ИБП Liebert NX (10-200 кВА) - брошюра на продукцию. Юниджет

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AC Power
For *Business-Critical Continuity™*

Liebert® NX™

UPS For Small And Medium Business

EMERSON™
Network Power

Emerson Network Power Has A UPS That Matches Your Growth Plans

Changing data centers, rapid and unpredictable growth, plus a myriad of other power-related challenges are making it increasingly difficult to protect critical network equipment and other electronic components.

As you upgrade and expand your business, do you find small UPS proliferating throughout your racks? Do you lose track of how old each UPS is and when the batteries should be replaced? Are dropped loads your first indication that the UPS has a problem?

If this situation sounds familiar, then a data center UPS like the Liebert NX can simplify your life by eliminating multiple points of failure, and consolidating your power equipment into one professionally serviced system. If your power requirements are changing faster than your UPS can, there is a Liebert NX model that is perfect for your application.

Liebert NX: The Right Combination Of Features And Flexibility For Growing Data Centers

Liebert NX is a true on-line, double conversion, three-phase UPS system that delivers complete, centralized power protection for mission-critical systems. Designed to meet the high availability power needs of a wide variety of IT applications, this power solution delivers advanced operating features and low cost of ownership.

There Is A Liebert NX UPS System That Is Ideally Suited To Power Electronic Equipment In Your Small To Medium Business:

- Small to mid-size data centers
- Server rooms
- Production
- Labs and testing
- Telecommunications
- Process control
- Point-of-sale
- And other sensitive electronics

A Power Solution For Every Level Of Need

The full line of Liebert NX power systems covers a range of UPS capacities to meet the needs of small and medium data centers:

Small Data Centers with up to 10 Racks:
Liebert NX 10-30 kVA UPS

Small Data Centers with 10-30 Racks
Liebert NX 40-120 kVA UPS with Softscale™

Medium Data Centers with up to 200 Racks
Liebert NX 160-200 kVA UPS with Softscale

Liebert NX
10, 15, 20 & 30 kVA

Liebert NX
40, 60, 80, 100 & 120 kVA

Liebert NX
160 & 200 kVA

Liebert NX 10-30 kVA UPS

- Increases growth flexibility by handling larger loads, plus the ability to parallel 20 and 30 kVA modules for increased capacity and redundancy.
- Achieves higher availability by reducing the number of UPS units required to power your room.
- Reduces total cost of ownership through the use of longer life batteries and simplified preventive maintenance.

Liebert NX 40-200 kVA UPS

- Softscale™ technology provides flexibility to increase UPS capacity by 20 or 40 kVA without changes in your infrastructure.
- Parallel UPS modules for capacity and redundancy and eliminate the batteries as a single point of failure because each UPS has its own isolated battery.
- Softscale™ technology, paralleling capabilities and Eco-mode™, all contribute to lower initial, incremental and operating costs.

Select The Liebert NX Model That's Right For Current And Future Needs

The versatile Liebert NX is available in capacities and configurations to meet the current and future power needs of many small to mid-size applications.

NX Features Overview

Capacity Growth	10, 15 kVA Single Module	20, 30 kVA Multi Module	40, 60, 80, 100, 120, 160, 200 kVA Single Module	40, 60, 80, 100, 120, 160, 200 kVA Multi Module
Parallel for capacity		up to 3 modules		up to 3 modules*
Parallel for redundancy		up to 4 modules		up to 4 modules*
Parallel unlike capacities				■
Optional paralleling cabinet		■		■
Softscale™ technology			■	■
Advanced Electronics				
Digital signal processor controls	■	■	■	■
True on-line double conversion	■	■	■	■
Optimized efficiency using soft-switching technology			■	■
IGBT-based input power factor corrected rectifier	■	■	■	■
Dual bus synchronization	Optional	Optional	Integrated	Integrated
Performance				
Eco-Mode™ high efficiency configuration			■	■
Wider input voltage and frequency tolerances	■	■	■	■
High overload protection	■	■	■	■
Built-in automatic bypass	■	■	■	■
Optional Matching Bypass distribution cabinet	■	Paralleling Cabinet Used for 2+ Modules	■	Paralleling Cabinet Used for 2+ Modules
Optional battery cabinet interconnect cables	■	■	■	■
Optional internal batteries	■	■		
Optional external battery cabinets	■	■	■	■
Triple-mode battery charger for fast battery recharge	■	■	■	■
Physical Characteristics				
In-The-Row form factor			■	■
Front access service	■	■	■	■
Front access installation			■	■
Compact footprint	■	■	■	■
Communications				
Liebert IntelliSlot® communications compatibility	■	■	■	■
Multi-language LCD display	■	■	■	■
1 year Free Ntegrated Reporting with Virtual Ntegrity Gateway purchase			■	■
UPS Service with Ntegrated Monitoring	Optional	Optional	■	■
Warranty/Service				
One Year Warranty	■	■	■	■
Optional start-up: extends one year warranty to include cost of travel and labor	■	■	■	■

*Note: Contact factory for switchgear options when paralleling more than four UPS modules or when paralleling 160-200kVA UPS modules.

