VERTIV.™

Liebert®

NXC
from 10 to 200 kW

Compact and Reliable Power
in a Fully Integrated Packaged Solution

Vertiv™

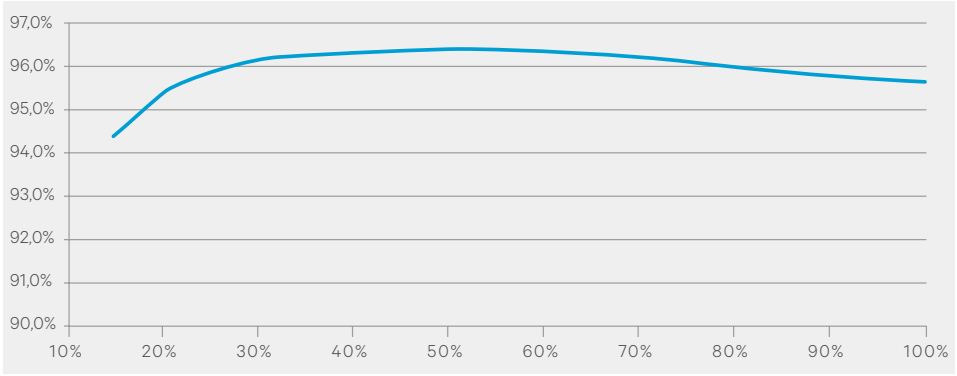
Vertiv designs, builds and services mission critical technologies that enable the vital applications for data centers, communication networks, and commercial and industrial environments. We support today's growing mobile and cloud computing markets with our portfolio of power, thermal, infrastructure management products, software and solutions, all complemented by our global service network. Bringing together global reach and local knowledge, and our decades-long heritage including brands like ASCO®, Chloride®, Liebert®, NetSure™ and *Trellis*™, our team of experts is ready to take on your most complex challenges, creating solutions that keep your systems running—and your business moving. Together, we're building the future of a world where critical technologies always work.

YOUR VISION, OUR PASSION.
VertivCo.com

Liebert® NXC from 10 to 200 kVA

Continuous Reliability

The Liebert® NXC 10 - 200 kVA range offers reliable and flexible secure power in a fully integrated package solution. Its highly efficient transformer-free double conversion technology delivers installation and running cost savings. With a rated output power factor up to 1, Liebert NXC is also able to provide greater active power than a traditionally rated 0.9 power factor UPS. Liebert NXC achieves up to 96% efficiency in double conversion mode and up to 99% in ECO mode, thus ensuring effective load protection, while reducing the total cost of ownership (TCO) and environmental impact. Liebert NXC's combination of performance features, impressive integrated autonomy and compact footprint make it ideal for guaranteeing clean, continuous power for a wide range of applications from IT and manufacturing to retail and transport. Its low THDi and active input power factor correction ensure that the current absorbed from the upstream distribution network is near equal to its nominal output current, hence eliminating the need for oversizing gensets and other equipment.



Liebert NXC efficiency curve (80 - 200 kVA)

FEATURES AND PERFORMANCES

- Output power factor up to 1
- Double conversion efficiency up to 96%
- ECO mode efficiency up to 99%
- Input current total harmonic distortion correction (THDi) < 3%
- Battery charger up to 50 A
- Integrated manual bypass
- Integrated input and output breakers/switches (10-60 kVA)
- Integrated parallel load bus and synchronization port (LBS)

Flexibility

To ensure superior protection for critical loads, the Liebert® NXC range has been designed to optimize specific rating requirements, thus enhancing flexibility and installation space needs.

Liebert NXC's flexibility is further enhanced through:

- Single and three phase output configuration*
- Integrated parallel and dual bus control
- Common or distributed battery bank
- Multiple internal battery configurations for flexible internal back up time management*

Output Configuration

Liebert NXC models up to 20 kVA can be configured on-site to deliver three (3/3) or single (3/1) phase output giving it the flexibility to adapt to changes in installation environments.

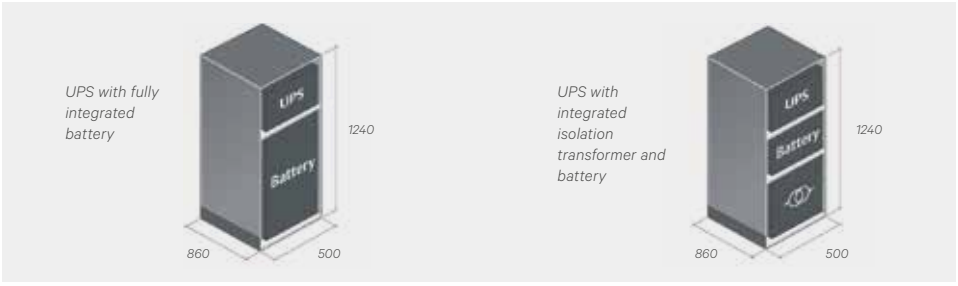
Full Galvanic Isolation

Liebert NXC offers integrated full galvanic isolation, meaning that an isolation transformer may be housed inside the UPS cabinet. This greatly reduces the system footprint, thus providing space saving advantages. The transformer may 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.

