



VERTIV[™]

ENTERPRISE SOLUTIONS GUIDE

Industry Leading IT Infrastructure
and Management Solutions



ENABLING A WORLD WHERE CRITICAL TECHNOLOGIES ALWAYS WORK

Vertiv designs, builds and services mission critical technologies for data centers, communication networks, and commercial and industrial environments. Formerly Emerson Network Power, 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 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.



EMPOWERING THE VITAL APPLICATIONS OF THE DIGITAL WORLD

We live in a fast-paced society where change is a constant. Today, technology has become so pervasive in our everyday lives that it is something we can no longer ignore. IT is now an integral part of any business, regardless of size and industry. The success of your organization rests on how you are able to efficiently manage your IT resources to support your business strategies and goals.

WE DRIVE POSSIBILITY IN:



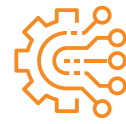
DATA CENTERS

- Micro
- Edge
- Cloud
- Enterprise
- Prefab
- CoLo
- Hyperscale



COMMERCIAL & INDUSTRIAL ENVIRONMENTS

- Healthcare
- Rail
- Transportation
- Power Generation
- Oil and Gas
- Mining
- Manufacturing



COMMUNICATION NETWORKS

- Small Cell
- Macro Sites
- Central Office
- Data Center

OUR FLAGSHIP BRANDS:

Chloride®

- Industrial AC UPS systems
- Industrial DC UPS systems
- Industrial DC-AC inverter systems
- Industrial grade modular AC and DC UPS systems
- BMS (Battery Monitoring systems) for safe area and hazardous area (Zone-1 rated)

Liebert®

- Power and Thermal Management
- Power Distribution
- Monitoring

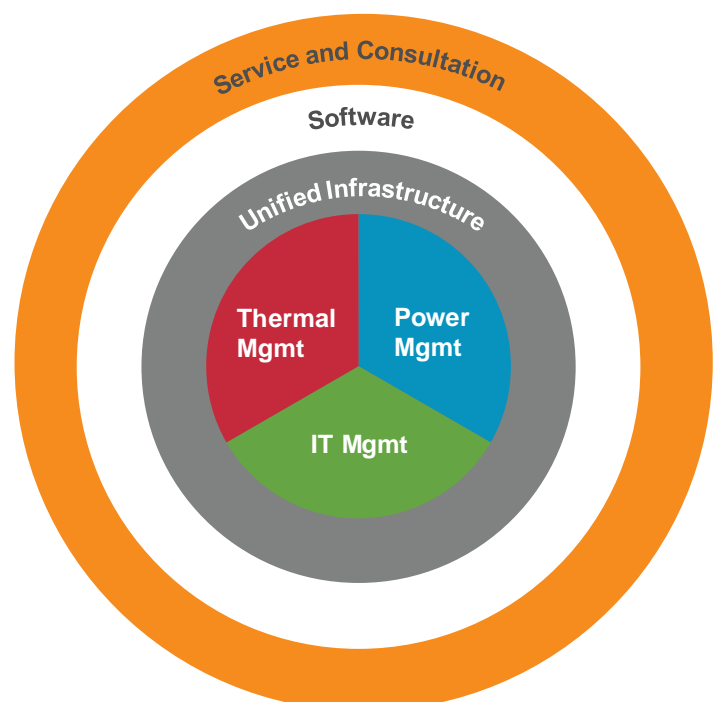
NetSure™

- DC Power
- Outside Enclosures

Trellis™

- Software
- IT Management

HOW IT ALL COMES TOGETHER





INTEGRATED SOLUTIONS

FOR NETWORK EDGE & CONVERGED SYSTEM DEPLOYMENTS

Rapidly deploy and manage IT infrastructure in just weeks without building new data center space. Our Smart Solutions products help you meet your IT needs with significant savings. With simplified, standardized designs, you can start small and expand over time.

