

■ AC Power for  
*Business-Critical Continuity™*

# Liebert® NX from 30 to 60 kW



  
**EMERSON**  
Network Power



**Emerson Network Power**, a division of Emerson, is a global company that combines technology with design to supply innovative solutions for the benefit of its customers.

Emerson Network Power is the leader in the "***business-critical continuity***" field, thanks to the company's products and services.

Emerson Network Power's broad technology base and global expertise support a full spectrum of enterprise-wide solutions for today's vital business needs.



Regardless of your size, you can't afford for your critical business systems to go down and you can't waste time recovering your IT infrastructure after a disruption.

**Leave that to us**, the experts in *business-critical continuity*. From grid to chip, from the biggest to the smallest data centers, we are ready to serve your needs with the solutions we have developed.

More standardization, so you don't need further budget allocations to install it. More simplification so you don't need to be a specialist to get the best for your business.

More support, so while you are enjoying doing business, we are protecting you.





## Liebert® NX From 30-60 kW

### Features and Performances

- Industry's highest double conversion efficiency - up to 96%
- Unitary output power factor and symmetrical power factor diagram
- Input current total harmonic distortion (THDi) < 5%
- Active input power factor correction (PFC) >0.99
- Battery charger up to 9 kW
- Integrated parallel and load bus synchronization ports
- Integrated manual bypass
- Integrated autonomy up to 60 kW
- Reduced mean time to repair (MTTR)

### High Efficiency and Performance

Designed to meet the highest availability needs the latest generation of the Liebert® NX incorporates advanced technology and innovative electrical components for high performance while maintaining its compact footprint.

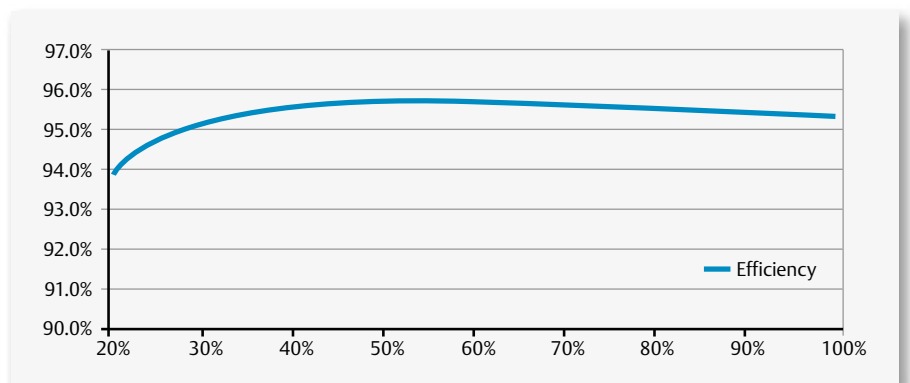
The Liebert® NX reaches the industry's highest level of efficiency in double conversion mode, operating at up to 96% with a virtually flat efficiency curve from 30-100% load, delivering significant energy savings.

### Advanced technology

Liebert NX's transformer-free

double conversion architecture has been designed using innovative CoolMOS™ technology combining the advantages of MOSFET and IGBT to achieve the highest efficiency levels. The incorporated three-level vector controlled converters contribute to maximizing system availability and ensuring prolonged life of critical components. Liebert® NX's double conversion architecture delivers the following advantages:

- **Increased efficiency**
- **Increased reliability**
- **Minimized audible noise for ultra quiet operation**



Liebert® NX - efficiency curve



## Flexibility and Optimized TCO

### Enhanced Power

Liebert® NX's unitary output power factor provides 25% more active power than a conventional 30-60 kVA UPS making it the ideal solution for meeting the demands of modern IT loads. The added advantage of Liebert® NX's increased active power allows customers to select the most appropriate rating for their critical application without the need for oversizing their system, thus maximizing TCO and in turn allowing for great advantages in terms of installation:

- **Reduced size of electrical infrastructure**
- **Reduced size of circuit protection devices**
- **Reduced cabling size**

Maximum flexibility is also ensured through:

- **Output Power Factor 1**
- **Permanent 100% kVA - no derating with any load (between 0.5 leading and 0.5 lagging)**

### Integrated autonomy

Liebert® NX leads the industry in providing integrated autonomy up to 60 kW in a compact footprint of 600 x 843 mm. The batteries housed inside the UPS cabinet which are responsible for delivering Liebert® NX's leading autonomy further reduce installation costs and minimize the demand on physical space optimizing installation flexibility and TCO.