Integrated Autonomy

Liebert NXC provides an excellent integrated* autonomy which results in back up times of up to one hour.
Its spacious internal architecture is able to house up to four battery strings, further optimizing integrated autonomy and delivering the added advantage of virtually eliminating the need for an external battery cabinet. This furthermore reduces installation costs and minimizes the demand on physical space. In addition, Liebert NXC's powerful battery charger ensures rapid recharge, increasing its ability to manage longer back up times.



*On selected configurations

Liebert NXC 10-20 kVA architecture

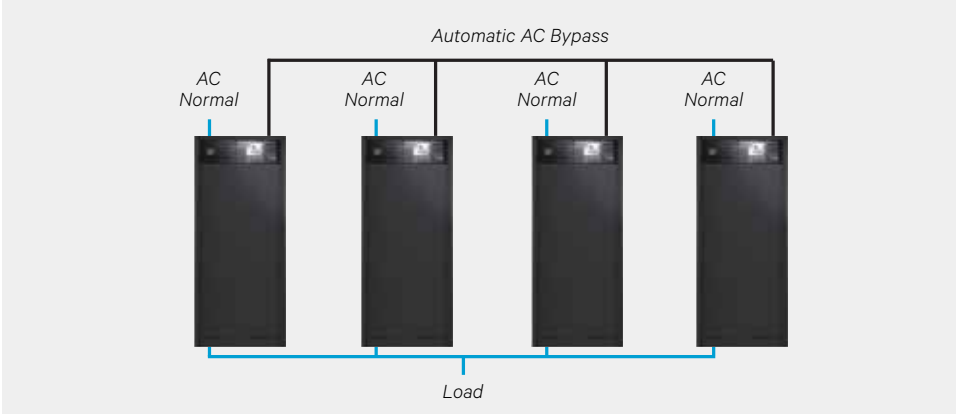
VERTIV *TRELLIS™*

Vertiv *Trellis*™ platform is a real-time infrastructure optimization platform that enables the unified management of data center IT and facilities infrastructure.
The Vertiv *Trellis* platform software can manage capacity, track inventory, plan changes, visualize configurations, analyze and calculate energy usage, and optimize cooling and power equipment as well as enable for virtualization.
The Vertiv *Trellis* platform monitors the data center, providing a thorough understanding of system dependencies to help IT and facilities organizations keep the data center running at peak performance. This unified and complete solution, delivers the power to see the real situation in your data center, make the right decision and take action with confidence.

In The Field

Parallel and Dual Bus Ready

Liebert NXC 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, allowing the system to be customized for the requested configuration. 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. Furthermore, the output of two single or parallel Liebert NXC units can be synchronized to deploy a dual bus feed, achieving Tier IV level reliability.



Liebert NXC - Parallel configuration

Communication

Liebert® NXC 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
- USB interface
- Optocoupler based interfaces
- Intellislot for SNMP, Modbus or Relay communication.

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

Software Connectivity

Vertiv Multilink™ software prevents unexpected server shutdowns and minimizes downtime warning of pending power losses and initiating safe shutdown of operating systems if required. Vertiv Nform™ network communications system enables customers to leverage the distributed monitoring capabilities of network connected equipment, providing centralized management of distributed systems.

Serviceability

The architecture of the Liebert NXC is designed to optimize installation and simplify service with its easily removable power assembly. This architecture considerably minimizes the time needed for repairs and optimizes serviceability. Liebert NXC also comes equipped with casters to facilitate ease of movement and relocation.

Liebert NXC - 10 - 20 kVA

Liebert NXC - 30 - 120 kVA

Liebert NXC - 160 - 200 kVA

Connectivity cards

Vertiv LIFE™ Services Remote Diagnostic and Preventive Monitoring

Vertiv's service program is designed to ensure that your critical power protection system is maintained in an optimum state of readiness at all times.
The **Vertiv LIFE™ Services** remote diagnostic and preventive monitoring service provides early warning of UPS conditions and out of tolerances.
This allows effective proactive maintenance, fast incident response and remote trouble shooting, giving customers complete security and peace of mind.
With **Vertiv LIFE Services** you will benefit from:

Uptime Assurance

Constant monitoring of UPS parameters, thus maximizing the system's availability.