SmartCabinet™

Variants:

- 600 mm width
- 600 mm width
- 800 mm width

Features:

- Fast deployment
- All-in-one design and easy to use
- No dedicated IT room required
- Dust protection and noise insulation
- Built-in high efficiency UPS, air-conditioning, power distribution, and security control

- Integrated power management
- Large 9-inch LCD touch panel for local monitoring
- Suitable for network closet and small office



SmartRow™ Plus

Configurations:

- 1+2
- 1+3
- 1+4
- 2+4
- 2+5
- 2+6
- 2+7
- 2+8

Features:

- Fast deployment
- All-in-one design and easy to use
- Suitable for high or low density cooling requirement
- Low PUE, thanks to the high efficiency ITA2 UPS and CRV+ with digital scroll compressor

- Integrated power management
- Local touch panel LCD and remote IP-based monitoring
- Mobile App monitoring
- No raised-floor or room required



Sample Configuration:
1 Thermal Management + 3 Racks

New SmartAisle™

Features:

- Rapid Deployment
 - An integrated design facilitates quick deployment in few weeks.
 - The add-as-you grow modular design enables future expansion
- Unmatched efficiency
 - SmartAisle™ logic ensures the most accurate cooling environment.
 - A high efficiency UPS system for efficient power conversion & transmission

- Simple Architecture
 - An integrated stand-alone build-to-install approach for the entire DC set-up in one go.
 - With an emergency exhaust system, fire suppression system, lighting controls, and smoke detection makes SmartAisle™ a fail-proof design
- LCD Touch Screen Large Display Panel Controller
 - Enhanced system visibility for a complete view of the operation.
 - An RDU-AG2 monitoring kit for an unmanned operation by sending statistical data to users





TURNKEY DATA CENTERS

Our Turnkey Data Center portfolio showcases our unique collaborative design-build process which delivers 0.5-30+ MW capacity for greenfield or brownfield sites that is deployed up to 50% faster than traditional construction and is optimized to solve each customer's individual challenges.

Turnkey Data Centers from Vertiv are designed to protect your sensitive equipment and provide power supply and climate controls, for fast and efficient deployment to remote areas around the world. By choosing a prefabricated shelter, the interior layout can be determined before the site is selected and engineering plans & building preparation can begin at site inception. All configurations are pre-installed, integrated, tested and commissioned prior to shipment, ensuring consistency, quality and speed to market. Modularity also allows critical power and thermal management needs to be sized to meet availability requirements. And with a repeatable, standardised design, capacity can be added or temporarily adjusted to meet changing demand.

Features:

- Rapid deployment
- Lower total cost of ownership
- Scalability and modularity
- Broad portfolio of core building blocks
- Collaborative design
- Global reach

Benefits:

- Enable faster time to revenue
- Achieve capex and opex savings
- Build capacity incrementally to match customer demand
- Integrate solution seamlessly with deep domain knowledge
- Enable flexible, optimized solution to meet customer requirements
- Build, integrate, deploy, and service everywhere

MODULES

- **Flat Pack:** provides for faster deployment to remote areas, significantly cutting down build time and cost.
- **Factory Build:** pre-installed and factory tested before deployment, ensuring maximum efficiency of all products upon delivery. All Vertiv solutions are built to withstand harsh weather conditions.
- **ISO Containers:** standardized steel shipping enclosures that provide for secure storage and faster transport of materials for installation on-site.



DATA CENTER INFRASTRUCTURE MANAGEMENT

Solving the biggest data center challenges with intelligent, holistic monitoring of equipment performance and status. Improve uptime, increase efficiency and enhance capacity planning with advanced monitoring features of DCIM.



Trellis™

Dynamic Infrastructure Optimization Platform

Vertiv is addressing the challenges of the data center with the *Trellis™* dynamic infrastructure optimization platform. Unlike any other DCIM solution, the *Trellis™* platform delivers unprecedented, real-time visibility into critical infrastructures and the impact of changes.

The *Trellis™* platform monitors all IT and facilities resources in the data center and automates management and control to help your IT and facilities organizations realize their objectives. With this unified and complete solution, you gain the power to visualize the real situation in your data center, make the right decision and take action with confidence.

Trellis™ Facility Manager



Device Monitoring

- Single dashboard display and list of connected devices along with their respective status.
- Comprehensive insight into the history of each device performance, helping reduce disruptions significantly.
- Real-time device communication status and alarm notice.



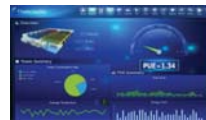
Capacity Management

- A single source for tracking the inventory to reduce time & cost for the floor and zone space management.
- Detailed cabinet status, including power consumption and cooling capacity, helps users in planning for expansion.



Alarm Management

- Display of unattended alarms based on the categories.
- Ability to choose specific alarm by filtering.
- Summary of alarms and real-time measurement to improve alarm responses and streamline operational management.
- Multiple Alarm Notification methods: Voice, SMS, Phone call, and Email, helping improve operational efficiency.