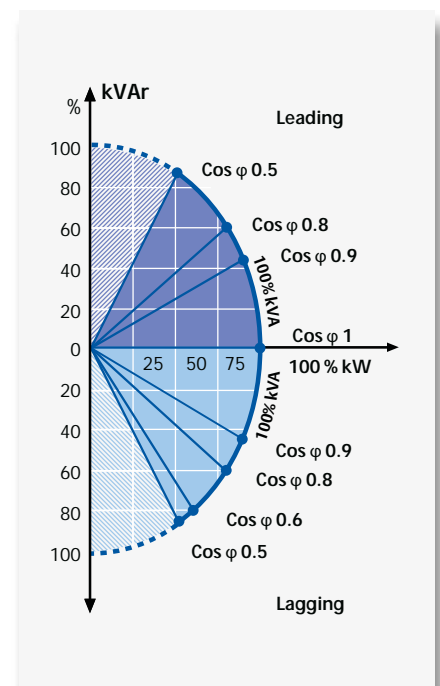
### Full galvanic Isolation

Liebert® NX offers integrated full galvanic isolation, meaning that an isolation transformer is housed inside the UPS cabinet. This greatly reduces the footprint thus providing space saving advantages. In addition, the transformer can be connected to the input or to the output of the UPS, providing:

- **Full galvanic isolation for medical and other critical applications**
- **Installation with two**

**independent input sources (with different neutrals)**

- **Installation in distribution without neutral.**



Liebert® NX - output power factor diagram



## Meeting Load and Availability Requirements

### Parallel Ready

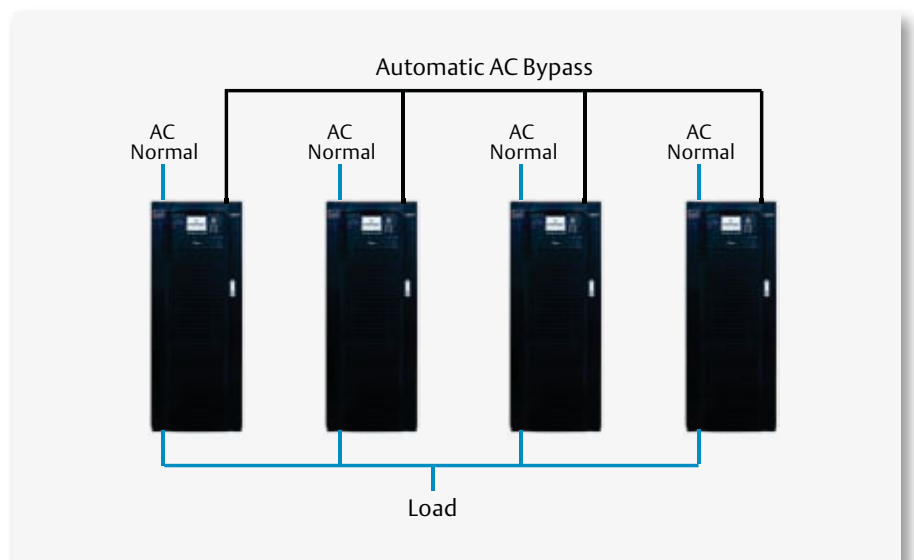
Liebert® NX can be connected with up to four units in parallel. A single unit can be upgraded to parallel operation via easy to modify software settings which allow the system to be customized for the requested configuration. No additional hardware (such as control boards or current sharing inductors) is required.

The Loop BUS connection used in paralleling the system delivers ultimate reliability and eliminates the possibility of a single point of failure, ensuring perfect load sharing and fast detection of any variation in the system status.

### Customizable Battery Configuration

Liebert® NX's battery configurations can be customized to meet individual installation and availability requirements. In a parallel system batteries can be installed in a common bank to maximize cost effectiveness and minimize floor space.

Alternatively, a single battery bank can be dedicated to each UPS delivering full redundancy and avoiding the possibility of a single point of failure.



