



## ИБП Liebert NX (225-600 кВА) - брошюра на продукцию. Юниджет

Постоянная ссылка на страницу: <https://www.uni-jet.com/catalog/ibp/online-ibp/liebert-nx/>





Liebert®

NX™ UPS

225-600kVA/kW

Maximum efficiency in a  
transformer-free, high efficiency,  
scalable on-line ups



The Liebert® NX™ UPS is a scalable system with features that provide high operating efficiency, lower TCO, and intelligent operation.

## Efficiency Where it Counts

- Delivers up to 98% operating efficiency
- Active IGBT Rectifier reduces size requirements for generator sets, circuit protection, cabling and transformers, minimizing installation and operation costs
- Optimizes battery life with temperature-compensated, continuous float charging
- Unity power factor ratings deliver more real power for your money
- Internal bussing between attached cabinets to minimize site wiring

## Optimized transformer-free design:

- Power factor corrected active IGBT rectifier
- Supports leading power factor loads without de-rating

## Reliable Performance

- True on-line, double conversion technology corrects for all power fluctuations
- Excellent output power quality, with advanced inverter control
- Optional dual bus synchronization of multiple UPS units when feeding independent distribution paths
- Continuous-duty static switch ensures better protection (vs momentary design.)
- Higher overload capacity for a more robust operation
- 100 kAIC withstand rating
- Optional Battery DC Ground Fault Detection
- Thermal runaway protection is standard with Liebert Battery Cabinets

## Flexible design

- Scalable
- Matching battery cabinets
- Optional Albér® BDSi™ integrated battery monitoring
- Breaker for safe battery service without shutdown.
- Parallelable for extended runtime or redundancy



*Match with battery cabinets and bypass/distribution cabinet to create a robust, flexible UPS system.*



*Meet runtime demands with flexible battery cabinets VRLA shown.*

## Energy Storage Alternatives

- Traditional VRLA/Lead-acid batteries
- Lithium Ion batteries
- Battery-free flywheel for short duration backup.

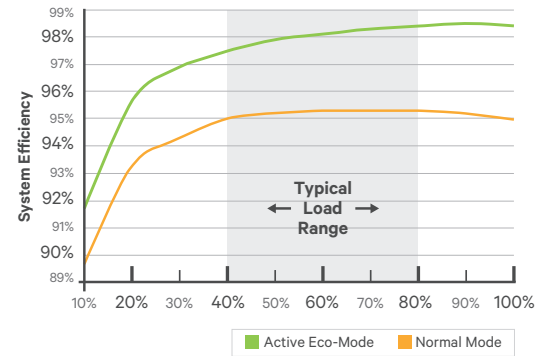
## Ideally suited for:

- Mid to large data centers
- Colocation Facilities
- Labs and testing facilities
- Server rooms
- Telecommunications

## Efficiency to Lower the TCO

Liebert® NX™ delivers very high efficiencies in both normal mode and Active Eco-Mode™ operation.

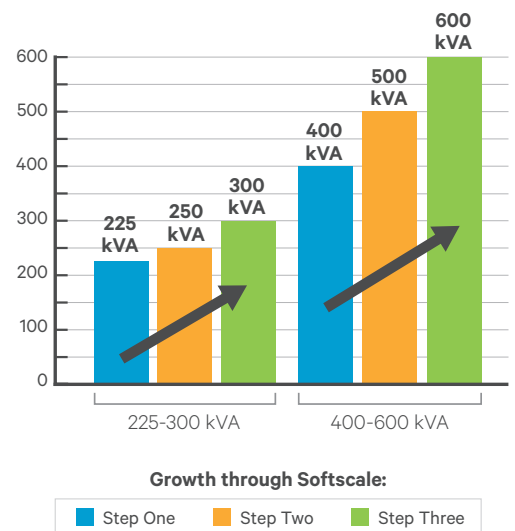
The Liebert NX uses an optimized Eco-Mode to provide excellent dynamic response, avoiding potential battery damage while providing fast seamless transitions and energy savings