PUE Dashboard

- Detailed information about the operating status and site conditions such as temperature, current, and historical efficiency metrics including PUE.
- Summary of power consumption data by category helps users to identify and analyze areas of improvement.
- Historical & real-time energy & temperature trends help users to analyze and introduce optimization to realize energy savings.



2D floor plan

- User-configurable 2D model dashboard.
- Provides a detailed summary, status and snapshot of the critical infrastructure gives the IT manager a clear picture of the operating conditions of the data center.



Mobile Application

- Mobile access to view real-time infrastructure status on functions such as system overview, preventive maintenance schedule, and alarm notifications thereby helping users to considerably improve response time.
- Compatible with Android OS.



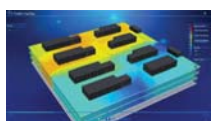
3D Monitoring

- 3D display and view of the critical infrastructure along with the corresponding alarm notifications.
- Users can gain access to desired infrastructure information using the filter tools.
- Provides visual representation of equipment in distress that requires attention to help improve mean time to repair.



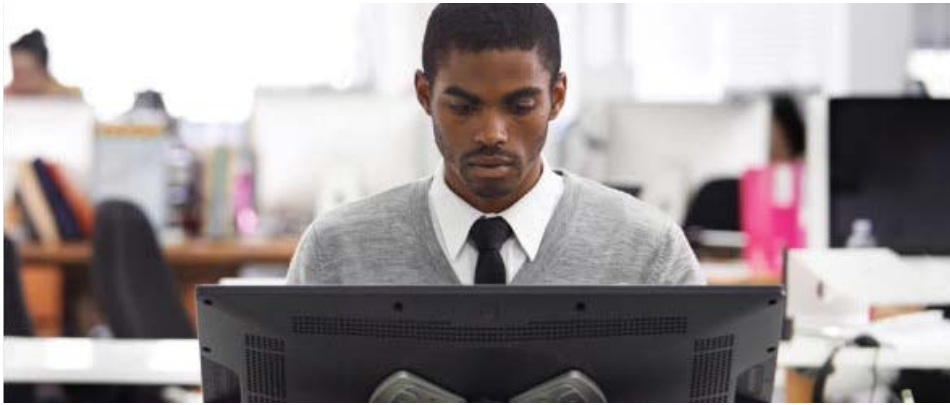
Smart Device Collector

- Dual PSU with AC voltage range of 85-285VAC.
- Supports DC power of 240V & 336VDC.
- 10/100M adaptive IP port, with an automatic crossover function.
- 16 RS-485 serial input ports.
- 3kA & 5kA lightning protection for serial and power ports



Thermal Monitoring

- Data center thermal profile visualization.
- Ability to identify and clear transient hot spots.
- Monitor and analyze cooling system to determine utilization, optimize efficiency and lower costs.



MONITORING, CONTROL AND MANAGEMENT

Our solutions provide comprehensive functionality, scalability and security across the facility. By expanding data access and analysis, we provide unprecedented insight which lowers costs and enables rich remote management while ensuring security.

Software



DSView™ Management Software

Features:

- Secure, remote, centralised data center management
- Multi-device support
- Virtual media support
- Integrated solution for KVM and power control
- Multi-platform support
- Flexible authentication / access control



Rack Power Manager

Features:

- Can manage and control thousands of PDUs per install
- Detailed reporting with intelligent grouping
- Ability to easily export data to third-party reporting tools

Monitoring



Liebert® RDU-M

Dynamic Environment Monitoring for Secure Data Center Infrastructure.

Features:

- Offers a user-friendly GUI to set up and manage data center infrastructure appliances
- Real-time monitoring on environmental, power, cooling, and security in data center
- Video surveillance supports video recording/back up/replaying/picture capturing/voice transmission/timed recording and recording action triggered by alarm
- Room access control management
- Report and analysis on data center/device operation; PUE statistics



Liebert® RDU-A G2

Intelligent Monitoring Solution

Features:

- Monitoring of the health and status of the equipment
- Monitoring of environmental conditions i.e. temperature and humidity, leak and smoke.
- Monitor the improved communication speed in transmitting control or commands to the equipment and parameter setting
- Records Data and Logs of historical information of alarms and notifications

IT Management



Universal Management Gateway

Features:

- Provides consolidated out-of-band access to your entire IT Infrastructure
- Single console for multiple service processor types
- Environmental monitoring aggregation
- Real-time information across IT and facilities*



HMX 5000/6000 Series High Performance KVM Systems

Features:

- Eliminates Distance Limitations within the LAN
- High-Quality DVI Video and CD Audio
- Centralized Management
- Centralized, User-Rights Management
- Greater Security
- No Dedicated Cabling
- Dual, Digital DVI Video
- USB Support
- Interoperability



ACS8000 Advanced Console Systems

Features:

- Fast, automated configuration with Zero Touch Provisioning
- Access and troubleshoot remote locations using automatic network failover to cellular (and fallback)
- No need for adaptors with automatic Cyclades™ and Cisco pin-out conversions
- Expanded support for Rack PDUs from Vertiv, ServerTech, APC, Raritan and Eaton
- Support for Vertiv GXT4 UPS systems
- Integrated support for 1Gb SFP fiber modules
- 8 USB ports to support new IT equipment and external devices



Cybex SC 800 and SC 900

Secure Desktop KVM and KM Solutions

Features:

- Isolated ports on the switch provide discrete processing paths to each system, preventing data leakage, transfer or crosstalk between adjacent ports.
- Unique NUM Lock, CAPS Lock and Scroll Lock indicators to improve ease of use.
- An optional Dedicated Peripheral Port (DPP) provides a secure connection to common access card readers, as well as additional types of authentication devices including facial recognition scanners and fingerprint readers.
- Broad range of video connections including DVI-I, Display Port, HDMI, and support for resolutions up to UHD 4K.
- Cursor navigation switching lets users switch control between systems by simply moving the mouse cursor from one display monitor to another.
- An optional Dedicated Peripheral Port (DPP) provides a secure connection to common access card readers, as well as additional types of authentication devices including facial recognition scanners and fingerprint readers.



Cybex SCKM 100



UNINTERRUPTIBLE POWER SUPPLIES

We take a holistic approach to power efficiency and availability across the power spectrum. Using our solutions, companies can overcome challenges to developing, deploying and managing power regardless of industry.



Liebert® GXT4 (700VA to 3kVA; 5kVA to 10kVA)

Features and Benefits

- Intuitive Multi-Color LCD Screen
- Programmable outlets
- Active Eco-Mode
- Up to 6 external battery packs
- External battery packs
- Bundled rack rail kit (all models)



Liebert® ITA2 (5kVA to 20kVA)

Features and Benefits

- Eco-Mode provides a superlative efficiency of up to 99%
- Programmable output outlets/terminals with cascade protection to protect key devices during heavy load
- Integrated Ethernet port with HTTP protocol compatibility & streamlined remote monitoring
- Robust structure with cutting edge channelized airflow design
- Dust and moisture resistant
- Suitable for long back-up up to hours
- Parallelable up to 4+0
- Wide input voltage range, making it immune to grid interference
- Compliance with seismic conduction & vehicle carrying test
- Gravity sense LCD Display



Liebert® EXS (10kVA to 20kVA)

Features and Benefits

- Top-level double conversion UPS for mission critical applications
- VFI efficiency up to 96.2%
- VFD efficiency up to 99%
- Available as 3/3 or 3/1 configurations
- Unity output power factor
- Operating temperature up to 50°C
- Compact dimensions
- Parallel capability up to 3+1 units
- Integrated dual bus functionality
- Standard and extended versions for optimized runtime
- Available in standard and dual Intellislot versions
- Vertiv™ Power Insight
- Vertiv™ LIFE™ Services
- CPSS ready: EN 50171 compliant



Liebert® EXM™ (80kW to 200kW)

Efficient, Flexible Power, Optimized for Medium Size UPS Applications

- Unity Power Factor ensures more power is provided in a smaller footprint, thus increasing system capacity while minimizing cabling and installation costs
- Industry leading efficiency rating: 96.4% for double conversion mode, and 98% for eco mode
- Optimized ancillaries provide small footprints for better use of space
- Comprehensive, easy to use LCD interface.
- UL924 for Emergency Lighting



Liebert® APM™ (18 to 90kW, 30 to 300kW, 400 to 600kW)

Flexible and Scalable Compact Row-based UPS

- High efficiency rating of up to 96% in true online double conversion mode
- FlexPower Technology: Allows the configuration of a completely redundant power system, sized to match the capacity of the protected equipment
- Parallel technology allowing maximum system capacity of up to 600kW
- Internal or external, scalable modular battery configuration to suit power scalability
- Flexible battery configuration: 30 to 40 battery blocks per string



Liebert® EXL™ (300 to 1200kVA)