First Time Fix Rate

Pro-active monitoring and data measuring ensure that when our customer engineers are dispatched on-site, they arrive prepared for first time resolution.

Proactive Analysis

From Vertiv LIFE Services centers, our experts proactively analyze the data and trends of your equipment, to recommend actions to ensure their best performance.

Minimized Total Cost of Ownership of Your Equipment

The continuous monitoring of all relevant parameters in turn maximizes unit performance, reduces on-site maintenance and extends the life of your equipment.

Fast Incident Response

Vertiv LIFE Services allow for immediate definition of the best course of action, as a result of the regular communication between your Liebert NXC system and our **Vertiv LIFE Services** centers.

Reporting

You will receive a comprehensive report detailing the working order of your equipment and its operational performance.

Liebert® NXC Specifications

Technical Characteristics												
Ratings (kVA)		10	15	20	30	40	60	80	100	120	160	200
INPUT												
Nominal input voltage (V)		380/400/415										
Input voltage range without battery discharge (V)		305 to 477										
Nominal frequency (Hz)		50/60										
Input frequency range (Hz)		40 to 70										
Input power factor (kW/kVA)		0.99										
Current THD at full linear load (THDI%)		<5						<3				
Bypass voltage tolerance (%)		selectable from +20 to -40										
Bypass frequency tolerance (%)		±20 (±10 selectable)										
BATTERY												
Number battery cells per string		Max: 240; Min: 180			Max: 240; Min: 192			Max: 264; Min: 180				
Voltage temperature compensation (mV/°C/Cell)		-3.0 (selectable 0 to -5.0 around 25°C or 20°C or inhibit)						-3.0 (selectable from 0 to -5.0 around 25°C to 30°C, or inhibit)				
Battery charger max. power (kW)		4.5			6		7.5	12	18		24	30
OUTPUT												
Nominal output voltage (V)		380/400/415 (three-phase) or 220/230/240 (single-phase)			380/400/415 (three-phase)							
Nominal output frequency (Hz)		50/60										
Nominal active power (kW)		9	13.5	18	27	36	54	80	100	120	160	200
THDv with 100% linear load (%)		2										
Inverter overload capacity		105% for 60 min; 125% for 5 min; 150% for 1 min; >150% for 200ms						105% with continuous operation; 125% for 10 min; 150 for 1min; >150% for 200ms				
Double conversion efficiency	100%	94.4%	94.5%	94.2%	94.7%	94.4%	95.3%	95.7%	95.7%	95.6%	95.5%	95.3%
	75%	94.0%	94.4%	94.5%	94.8%	94.7%	95.5%	95.9%	95.9%	95.8%	95.7%	95.7%
	50%	93.5%	94.0%	94.4%	94.6%	94.8%	95.3%	95.9%	95.8%	95.9%	95.8%	95.8%
	25%	90.5%	92.9%	93.5%	91.7%	93.6%	94.4%	95.0%	94.7%	95.0%	94.9%	94.9%
ECO mode efficiency (%)		98.0%						99.0%				
DIMENSIONS												
Dimensions (W x D x H) mm		500 x 860 x 1240			600 x 850 x 1600			600 x 1000 x1600			600 x 1000 x 2000	
Weight (excluding battery) kg		115/145			210/245		225/260	385/435	430/480		475/525	520/570
Weight (including 32 batteries) kg		215/245			600/635		615/650	N/A				
GENERAL												
Noise at 1 m (dBA)		≤56	≤56	≤58	≤56	≤58	≤58	≤59	≤60	≤60	≤61	≤62
Protection level IEC (60529)		IP20										
General and safety requirements for UPS		EN/IEC/AS 62040-1										
EMC requirements for UPS		EN/IEC/AS 62040-2										
UPS classification according to CEI EN 6240-3		VFI-SS-111										

