Delta UPS Solutions

All Power Ranges, One Trusted Source

www.deltaww.com

Delta’s UPS Systems Demonstrate the Power Behind Competitiveness

An uninterruptible power supply (UPS) is an electrical apparatus designed to furnish emergency power when input sources fail. Different from a standby generator or an auxiliary or emergency power system, in the event of power disruption, a UPS is able to provide near-instantaneous backup power to mission critical systems, making it an indispensible requirement for many industry applications such as high-value production lines and data centers.

With 50+ years as a global leader in the Power Electronics, Automation, and Infrastructure industries, Delta’s teams have been working unrelentingly on innovative designs and industry-leading technology. We offer strong UPS portfolios suitable for a variety of industrial applications as well as the most power-efficient solutions in response to net-zero initiatives. Our award-winning UPSs not only provide reliable power backup but also act as the best advanced power managers to safeguard against potential energy issues, including voltage surges and spikes, voltage sags, total power failure, and frequency differences to ensure a stable power supply to your critical loads. During power failure, our solutions protect customers from potential loss and can keep operations running smoothly while achieving OPEX savings in the long run.

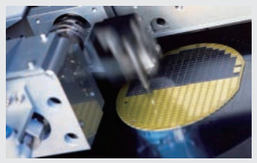
Applications for Delta’s UPS Systems

Information Technology
Data Center
Colocation Facility
Network & Data Storage Equipment
Edge Computing

Financial Services
ATM
Customer Service Kiosks & E-trading
Server & Network Infrastructure
Security System

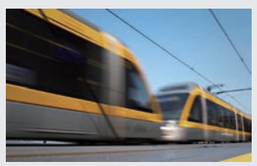
Telecommunication
Base Station
Mobile Switching Center
Telecom IDC
Transmission & Connectivity Device

Government
Smart City & E-government Infrastructure
Surveillance & Security System
Public Safety System
Building Management System



Industrial
Automation Production
Control Equipment & PLC
CCTV & Security System
Data & Networking Equipment

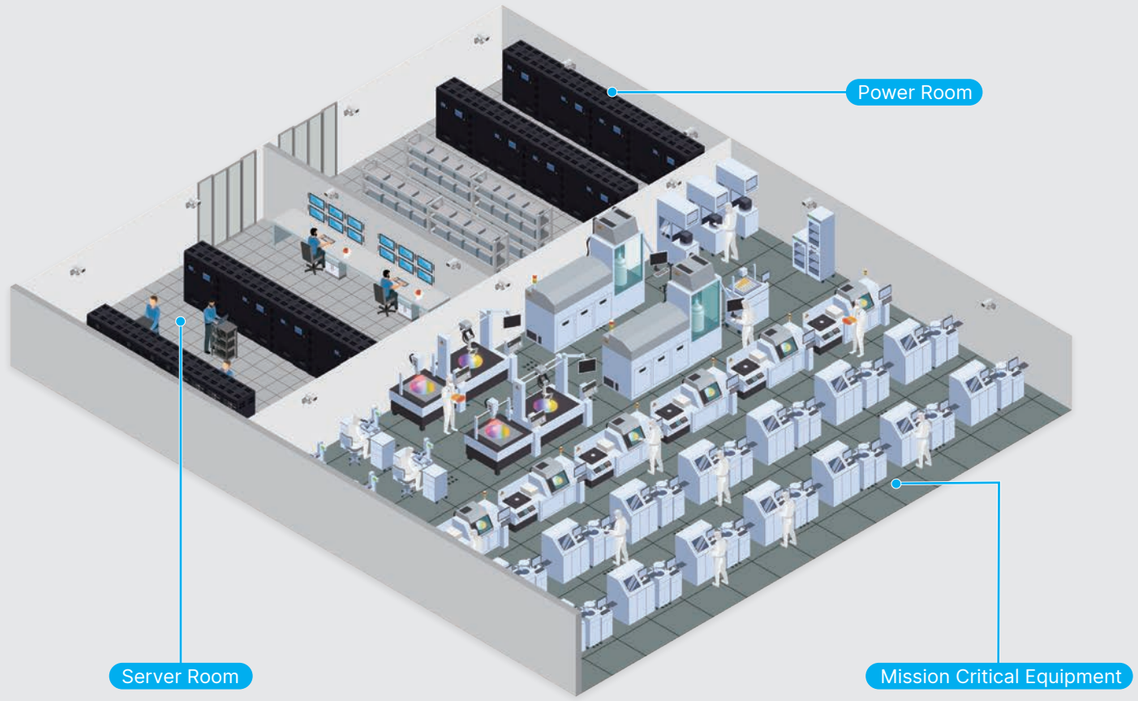
Education
IT & Network Closet
Surveillance & Security System
Critical Administrative Office Equipment
Lab Equipment



Transportation
Traffic Signalling & Crossing
Auto Ticketing & Fare Gate
Security & Monitoring System
IT Closet & Server Room

SME & Retail
POS
PC & NAS
Camera
VoIP
IT Closet

Delta's Highly Reliable UPS Safeguards Your Critical Equipment, Production Line and Data Center



Known for Our Quality

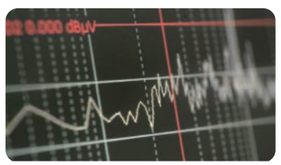
Delta's manufacturing across the globe

Delta is the World's No. 1 provider for Switching Power Supplies, DC Brushless Fans and Telecom Power Systems. Our operations are global in scale with 73 R&D centers and 156 sales offices worldwide. Delta has 51 manufacturing facilities in Taiwan, China, Thailand, India, USA, Brazil, Slovakia and other locations.

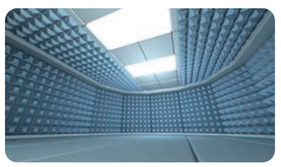
Accredited laboratory

Delta's outstanding product design capability comes from our R&D team and its various precision measurement instruments. Our R&D centers utilize diverse advanced equipment and programs including CAD to facilitate circuit simulation, mechanical design, and PCB layout. Delta has well-equipped laboratories to conduct environment-related substance analysis, precision measurement, failure analysis, soldering techniques, electromagnetic compatibility and interference tests, material chemical analysis, quality engineering, safety tests, and more. In addition, we also have laboratories with controlled temperature and humidity to perform numerous reliability tests.

ORT (Ongoing reliability test)



EMC / EMI (electromagnetic compatibility & interference)



Acoustic test

Pulse lightening discharge

Why Delta UPS?

Quality

- **Mass Production Line with Reliable Quality Control:**
  We do things right and deliver the best at one go
- **Pass the Tightest Checks & Meet Conformance Requirements from Product Development to Production:**
  All manufacturing sites are certified with ISO 9001 and ISO 14001. Laboratories and are accredited by the China National Accreditation Service for Conformity Assessment (CNAS)

Performance

- **Longer Battery Life:**
  Wider input voltage range reduces battery use
- **Lower TCO:**
  High input/output power factor & efficiency increase utilization of utility power, lower harmonic distortion reduces initial capex
- **Compact/ Modular Design:**
  Agile, flexible and saves more space

Service

- **Dedicated Support:**
  Professional R&D and FAE teams around the world
- **Highly-Customizable:**
  From product-level to solution-level
- **Always Helpful:**
  Customer Service Line available

Sustainability

- 2011–2022 DJSI - World Index
  2018–2022 Industry Leader
- 2022 Climate Change Leadership Level
- 2022 Water Security Leadership Level
- 2022 Sustainability Award Gold Class

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

CDP A LIST 2022 CLIMATE

CDP A LIST 2022 WATER

Sustainability Award Gold Class 2022 S&P Global

Delta UPS

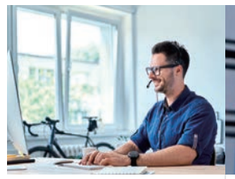
Uninterrupted Power, Unstoppable Operation

In the digital era, where dependence on technology is paramount, the Uninterrupted Power Supply (UPS) is indispensable. Addressing the constant challenges posed by power outages, fluctuations, harmonic distortion and frequency variation, a UPS ensures seamless electrical continuity. By preventing disruptions, it safeguards operational services, bolstering productivity and business continuity. A UPS not only protects against operation losses but also contributes to prolonged equipment lifespan and data preservation. Investing in a UPS is not just a necessity, it's a strategic move toward sustaining uninterrupted operational services and ensuring optimal productivity for your business.