Liebert NX Features

The Liebert NX family of UPS systems offers a variety of operating features to meet a wide range of requirements:

Capacity Growth

- **Parallel for capacity** — Up to 3 UPS modules may be used in a parallel configuration to provided added capacity as needs grow.
- **Parallel for redundancy** — Up to 4 UPS modules may be used in a parallel configuration to provide redundancy for added reliability. Contact factory for switchgear options when paralleling more than 4 UPS modules.
- **Parallel unlike capacities** — The Softscale technology of the Liebert NX allows you to change your growth increment without having to obsolete your existing UPS. For example, a Softscale UPS rated 80kVA can be paralleled with another Softscale UPS rated 120kVA for a combined output capacity of 200kVA.
- **Optional paralleling cabinets** — These cabinets include various switchgear configurations to parallel NX modules rated 20kVA or 30 kVA, or Softscale models rated 40kVA – 200kVA, for additional capacity and redundancy.
- **Softscale™ technology** — The Liebert NX UPS Softscale capability provides fast software scalability. Purchase the capacity you need today, then when your power needs grow you simply purchase a software key and an Emerson Customer Engineer will visit your site to increase the UPS capacity. Softscale models are available in the range of 40kVA to 80kVA; 80kVA to 120kVA, and 160 & 200 kVA.

Advanced Electronics

- **Digital signal processor controls** — The advanced topology of the Liebert NX features a digital signal processor (DSP) controlled IGBT rectifier and IGBT inverter. Digital controls provide the fastest possible power management to enhance reliability, accuracy and efficiency while reducing component count.
- **True on-line double conversion** — Output power is regenerated inside the UPS, providing protection from the full range of power irregularities.
- **Optimized Efficiency using Soft-switching technology** — This design technique improves system efficiency and maintains high efficiency performance from 40% to 100% utilization.
- **IGBT-based input power factor corrected rectifier** — Enables the Liebert NX to achieve its impressive THD and PF performance.
- **Dual bus synchronization** — Provides the capability to synchronize the outputs of two independent UPS when they are configured as a redundant system feeding independent distribution paths.

Performance

- **Eco-Mode high efficiency configuration** — Operating mode that switches the UPS to static bypass during normal operation. When power problems are detected the UPS automatically switches back to double conversion mode.
- **High overload protection** — The system's static switch overload rating makes it capable of clearing a 20 A branch circuit breaker. Handles 125% for 10 minutes, 150% for one minute and a 1000% overload for 10 milliseconds.
- **Built-in automatic bypass** — Transfers the load to bypass in the unlikely event that a fault occurs in the UPS.
- **Optional maintenance bypass distribution cabinet** — Provides complete wrap-around maintenance bypass allowing UPS to be powered down or taken out of service without disconnecting power to the load.
- **Optional internal batteries** — Batteries can be housed within the UPS itself in Liebert NX 10, 15, 20 and 30 kVA sizes.
- **Optional external battery cabinets** — Provide added back-up capacity for extended runtimes.
- **Triple-mode battery charger for fast battery recharge** — Three charging modes ensure maximum battery availability:
  - ***Constant current charging*** provides maximum rated current to the battery until the voltage rises to a pre-determined limit.
  - ***Constant voltage charging*** allows the batteries to recover the final percentage of recharge capacity. A boost voltage is provided for a short term to reduce the battery recharge interval.
  - ***Float charging*** maintains the battery at the recommend voltage.

Physical Characteristics

- **In-The-Row form factor** — Liebert NX 40-200 kVA models are housed in IT rack style cabinets for easy integration within equipment rows.
- **Front access service** — Allows easy servicing of critical internal components.
- **Front access installation** — No need for side access when installing UPS.
- **Compact footprint** — Requires less floor space, leaving you with more room for other equipment.

Communications

- **Liebert IntelliSlot® communications compatibility** — Power communications available through Liebert IntelliSlot Web Card LB and Liebert MultiLink™ shutdown software.
- **Multi-language LCD display** — Large and user-friendly LCD display provides operating information in twelve languages.
- **Liebert NX Softscale Service with Ntegrated Monitoring** — Advanced monitoring and network security capabilities from the service business of Emerson Network Power provide an integrated approach to alarm management, predictive maintenance and emergency service response. Utilizes remote monitoring capabilities to provide periodic equipment condition reports, alarm retrieval and warehousing, escalation management, and 7 x 24 emergency service response.
- **UPS Service with Ntegrated Monitoring** — Advanced monitoring and network security capabilities from the service business of Emerson Network Power provide an integrated approach to alarm management, predictive maintenance and emergency service response.

Warranty/Service

- **One year warranty** — Standard warranty provides full coverage for one year.
- **Optional start-up of UPS** — factory trained service personnel ensure proper start-up of the UPS. This option extends the one year warranty to include labor and travel.

Liebert NX: Flexible, Reliable And Economical

The Liebert NX family of UPS systems combines numerous technology advances and innovations to create a power system that combines high performance, compact size, reliability and cost-efficiency. Liebert NX models are available with characteristics to fit the flexibility and availability needs of different sites.

Flexibility:

- Parallel units that are the same or different capacities for greater flexibility in managing power growth.
- Generator compatible.
- Power communications available through Liebert IntelliSlot® Web Card LB and Liebert MultiLink™ shutdown software.
- Large and user-friendly LCD display provides operating information in twelve languages.
- Internal automatic bypass transfers load to bypass in the unlikely event that a fault occurs in the UPS. Optional wrap-around maintenance bypass allows the UPS to be powered down or taken out of service without disconnecting power to the load.
- Easy servicing due to front accessibility of critical components, self-diagnostics and various monitoring options.
- Optional Bypass Distribution Cabinets.

Higher Availability:

- Wider input voltage window and frequency tolerances help to minimize transfer to battery, reducing the number of charging and discharging cycles.
- High overload rating capable of clearing a 20 A branch circuit breaker.
- True on-line double conversion technology protects and conditions against the full range of power irregularities, requiring fewer transfers to battery.
- Advanced inverter control technology provides the highest output power quality to maximize efficiency and operating life of connected equipment.
- Load Bus Synchronization provides the capability to synchronize the outputs of two independent UPS modules when they are configured as a redundant system feeding independent distribution paths.
- An intelligent battery management algorithm monitors the battery to detect any premature battery failure.