Maximum Efficiency UPS Protection in an Intelligent, Low TCO Design

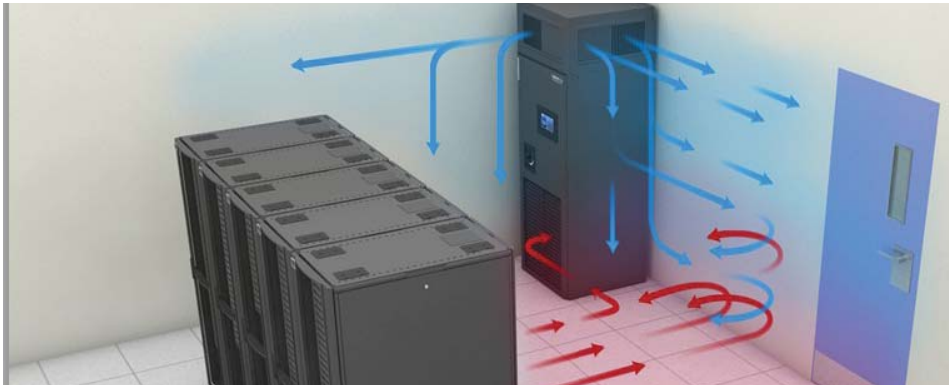
- Efficient, High-Density Design and Operation
- Flexible Configurations and Design
- Intuitive, Intelligent Operation
- Designed for Easy Service and Maintenance
- Proactive remote service delivery
- Transformer-free topology with up to 97% efficiency in double conversion mode.



Liebert® Trinergy Cube (150kW to 3.4MW)

Beyond the Power Revolution

- Highest average operating efficiency in the industry: 98.5%
- Hot scalability up to 3MW in a single unit up to 24 MW in a parallel system
- Unprecedented levels of installation flexibility
- Smart capacity – adaptive power rating



THERMAL MANAGEMENT

Intelligent, comprehensive approach to managing and controlling heat across your mission-critical facilities

Thermal Control and Monitoring



Liebert® iCOM-S Thermal System Supervisory Control

Features:

- Up to 50% system efficiency gains
- 30% lower deployment costs
- Improved thermal efficiency, capacity and protection through visibility into thermal system performance
- Increased thermal system responsiveness to changes in facility and IT demand
- Optimized thermal system performance to reduce cooling unit wear and tear
- Simple and easy to deploy
- Cuts sensor deployment times in half

Rack Cooling



Liebert® XD™ Systems

Energy-efficient, flexible high heat density cooling applications

Liebert® XD Refrigerant-based cooling modules

- Liebert® XDV™: Mounts vertically on or above the IT rack enclosure, requiring no floor space
- Liebert® XDO™: Overhead cooling module mounted directly above the cold aisle
- Liebert® XDH™: Row-based cooling module, placed directly in line with rack enclosures
- Liebert® XDC™: Coolant chiller unit available in air cooled configuration with remote condenser
- Liebert® XDR™: Cooling module that is designed to replace the back door of a server enclosure

Liebert® XD™ Piping System

- Prefabricated distribution piping installed in anticipation of a growing data center cooling system. It features a flexible connection piping and quick-connect fittings that allow addition or repositioning of cooling modules.

Liebert® XD™ Rack Airflow Enhancer

- Liebert® XDA™: Increases through densely populated rack enclosures, congested cabling, removing hot spots within the enclosure and provides redundant components to ensure reliability

Liebert® XD™ High Heat Density Enclosure

- Liebert® XDF™: Integrated modular enclosure featuring high heat density cooling, delivering the benefits of big-room support in a cost effective data center cooling

In-Row Cooling



Liebert® XD Pumping and Chiller Units

Features:

- Cools more than 30kW per rack.
- Supports Liebert XD Smart Modules.
- 60 Hz and 50 Hz models.
- Energy efficient redundant pumps
- Uses advanced Liebert iCOM unit controls

Liebert® CRV+ DX

Features:

- Energy efficient, Green refrigerant R410A
- DC brush less inverter scroll compressor
- EC fan
- Electronic expansion valve
- MERV8 (G4) class filter
- Intelligent controller with RS485 communication
- Condensate water pump
- Top and bottom connections availability
- PTC reheater
- Steam Humidifier

Room Cooling



Liebert® DM

Features:

- Energy saving mode available
- Adapts to different environments
- Low mean time to repair (MTTR)
- Standard RS485 port for monitoring
- Ultra wide ambient temperature range and multi-condenser configuration
- High sensible heat ratio with scroll compressor technology