Why choose a Delta UPS?

- Leading AC-AC efficiency in a compact form
- Fully redundant design with predictive reliability
- Seamless expansion without additional hardware requirements
- High input and output power factor to optimize energy usage
- User-friendly interface for local and remote monitoring/control
- Customizable products tailored to meet distinct requirements

Delta provides a full range of UPSs



Home Office

Network Server

Enterprise Data Center

Hyperscale Data Center

1-phase | **3-phase**

RT
1-3 kVA

RT
5-10 kVA

RT
10-20 kVA

Mini
15 kVA

HPH
20-60 kVA

DPH
15-60/105 kVA

DPH
50-300/500 kVA

DPM
250-1750 kVA
300-2100 kVA

Product Matrix

Series		Voltage	Configuration	Form	Battery	Page
Amplon Family	1 to 20 kVA					
	RT 1-3 kVA	110/115/120 Vac	1:1	Rackmountable Tower	Internal	7-8
	RT 5-10 kVA	200/208/230/240 Vac	1:1	Rackmountable Tower	Internal	9-10
	RT 10-20 kVA	380/400/415 Vac	3:1, 3:3	Rackmountable Tower	External	11-12
Modulon Family	15 to 500 kVA					
	Mini UPS	380/400/415/480 Vac	3:1	Modular	Internal (optional)	13-14
	DPH 15-60/105 kVA	208/220 Vac	3:3	Modular	Internal (optional)	15-16
	DPH 50-300/500 kVA	480 Vac	3:3	Modular	External	17-18
Ultron Family	20 to 2100 kVA					
	HPH 20-60 kVA	208/220 Vac	3:3	Monolithic	Internal (optional)	19-20
	DPM Gen2 250-1750 kVA	380/400/415 Vac	3:3	Monolithic	External	21-22
	DPM Gen2 300-2100 kVA	480 Vac	3:3	Monolithic	External	23-24

Amplon RT Series UPS

Single-phase, 1-3 kVA

The Amplon RT 1-3 kVA series is an onlnie double conversion UPS delivering consistent sine-wave power to safeguard cirtical equipment like PCs, networks, servers, VoIP and telecommunications. The Amplon RT 1-3kVA series feature an output power factor of 0.9 and best-in-class AC-AC efficiency up to 93% resulting in greater energy savings. Optional external battery pack can be connected for longer backup time to keep your applications safe and running smoothly at all times.

Low Total Cost of Ownership

- Up to 0.9 ouput power factor ensure more real power to critical loads
- AC-AC efficiency up to 93% and ECD mode efficiency up to 98.5% deliver significant energy cost savings
- Wide input voltage range enable operation in harsh environments while extending battery life

Superior Availability and Flexibility

- The Compact 2U design with convertible rack/tower configuration for flexible deployment
- The programmable load bank disconnects non-critical loads during a blackout to conserve battery for critical loads
- The optional Maintenance Bypass Box (MBB) makes UPS replacement easier without powering down critical systems
- The optional External Battery Pack (EBP) allows for scalable runtime, adapting to growing power needs
- Automatic fan speed controls reduce noise and enhances system efficiency

Excellent Manageability

- The user friendly graphical LCD display offers local management in multi-languages for ease of use
- Various type of communication interfaces, such as REPO/ROO for remote management, and inbuilt dry contact for monitoring and notification of system operation conditions
- Intelligent battery management with 3 stage charging mechanisms extend battery life, while predictive maintenance enhances system reliability

IT Telecom Industrial Transportation Financial Government SME Retail

Technical Specifications

Model		RT-1K	RT-1.5K	RT-2K	RT-3K
Topology		Online double-conversion			
Power Rating[1]		1 kVA	1.5 kVA	2 kVA	3 kVA
		0.9 kW	1.35 kW	1.8 kW	2.7 kW
INPUT					
Nominal Voltage		100/110/115/120 Vac, 1P2W+PE			
Voltage Range		100-150 Vac (100% load); 55-100 Vac (with derating to 50-100% load)[2]			
Frequency Range		40-70 Hz			
Power Factor		0.99 (100% load)			
Connection		NEMA 5-15P		NEMA 5-20P	NEMA L5-30P
OUTPUT					
Nominal Voltage		100/110/115/120 Vac, 1P2W+PE			
Voltage Regulation		±1% (linear load)			
Frequency		50/60 ± 0.05 Hz			
Total Harmonic Distortion (THDv)		≤ 3% (linear load)			
Power Factor		0.9			
Connection		NEMA 5-15R x3 (Load bank1)+NEMA 5-15R x3 (Load bank2)+NEMA 5-15R x2 (Load bank3)		NEMA 5-15/20R x4 (Load bank1)+NEMA 5-15/20R x4 (Load bank2)+L 5-20R x1 (Load bank 3)	NEMA 5-15/20R x4 (Load bank1)+NEMA 5-15/20R x4 (Load bank2)+L 5-30R x1 (Load bank 3)
Overload Capability		< 105% continuous; 105-125%: 2 min ± 5 secs; 126-150%: 30 secs; >150%: 500 ms			
Current Crest Ratio		3:1			
EFFICIENCY					
Online Mode[3]		91.5%	92.5%	93%	
ECO Mode		98%	98.5%		
BATTERY					
Battery Type		VRLA			
Nominal Voltage		24 Vdc	36 Vdc	48 Vdc	72 Vdc
Quantity		2 pcs	4 pcs		6 pcs
Runtime	100% Load	6.5 mins			
	70% Load	4 mins			
COMMUNICATION INTERFACE					
Display		LCD display with LED indicators			
Port		Mini slot x1, USB port x1, RS-232 port x1, ROO/REPO x1, Input dry contact x1, Output dry contact x3			
PHYSICAL					
Dimensions (W x D x H)		17.3 x 13.2 x 3.5 inch (440 x 335 x 88.2 mm)	17.3 x 16.9 x 3.5 inch (440 x 430 x 88.2 mm)		17.3 x 22.2 x 3.5 inch (440 x 565 x 88.2 mm)
Net Weight		27.3 lb (12.4 kg)	39 lb (17.7 kg)	45.9 lb (20.8 kg)	66.1 lb (30kg)
Packing Dimensions (W x D x H)		19.8 x 23.8 x 10.6 inch (504 x 604 x 270 mm)			24 x 39.4 x 9.5 inch (610 x 1000 x 240 mm)
Packing Weight		40.1 lb (18.2 kg)	52.5 lb (23.8 kg)	59.3 lb (26.9 kg)	81.35 lb (36.9 kg)
ENVIRONMENT					
Operating Temperature		32 to 122°F (0 to 50°C)[4]			
Humidity		5-95% (non-condensing)			
Audible Noise[5]		< 40 dBA		< 45 dBA	
Altitude		0~9843 ft (0~3300 ft without load derating)			
CONFORMANCE					
Safety		UL			
EMC		CISPR22 Class B/FCC Part 15 Class B		CISPR22 Class A/FCC Part 15 Class A	
Sustainability		Energy Star 2.0			

(1) UL limitation at 100/115/120 Vac derate UPS capability due to power cords current limitation
(2) For input voltage under 100 Vac, the range is 90-150 Vac (full load) and 55-90 Vac (with derating to 50-100% load)
(3) Power loss from the input and output power cord is not included
(4) 104 to 122°F (40 to 50°C) de-rating to 80% load
(5) At typical environment temperature ≤ 86°F (30°C)

All specifications are subject to change without prior notice.

Amplon RT Series UPS

Single-phase, 5-10 kVA

Introducing the Amplon RT Series 5-10 kVA UPS: Compact yet powerful, it provides a unity output power factor and top efficiency, with up to 95.5% AC-AC efficiency. It also features Li-ion battery compatibility for enhanced density and sustainability. With optional complete power solutions like the Maintenance Bypass Box and Rack Remote Power Panel integration, it ensures seamless operation for critical applications.

