

Specifications subject to change without notice.

* Extended Warranties available



Represented by:



GE Digital Energy –
Power Quality
830 W 40th Street
Chicago, IL 60609 USA
800 637 1738
www.gepowerquality.com

Information subject to change without notice. Please verify all details with GE.
© 2010 General Electric Company
All Rights Reserved

GEA-D2033 (4/10)