Liebert® PEX+™

Efficiency And Reliability For High Availability Cooling

Features:

- Infrared Humidifier for precise humidity control
- Scroll Compressor (Optional Digital Scroll)
- PTC Heater
- Electronically-Commutated Fan (EC Fan)
- Thermal Expansion Valve (Optional EEV)
- A-Frame or V-Frame Evaporator Coil



Liebert® PCW

Chilled Water Room Cooling Unit

Features:

- Unique integrated aerodynamic design to reduce fan power consumption
- New coil design with enhanced efficiency
- New high efficiency filters, providing class F5 filtration, as well as up to half the pressure drop of the more commonly used G4 (allowing improved filtration for increased performance)
- New Liebert® EC Fan 2.0
- Larger coil and filters to further reduce pressure drop
- Fans located on the raised floor

Evaporative Free Cooling



Liebert® EFC

Evaporative Freecooling Solution

Features:

- **Integrated Chilled Water Coil or Direct Expansion System:** These technologies ensure the unit's operation even in climates characterized by extreme humidity levels or severe temperature peaks
- **iCOM™ Control:** Ensures high level management of the units to work together as a single system, thus optimizing room temperature and airflow. Furthermore, it features a new 7" touch screen display for quicker and easier data readability
- **Eurovent Certified Heat Exchanger:** Eurovent certification guarantees that Liebert® EFC heat exchangers undergo independent testing, thus delivering rating accuracy and enhancing the unit's reliability
- **Liebert® EC Fan:** The new generation of fans installed in the Liebert® EFC ensures silent operation and increases the overall efficiency of the unit



DC POWER SYSTEMS

You need power you can count on and our DC power products deliver. Long known for reliability in telecommunications networks, DC power is also proving to be a viable alternative for IT networks. Our DC power products offer both efficient power protection with unit-level redundancy and easy connectivity with renewable energy sources.



eBase Indoor Solution

Features and Benefits

- Small foot print (Optimizes use of space)
- Reduces cooling power usage through contained airflow and high efficiency technologies
- High energy efficiency ratio (EER)
- Centralized high efficient power supply
- Deployable in <= 6hours
- Fully integrated, intelligent monitoring system
- Future proof infrastructure with flexibility in future expansion

Netsure™ 801

Features and Benefits

- The power system keeps in normal operation under the voltage ranging from 260Vac to 530Vac and withstands an extreme voltage input of 600Vac
- Network monitoring: Remote monitoring is performed in real time through network interfaces, modems, and RS232 interfaces
- Digital active current sharing: stable current equalization. The unbalance of load sharing is less than 1%. The rectifier module can work steadily independent from monitoring units and automatically equalize currents
- Safety and reliability: full surge protection design for AC, DC, and signals
- Damage-free hot swap of rectifier modules and monitoring modules and quick and easy online maintenance.
- Full front access operation and unlimited overhead and underground cabling
- Battery pole reversal protection: Protect against module explosion in case of battery pole reversal
- Withstand transient overvoltage generated by the generator startup with no strict requirements on generator output
- Gradual increase in output current: The output current can be set to gradually increase. This minimizes the shock to loads and batteries and prolongs service life of the batteries



eSure™ Rectifier R48-1000 C Series

Features and Benefits

- Convection cooling without noise - for silent operation in residential and office locations
- IP 55 and IP 65 high level protection - for harsh environments
- High efficiency, above 95% - reduces power consumption for lower operating costs
- Wide input AC or DC voltage range to operate in a variety of applications
- Wide temperature operating range -40°C to +75°C (-40°F to 167°F) to meet the harshest environments
- Compliant with global standards - delivers quality, performance and reliability, no matter what the application or location demands
- DSP (Digital Signaling Processor) - means fewer components, optimized operation and active load sharing for increased reliability





NetSure™ 701

Features and Benefits

- Cost-effective, allows for easy expansion, local/remote control & supervision via an advanced controller.
- Can be installed against a wall.
- Frontal access & Top cabling design for easy installation & maintenance.
- Rectifier working temperature range(-40°C ~ 70°C), outstanding environmental adaptability.
- Rectifier with a streamlined soft-switching technology, raising the rated efficiency up to 96.3%
- Hot pluggable rectifier modules- easy and fast online maintenance.
- Comprehensive lightning protection design on the AC side & DC side, and the signal terminal
- Intelligent battery management function, which prolongs battery life
- ECO mode function: Embedded with an advanced energy optimization technique ensuring high efficiency at varying load levels