Efficiency and Reliability

- Best-in-class AC-AC efficiency of up to 95.5% and 99% in ECO mode for lower energy costs
- Wide input voltage range for operation in harsh environments and extended battery life
- AC-start function enables the UPS to switch on without battery connection
- Hot-swappable batteries for continuous operation during replacements

Availability and Flexibility

- Unity output power factor ensures no de-rating with loads
- Up to 4 units parallel capacity for redundancy and load expansion
- Programmable load bank disconnects non-critical loads during blackouts, saving battery power for critical loads
- VRLA and Li-ion External Battery Pack (EBP) for scalable runtime
- Extended runtime models support flexible battery quantity, reducing maintenance costs
- The Power Distribution Box (PDB) and Maintenance Bypass Box (MBB) come standard with Standard runtime models, simplifying configuration

Manageability

- User-friendly LCD display for excellent local management
- Intelligent battery management for extended life and maximum performance
- Free UPS management software and multiple communication interfaces ensure seamless remote monitoring and device protection

IT | Telecom | Industrial | Transportation | Financial | Government | SME | Retail

Technical Specifications

Model		RT-5K	RT-6K	RT-8K	RT-10K
Topology		Online double-conversion			
Power Rating	220/230/240 Vac	5 kVA/5 kW	6 kVA/6 kW	8 kVA/8 kW	10 kVA/10 kW
	200/208 Vac	5 kVA/4.5 kW	6 kVA/6 kW	8 kVA/8 kW	10 kVA/10 kW
Parallel Configuration		Up to 4 units			
INPUT					
Nominal Voltage		200/208/220/230/240 Vac, 1P2W+PE			
Voltage Range		175-280 Vac (100% load); 100-175 Vac (with derating to 50-100% load)			
Frequency Range		40-70 Hz			
Total Harmonic Distortion (THDi)		< 3%			
Power Factor		> 99% (100% load)			
Connection	Standard	NEMA L6-30P	Terminal		
	Extended	Terminal			
OUTPUT					
Nominal Voltage		200/208/220/230/240 Vac, 1P2W+PE			
Voltage Regulation		±1%			
Frequency		50/60 ± 0.05 Hz			
Total Harmonic Distortion (THDv)		< 2% (linear load)			
Power Factor		1			
Connection	Standard(2)	L6-20 x2, L6-30 x2, Load Bank: L6-30 x1	L6-20 x2, L6-30 x1, Terminal x1, Load Bank: L6-30 x1	L6-20 x2, L6-30 x2, Terminal x1, Load Bank: L6-30 x1	
	Extended(2)	Terminal x1, Programmable terminal x1			
Overload Capability(2)		≤ 105%: Continuous, 106-125%: 5 mins; 126-150%: 1 min; > 150%: 500 ms			
Current Crest Ratio		3:1			
EFFICIENCY					
Online Mode		Up to 95.5%			
Eco Mode		Up to 99%			
BATTERY					
Battery Type		VRLA/Lithium-ion			
Nominal Voltage	Standard	192 Vdc		240 Vdc	
	Extended	144(3), 192-264 Vdc			
Charge Current	Standard	1 A (default), up to 8 A		1.5 A (default), up to 8 A	
	Extended	Up to 8 A			
COMMUNICATION INTERFACE					
Display		Graphical LCD display with LED indicators			
Port		USB, RS-232, RS-485, Mini Slot, ROO/REPO, Input dry contact x1, Output dry contact x3			
PHYSICAL					
Dimensions (W x D x H)	Standard Extended	17.3 x 26.2 x 6.9 inch (440 x 665 x 176 mm) 17.3 x 16.9 x 3.5 inch (440 x 430(4) x 88.2 mm)		17.3 x 29.5 x 8.6 inch (440 x 750 x 218 mm) 17.3 x 22.2 x 3.5 inch (440 x 565(4) x 88.2 mm)	
	VRLA Batt. Pack Li-ion Batt. Pack	17.3 x 22.2 x 3.5 inch (440 x 565 x 88.2 mm) 17.3 x 25.4 x 3.5 inch (440 x 646 x 88.2 mm)		17.3 x 25.6 x 5.1 inch (440 x 650 x 130 mm)	
Net Weight	Standard	121.23 lb (55 kg)		189.6 lb (86 kg)	
	Extended	24.03 lb (10.9 kg)		33.51 lb (15.2 kg)	
ENVIRONMENT					
Operating Temperature		32 to 122°F (104 to 122°F de-rating to 80% load)			
Humidity		5-95% (non-condensing)			
Audible Noise		< 48 dBA		< 50 dBA	
Altitude		0-9843 ft (derating 1%/328ft from 3280-9843 ft)			
CONFORMANCE					
Safety		UL			
EMC		FCC Part 15 Class B			
Sustainability		Energy Star 2.0			

(1) Under 200/208V, 5kVA standard runtime model OP PF=0.9
(2) Standard model: built-in batteries; Extended model: capability to add external battery packs
(3) Require derating to 70% load
(4) The depth is without the terminal; to add the terminal, increase by 78 mm

All specifications are subject to change without prior notice.

Amplon RT Series UPS

Three-phase, 10-20 kVA

Introducing the Amplon RT Series 10-20 kVA UPS: Compact yet powerful, it provides a unity output power factor and top efficiency, with up to 96.5% AC-AC efficiency. It also features Li-ion battery compatibility for enhanced density and sustainability. With optional complete power solutions like the Maintenance Bypass Box and Rack Remote Power Panel integration, it ensures seamless operation for critical applications.

Efficiency and Reliability

- Best-in-class AC-AC efficiency of up to 96.5% and 99% in ECO mode for lower energy costs
- Wide input voltage range for operation in harsh environments and extended battery life
- AC-start function enables the UPS to switch on without battery connection
- Hot-swappable batteries for continuous operation during replacements

Availability and Flexibility

- Unity output power factor ensures no de-rating with loads
- Up to 4 units parallel capacity for redundancy and load expansion
- VRLA and Li-ion External Battery Pack (EBP) for scalable runtime
- Supports flexible battery quantity, reducing maintenance costs

Manageability

- User-friendly LCD display for excellent local management
- Intelligent battery management for extended life and maximum performance
- Free UPS management software and multiple communication interfaces ensure seamless remote monitoring and device protection

Technical Specifications

Model	RT-10K-3P	RT-15K-3P	RT-20K-3P
Topology	Online double-conversion		
Power Rating	10 kVA 10 kW	15 kVA 15 kW	20 kVA 20 kW
Parallel Configuration	Up to 4 units		
INPUT			
Nominal Voltage	380/400/415 Vac. 3P4W+PE		
Voltage Range	305-485 Vac (100% load); 138-305 Vac (with derating to 40-100% load)		
Frequency Range	40-70 Hz		
Total Harmonic Distortion (THDi)	< 3%		
Power Factor	> 99% (100% load)		
Connection	Input terminal x1, Bypass input terminal x1		
OUTPUT			
Nominal Voltage	380/400/415 Vac. 3P4W+PE or 220/230/240 Vac, 1P2W+PE		
Voltage Regulation	±1%		
Frequency	50/60 ± 0.05 Hz		
Total Harmonic Distortion (THDv)	< 2% (linear load); < 4% (non-linear load)		
Power Factor	1		
Connection	Terminal x1		
Overload Capability(1)	106-125%: 5 mins; 126-150%: 1 min; > 150%: 500 ms		
Current Crest Ratio	3:1		
EFFICIENCY			
Online Mode	Up to 96%	Up to 96.5%	
Eco Mode	Up to 99%		
BATTERY			
Battery Type	VRLA/Lithium-ion		
Nominal Voltage	144(2), 192-264 Vdc	±144(2), ±192-±264 Vdc	
Charge Current	Up to 8 A		
COMMUNICATION INTERFACE			
Display	Graphical LCD display with LED indicators		
Port	USB, RS-485, Mini Slot, ROO/REPO, Input dry contact x1, Output dry contact x3		
PHYSICAL			
Dimensions (W x D x H)	17.3× 25.6× 3.5 inch (440× 649× 88.2 mm)	17.3× 29.9× 3.5 inch (440×760×88.2mm)	
Net Weight	36.57 lb (16.6 kg)	48.5 lb (22kg)	49.6 lb (22.5kg)
ENVIRONMENT			
Operating Temperature	32 to 131°F (113 to 131°F de-rating to 75% load)		
Humidity	5-95% (non-condensing)		
Audible Noise	< 50 dBA	< 54 dBA	
Altitude	0-9843 ft (derating 1%/328ft from 3280-9843 ft)		
CONFORMANCE			
Safety	CE, UKCA, UL/cUL, TISI, RCM, BIS, BSMI		
EMC	FCC Part 15 Class A, IEC 62040-2		
Performance	IEC 62040-3		
Sustainability	RoHS, REACH, Energy Star 2.0		

(1) Operating temperature < 89.6°F
(2) Derating to 70% load

All specifications are subject to change without prior notice.