Lowest Total Cost Of Ownership:

- Soft-switching technology optimizes operation with the same high efficiency at 40% utilization as at 100% utilization.
- Adaptive input voltage window results in fewer hits on the battery.
- The unit's compact footprint requires less floor space, leaving you with more room for other equipment.
- Temperature-compensated battery charging extends battery life.
- Softscale technology allows you to purchase the capacity you need now and economically upgrade in the future without the expense of additional cabinets or floorspace.

UPS Monitoring And Service:

A Critical Part Of The Uptime Solution

Liebert Services from Emerson Network Power will help you maximize the availability of your protected equipment, and increase the life of your Liebert NX UPS, with a full range of monitoring and scheduled preventive maintenance offerings.

Liebert NX Softscale Service With Ntegrated Monitoring™

When purchasing startup of a Liebert NX 40-200 kVA UPS and an optional Virtual Ntegrity Gateway, you will receive one free year of **Ntegrated Monitoring and Reporting**. After the first year, you may continue your service by renewing it for as long as you like. A maintenance contract is required to continue the same level of monitoring service.

Ntegrated Monitoring from Liebert Services incorporates advanced monitoring, and leading network security, to provide an integrated approach to alarm management, equipment maintenance and emergency service response.

How It Works

Ntegrated Monitoring links your critical resources (power, UPS, environmental equipment) to the Liebert High Availability Response Center for 24x7x365 monitoring. Redundant system hardware and separate connections in two countries maintain a continuous connection at all times. Your system is safe, secure and always working.

Ntegrated Monitoring includes:

Alarm Reporting — All alarm and service activity is summarized for you in a monthly status report. The critical information in these reports is used to pinpoint trouble spots, anticipate maintenance, and highlight any issues that may cause your Liebert NX to operate at less than peak performance.

Escalation Plan — With Ntegrated Monitoring's continuous communication, your equipment can operate unmanned, saving you costly maintenance hours. You simply need to select the recipients for notification in a predetermined escalation plan.

Trending and Analysis — Vital information on your system status is recorded, stored and reported, so you can easily analyze it for patterns and areas of concern. Whenever an alarm is generated at your site, it is recorded and entered in our database along with the action that was taken. These reports are used to pinpoint any trouble spots and help to resolve any issues that may have your system running at less than peak performance.

The Real Value Of Preventive Maintenance

Another way end-users can further minimize unit-related failures is to institute a comprehensive preventive maintenance program that is implemented by OEM trained and certified technicians such as those with Liebert Services from Emerson Network Power.

Liebert Customer Engineers (CE) are continuously trained in order to be up-to-date with new procedures, equipment, designs and updates that have been made.

Factory Trained Resources Available 24X7

Liebert Services from Emerson Network Power has the industry's largest coverage with over 2000 Certified Factory Trained Engineers. Our Liebert High Availability Response Center supports you 24x7 with a staff of knowledgeable people who understand the technology and your equipment. And to make sure the job gets done when it needs to, we have factory-certified parts — availible for shipment when you need them.

Accessories To Extend The Capabilities Of Your Liebert NX System

Benefits Of Using 208 or 480V Systems

Depending on your site needs, input and output power requirements can affect your efficiency and ROI.

In general, when site application needs are 60kVA and lower, 208V power will typically be available at the room entrance. Matching your UPS to this voltage is a more efficient method of delivering power to your connected equipment and maximizing existing the infrastructure. When power requirements reach 40kVA and above, operating your UPS at 480V can result in significantly reduced installation costs while improving the quality of power provided to your loads.

Operating the UPS at an input voltage of 480V eliminates the need to run a neutral conductor and requires smaller gauge wire vs. operation at 208V. Utilizing a BDC or FPC on the output of the UPS creates a separately derived source of 208/120V providing computer grade power isolation and reduced short circuit fault currents while creating a solid neutral to ground bond located close to your protected loads.

This Means:

- Lower installation costs due to 20% less copper wiring.
- More reliable system by establishing neutral to ground bond close to the protected load.
- Easier installation of fewer wires of smaller size.

Liebert NX BDC Bypass and Distribution Cabinet

The Liebert NX 40-200 kVA, 480VAC UPS can be paired with a Liebert NX Bypass and Distribution Cabinet, available with various input and output voltage combinations and distribution options. These matching cabinets bolt directly to right side of the UPS and include all internal power and control inter-connect wiring.

Liebert NX BDC Cabinets are available in capacities of 75kW, 125kW and 200kW covering the Liebert NX UPS range of 40-200kVA.

Liebert NX 10-30 kVA UPS SlimLine Power Distribution Cabinet is designed to bolt directly to the Liebert NX 10-30kVA UPS and provides a 42-pole panelboard for power distribution. Load cabling can be routed through the top or bottom of the SlimLine cabinet.

Liebert FPC™ Power Conditioning And Distribution Cabinet

The rack-size Liebert FPC power conditioning and distribution cabinet provides higher quality, more flexible power distribution for high-density data centers. It is engineered to combine the convenience and cost savings of a pre-packaged, factory-tested unit with the flexibility of a custom-tailored power system. This self-contained system provides power isolation, power distribution to the individual racks, IT equipment-grade grounding and power monitoring.

The Liebert FPC is designed to fit at the end of, or within, a row of racks, as well as in a standalone configuration.