Customer Experience Center

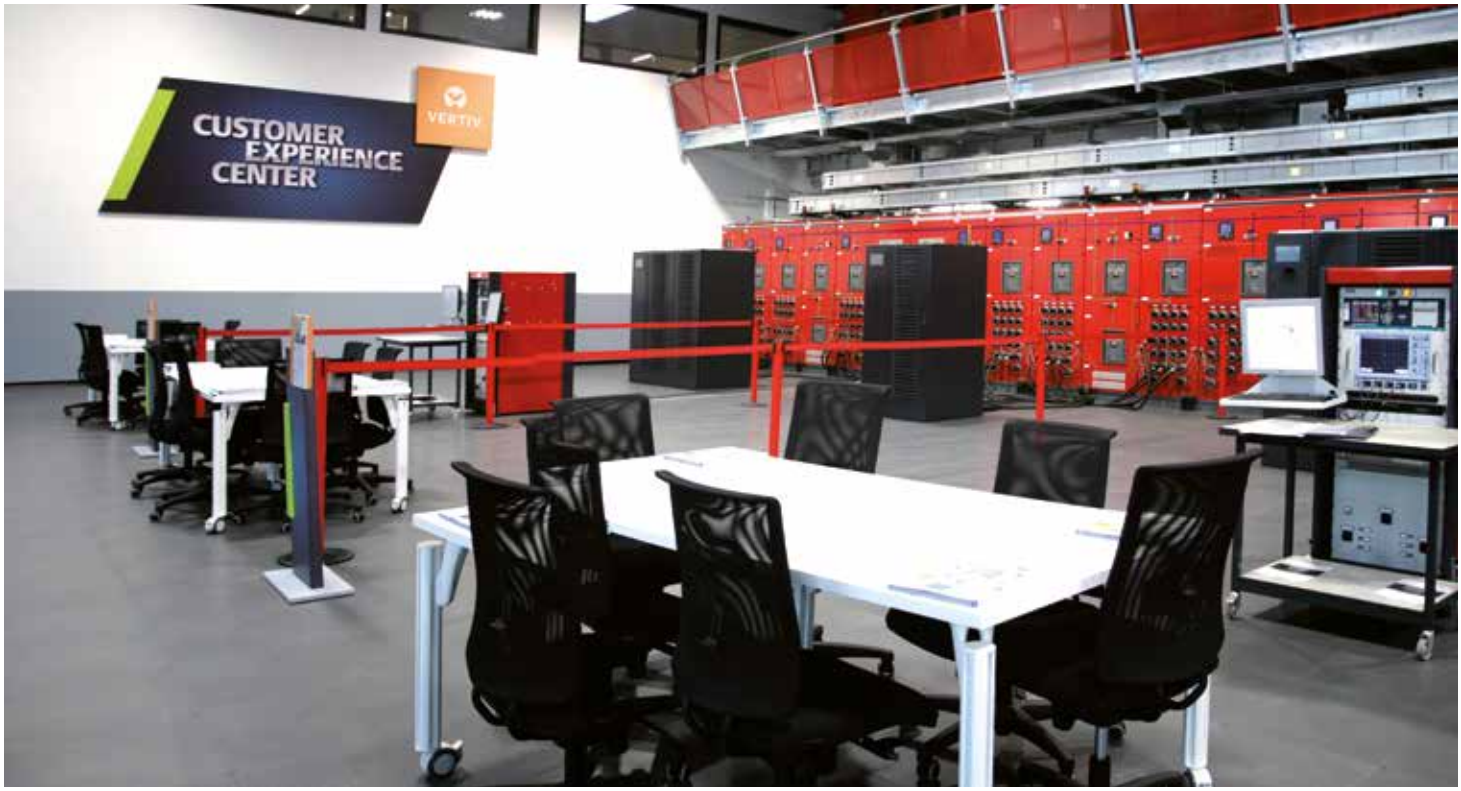
Vertiv™ state-of-the-art Customer Experience Center located in Castel Guelfo (Bologna - Italy), enables our customers to experience first-hand a wide variety of data center technologies, supported by constant consultation from R&D and engineering specialists.

Customers visiting the center will be able to witness pre-installation demonstrations, covering the technical performance, interoperability and efficiency of Vertiv UPS systems under real field conditions. These processes can be experienced from the facility's control room, where real-time performance measurements and reporting will be available while providing full visibility of the demonstration area. The center can host simultaneous tests at full load of up to 4000 A.

The customer validation area specifically dedicated to UPS consists of four testing stations, each one providing up to 1.2 MVA of capacity. Testing includes individual modules, as well as complete power systems, with the added possibility of the customer's switchgear support systems being connected, thus guaranteeing smooth, rapid installation and commissioning of large power systems.
Testing is also customized based on the complexity, size and number of UPS components in the configuration.

Our Customer Experience Center offers three validation experiences:

- Demo - carried out on new products to demonstrate UPS performance
- Standard - validation test showing UPS standard technical performances in compliance with UPS catalogue and IEC 62040-3 standards
- Customized - session tailored to validating customer's specific technical performance needs.



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