Modulon Mini Series UPS

Three-phase, 15 kVA

Facing DC power challenges in a world dominated by AC-driven GPUs? Meet the 'Mini UPS', your solution. Our 15 kW system, with built-in 3 kW redundancy and a compact 6U design, is the key for cloud providers and edge data centers. Enjoy uninterrupted power seamlessly with our plug-and-play solution, addressing all your power concerns

Reliability

- Scalable power up to 15 kW plus 3 kW redundancy
- Hot swappable modular design minimizes MTTR
- Guaranteed premium quality and safety with UL-certified and UL 9540A lithium battery-endorsed solution

Cost Effectiveness

- Maximizes rack space with a 40% greater savings compared to competitors boasting the same rating
- Lithium battery ready: features 3 times longer lifespan with 10 times faster charging
- Maximizes savings on wiring, rPDU, and parallel bars tailored for decentralized data center requirements

User Friendly

- Plug-and-play outlet with individual output breakers for load protection
- Enjoy effortless remote monitoring and setup with the built-in SNMP
- Designed for both 400V and 480V power environments, providing global data centers with streamlined sourcing and service management
- Tool-free and hot-swappable design simplifies installation and maintenance

Applicable Sectors

IT Telecom Industrial Transportation Financial Government

Technical Specifications

Model		Mini UPS-15K
Topology		Online double-conversion
Power Module Rating		3 kW
Frame Size		15 kW + 3 kW redudant
INPUT		
Nominal Voltage		380/400/415/480 Vac, 3P4W+PE
Voltage Range		338-528 Vac (100% load); 228-338 Vac (with derating to 60-100% load)
Frequency Range		45-65 Hz
Total Harmonic Distortion (THDi)		< 5%
Power Factor		≥ 0.99 (100% load)
Connection		Terminal Type C x2
OUTPUT		
Nominal Voltage		220/230/240 Vac, 1P2W+PE
Voltage Regulation		±1%
Frequency		50/60 ± 0.5 Hz
Total Harmonic Distortion (THDv)		< 3% (linear load); < 5% (non-linear load)
Power Factor		1
Connection		IEC C19 x5, NEMA L6-30R x1
Overload Capability		< 105%:continues, 105%~124%: 10 mins, 125% ~ 149%: 1 min., ≥ 150%: immediately
Current Crest Ratio		3:1
EFFICIENCY		
Online Mode		Up to 94.4%
BATTERY		
Battery Type		Lithium-ion
Nominal Voltage		42-56 Vdc
Internal Battery Quantity		Up to 6 pcs (optional)
Charge Current		Up to 12 A
COMMUNICATION INTERFACE		
Display		LED Indicators
Port		RS-485, Network port, Console port
Audible Alarm		Low battery, Battery over current, Overload, Fault, Over temperature
PHYSICAL		
Dimensions (W x D x H)		17.32× 31.58× 10.3 inch (440× 802.2× 261.7 mm)
Net Weight	Frame	66.36lb (30.1kg)
	Per Power Module	8.6lb (3.9kg)
	Per Battery Module	14.6 lb (6.6kg)
ENVIRONMENT		
Operating Temperature		32 to 113°F (0 to 45°C)
Humidity		10-90% (non-condensing)
Altitude		0-9843 ft (without derating)
Storage Temperature		-4 to 140°F (-20 to 60°C)
Ingress Protection Level		IP20
CONFORMANCE		
Safety		UL
EMC		FCC Part 15 Class A
Sustainability		RoHS, REACH

All specifications are subject to change without prior notice.

Modulon DPH Series UPS

Three-phase, 15-60/105 kVA

The Modulon DPH offers unmatched availability, efficiency, and scalability for data center operations. With its fully integrated power solution in a single 42U cabinet, including the power supply, battery, STS control module, and breakers, it ensures maximum space efficiency and ease of deployment. Its flexible "pay-as-you-go" approach eliminates the need for over-sizing your UPS, aligning with your business needs while optimizing total cost of ownership (TCO).`

High Availability and Reliability

- Fully modular and hot-swappable for easy deployment and maintenance
- Redundant power and controllers for max. uptime
- Dual CAN bus for reliable signal transmission
- LED fuse indicators alert operator of battery module blown fuses

Power Efficiency and Performance

- AC-AC efficiency up to 95%, ECO mode up to 98.5% with Energy Star 2.0 certified
- High power density: 15kW in 2U height
- Green Mode optimizes efficiency by adjusting power aggregation based on the actual load

Advanced Manageability

- Color 10” touchscreen provides easy access to UPS information and streamlined operation
- Inbuilt Ethernet and RS-485 communication interface
- Power consumption trend tracking
- Optional Environment Management System integration

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Technical Specifications

Model		DPH-60K-LV	DPH-105K-LV
Power Rating		15/30/45/60 kVA 15/30/45/60 kW	15/30/45/60/75/90/105 kVA 15/30/45/60/75/90/105 kW
Power Module Quantity		4+1 redundancy	7+1 redundancy
Parallel Configuration		Up to 4 units	
INPUT			
Nominal Voltage		208/220 Vac, 3P4W+PE	
Voltage Range		166-253 Vac (100% load); 125~166 Vac (with derating to 70 -100% load)	
Frequency Range		40-70 Hz	
Total Harmonic Distortion (THDi)		< 3%(1) (linear load)	
Power Factor		> 0.99 (100% load)	
OUTPUT			
Nominal Voltage		380/400/415 Vac, 3P4W+PE	
Voltage Regulation		±1%	
Frequency		50/60 ± 0.05 Hz	
Total Harmonic Distortion (THDv)		≤ 2% (linear load); ≤ 5% (non-linear load)	
Power Factor		1	
Overload Capability		≤ 125%: 10 mins; ≤ 150%: 1 min; > 150%: 1 sec	
Current Crest Ratio		3:1	
EFFICIENCY			
Online Mode		Up to 95%	
Eco Mode		Up to 98.5%	
BATTERY			
Battery Type		VRLA	VRLA/Lithium-ion
Nominal Voltage		±168 Vdc	
Quantity		±190 Vdc (adjustable from 182 to 196 Vdc)	
Maximum Charge Current		6A Max. per power module	
Internal Battery		Optional, inbuilt up to 4 strings (16pcs)	N/A
COMMUNICATION INTERFACE			
Display		10-inch color touchscreen	
Port		USB Type A x2, USB Type Bx1, RS-232 x1, Modbus (RS-485) port x1, REPOx1, EMS/Console (RJ45) x1, BMS (RS-485) x1, Ethernet port x1, Input dry contact x4, Output dry contact x6, External battery temperature detection x4, External switch/breaker status dry contact x4, Smart slot x1	
Protocols		SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNTP, SMTP, Syslog, BOOTP, DHCP	
PHYSICAL			
Dimensions (W x D x H)	UPS System	23.62 x 33.46 x 78.74 inch (600 x 850 x 2000 mm)	
	Modular Battery Cabinet	23.62 x 33.46 x 78.74 inch (600 x 850 x 2000 mm)	
Net Weight	UPS System	562.2 lb (255 kg)	619.5 lb (281 kg)
	Per Power Module	51.8 lb (23.5 kg)	
	Per Battery Module(2)	52.2 lb (23.7 kg	
	Modular Battery Cabinet(3) w/ full Battery module	2123.1 lb (963kg)	
	Modular Battery Cabinet w/o Battery module	465.2 lb (211kg)	
ENVIRONMENT			
Operating Temperature		32 to 104°F (0 to 40°C)	
Humidity		0-95% (non-condensing)	
Altitude		0-6562 ft (derating 1%/328 ft from 3280-6562 ft)	
CONFORMANCE			
Safety		UL/cUL	
EMC		FCC Part 15 Class A	
Performance		IEC 62040-3	
Sustainability		Energy Star 2.0	
FEATURES			
Standard		Sequential start for generator, Burn-in test without load bank, Cold start function, Frequency conversion, Failure prediction	
Optional		Software integration with Delta lithium-ion battery BMS	

(1) When input THDi <1%

(2) 1 battery module= 9Ah Battery x7pcs

(3) Max. 8 battery strings or 32 battery modules in modular battery cabinet.

All specifications are subject to change without prior notice.