Parallel configuration

# Communication



## User Interface

Liebert® NX features a multi-lingual LCD user interface allowing close control and monitoring of system status and performance. The UPS offers the following communication features:

- **Voltage-free contact ports to interface with external devices**
- **Intellislot for simultaneous SNMP, Modbus and basic contact closure communication.**

These communication capabilities make Liebert® NX compatible with any building management system.

## Software connectivity

**Liebert Multilink™** software prevents unexpected server shutdowns and minimizes downtime by warning of pending power losses and initiating safe shutdown of operating systems if required.

**Liebert's Nform™** network communications system enables customers to leverage the distributed monitoring capabilities of network connected equipment for providing centralized management of distributed systems.

## Serviceability

The architecture of the Liebert® NX is designed to optimize installation and simplify service with its easy to remove sub-assemblies. This architecture considerably minimizes the mean time to repair (MTTR) and optimizes serviceability. Liebert® NX also comes equipped with casters to facilitate ease of movement and relocation.





## *Chloride LIFE<sup>®</sup>.net 24/7 Remote Diagnostic System*

**Chloride LIFE<sup>®</sup>.net ensures that your critical power protection system is maintained in an optimum state of readiness at all times.** Chloride LIFE<sup>®</sup>.net remote monitoring and diagnostic service provides early warning of UPS conditions and out of tolerances. This allows effective proactive maintenance and fast incident response, giving customers complete security and peace of mind.

### **Maximize Availability**

#### **Pre-Emptive Maintenance**

Chloride LIFE<sup>®</sup>.net provides early warning of more than 150 separate parameters allowing real-time diagnosis and swift identification and resolution of operating anomalies.



### **Minimize Downtime**

#### **Immediate Identification of Problems**

Should an emergency condition arise, an engineer in the 24/7 manned service center carries out an immediate fault analysis and instigates appropriate corrective action.



### **Reduce Operating Costs**

#### **Superior Asset Management**

Through comprehensive data collection and analysis, Chloride LIFE<sup>®</sup>.net's detailed reporting system provides valuable information on power and equipment trends, over any selected period of time.