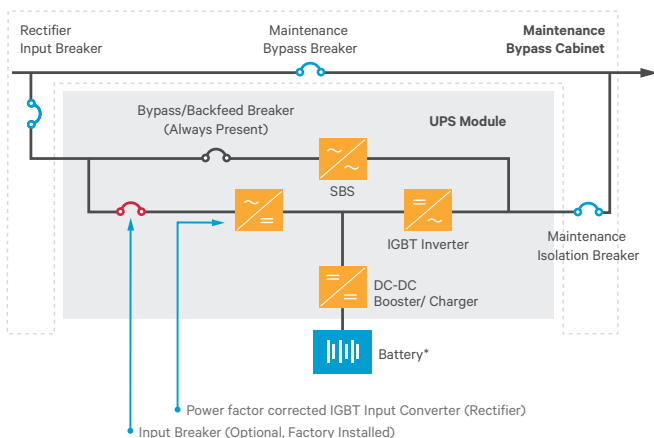
## Dynamic Configurations Enhance Deployment

Allows dynamic facilities to meet changing business conditions.

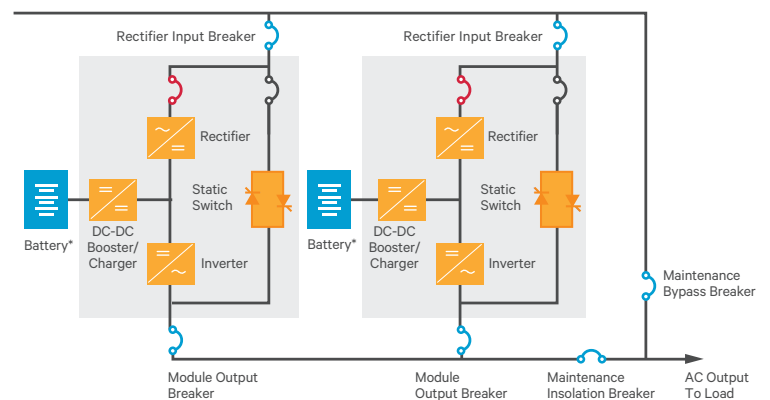
- Softscale technology conserves capital while providing a rapid, economical expansion path.
- Parallel up to 6 systems for capacity or redundancy.
- Simple 1+N paralleling provides low initial cost plus redundancy.
- High power density and small footprint deliver more kilowatts per square foot for efficient space utilization.
- Automatically adapts to dynamically changing load power factors (leading and lagging) without derating, modification or recalibration.



### Single Module System



### 1+N Distributed Bypass Multi-Module System



- Optional Internal Breakers
- Default Internal Breakers
- External Isolating and Bypass Breakers
- \*Battery breaker in cabinet-not shown

Designed for use with an external maintenance bypass cabinet to assure compliance with the latest OSHA requirements.

1+N mult-module design uses distributed 100% continuous duty rated static switches in each module, which provides a low initial cost due to simplified paralleling switchgear

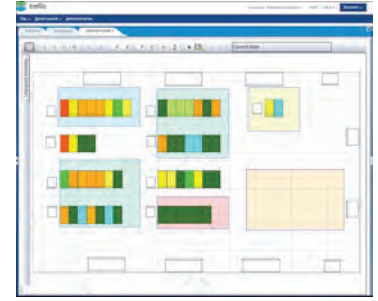
## Intelligent, Self-Optimizing Management and Control

### Simple and Comprehensive Monitoring

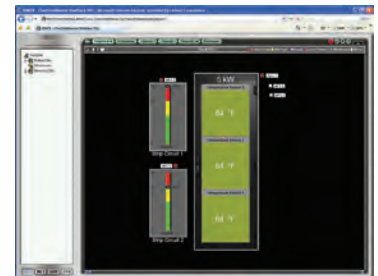
The easy to use menu-driven touch screen monitor panel reduces human error. Multiple parameters are monitored; data is recorded, stored and easily viewable. Unit metering and status information is displayed in a logical format, and is selectable in English, Spanish, French, and Portuguese.

The UPS also Includes multiple Liebert communication ports for important connectivity and visibility:

- **The Trellis™ Platform:** Provides robust Data Center Information Management (DCIM) capabilities using selectable modules and suites.
- **Liebert SiteScan®:** Offers centralized monitoring and control of all critical infrastructure systems, using a variety of network protocols.
- **Liebert Nform™:** Enables data center monitoring for any SNMP device that supports a network interface.