Modulon DPH Series UPS

Three-phase, 50-300/500 kVA

In this IT intensive world with heavy data traffic driven by cloud, 4G/5G and media streaming applications, IT managers are facing the challenges of increasing rack power density and limited data center space. Delta's innovative modular UPS technologies provide the answer to customers' demands for high power density, high power performance, and ultimate availability. The brand-new Delta Modulon DPH series UPS 50-300/500kVA achieves the industry's leading power density of 50 kW per module, offering the smallest footprint and best space utilization. The Modulon DPH Series UPS is the ideal modular power protection for MW data centers to achieve total cost of ownership (TCO) optimization.

Excellent Power Performance

- The industry's leading power density per module at 50 kW in a 3U space, and the smallest footprint for 500 kVA in a single rack and 600 kVA in two racks, that achieves the best utilization compared with its peers
- High AC-AC efficiency up to 97% and ECO mode to 99% provide marked energy cost savings
- Green mode featuring a load aggregation function optimizes system efficiency

Ultimate Availability

- Fully modularized design and hot-swappable key modules ensure Mean Time To Repair (MTTR) close to zero without downtime risk
- Redundant components and dual CAN bus delivers highest system availability and avoids single point of failure
- Modular UPS grows with your business by parallel expansion up to 4 units for 2MW of total power capacity

High Manageability

- User-friendly 10” color touchscreen enables easy local UPS management
- Environment information such as security, water, fire, and temperature can be integrated into the UPS for easy monitoring via the LCD of the UPS
- If the UPS is equipped with an external battery management system, the battery information can be integrated into the UPS and monitored via the LCD of the UPS

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Technical Specifications

Model		DPH-300K-HV	DPH-500K-HV
Power Rating		100/150/200/250/300 kVA 100/150/200/250/300 kW	300/350/400/450/500 kVA 300/350/400/450/500 kW
Frame Size		300 kW	500 kW
Parallel Configuration		Up to 4 units	
INPUT			
Nominal Voltage		480 Vac, 3P3W+PE	
Voltage Range		408-552 Vac (100% load); 286~408V (with derating to 70%-100% load)	
Frequency Range		40-70 Hz	
Total Harmonic Distortion (THDi)		< 3%(1)	
Power Factor		> 0.99 (100% load)	
OUTPUT			
Nominal Voltage		480 Vac, 3P3W+PE	
Voltage Regulation		±1%	
Frequency		50/60 ± 0.05 Hz	
Total Harmonic Distortion (THDv)		≤ 2% (linear load)	≤ 1% (linear load)
Power Factor		1	
Overload Capability		≤ 105%: continues; 106~110%: 60 mins; 111~125%: 10 mins; 126%~150%: 1 min	
Current Crest Ratio		3:1	
EFFICIENCY			
Online Mode		Up to 97%	
ECO Mode		Up to 99%	
BATTERY			
Battery Type		VRLA/Lithium-ion	
Nominal Voltage		±480 Vdc	
Quantity		30-46 pcs (Configuratble, 12V VRLA battery)	
Maximum Charge Current		15A (per power module)	
COMMUNICATION INTERFACE			
Display		10-inch color touchscreen	
Port		Modbus (RS-485) x1, RS-232 x1, Smart slot, REPO x1, Input dry contact x4, Ouput dry contact x6, External battery temperature detection x4, External switch/breaker status dry contact x4, BMS (reserved)x1, EMS/ Console (RJ45) x1, Ethernet port x1	
Protocols		SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNTP, SMTP, Syslog, BOOTP, DHCP	
PHYSICAL			
Dimensions (W x D x H)		23.62 x 33.46 x 78.74 inch (600× 850× 2000 mm)	55.12× 33.46× 78.74 inch (default, 1400× 850x 2000mm) 55.12× 43.31×78.74 inch (against the wall, 1400x 1100× 2000mm)
Net Weight	UPS System	588.6 lb (267kg)	1162.3 lb (527.2 kg)
	Per Power Module	78.26 lb (35.5kg)	
ENVIRONMENT			
Operating Temperature		32 to 104 °F (0 to 40°C)	
Humidity		0-95% (non-condensing)	
Altitude		0-6562 ft (derating 1%/328 ft from 3280-6562 ft)	
CONFORMANCE			
Safety		UL	
EMC		FCC Part 15 Class A	
Performance		IEC 62040-3	
Sustainability		Energy Star 2.0	
FEATURES			
Standard		Sequential start for generator, Backfeed protection, Burn-in test without load bank, Cold start function, Frequency conversion, Failure prediction	
Optional		Software integration with Delta Lithium-ion battery BMS	

(1) When input vTHD < 1%

All specifications are subject to change without prior notice.

Ultron HPH Series UPS

Three-phase, 20-60 kVA

The Ultron HPH delivers exceptional power protection with up to 94% efficiency, full power availability (kVA=kW), and advanced digital PFC control. Perfect for small data centers, it enhances energy efficiency and reduces TCO for mission-critical applications.

Superior Power Performance and Efficiency

- Unity output power factor (kVA=kW) for maximum power availability
- AC-AC efficiency up to 94% save energy costs
- Low harmonic distortion (iTHD<3%) and high input power factor (>0.99) reduce upstream investment costs
- Redundant auxilary power and fan design enhance system reliablity
- Optional IPX1 level protection

Flexible and Scalable

- Customizable configurations, including N+X redundancy and hot-standby
- Adjustable charging current and voltage with flexible configurations optimize battery investment for various needs

High Manageability and Flexibility

- Easy front-door battery replacement with hot-swappable tray
- Quick maintenance with swappable interior and the front access
- Multi-connectivity interface for remote monitoring and management

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Technical Specifications

Model[1]	HPH-20K-LV-B / HPH-20K-LV-BN	HPH-30K-LV-B / HPH-30K-LV-BN	HPH-40K-LV-B / HPH-40K-LV-BN	HPH-60K-LV-B / HPH-60K-LV-BN
Power Rating	20 kVA / 20 kW	30 kVA / 30 kW	40 kVA / 40 kW	60 kVA / 60 kW
Parallel Configuration	Up to 4 units			
INPUT				
Nominal Voltage	208/220 Vac, 3P4W+PE			
Voltage Range	188-253 Vac (100% load); 125-187 Vac (with derating to 63-100% load)			
Frequency Range	40-70 Hz			
Total Harmonic Distortion (THDi)	≤ 4%[2]			
Power Factor	> 0.99 (100% load)			
OUTPUT				
Nominal Voltage	208/220 Vac, 3P4W+PE			
Voltage Regulation	±1%			
Frequency	50/60 ± 0.05 Hz			
Total Harmonic Distortion (THDv)	≤ 2% (linear load)			
Power Factor	1			
Overload Capability	≤ 105%: continues; 105-125%: 10 mins; 126-150%: 1 min; > 150%: 0.5 sec			
Current Crest Ratio	3:1			
EFFICIENCY				
Online Mode	Up to 94%			
ECO Mode	Up to 98%			
BATTERY				
Battery Type	VRLA			
Nominal Voltage	±144 Vdc			
Quantity	22-26 pcs			
Maximum Charge Current	10 A		20 A	
COMMUNICATION INTERFACE				
Display	LCD touchscreen			
Port	Mini Slot x1, Smart Slot x1, RS-232 x1, Input dry contact x2, Output dry contact x6, REPO x1, Charger detection port x1			
Protocols	SNMP, Modbus TCP/IP, HTTP(S), SNTP, SMTP, BOOTP, DHCP, SSH, SFTP, FTP, Telnet, Syslog			
PHYSICAL				
Dimensions (W x D x H)	20.5 x 31.5 x 54.3 inch (520 x 800 x 1380 mm)		20.5 x 31.5 x 69.3 inch (520 x 800 x 1760 mm)	
Net Weight (UPS With Battery)	749.6 lbs (340 kg)	925.9 lbs (420 kg)	992.1 lbs (450 kg)	1168.4 lbs (530 kg)
Net Weight (UPS Without Battery)	432.1 lbs (196 kg)	449.7 lbs (204 kg)	515.9 lbs (234 kg)	533.5 lbs (242 kg)
ENVIRONMENT				
Operating Temperature	32 to 104 °F (0 to 40°C)			
Humidity	0-95% (non-condensing)			
Altitude	0-6561 ft (3280-6561 ft require load derating)			
Storage Temperature	5 to 104°F (-15 to 40°C)			
CONFORMANCE				
Safety	UL, CSA			
EMC	FCC Part 15 Class A			
Performance	IEC 62040-3			
FEATURES				
Standard	Cold start function, Frequency conversion			

(1) HPH-LV-B: UPS with inbuilt batteries. HPH-LV-BN: UPS with battery kits but, no inbuilt batteries

(2) When input vTHD < 1%

All specifications are subject to change without prior notice.