NetSure™ 731

Features and Benefits

- The rectifier uses the active Power Factor Correction (PFC) technology and the power factor increases up to 0.99.
- The power system has a wide AC input voltage: 85Vac~300Vac.
- The rectifier uses soft switching technology, raising the efficiency above 95.5%.
- The rectifier has ultra-low radiation. With advanced EMC design, the rectifier meets international standards such as CE NEBS and YD/T983.
- Effective battery management, includes the management functions such as BLVD, temperature compensation, auto voltage regulation, stepless current limiting, battery capacity calculation and on-line battery test among others.
- Provides multiple, integrated communication ports (such as RS232, Ethernet and dry contacts), that enable flexible networking and remote monitoring.
- Integrated lightning protection at both AC side as well as DC side.



NetSure™ 531

Features and Benefits

- Front operation, which is convenient to install and maintain.
- System cabling : up inlet, up outlet ; lower inlet, lower outlet.
- Small size, light weight. Wallmounted installation mode minimizes the cost.
- High efficiency rectifier efficiency up to 96%, system efficiency up to 95%.
- Wide input voltage range (85~300Vac), strong ability in adapting power grid.
- High-efficiency rectifier working temperature range: -40~+80 (-40~+55, full load output; >55, derating output).
- Energy-saving sleep modefunction, which reduces electricity consumption.
- Hot pluggable, easy and fast online maintenance.
- Perfect battery management, which prolongs battery life.
- Multiple communication ports (such as RS232 and dry contacts), which enables flexible networking and remote monitoring



NetSure™ 2100 Series

Features and Benefits

- Ultra-compact sub-rack power system– delivers up to 3kW in 1U rack space
- Wide operating voltage range i.e. 85-300VAC
- Higher rectifier efficiency up to 95.4%
- All the breakers and connections are accessible from the front side
- Integrated distribution outlets
- Advanced intelligent battery management system
- Built-in communication & dry contact ports that enable remote monitoring.
- Stores up to 200 alarms
- CE Certified

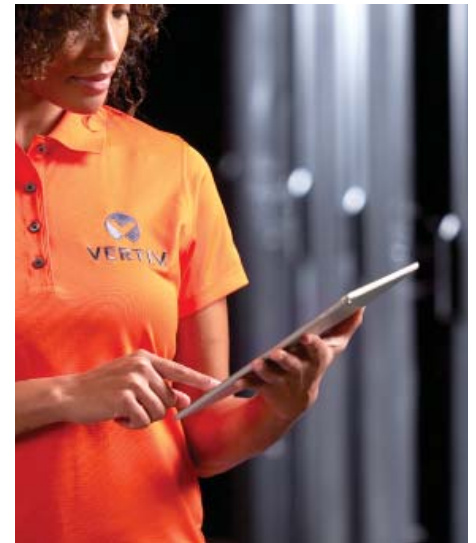
SERVICE

Proactive equipment maintenance reduces downtime and extends equipment life. This, in turn, maximizes return on investment and increases system availability.

Vertiv supports the entire critical infrastructure with extensive service offerings, enhancing network availability and ensuring total peace of mind 24/7.

Our approach to servicing critical infrastructure covers all aspects of availability and performance, from single power and cooling equipment to entire mission-critical systems.

Installation, start-up, commissioning, site assessments, battery maintenance, replacements, upgrades, retrofits, 24/7 emergency service and remote monitoring and diagnostics are just a selection of the services that contribute to guaranteeing business-critical continuity.



Local Resource

The broadest and most comprehensive service footprint in the industry with more than 350 Customer Engineers, Vertiv ensures that your business is protected 100% of the time and that assistance is close by whenever needed.

Our Customer Support Center professionals are available 24/7 to provide real-time service support.

Prompt Response

An extensive supply of critical parts ready for deployment allows Customer Engineers to respond to requests in record time, guaranteeing a premium first-time fix-rate in the unlikely event of a fault.

Expertise & Training

Vertiv service engineers are trained, experienced professionals who undergo an average of one week intensive training each quarter, totalling one month of full time training per year. All service engineers are certified according

to the standards of each country on top of global certifications required by international regulations.

Service Contracts

Regular service of business critical infrastructure provides uptime assurance and reduces the total cost of ownership over the life of the equipment. A service contract ensures that infrastructure is regularly maintained in order to avoid unexpected and costly downtime. Vertiv service contracts cover all technologies and can be tailored to suit individual business needs.