The Trellis™ Platform



Liebert SiteScan

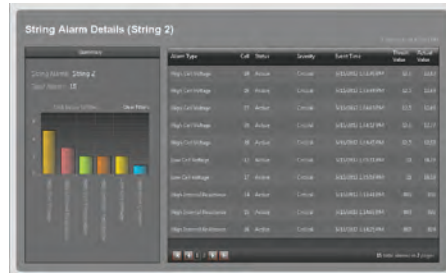
### Albér Battery Monitoring Systems

An, easy to use software interface with the factory integrated Albér BDSUi™ or stand alone battery monitoring system provides advance warning of pending UPS battery failures, the most common cause of unplanned data center outages.

Utilizing its patented DC resistance testing method, the Albér BDSUi provides real-time system and component level visibility by verifying the state of health of the entire battery system.



Albér Battery Xplorer Dashboard



View active alarms in a sortable and customizable grid



**System view:** View data on parallel battery strings simultaneously



**String View:** View a trend graph showing the history of all the string level parameters



Liebert Nform



Albér BDSi Integrated Battery Monitoring for Liebert NX Matching Battery Cabinets

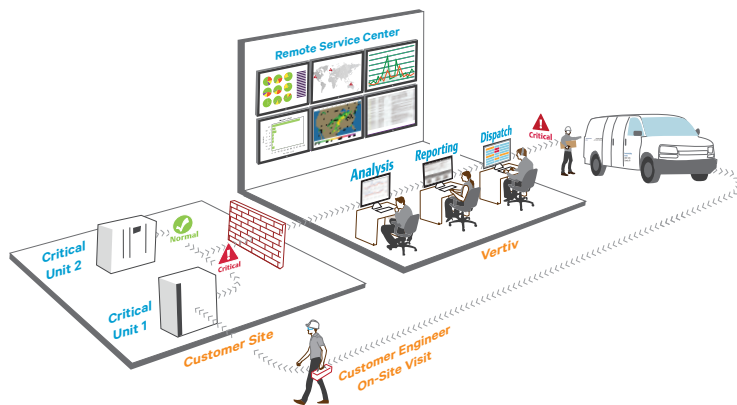
## Critical Services and Support - LIFE™ Services For Simple, Secure Protection And Insight, 24X7x365

LIFE Services, offered by Vertiv™, provides increased uptime and operational efficiency through continuous monitoring, expert analysis, and proactive response that ultimately helps you optimize the health of the Liebert® UPS.

Detailed parametric data is continuously captured and safely transmitted to an authorized service center staffed with system engineers. Should an operating anomaly or alarm condition arise, the engineer performs an immediate analysis and initiates an appropriate response to restore to its proper operating condition.

### LIFE Services offers following benefits:

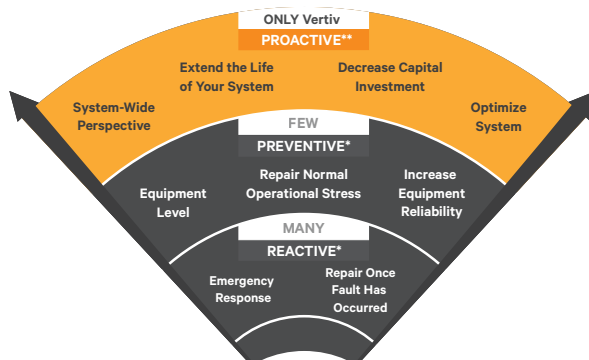
- Uptime assurance
- Rapid incident response
- Increased insight and ease of management



### Vertiv™ Liebert® Services

Maximizing the performance and efficiency of your data center's uninterruptible power supply (UPS) and other power distribution systems requires systems be properly maintained by factory-trained technicians.

Trust Vertiv, Liebert Services to take your critical maintenance to the next level — proactive maintenance that can significantly extend the life of your power systems, decrease your capital investment, optimize system efficiency and effectiveness, and increase overall system availability.