Ultron DPM Gen2 Series UPS

Three-phase, 250-1750 kVA

Selected by leading global cloud providers, Delta's DPM Gen2 introduces advanced features for enhanced efficiency and reliability. This includes OPEX savings with up to 97.3% AC-AC efficiency and improved grid stability. Synchronized Multiple Bus (SMB) and parallel scalability ensures flawless reliability, making it the ideal solution for fortified hyperscale data centers.

OPEX Savings

- AC-AC efficiency up to 97.3%, efficiency optimization at light loads saves energy costs
- Clean mode (voltage independent mode) up to 99% efficient guarantees the optimum power condition while maintaining the highest level of efficiency
- Optimizes energy cost with off-peak charging, avoiding peak-time expense
- Elevates grid stability through responsive demand reduction and fast frequency regulation, triggers upon utility requests for eligible bill subsidies

Impeccable Reliability

- Assures smooth power transitions with integrated Synchronized Multiple Bus (SMB), minimizing transformer inrush currents and maintaining balanced power from dual sources
- Parallels up to 8 units for redundancy or expansion, supported by N+1 internal redundancy in power modular configuration
- Maximizes UPS performance and lifespan with self-diagnosis and key component analysis

Ultimate Availability

- Lithium-ion battery ready. Adjustable battery charging voltage adapts to multiple types of batteries
- Seamless power shifts to generator with an advance power walk-in function, pausing during frequency issues for smooth transitions without unnecessary generator sizing expansion
- Grid interactive application. Provides corrective operation for unstable renewal energy sources with an innovative topology design that handles grid and battery power at the same time
- Easy mounting/cabling that supports both top and bottom cable entry and full front access

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Technical Specifications

Model DPM G2-	250K	500K(1)	750K(1)	1000K	1250K	1500K(1)	1750K(1)
Power Rating	250 kVA 250 kW	500 kVA 500 kW	750 kVA 750 kW	1000 kVA 1000 kW	1250 kVA 1250 kW	1500 kVA 1500 kW	1750 kVA 1750 kW
Parallel Configuration	Up to 8 units						
INPUT							
Nominal Voltage	380/400/415 Vac, 3P3W+PE or 3P4W+PE						
Voltage Range	323-477 Vac (100% load)						
Frequency Range	40-70 Hz						
Total Harmonic Distortion (THDi)	< 3% (100% resistive load)						
Power Factor	> 0.99 (100% load)						
Short Circuit Withstand Current	65 kA			100 kA			
OUTPUT							
Nominal Voltage	380/400/415 Vac, 3P3W+PE or 3P4W+PE						
Voltage Regulation	±1% (static)						
Frequency	50/60 ± 0.05 Hz						
Total Harmonic Distortion (THDv)	< 1% (linear load)						
Overload Capability	< 110%: continues; 110-125%: 10 mins; 126-150%: 1 min; > 150%: 1 sec						
Current Crest Ratio	3:1						
EFFICIENCY							
Online Mode	Up to 97.3%						
Clean Mode (VI)	Up to 99%						
BATTERY							
Battery Type	VRLA/Vented lead-acid/Lithium-ion/Ni-Zinc						
Nominal Voltage	480 Vdc						
Quantity	34-35(2), 36-46 pcs (Configurable, 12V VRLA battery)						
Charge Current	125 A	*(3)	*(3)	500 A	625 A	*(3)	*(3)
Protection Design	Battery shunt trip x1, Battery temperature detection x4, Battery breaker status dry contact x1						
COMMUNICATION INTERFACE							
Display	10-inch color touchscreen						
Port	Smart slot x2, Modbus (RS-485) port x1, REPO port x1, Input dry contact x6, Output dry contact x6, Synchronized Multiple Bus (SMB) x2, Breaker status detection x4, EMS/Console port x1, Ethernet x1						
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNTP, SMTP, BOOTP, DHCP						
PHYSICAL							
Dimensions (W x D x H)	40.55 x 38.98 x 78.74 inch (1030 x 990 x 2000 mm)	*(3)		120.87 x 38.98 x 78.74 inch (3070 x 990 x 2000 mm)	133.86 x 38.98 x 78.74 inch (3400 x 990 x 2000 mm)	*(3)	
Net Weight	1489.22 lb (675.5 kg)	*(3)		5401.33 lb (2450 kg)	6252.97 lb (2836.3 kg)	*(3)	
ENVIRONMENT							
Operating Temperature	32 to 104°F (0 to 40°C)						
Humidity	0-95% (non-condensing)						
Altitude	0-6562 ft (derating 1%/328 ft from 3280-6562 ft)						
CONFORMANCE							
Safety	UL(4), CE, UKCA						
EMC	FCC Part 15 Class A, IEC 62040-2						
Performance	IEC 62040-3						
Sustainability	RoHS, REACH, Energy Star 2.0						
FEATURES							
Standard	Advance power walk-in for generator, Backfeed protection with contactor, Burn-in test without load bank, Cold start function, Synchronized multiple bus (SMB), Frequency conversion, Battery shunt trip, Auxiliary power 48 Vdc for shunt trip, Failure prediction						
Optional	Grid interactive, Software integration with Delta Lithium-ion battery BMS, DC battery ground fault detector, Integrated battery switch cabinet, IR scan window						

(1) Upcoming product
(2) 34-35 pcs require service setting and load derating
(3) To be released
(4) 250K, 1000K, and 1250K have UL certification; other ratings will follow as the project progresses

All specifications are subject to change without prior notice.

Ultron DPM Gen2 Series UPS

Three-phase, 300-2100 kVA

Selected by leading global cloud providers, Delta's DPM Gen2 introduces advanced features for enhanced efficiency and reliability. This includes OPEX savings with up to 97.5% AC-AC efficiency and improved grid stability. Synchronized Multiple Bus (SMB) and parallel scalability ensures flawless reliability, making it the ideal solution for fortified hyperscale data centers.

OPEX Savings

- AC-AC efficiency up to 97.5%, efficiency optimization at light loads saves energy costs
- Clean mode (voltage independent mode) up to 99.2% efficient guarantees the optimum power condition while maintaining the highest level of efficiency
- Optimizes energy cost with off-peak charging, avoiding peak-time expense
- Elevates grid stability through responsive demand reduction and fast frequency regulation, triggers upon utility requests for eligible bill subsidies

Impeccable Reliability

- Assures smooth power transitions with integrated Synchronized Multiple Bus (SMB), minimizing transformer inrush currents and maintaining balanced power from dual sources
- Parallels up to 8 units for redundancy or expansion, supported by N+1 internal redundancy in power modular configuration
- Maximizes UPS performance and lifespan with self-diagnosis and key component analysis

Ultimate Availability

- Lithium-ion battery ready. Adjustable battery charging voltage adapts to multiple types of batteries
- Seamless power shifts to generator with an advance power walk-in function, pausing during frequency issues for smooth transitions without unnecessary generator sizing expansion
- Grid interactive application. Provides corrective operation for unstable renewal energy sources with an innovative topology design that handles grid and battery power at the same time
- Easy mounting/cabling that supports both top and bottom cable entry and full front access

