Vertiv™ Trinergy™ UPS

A NextGen UPS empowering tomorrow's applications

Vertiv™ Trinergy™ UPS is the next-gen UPS built on a history of exceeding Tier IV data center power chain availability and over 40 years of technical innovation and global field-proven experience.

Vertiv™ Trinergy™ Overview and Benefits At a Glance

Elevating performance, modularity, resilience, reliability and efficiency for your power needs

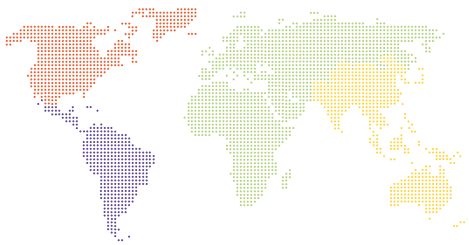
- **Most robust UPS in the market** for unparalleled reliability and resilience
- **More power in a single block**, compared to existing products, to support high density applications, as Artificial Intelligence
- **The ultimate optimized high-power solution** for global standards and easy installation
- **Best-in-class modular UPS** for maximum flexibility from room to pre-fabricated deployment
- **Ready to integrate different energy and back up power sources**, including lithium-ion and nickel-zinch
- Designed, manufactured, tested and available **across the globe**
- **Skid-mount and containerized power solutions** for an easy deployment
- **Rich digital experience** and advanced monitoring with Vertiv™ LIFE™ Services
- **Hot and easy serviceability** for no interruption, even during maintenance or power upgrades

Our UPS exceed a Tier IV data center power chain expected availability and are built on over 40 years of innovation

	Tier IV data center power-system*	Vertiv™ Liebert® EXL S1 Vertiv™ Liebert® Trinergy™ Cube Vertiv™ Trinergy™ UPS
Availability	99.9994% Source: Uptime Institute	99.9999998% Source: • Real measured UPS data • 40 years of experience • 15,000 monitored UPS
Downtime	**8 hours in 10 years**	**30 seconds in 10 years**

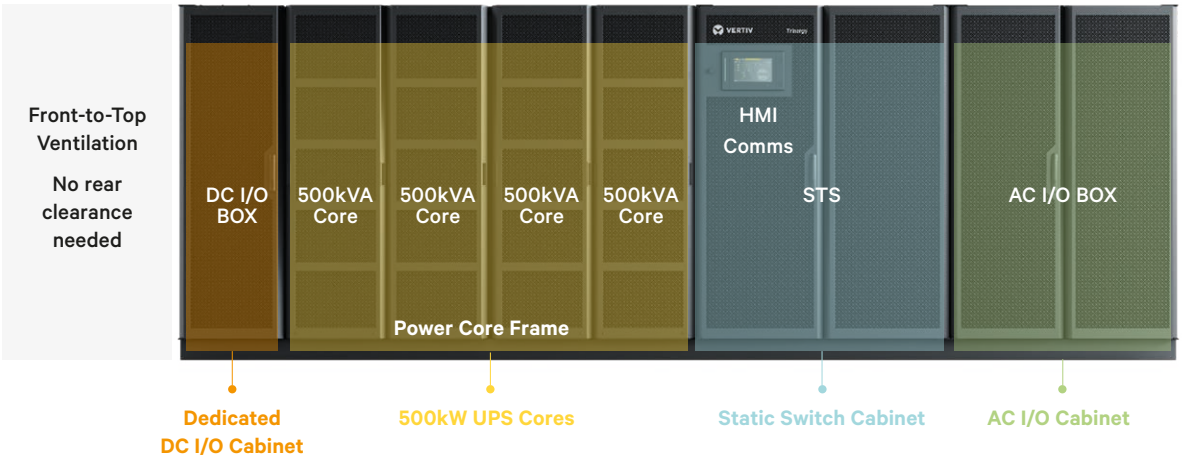
Ongoing advancements over the past four decades have led to notable enhancements in reliability and reduced repair times. These improvements are the result of a solid foundation of innovation and expertise. Vertiv™ Trinergy™ builds on these achievements.