*The Vertiv difference*

### Vertiv, Liebert Services

#### Industry Experience

As long as data centers have existed, Liebert Services has been supporting data center infrastructure and providing integrated services for mission-critical environments.

#### System Wide Expertise

Nobody understands Liebert power equipment, precision cooling units and electrical infrastructure better than the experts at Liebert Services.

#### Technical Expertise

Our knowledge of systems and how they integrate into your overall facility makes us uniquely qualified to apply the latest technology and best practices to your power, precision cooling, and battery systems.

#### Unparalleled Responsiveness

With Liebert Services, you have 24/7 access to a network of data center infrastructure specialists armed with the knowledge and parts to resolve your problems. Anytime. Anywhere.

#### Fast, Efficient Problem Resolution

Only Liebert Services offers the right combination of industry, system, and technical expertise along with the extensive resources necessary to identify and understand any data center need and provide proactive solutions.

## World Class Witness Test Capability Improves Speed Of Deployment

The Liebert® Power Systems Test Center for large UPS systems is a state-of-the-art test facility designed to provide customers with pre-installation testing of the performance, interoperability, and efficiency of Liebert UPS modules and systems under a variety of conditions.

Located in Delaware, Ohio, the 25,600 square-foot facility, including a 2,600 square-foot customer observation station, is the largest and most comprehensive in the industry.

Testing includes individual modules as well as the complete power system — including large UPS units, Liebert static transfer switches and associated switchgear support systems — and is essential to the smooth, rapid installation and commissioning of large power systems.

Customers leave the Liebert Power Systems Test Center with documented proof and confidence that their complex power system will operate seamlessly in accordance with business-critical availability requirements.



### Typical UPS system verification, testing and test capabilities include but are not limited to the following:

- DC functions
- Transfer functions
- Alarms and display verification
- Parallel module tests
- Module and system Internal fault testing such as component failures or power supply failures
- Module and system loading from no load up to 150% load
- Unbalanced loading
- Battery discharge simulation
- Module and system step loading from 0 to 100%
- Integrated tests with UPS, flywheels, switchboards, static switches, power distribution, etc.
- Integrated Load Bus Synk testing with multiple UPS systems
- Integral switchgear testing
- Power quality meters
- Power monitoring
- Mimic panels
- Current and voltage harmonic analysis
- Key interlock systems
- PLC or relay based transfer controls
- Module and system level full load heat runs
- Infrared scanning
- Thermal scanings.