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Technical Specifications

Model DPM G2-	300K(1)	600K(1)	900K(1)	1200K	1500K	1800K(1)	2100K(1)
Power Rating	300 kVA 300 kW	600 kVA 600 kW	900 kVA 900 kW	1200 kVA 1200 kW	1500 kVA 1500 kW	1800 kVA 1800 kW	2100 kVA 2100 kW
Parallel Configuration	Up to 8 units						
INPUT							
Nominal Voltage	480 Vac, 3P3W+PE						
Voltage Range	408-552 Vac (100% load)						
Frequency Range	40-70 Hz						
Total Harmonic Distortion (THDi)	< 3% (100% resistive load)						
Power Factor	> 0.99 (100% load)						
Short Circuit Withstand Current	65 kA			100 kA			
OUTPUT							
Nominal Voltage	480 Vac, 3P3W+PE						
Voltage Regulation	±1% (static)						
Frequency	50/60 ± 0.05 Hz						
Total Harmonic Distortion (THDv)	< 1% (linear load)						
Overload Capability	< 110%: continues; 110-125%: 10 mins; 126-150%: 1 min; > 150%: 1 sec						
Current Crest Ratio	3:1						
EFFICIENCY							
Online Mode	Up to 97.5%						
Clean Mode (VI)	Up to 99.2%						
BATTERY							
Battery Type	VRLA/Vented lead-acid/Lithium-ion/Ni-Zinc						
Nominal Voltage	480 Vdc						
Quantity	34-35(2), 36-46 pcs (Configurable, 12V VRLA battery)						
Charge Current	*(3)	*(3)	*(3)	500 A	625 A	*(3)	*(3)
Protection Design	Battery shunt trip x1, Battery temperature detection x4, Battery breaker status dry contact x1						
COMMUNICATION INTERFACE							
Display	10-inch color touchscreen						
Port	Smart slot x2, Modbus (RS-485) port x1, REPO port x1, Input dry contact x6, Output dry contact x6, Synchronized Multiple Bus (SMB) x2, Breaker status detection x4, EMS/Console port x1, Ethernet x1						
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNTP, SMTP, BOOTP, DHCP						
PHYSICAL							
Dimensions (W x D x H)	*(3)	*(3)		120.87 x 38.98 x 78.74 inch (3070 x 990× 2000 mm)	133.86 x 38.98 x 78.74 inch (3400 x 990 x 2000 mm)	*(3)	
Net Weight	*(3)	*(3)		5280.1 lb (2395 kg)	6126.6 lb (2779 kg)	*(3)	
ENVIRONMENT							
Operating Temperature	32 to 104°F (0 to 40°C)						
Humidity	0-95% (non-condensing)						
Altitude	0-6562 ft (derating 1%/328 ft from 3280-6562 ft)						
CONFORMANCE							
Safety	UL						
EMC	FCC Part 15 Class A						
Performance	IEC 62040-3						
Sustainability	RoHS, REACH, Energy Star 2.0						
FEATURES							
Standard	Advance power walk-in for generator, Backfeed protection with contactor, Burn-in test without load bank, Cold start function, Synchronized multiple bus (SMB), Battery shunt trip, Auxiliary power 48 Vdc for shunt trip, Failure prediction						
Optional	Grid interactive, Software integration with Delta Lithium-ion battery BMS, DC battery ground fault detector, Integrated battery switch cabinet, IR scan window						

(1) Upcoming product
(2) 34-35 pcs require service setting and load derating
(3) To be released

All specifications are subject to change without prior notice.

UPS Management - Connectivity

G3 SNMP IPv6 Card

Mini SNMP IPv6 Card

Functions and Features

Available Protocols

- SNMPv1, v2c and v3 supported; accepts NMS monitoring as well as actively sends trap packets to target hosts; supports IPv4 and IPv6 TCP/IP protocols
- Modbus TCP/IP
- MQTT (Applicable to mini SNMP IPv6 card)
- Web monitor and set up through network browser with built-in web server
- Remote authentication: SNMP IPv6 card (RADIUS, LDAP); mini SNMP IPv6 card (LDAP, 802.1x)
- Others telnet, SSH, FTP, SFTP, BOOTP, DHCP, SMTP, SNTP, WOL, Syslog
- MIB supports RFC1628 and Delta proprietary UPSv4 and UPSv5 MIB

Management

- Scheduling: performs planned UPS power on & off and battery testing
- Regular power on/ off: set UPS power on/ off time
- Regular battery discharging testing
- Smart power shutdown and send email notice
- Environment probe (optional) for environment temperature and humidity monitoring

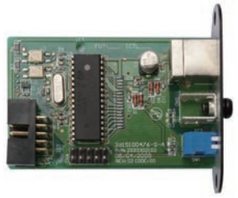
Event Log Recording and Export

- Event sequence and UPS parameter data recording

Technical Specifications

Model	G3 SNMP IPv6 Card	Mini SNMP IPv6 Card
DEPLOYMENT		
Network Connection	10/100/1000 M RJ45 Connector	10/100 M RJ45 Connector
Input Power	12 Vdc	
Power Consumption	< 4 W	< 2 W
Operation Temperature	32 to 140°F (0 to 60°C)	
Operation Humidity	0-90%	
PHYSICAL		
Dimensions	5.12 x 2.36 inch (130 x 60 mm)	3.43 x 2.76 x 1.18 inch (87 x 70 x 30 mm)
Net Weight	2.65 oz (75 g)	
CONFORMANCE		
Standard	EN 55032:2015+A11:2020, EN 55035:2017+A11:2020	
Product Certifications	FCC Class B, CE, UL	FCC Class B, CB, UL
Sustainability	RoHS, REACH	

Mini USB Card



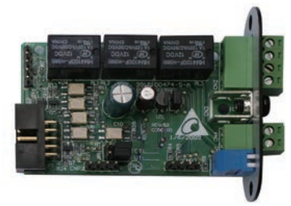
Functions and Features

- Communication protocol: SCI: Delta Regular v1.51; USB: Delta HID Protocol v3.4
- Supports HID (Human Interface Device) protocol: the UPS can communicate with Windows XP/2003/2008/2012/Win7/Win8 without monitoring software
- Compatible with Delta UPS standard software UPSentry 2012

Technical Specifications

Model	Mini USB Card
DEPLOYMENT	
Input Power	12 Vdc
Power Consumption	0.5 W
Operation Temperature	32 to 104°F (0 to 40°C)
Operation Humidity	10-80%
PHYSICAL	
Dimensions	2.68 x 1.69 inch (68 x 43 mm)
Net Weight	1.06 oz (30 g)

Mini Dry Contact Card



Functions and Features

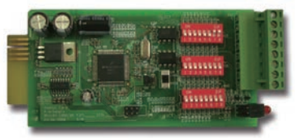
- UPS status information presented as 3 contact closures
- Configurable input signal as shutdown UPS or battery test
- Programmable output contact monitors status of UPS
- Configurable UPS shutdown delay time
- Protects up to 3 computers
- Unattended graceful shutdown

Technical Specifications

Model	Mini Dry Contact Card
DEPLOYMENT	
Input Power	8-20 Vdc
Power Consumption	0.8 W
Operation Temperature	32 to 104°F (0 to 40°C)
Operation Humidity	10-80%
PHYSICAL	
Dimensions	2.68 x 1.69 inch (68 x 43 mm)
Net Weight	1.24 oz (35 g)

UPS Management - Connectivity

Modbus Card



Mini Modbus Card

Converts status and parameter data of your UPS to comply with the standard Modbus protocol

Functions and Features

- Enables UPS-PC communication via Modbus RTU
- Supports Modbus functions: read coils/discrete inputs, holding/input registers, write single coil/register
- Device ID can be set to any number between 0-255
- Adjustable communications interface termination resistance via DIP switch
- Modbus communications format: Supports RTU format
- Baud rate: 2400, 4800, 9600 or 19200
- Data bit: 7 or 8 (Applicable to Modbus card)
- Parity check: none, even or odd

Technical Specifications

Model	Modbus Card	Mini Modbus Card
DEPLOYMENT		
Input Power	8-14 Vdc	10-14 Vdc
Power Consumption	< 1.2 W	< 1.5 W
Operation Temperature	32 to 104°F (0 to 40°C)	32 to 122°F (0 to 50°C)
Operation Humidity	10-80%	5-95% (non-condensing)
COMMUNICATION INTERFACE		
Port	RS-232 x1(1), RS-485 x1, RS-422 x1	RS-232 x1, RS-485 x1
PHYSICAL		
Dimensions	5.12 x 2.36 inch (130 x 60 mm)	3.43 x 2.72 x 1.18 inch (87 x 69 x 30 mm)
Net Weight	5.29 oz (150 g)	2.06 oz (58.5 g)

(1) RS-232 can simultaneously be used with RS-485 or RS-422.