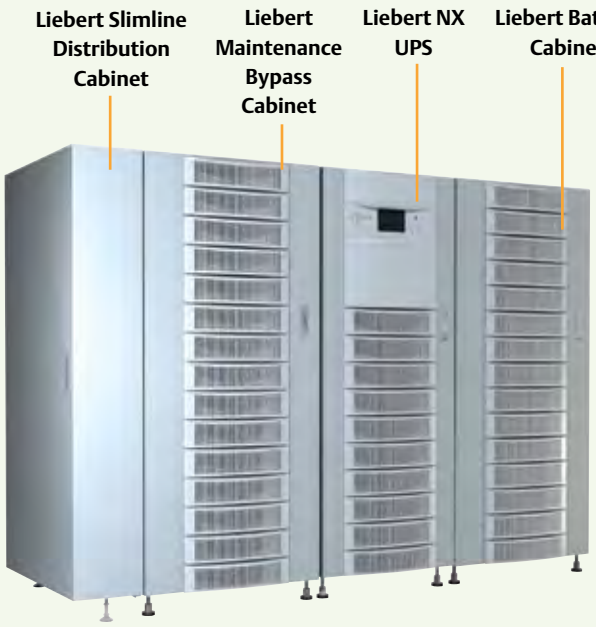
Liebert NX Battery Cabinet

Valve Regulated Lead Acid (VRLA) batteries provide mission critical back up. High reliability features include 10-year design life batteries with flame retardant cases, factory installed battery circuit breaker protection, and optional Albér battery monitoring for early warning detection of battery problems.

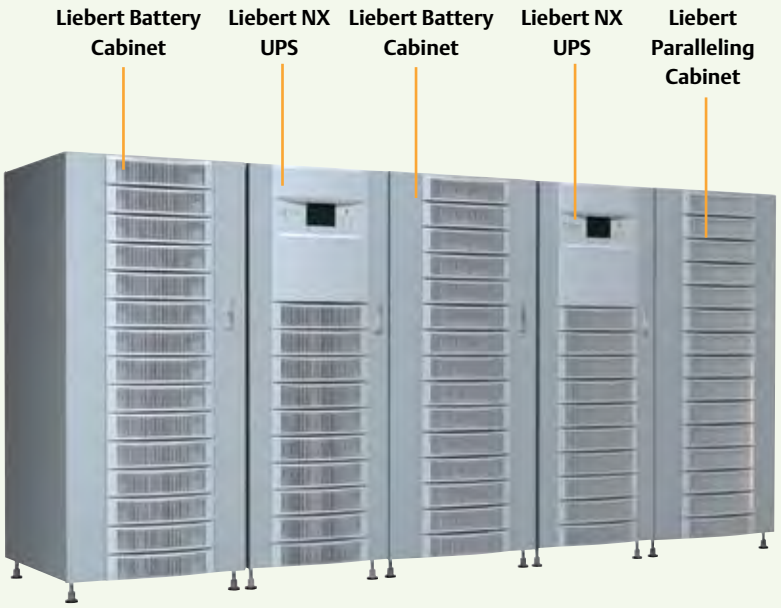
Liebert NX UPS Paralleling Cabinet

Increase UPS capacity or add redundancy with the addition of the NX Paralleling Cabinet. Parallel up to three UPS modules for capacity, and add a fourth for redundancy.

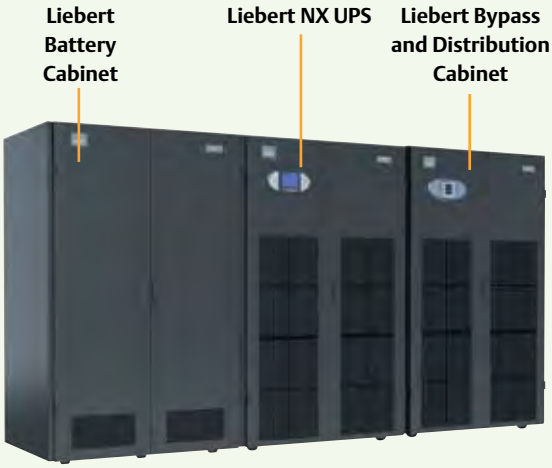
10-30 KVA Liebert NX *Single Module*



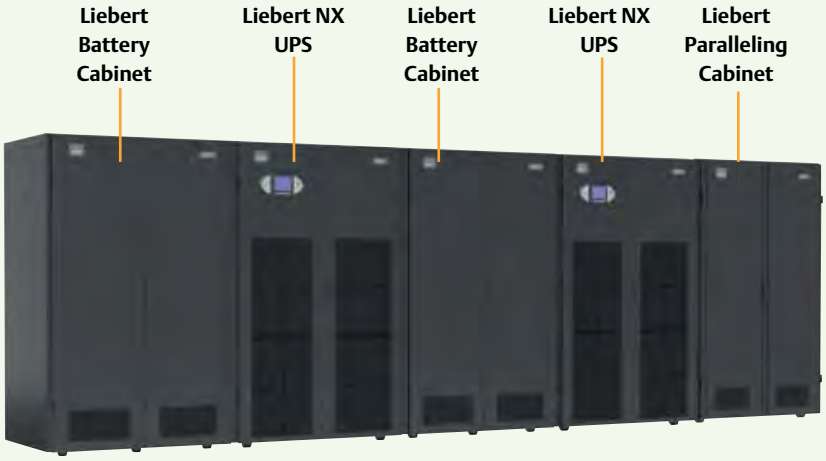
20-30 KVA Liebert NX *Multi-Module*



40-200 KVA Liebert NX *Single Module*



40-200 KVA Liebert NX *Multi-Module*



Up To 10 Racks — *Small Data Center Three Phase*

Liebert NX: Part Of A Total IT System Protection Solution

Solution:

For the server room or small data center consisting of 2-10 racks, this innovative and reliable Liebert solution might be the fit for your network protection needs. When information is highly critical, and downtime inexcusable, this Solution has the reliability you demand. Racks, air, power, service and monitoring — installed and pre-engineered to work together and to never stop working.