LIFE Remote Diagnostic and Preventive Monitoring Services

Vertiv's remote service delivery is enabled by LIFE™, which provides remote diagnostics and preventive monitoring service for UPS and thermal management equipment. LIFE™ delivers increased uptime and operational efficiency by enabling continuous monitoring of your equipment, expert data analysis and field engineering expertise.



Benefits

- Uptime Assurance
- Improved First Time Fix Rate
- Proactive Analysis
- Minimized Total Cost of Ownership for Vertiv
- Equipment
- Fast Incident Response
- Detailed Report

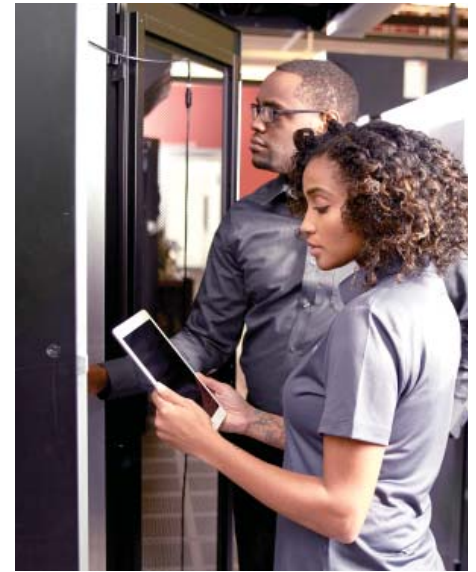
Other Remote Monitoring Services

- Battery Monitoring
- Other Critical Equipment
- Monitoring

Professional Assessment and Testing

A professional assessment and testing will help you identify gaps in your power infrastructure, ensure IT system availability, and plan for additional capacity. Vertiv professional assessments and testing are designed to encourage informed decisions that enhance the performance of your data center.

- **Data Center Environmental Assessment**
- **Optimization Services**
- **Maximizing IT business services while minimizing OPEX**
- **Electrical Assessment**
- **Cooling Assessment**
- **Dynamic Cooling Assessment**
- **Other assessment and testing services**
 - Site Acceptance Testing
 - Load Testing
 - Switchgear Testing



Comprehensive and Preventive Maintenance

Our Comprehensive and Preventive Maintenance program helps you maximize the reliability and performance of your IT network and provides you total peace-of-mind. Vertiv's trained and certified technicians will implement this service through use of proper tools and genuine parts to ensure longer system reliability.

Benefits

- Increase the efficiency and reliability of your IT infrastructure equipment
- Realize high Return of Investment by preventing costly repairs and replacement
- Minimize downtime risks by resolving potential problems before serious damage occurs

Scope of Comprehensive and Preventive Maintenance

- All Vertiv equipment

Systems Upgrades, Replacements and Retrofits

Replacing life limited components before they age to the point of significant probability for failure provides a much more reliable approach to achieving long service life for your critical systems. Waiting to replace components can lead to unplanned downtime.

UPS

- Full-bank Capacitor Replacement
- UPS Capacity Upgrade

Thermal Management

- EC Fan Replacement
- iCOM Control upgrade
- Variable Speed Drives Upgrade

DCIM Services

Vertiv, the leader in Data Center Infrastructure Management (DCIM) is the ideal choice to help you manage your DCIM implementation or upgrade.

- Data Auditing
- Data Center Inventory Management
- DCIM Software Integrations
- Enhanced Support
- Health-Check
- Knowledge Transfer
- Planning
- Process Workshops
- Project Review and Reporting
- Remote Technical Account Manager
- Solution Audit
- Workflow Configurations

Service Management & Support

Customer Resolution Center

Vertiv's Customer Resolution Center is your first point of contact for all immediate service requirements. It operates 24X7 to ensure that all service needs are addressed on a timely basis and handled professionally by highly trained customer service representatives.

Turnkey Project Management

Installing and starting up your critical power and cooling infrastructure equipment, or removing your existing equipment, is a complex and potentially costly effort. That's why so many companies turn to Vertiv for turnkey project management services.

We have the resources and product knowledge to integrate and lead everyone involved in the project: from sister companies to contractors in your area. As your single point of contact, we can help you contain costs, coordinate resources and equipment, and ensure timely project completion.



VertivCo.com

© 2018 Vertiv Co. All rights reserved. Vertiv, the Vertiv logo are trademarks or registered trademarks of Vertiv Co. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.