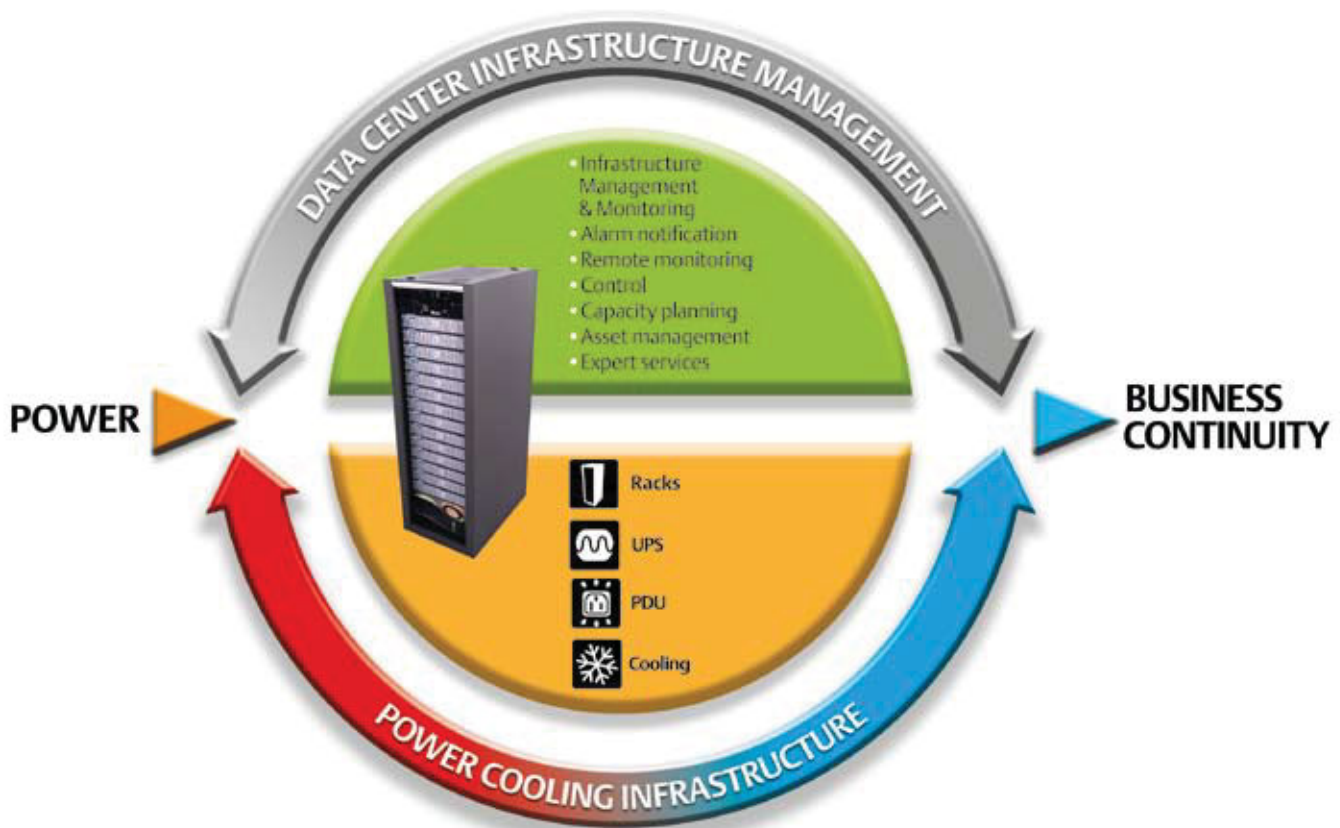
# Liebert® NX

## Specifications

Technical Characteristics			
Ratings (kVA)	30	40	60
Output active power (kW)	30	40	60
Output power factor	1		
Parallel configuration	4+0		
<b>Input</b>			
Input voltage range (V)	305 - 477 at full load; 304 - 228 at 70% load		
Input frequency tolerance (Hz)	40 - 70		
THDi (%)	<5%		
Input power factor	0.99		
<b>Output</b>			
Nominal output voltage (V)	380/400/415		
Nominal output frequency (Hz)	50 / 60		
THDv (%)	<1% (linear load); <4% (non linear load)		
Output frequency stability (%)	± 0.02%		
Inverter overload capacity (%)	105% 60 min; 125% 10 min; 150% 1 min		
Double conversion efficiency (%)	up to 96%		
Load PF compatibility w/o kVA derating	from 0.5 Leading to 0.5 Lagging		
<b>Battery</b>			
Battery charger max power (kW)	4.5	9	9
Number of battery cells per string	32 (compatible also with strings of 30, 34, 36, 38, or 40 batteries)		
Ripple current (%)	<5%		
Integrated autonomy 32x34 Ah @ 0.8 PF (min)	15	10	4
<b>General</b>			
Noise at 1 m (dBA)	<58		
Protection level	IP20		
Frame color	ZP-7021		
Display	multi-lingual LCD		
<b>Dimensions And Weight</b>			
Height (mm)	1600		
Width (mm)	600		
Depth (mm)	843		
UPS weight with batteries (kg)	590	630	630
UPS weight without batteries (kg)	230	260	260

\*Conditions Apply

## Emerson Network Power Business-Critical Continuity™ Expert



Today's successful businesses depend on adaptable technologies to help them respond quickly to market demands. Your data center must be built on a support infrastructure designed to match the power and cooling needs of rapidly changing IT initiatives such as virtualization and consolidation. Each IT change, move or addition will affect the entire support infrastructure so you need products and support that ensure your IT systems will operate reliably in these environments.

*Get more on line: [www.EmersonNetworkPower.com](http://www.EmersonNetworkPower.com)*



*More than 35,000 organizations in 70 countries depend on our Business - Critical Continuity™ Promise: your IT infrastructure stays up to support your Business!*

## Ensuring The High Availability Of Mission-Critical Data And Applications.

Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling *Business-Critical Continuity™* from grid to chip for telecommunication networks, data centers, health care and industrial facilities. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, infrastructure management, and connectivity. All solutions are supported globally by local Emerson Network Power service technicians.

Learn more about Emerson Network Power products and services at [www.EmersonNetworkPower.com](http://www.EmersonNetworkPower.com).

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- DC Power
- Embedded Computing
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- Infrastructure Management & Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection