



**VERTIV™**



**TURNKEY**  
TECHNOLOGIES LIMITED

**Liebert®**

APM™600 UPS

400kW - 600kW

Efficient, Modular & Reliable

Power Solution For Mission Critical  
Applications



# WE ARE VERTIV

Vertiv, formerly Emerson Network Power, designs, builds, and services mission critical technologies that enable vital applications for data centers, communication networks, and commercial & industrial environments.



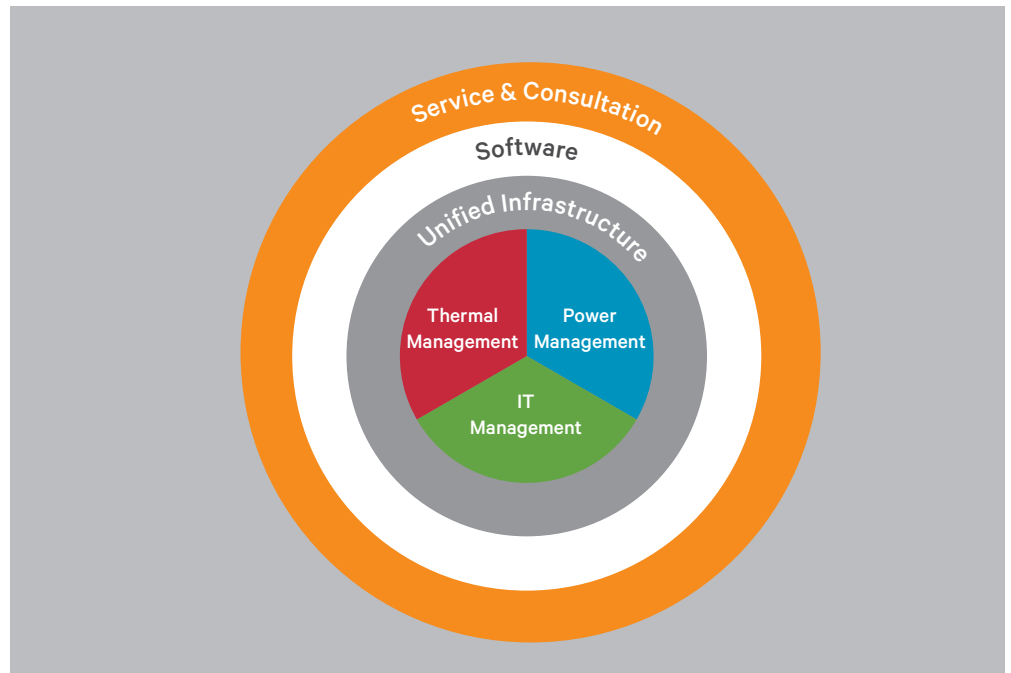
We support today's growing mobile and cloud computing markets with our portfolio of power, thermal and infrastructure management products, software and solutions, all complemented by our extensive global service network.

We help strengthen the world's most vital applications by bringing together global reach and local knowledge, and our decades-long heritage, including brands like ASCO, Chloride, Liebert, NetSure, and Trellis.

## Vertiv

### Your Vision, our Passion

*With a unique combination of industry expertise, technology, and resources, our mission is to support and power mission-critical technologies that drive possibility.*



### Chloride<sup>®</sup>

Our global industrial power solutions meet the most demanding technical specifications and provide safe, reliable power- no matter the challenge

### Liebert<sup>®</sup>

Our global power and thermal management solutions are some of the world's most efficient and reliable power and cooling technologies

### NetSure<sup>™</sup>

Our global intelligently engineered DC power systems deliver high availability, energy efficiency, and scalability for converged networks

### Trellis<sup>™</sup>

Our industry-leading software gives customers an integrated view of operations across IT and facilities resources, enabling better decisions that save time and money

With the advent of technology, increasing power demands, and scaling out of the ever expanding IT infrastructure, availability is a prime factor. Business continuity is vital and companies cannot afford downtime for their critical systems or waste time recovering the systems after a disruption. Scalability too is core to the data centers in order to keep pace with the increasing capacity. This calls for a holistic approach and an urgent need to cater to the specific requirements mentioned above.

The Liebert APM UPS series is a transformer-free, on-line intuitive system that offers peak, top-notch availability and enables you to quickly increase the capacity without powering down or compromising on the connected equipment; all in a minimal footprint.