Products:

1. **Liebert NX** — 10kVA to 30kVA. Can also be paralled to 90 kVA redundant to meet room power needs.
2. **Liebert Slimline Distribution Cabinet** — provides a space-saving 42-pole panelboard for load distribution from the UPS output. Each panelboard includes a main circuit breaker.
3. **Knurr Miracel® Racks** — Lightweight, easy to assemble, stable racks that offer 83% ventilation and simple add-on options.
4. **Liebert Challenger 3000** — A self-contained environmental control system that produces 3-5 tons of precision cooling in less than 7 square feet. Provides temperature control, humidity control and air filtration 24 hours a day, 365 days a year.

Liebert MultiLink Shutdown Software — Monitors battery status and warns users of impending power loss, and automatically shuts down systems in a safe and orderly manner.

10-30 KVA Liebert NX

Specifications

Models	NX 10 kVA	NX 15 kVA	NX 20 kVA	NX 30 kVA	NX Battery Cabinet 10kVA-30kVA	NX Maintenance Bypass Cabinet 10-30 kVA	NX Parallel Cabinet 20-30 kVA	NX Slimline Distribution Cabinet 10kVA-30kVA
Power Rating - kVA	10	15	20	30	N/A	10, 15, 20, 30	20 to 90 kVA	N/A
Power Rating - kW	8	12	16	24	N/A	8, 12, 16, 24	16 to 72	N/A
Input AC Specifications								
Phase	3				N/A	3	3	3
Power Factor	0.99				N/A	N/A	N/A	N/A
Frequency - Hz	50 or 60				N/A	60	60	60
Frequency Range - Hz	+/- 5 Hz				N/A	N/A	N/A	N/A
Input Voltage	120/208				N/A	120/208, 220, 480, 600	208,480, 600	208/120
Input Voltage Range	+10,-20				N/A	N/A	N/A	N/A
General Specifications								
UPS Technology	On-Line, Double Conversion				N/A	N/A	N/A	N/A
Battery Specifications								
Battery Test Type	On-Line				N/A	N/A	N/A	N/A
Battery Technology	VRLA, Wet Cells				VRLA	N/A	N/A	N/A
Output AC Specifications								
Nominal Voltage	120/208				288 VDC	120/208	120/208	120/208
Frequency - Hz	50 or 60				60	60	60	60
Output Waveform	Sinewave				Sinewave	Sinewave	Sinewave	Sinewave
Distribution	N/A				N/A	N/A	N/A	1 Panelboard (42 poles)
User Interface								
LCD Display	Yes				N/A	N/A	N/A	N/A
Communications								
Communications Options	Intellislot, SNMP, Relay Card, MultiLink				N/A	N/A	N/A	N/A
Physical Data								
Form Factor	Stand Alone				Stand Alone	Stand Alone	Stand Alone	Stand Alone
Unit Height - inches (mm)	63 (1,600)				63 (1,600)	63 (1,600)	63 (1,600)	63 (1,600)
Unit Width - inches (mm)	24 (600)				27 (686)	27 (686)	27 (686)	11 (279)
Unit Depth - inches (mm)	32.5 (825)				32.5 (825)	32.5 (825)	32.5 (825)	32.5 (825)
Unit Weight - lbs. (kg)	450 (205) to 1250 (567) w/ internal batteries					1350 (612) to 3740 (1697)	620(281) to 1400 (635)	904 (410) to 1912 (867)
250 (115)								
Shipping Height - inches (mm)	69 (1,753)				69 (1,753)	69 (1,753)	69 (1,753)	69 (1,753)
Shipping Width - inches (mm)	32 (813)				35 (889)	35 (889)	35 (889)	35 (889)
Shipping Depth - inches (mm)	40 (1,016)				40 (1,016)	40 (1,016)	40 (1,016)	40 (1,016)
Shipping Weight - lbs. (kg)	600 (273) to 1400 (635) w/ internal batteries					1,500 (680) to 3940 (1787)	770 (349) to 1550 (703)	1104 (500) to 2112 (958)
400 (182)								
Environmental								
Operating Temperature, Min., °F (°C)	32 (0)				32 (0)	32 (0)	32 (0)	32 (0)
Operating Temperature, Max., °F (°C)	104 (40)				104 (40)	104 (40)	104 (40)	104 (40)
Storage Temperature, Min., °F (°C)	-4 (-20)				-4 (-20)	-4 (-20)	-4 (-20)	-4 (-20)
Storage Temperature, Max., °F (°C)	158 (70)				158 (70)	158 (70)	158 (70)	158 (70)
Relative Humidity	0% to 95%, Non Condensing				0% to 95%, Non Condensing	0% to 95%, Non Condensing	0% to 95%, Non Condensing	0% to 95%, Non Condensing
Operating Elevation - ft. (m)	to 3,300 (1000)				to 3,300 (1000)	to 3,300 (1000)	to 3,300 (1000)	to 3,300 (1000)
Storage Elevation - ft. (m)	to 40,000 (12,200)				to 40,000 (12,200)	to 40,000 (12,200)	to 40,000 (12,200)	to 40,000 (12,200)
Sound Emission/Audible Noise	<54 dBA, at 1meter				N/A	N/A	N/A	N/A
Cooling	Fan Cooled				Convection Cooled	Convection Cooled	Convection Cooled	Convection Cooled
Agency/Certification/Conformance								
Agency Approval	UL 1778, c-UL, FCC Class A				UL 1778, c-UL, FCC Class A	UL 1778, c-UL, FCC Class A	UL 1778, c-UL, FCC Class A	UL 1778, c-UL, FCC Class A