## Liebert® NX™ System Specifications

|                                                         |                |                                                                                                               |              |                                             |                                             |              |              |
|---------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------|---------------------------------------------|--------------|--------------|
| System Rating kVA(kW)                                   |                | 225<br>(225)                                                                                                  | 250<br>(250) | 300<br>(300)                                | 400<br>(400)                                | 500<br>(500) | 600<br>(600) |
| Maximum Upgradable Capacity<br>(Softscale units only)   |                | 300<br>(300)                                                                                                  | 300<br>(300) | N/A                                         | 600<br>(600)                                | 600<br>(600) | N/A          |
| GENERAL SPECIFICATIONS                                  |                |                                                                                                               |              |                                             |                                             |              |              |
| UPS Technology                                          |                | Online Double Conversion with Energy Optimization Mode Capability                                             |              |                                             |                                             |              |              |
| Battery Technology*                                     |                | Non-Spillable, Flame Retardant, Valve Regulated Battery, 10-and 20-Year Design Life; Flooded Cells; Flywheels |              |                                             |                                             |              |              |
| AC-AC Efficiency                                        |                | Up to 95.5% in double-conversion mode; up to 98% in Active Eco-Mode                                           |              |                                             |                                             |              |              |
| INPUT AC SPECIFICATIONS                                 |                |                                                                                                               |              |                                             |                                             |              |              |
| Power Factor                                            |                |                                                                                                               |              | >0.99 at full load                          |                                             |              |              |
| Nominal Input Voltage VAC                               |                |                                                                                                               |              | 480 V, 3-wire +Ground                       |                                             |              |              |
| Input Voltage Range VAC                                 |                |                                                                                                               |              | 480 VAC, 3-wire plus Ground +10%, -15%**    |                                             |              |              |
| Frequency                                               |                |                                                                                                               |              | 60 Hz                                       |                                             |              |              |
| Input THDi                                              |                |                                                                                                               |              | < 3% Double Conversion Mode                 |                                             |              |              |
| Nominal Input Current                                   | SoftScalable   | 380A                                                                                                          | 380A         | 380A                                        | 760A                                        | 760A         | 760A         |
|                                                         | Fixed Capacity | 285A                                                                                                          | 317A         |                                             | 506A                                        | 633A         |              |
| Maximum Input Current                                   | SoftScalable   | 399A                                                                                                          | 399A         | 399A                                        | 799A                                        | 799A         | 799A         |
|                                                         | Fixed Capacity | 299A                                                                                                          | 332A         |                                             | 530A                                        | 663A         |              |
| OUTPUT AC SPECIFICATIONS                                |                |                                                                                                               |              |                                             |                                             |              |              |
| Nominal Output Current                                  | SoftScalable   | 361A                                                                                                          | 361A         | 361A                                        | 722A                                        | 722A         | 722A         |
|                                                         | Fixed Capacity | 271A                                                                                                          | 301A         |                                             | 481A                                        | 601A         |              |
| Power Factor Rating                                     |                |                                                                                                               |              | 1.0                                         |                                             |              |              |
| Loads Supported                                         |                |                                                                                                               |              | 0.9 Leading to 0.9 Lagging without derating |                                             |              |              |
| PHYSICAL SPECIFICATIONS                                 |                |                                                                                                               |              |                                             |                                             |              |              |
| UPS Dimensions<br>(WxDxH) in. (mm)                      |                | 53.2 (1,350) X 33.5 (850)<br>X 76.8 (1,950)                                                                   |              |                                             | 90.6 (2,300) X 33.5 (850)<br>X 76.8 (1,950) |              |              |
| UPS Weight lb (kg)                                      |                | 2,425 (1,100)                                                                                                 |              |                                             | 4,800 (2,177)                               |              |              |
| Matching Battery Cabinet Dimensions<br>(WxDxH) in. (mm) |                | Top Terminal: 56.3 (1,430) X 33.5 (850) X 76.8 (1,950)                                                        |              |                                             |                                             |              |              |
|                                                         |                | Front Terminal: 68.8 (1,750) X 33.5 (850) X 76.8 (1,950)                                                      |              |                                             |                                             |              |              |
| Battery Weight – Per Single Cabinet<br>Max-lb (kg)      |                | Top Terminal: 5,140 (2,331)                                                                                   |              |                                             |                                             |              |              |
|                                                         |                | Front Terminal: 8,990 (4,076)                                                                                 |              |                                             |                                             |              |              |
| MONITORING SPECIFICATIONS                               |                |                                                                                                               |              |                                             |                                             |              |              |
| UPS Monitoring                                          |                | Optional: SNMP/Web, Modbus RTU, Modbus 485, SiteScan, Nform                                                   |              |                                             |                                             |              |              |
| ENVIRONMENTAL SPECIFICATIONS                            |                |                                                                                                               |              |                                             |                                             |              |              |
| Operating Temperature Range °F (°C)                     |                |                                                                                                               |              | 32 to 104 (0 to 40)                         |                                             |              |              |
| Storage Temperature Range °F (°C)                       |                |                                                                                                               |              | -4 to 104 (-20 to 40)                       |                                             |              |              |
| Audible Noise                                           |                |                                                                                                               |              | 70 dBA                                      |                                             |              |              |
| Safety Certification                                    |                |                                                                                                               |              | UL 1778, CSA C22.2 NO. 107.3-05             |                                             |              |              |
| PRODUCT SUPPORT                                         |                |                                                                                                               |              |                                             |                                             |              |              |
| Warranty                                                |                |                                                                                                               |              | 1 Year, Full Parts and Labor                |                                             |              |              |

\*Contact Liebert sales representative or contact factory for application support for flooded cells.

\*\*Conditions apply.



**VertivCo.com | Vertiv Headquarters, 1050 Dearborn Drive, Columbus, OH, 43085, USA**

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