- *Distributed Intelligence*
- *Hot Swappable Modules*
- *Advanced Internal air channel architecture*
- *Scalable up to 2.4MW*

## Features and Benefits



### Ultra-high availability

- User configurable internal redundancy levels
- Eliminates Single Point of Failure
- Reduces MTTR (Mean Time To Repair) due to Hot-Swap design



### Energy Efficient and Superior Performance

- Delivers double conversion efficiency up to 96.5% and eco mode efficiency up to 99.1%.



### Energy Efficient and Superior Performance

- Easy accessibility from the front for installation and maintenance
- Modular Hot Swap design
- Eliminates the need to dismantle or shutdown the system for serviceability
- Compact Footprint
- Standard Top/Bottom cable entry



### Flex Power Technology

- Display high degree of adaptability for continuous optimization and design flexibility
- Distributed intelligence and Scalable power in a common assembly
- Pay-as-you-grow deployment by configuration of a complete redundant power system
- Scalable up to 2.4MW
- Modular Design made with a futuristic perspective



### 24/7 Remote Diagnostic Service (Optional)

- Failure prediction
- Data Analysis for trend detection
- Vital system parameters inspection
- Improved first visit fix rates
- Superior asset management
- Modbus, Unity/SIC card, and Relay Card Compatibility

# LIEBERT® APM™ 600 UPS



- 1 Hot Swappable Power Modules (50kW) Assembly
- 2 Monitoring Interface Ports
- 3 Input, Output, Bypass & M. Bypass Switch Assembly
- 4 Hot Swappable Static Bypass Module Assembly
- 5 Hot Swappable Power Modules (50kW) Assembly

In summary, the transformer-less design of APM UPS series provides protection from the massive range of power irregularities. The results include unmatched efficiency, usability, and space savings. Thus Network Power's APM UPS 600 kVA is the ultimate combination of streamlined flexibility, availability, sustainability, and modular architecture that will solve not only the present but also the futuristic needs in a compact footprint.

Therefore, adhering to the "Efficiency without Compromise" paradigm, Liebert APM UPS series is a complete power protection solution that helps to achieve maximum optimization of the data center infrastructure around design, operating, and management proficiencies while maintaining or improving availability.

## Technical Specifications

Nominal Ratings(kVA/kW)	400	600
<b>Input</b>		
Nominal input voltage(V)	380/400/415 ( three-phase and sharing neutral with bypass input)	
Input voltage range (V)	305~478VAC, 228~304VAC with linear derating up to 70% load	
Nominal input frequency(Hz)	50/60	
Input frequency range(Hz)	40-70	
Input power factor(kW/kVA)	1	
<b>Battery</b>		
Float Voltage	2.25V/cell	
Temperature compensation (mV/°C/cell)	-3.0 (selectable from 0 to -5.0 around 25°C or 30°C, or inhibit)	
Ripple voltage (%V float)	≤1	
Boost Voltage	2.35V/cell	
<b>Output</b>		
Nominal output voltage (V)	380/400/415	
Nominal output frequency (Hz)	50/60	
Inverter overload capacity	110% for 60 mins; 125% 10mins; 150% for 1 min;>150% for 200ms	
THDv with 100% linear load (%)	1%	
Frequency Slew Rate (Hz/s)	0.6	
<b>Efficiency</b>		
Online mode efficiency	Up to 96.5%	
ECO mode efficiency	Up to 99.1%	
<b>Dimensions and weight</b>		
Dimensions (W x D x H) mm	1400 x 1000 x 2000	1800 x 1000 x 2000
Weight(Net weight)	900-1100kg	
<b>General</b>		
Nosie at 1 m dB (A)	<70	
Altitude	≤1500; derate power by 1% per 100m between 1500-3000m	
Relative humidity	0-9.5%RH, non condensing	
Storage temperature	-25 to 55°C	
Operating temperature	0 to 40°C	
General and safety requirements for UPS	IEC 62040-1	
EMC requirements for UPS	IEC 62040-2	
UPS classification according to IEC 62040-3	VFI-SS-111	
Color	Black ZP7021	
Protection degree, IEC(60529)	IP 20	

\*Class C3 is standard whereas class C2 is optional  
 Specifications are subject to change without any prior notification



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