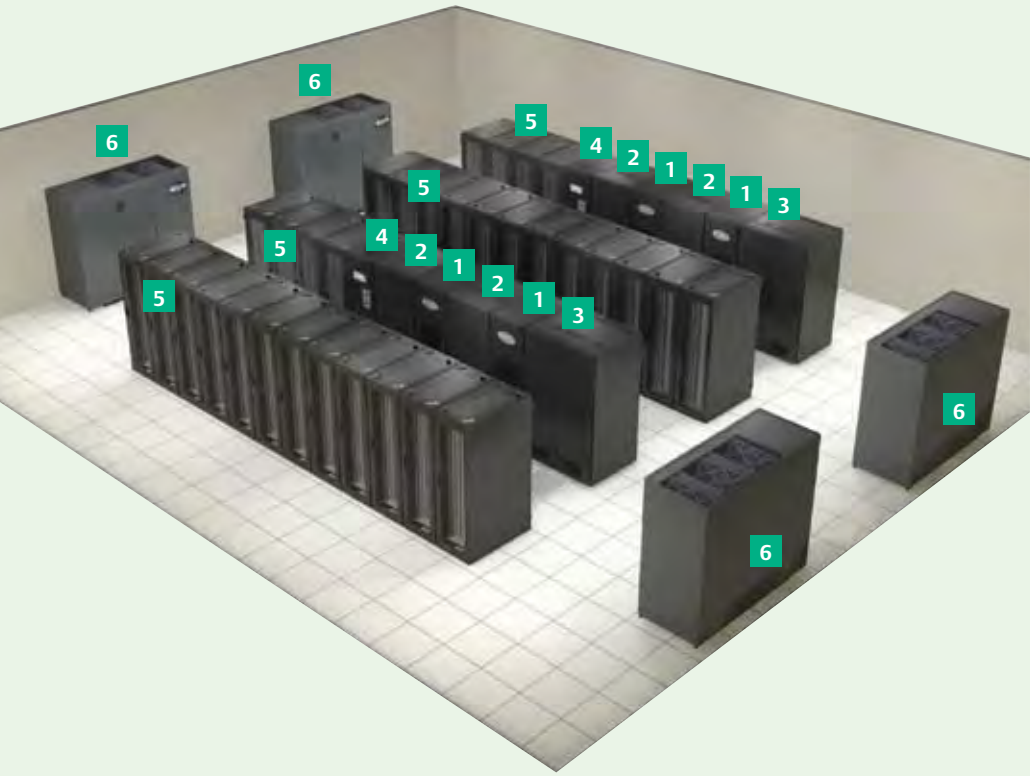
Warranty					
Standard	1 Year	1 Year	1 Year	1 Year	1 Year

10-30 Racks *— Small Data Center Three Phase*

Liebert NX: Sized To Fit The IT Space

Solution:

As your rack-mount systems grow more complex and critical, Liebert has the solution for you. Designed for a 10-30 rack data center, this example combines racks, UPS, precision cooling, service, monitoring, installation and the highly important power distribution equipment — pre-engineered to work together. Use this suggested scenario to begin framing the protection to suit your needs.



Products:

1. **Liebert NX** — 40-120 kVA with Softscale technology, can be paralleled up to 360 kVA redundant.
2. **Liebert NX Battery Cabinet** — provides battery back up. Add cabinets to meet back up needs.
3. **Liebert NX Paralleling Cabinet** — provides the necessary componentry for parallel operation of multiple Liebert NX modules.
4. **Liebert NX Bypass Distribution Cabinet** — Packaged power distribution for today's rack-based data centers and IT facilities, withplug-and-play flexibility.
5. **Knurr Miracel® Racks** — Lightweight, easy to assemble, stable racks that offer 83% ventilation and simple add-on options.
6. **Liebert DS** — Provides precision control of the room environment, including temperature, humidity, filtration and airflow. Available in 28-105kW (8-30 tons).

Liebert MultiLink Shutdown Software — Monitors battery status and warns users of impending power loss, and automatically shuts down systems in a safe and orderly manner.

Liebert Nform™ IT Network Monitoring Software — Cost-effective monitoring and communications software solution combines full-scale monitoring with cost-effective deployment through the use of the existing network infrastructure.

Liebert IntelliSlot® Web Card LB — Communications interface card compatible with Liebert NX UPS, delivers SNMP, Telnet and web-management capability for enhanced communications and control.