Built on 16 GW+ of Vertiv Large Power UPS installed globally



- 3.200+ MW in North America
- 400+ MW in Latin America
- 4.600+ MW in Europe, Middle East and Africa
- 6.000+ MW in Asia & Australia

Modular Design to Meet the Needs of Each Application



Building blocks can be combined to fit different deployment types.

Space Savings: Footprint Comparison

UL: 2000 kW Vertiv Trinergy (including BFD)
D [mm]: 1031
W [mm]: 5700

UL: 2x 1000 kW EXL S1 (including BFD)
D [mm]: 914
W [mm]: 3250+3250= 6500

UL: 1500 kW Vertiv Trinergy (including BFD)
D [mm]: 1031
W [mm]: 5100

UL: 1600 kW Trinergy Cube
D [mm]: 917
W [mm]: 6158

UL: 2x 800 kW EXL S1 (including BFD)
D [mm]: 914
W [mm]: 2777+2777= 5554

CE: 2000 kW Vertiv Trinergy (flange AC I/O, top DC I/O)
D [mm]: 1031
W [mm]: 5700

CE: 2000 kW Trinergy Cube (flange AC I/O, top DC I/O)
D [mm]: 910
W [mm]: 7175

CE: 2x 1000 kW EXL S1 (flange AC I/O, top DC I/O)
D [mm]: 910
W [mm]: 3050+3050= 6100

Moving to a single, larger UPS instead of paralleling 2x = **Lower costs for power connections and to tie the UPS outputs together**

Technical Specifications

	1500 kW UL	2000 kW UL	2000 kW CE
UPS Rating with unity power factor (kW/kVA)	1500	2000	2000
Input Characteristics			
Nominal mains input voltage / voltage range* (V)	480 (408 to 552), 3Ph+PE		400 (340 to 460), 3Ph+PE or 3Ph+N+PE
Nominal bypass input voltage / voltage range* (V)	480 (432 to 528), 3Ph+PE		400 (360 to 440), 3Ph+PE or 3Ph+N+PE
Nominal frequency / frequency tolerance (Hz)	Selectable 50 or 60		
Input Power Factor	≥ 0.99		
Input current distortion (THDi) (%)	≤3		
Output Characteristics			
Nominal output voltage (V)	480 (456 to 504), 3Ph+PE		400 (380 to 420), 3Ph+PE or 3Ph+N+PE
Nominal output frequency (Hz)	Selectable 50 or 60		
Output load Power Factor without derating	0,7 leading - 0,4 lagging		
Inverter Overload Capacity*	110% continuous, 125% for 10mins, 150% for 1min		
Battery			
Battery types	VRLA, Li-Ion		
Permissible battery voltage range (V)	396 to 700		
Float voltage for VRLA @ 20 °C (V/cell)	2,27		
End cell voltage for VRLA (V/cell)	1,65		
Battery Monitoring	Via Modbus TCP/IP from UPS ethernet port		
General System Data			
Classification according to IEC/EN 62040-3	VFI-SS-111		
Operating Temperature (°C)	0 to 40		
Maximum relative humidity @ 20°C (non condensing) (%)	Up to 95		
Altitude	Up to 1000m without detating		
Protection degree with open doors	IP20		
Access	Front and Top (no rear access required)		
Withstand Rating with bypass fuses (kAIC)	100		
VFI Efficiency	≥ 97%		
Dynamic Online (VI) Efficiency	≥ 98%		
VFD Efficiency	≥ 99%		
Dimensions			
Height (mm)	2009		
Width (mm)	4050	5000	5698
Depth (mm)	1032		
Options			
Integrated Backfeed Protection Device Flange connections Vertiv™ LIFE™ Services Remote Diagnostic and Preventive Monitoring Battery Trip Option			
Network Protocols with Monitoring Card			
Modbus TCP BACnet/WS BACnet/IP SNMP v.1, v.3, IPv6			

Conditions apply

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