40-120 KVA Liebert NX

Specifications

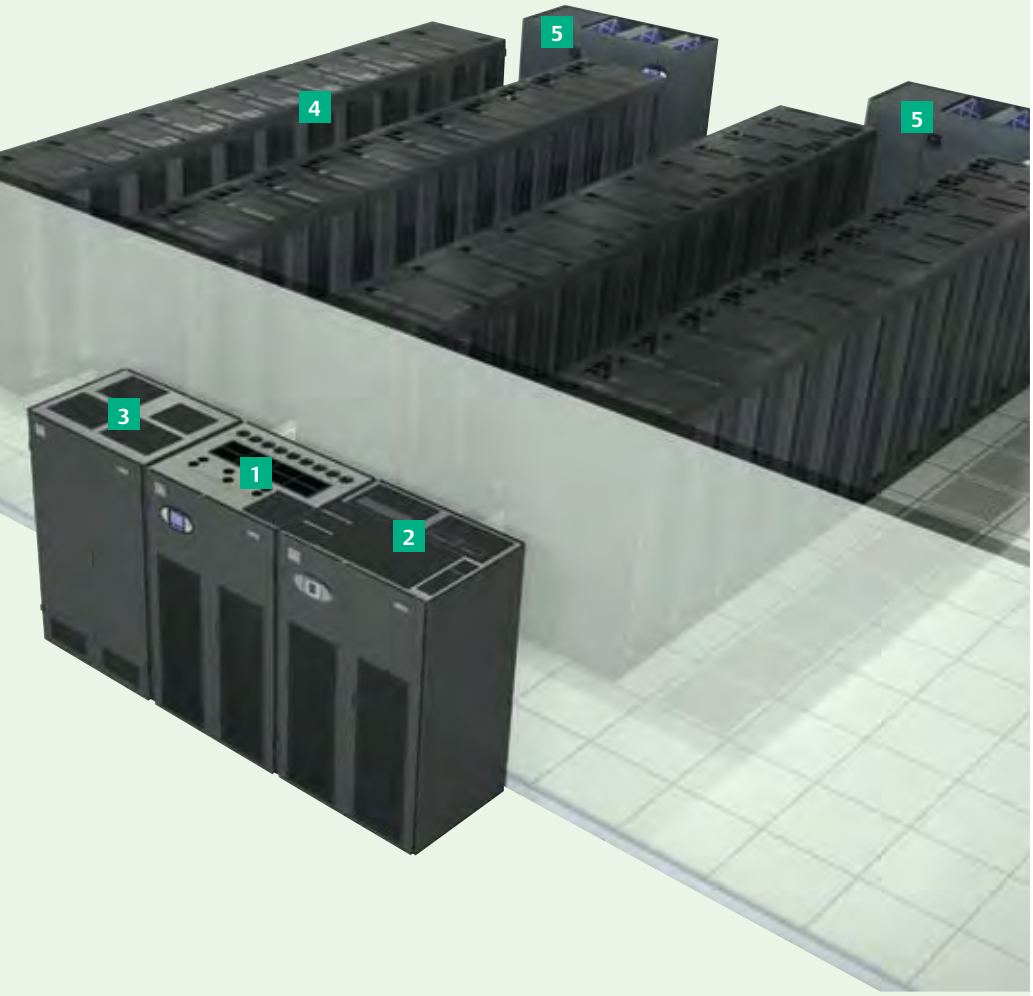
Models	NX 40 kVA UPS	NX 60 kVA UPS	NX 80 kVA UPS	NX 80 kVA UPS	NX 100 kVA UPS	NX 120 kVA UPS	31" Battery Cabinet	54" Battery Cabinet	BDC
Power Rating - kVA	40	60	80	80	100	120	80	120	75, 125
Power Rating - kW	36	54	72	72	90	108	72	108	75, 125
Input AC Specifications									
Phase	3						N/A		3
Power Factor	> 0.99 at full load; >0.98 at half load						N/A		1
Frequency - Hz	50 or 60Hz.						N/A		60hZ
Input Voltage	480, 3 Wire + Ground						N/A		208, 220, 240, 480, 600
Input Voltage Range	+15, -20						N/A		+15-20
General Specifications									
Technology	On-Line, double conversion UPS						VRLA Battery Cabinet		Optional Maintenance Bypass & Distribution
Battery Specifications									
Battery Test Type	On-Line						Optional Alber Battery Monitoring		N/A
Battery Technology	VRLA, Wet Cells, Nicad						Valve Regulated Lead Acid (VRLA)		N/A
Output AC Specifications									
Nominal Voltage	480 VAC, 3 wire plus ground						480 VDC		208/120, 220/127, 480. 600
Frequency - Hz	60 (50 Hz in frequency converter mode)						N/A		60 Hz.
Output Waveform	Sinewave						N/A		Sinewave
Distribution	N/A						N/A		Optional subfeeds, panelboards or terminals
User Interface									
LCD Display	Yes						N/A		LCD Display
Communications									
Communications Options	Intellislot, SNMP, Relay Card, MultiLink						Optional Alber Battery Monitoring		Local V & I, Optional ModBUS
Physical Data									
Form Factor	Rack								
Unit Height - inches (mm)	78.7 (2000)								
Unit Width - inches (mm)	25.5 (648)		41 (1040) 25.5 (648) when used with BDC				33.5 (850)	48.8 (1240)	24-71 (609-1803)
Unit Depth - inches (mm)	39.0 (990)								
Unit Weight - lbs. (kg)	1290 (585)		1422 (645)				1750 - 2620 (794 - 1188)	3438 - 5502 (1560 - 2496)	varies by configuration
Shipping Height - inches (mm)	86 (2185)		86 (2185)				86 (2185)	86 (2185)	varies by configuration
Shipping Width - inches (mm)	48.0 (1200)		48.0 (1200)				48 (1220)	48 (1220)	varies by configuration
Shipping Depth - inches (mm)	48.0 (1200)		60.0 (1524)				48 (1220)	65 (1651)	varies by configuration
Shipping Weight - lbs. (kg)	1440 (653)		1572 (713)				1900 - 2770 (885 - 1280)	3638 - 5702 (1650 - 2586)	varies by configuration
Environmental									
Operating Temperature, Min., °F (°C)	32 (0)								
Operating Temperature, Max., °F (°C)	104 (40)								
Storage Temperature, Min., °F (°C)	-4 (-20)								
Storage Temperature, Max., °F (°C)	158 (70) Note: Batteries should not be stored above 86 (30)								
Relative Humidity	0% to 95%, Non Condensing								
Operating Elevation - ft. (m)[2,2]	3,300 (1000) per IEC 62040/3								
Sound Emission/Audible Noise	61		63				N/A		55
Cooling	Fan Cooled						convection		convection
Agency/Certification/Conformance									
Agency Approval	UL 1778, c-UL, FCC Class A								UL 60950, c-UL, FCC Class A
Warranty									
Standard	1 Year								

31 To 200 Racks *— Large Data Center Three Phase*

Liebert NX: Flexibility To Support IT Growth

Solution:

The flexible design of Liebert NX 160-200kVA UPS is perfect for mid-size and large data centers anticipating growth. Designed for data centers with up to 200 racks, this example combines racks, UPS, precision cooling, service, monitoring, installation and the highly important power distribution equipment — pre-engineered to work together. The UPS lineup may be installed inside or outside of the data center. Use this suggested scenario to begin framing the protection to suit your needs.



Products:

1. **Liebert NX UPS**— 160-200 kVA with Softscale technology, can be paralleled up to 600 kVA redundant.
2. **Liebert NX Battery Cabinet** — provides battery back up. Add cabinets to meet back up needs.
3. **Liebert NX BDC Bypass Distribution Cabinet** — available with various input and output voltage combinations and distribution options. Includes all internal power and control interconnect wiring.

   Liebert NX UPS Multi-Module Systems — Parallel modules for increased capacity or redundancy. Contact factory applications for switchgear options.

   Liebert FPC — Packaged power distribution for today's rack-based data centers and IT facilities, with plug-and-play flexibility.
4. **Knurr Miracel® Racks** — Lightweight, easy to assemble, stable racks that offer 83% ventilation and simple add-on options.
5. **Liebert DS** — Provides precision control of the room environment, including temperature, humidity, filtration and airflow. Available in 28-105kW (8-30 tons).

   Liebert MultiLink Shutdown Software — Monitors battery status and warns users of impending power loss, and automatically shuts down systems in a safe and orderly manner.

   Liebert Nform™ IT Network Monitoring Software — Cost-effective monitoring and communications software solution combines full-scale monitoring with costeffective deployment through the use of the existing network infrastructure.

   Liebert IntelliSlot® Web Card LB — Communications interface card compatible with Liebert NX UPS, delivers SNMP, Telnet and web management capability for enhanced communications and control.

160-200 KVA Liebert NX

Specifications

Models	NX 160 kVA	NX 200 kVA	NX Battery Cabinet 160-200 kVA	NX BDC
Power Rating - kVA	160	200	200	225
Power Rating - kW	144	180	180	225
Input AC Specifications				
Phase	3		N/A	3
Power Factor	> 0.99 at full load; >0.98 at half load		N/A	1
Frequency - Hz	50 or 60Hz		N/A	60hZ
Input Voltage	480, 3 Wire + Ground		N/A	208, 220, 240, 480, 600
Input Voltage Range	+15, -20		N/A	+15-20
General Specifications				
Technology	On-Line, double conversion		VRLA Battery Cabinet	Optional Maintenance Bypass & Distribution
Battery Specifications				
Battery Test Type	On-Line		Optional Alber Battery Monitoring	N/A
Battery Technology	VRLA, Wet Cells, Nicad		Valve Regulated Lead Acid (VRLA)	N/A
Output Specifications				
Nominal Voltage	480VAC, 3 wire plus ground		480 VDC	208/120, 220/127, 480. 600
Frequency - Hz	60 (50 Hz in frequency converter mode)		N/A	60 Hz
Output Waveform	Sinewave		N/A	Sinewave
Distribution	N/A		N/A	Optional subfeeds, panelboards or terminals
User Interface				
LCD Display	Yes		N/A	Yes
Communications				
Communications Options	Intellislot, SNMP, Relay Card, MultiLink		Optional Alber Battery Monitoring	Local V & I, Optional ModBUS
Physical Data				
Form Factor	Rack			
Unit Height - inches (mm)	78.7 (2000)			
Unit Width - inches (mm)	64.4 (1636)		48.8 (1240)	47 - 94 (1194 - 2388)
Unit Depth - inches (mm)	39 (990)			
Unit Weight - lbs. (kg)	2201 (1000)		3438 - 5502 (1560 - 2496)	varies by configuration
Shipping Height - inches (mm)	86 (2185)		86 (2185)	varies by configuration
Shipping Width - inches (mm)	48 (1220)		48 (1220)	varies by configuration
Shipping Depth - inches (mm)	48 (1220)		65 (1651)	varies by configuration
Shipping Weight - lbs. (kg)	2500 (1134)		3638 - 5702 (1650 - 2586)	varies by configuration
Environmental				
Operating Temperature, Min., °F (°C)	32 (0)			
Operating Temperature, Max., °F (°C)	104 (40)			
Storage Temperature, Min., °F (°C)	-4 (-20)			
Storage Temperature, Max., °F (°C)	158 (70) Note: Batteries should not be stored above 86 (30)			
Relative Humidity	0% to 95%, Non Condensing			
Operating Elevation - ft. (m)[2][2]	3,300 (1000) per IEC 62040/3			
Sound Emission/Audible Noise	68.5		N/A	55
Cooling	Fan Cooled		convection	convection
Agency/Certification/Conformance				
Agency Approval	UL 1778, c-UL, FCC Class A UL 1778, c-UL, FCC Class A			UL 60950, c-UL, FCC Class A
Warranty				
Standard	1 Year			

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

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