Relay I/O Card

Mini Relay I/O Card

Functions and Features

Output

- Programmable: 6 output relays can be configured to various UPS events respectively
- NC/NO: 6 output relays, each of them can be configured to either NC (Normal Close) or NO (Normal Open)

Input

- Programmable: The input signal can be configured to turn off the UPS or to issue a battery test command

Technical Specifications

Model	Relay I/O Card	Mini Relay I/O card
DEPLOYMENT		
Input Power	8-20 Vdc	9-15 Vdc
Power Consumption	< 1.2 W	< 3 W
Operation Temperature	32 to 104°F (0 to 40°C)	32 to 122°F (0 to 50°C)
Operation Humidity	10-80%	
PHYSICAL		
Dimensions	5.12 x 2.36 inch (130 x 60 mm)	3.43 x 2.72 x 1.18 inch (87 x 69 x 30 mm)
Net Weight	7.06 oz (200 g)	2.5 oz (70 g)

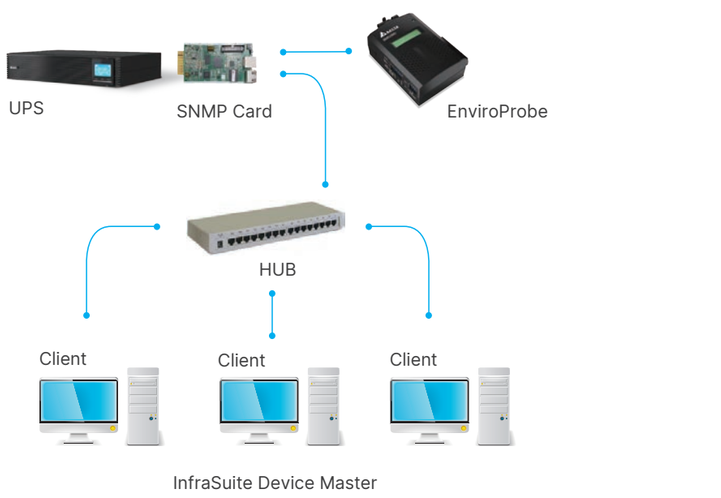
UPS Management - Connectivity

EnviroProbe

EnviroProbe monitors temperature, humidity in a single cabinet or area and transmits signals from environment sensor devices in the data center (e.g.: door sensors, smoke detectors, fire detectors, water-leakage detectors and others) to management via a network.

Functions and Features

- LCD display
- Ambient temperature & humidity monitoring and water-leakage detection
- Digital & analog input/output contacts for monitoring and controlling other devices
- InfraSuite Device Master software for remote monitoring and recording



Technical Specifications

Model	EMS1000	EMS1100	EMS1200
DEPLOYMENT			
Input	EMS2000 Delta-BUS or SNMP Card: 12 Vdc (pin 1 & 4) with PDU SNMP card: 5 Vdc (pin 2 & 4)		
Input/ Output Contacts	4 inputs (dry/wet)	4 digital outputs	2 analog inputs, 1 analog output and 1 water-leakage detection
Operation Temperature	32 to 140°F (0 to 60°C)	32 to 113°F (0 to 45°C)	
Storage Temperature	-22 to 176°F (-30 to 80°C)	32 to 140°F (0 to 60°C)	
Operation Humidity	0-90% ± 3% (non-condensing)		
PHYSICAL			
Dimensions (W x D x H)	2.6 x 1.3 x 3.9 inch (66 x 33 x 99 mm)	2.6 x 1.3 x 4.06 inch (66 x 33 x 103 mm)	
Net Weight	4.23 oz (120 g)	4.59 oz (130 g)	
CONFORMANCE			
Standard	EN55022 Class B, EN55024		
Product Certifications	CE, UL, cUL		
Sustainability	RoHS, REACH		

UPS Management - Software

Software		InfraSuite Device Master	UPSentry 2012	ShutdownAgent 2012
Communications Mechanism				
RS-232		●	●	
USB			●	
RS-485		●		
SNMP		●		●
Key Functions				
Shutdown OS			●	●
Centralized management		●		
Remote control		●	●	
Virtual machine shutdown	Hyper-v		●	●
	ESXi			●
Supported Operating Systems				
Windows		●	●	●
Linux			●	●

UPS Management - Software

UPSentry

Functions and Features

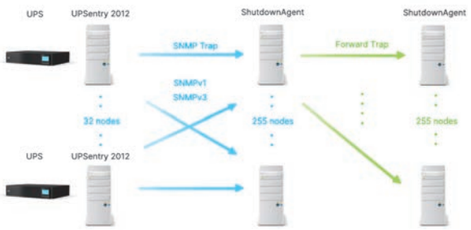
- Supports RS-232 and USB communication
- Provides web interface through HTTP and HTTPS
- Provides batch configuration to deploy settings with the snap of a finger
- Supports SNMP Trap v1, v2c, v3
- Supports SNMPv1, v3 server access for monitoring UPSentry 2012 status and configuring shutdown parameters
- Works with ShutdownAgent 2012 to protect a huge number of hosts
- Provides console configuration for basic system parameters setup
- Supports Windows and Linux 32/64 bits software programs

Supported Operating Systems

- Windows 7, 8, 10, 11
- Windows Server 2012, 2016, 2019
- Windows Hyper-V Server Core 2016/2019
- Redhat Linux Exterprise 8.3
- Oracle Linux 7.1
- Linux OpenSUSE 11.4
- Linux ubuntu 10.04, 12.04.5, 16.04, 20.04
- Citrix XenServer 6.0.0
- Linux KVM

Event Tracking

- Supports 10,000 event log entries
- Displays history values by a single date, month and year or a defined period of time
- Exports data in csv. file format
- Clears the history data and event logs on the web interface



Scheduling

- Supports scheduling shutdown, restart and battery test
- System power on/off
- 10 seconds test and deep discharge test

Shutdown Protection

- Input power fail
- Battery low
- Overload
- Bypass
- Schedule shutdown

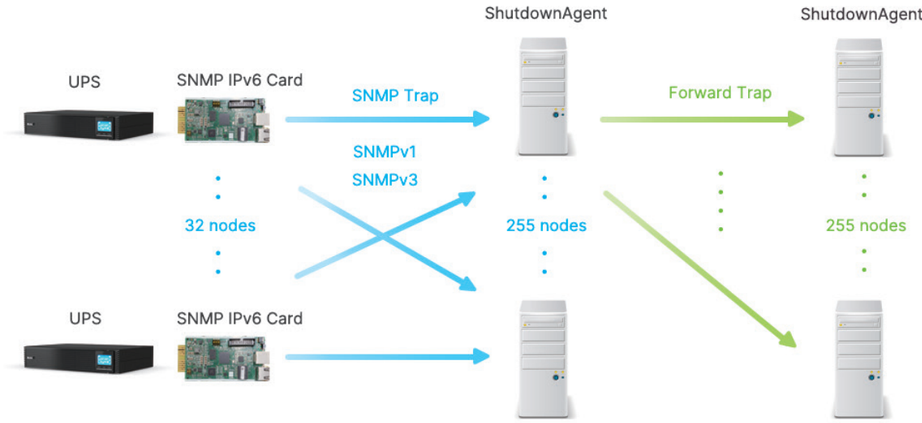
Web Interface

- Monitors UPS status through web interface
- System Summary: UPS identification, shutdown type, scheduling information and last five events log
- Battery: battery status, battery measurement, battery cabinet and replacement date
- In/Out/Bypass: Information on input measurement, bypass measurement and output measurement
- Identification: Information on identification and UPS rating
- Status Indication: Information on immediate UPS status indication
- Power Module: Information on power module bypass and power module ID1/2/3/4
- Shutdown Agent: Collect all of the ShutdownAgent 2012 which you have assigned to work with UPSentry 2012 to protect a group of servers
- Displays event log and history values

Shutdown Agent

Functions and Features

- Supports SNMPv1, v2c, v3 trap
- Provides web interface through HTTP and HTTPS
- Provides batch configuration to deploy settings with the snap of a finger
- Forwards SNMP trap to extend protecting more than 255 servers
- Supports up to 32 input trap sources for redundant (logical OR) and parallel (logical AND) application
- Provides console configuration for basic system parameters setup
- Supports Windows and Linux 32/64 bits setup programs



Supported Operating Systems

- Windows 7, 8, 10, 11
- Windows Server 2008, 2012, 2016, 2019, 2022
- Windows Hyper-V Server Core 2016/2019
- Redhat Linux Enterprise 8.3
- Oracle Linux 7.1
- Linux OpenSUSE 11.4
- Linux ubuntu 10.04, 12.04.5, 16.04, 20.04
- Linux Fedora 3.1.9
- VMWare ESXi 4.1, 5, 5.1, 5.5, 6, 7, 7.5, 8 (with essential license after version 5)
- Citrix XenServer 6.0.0
- Linux KVM
- IBM AIX 7.1

UPS Management - Software

Delta InfraSuite Device Master

InfraSuite Device Master provides a rich set of capabilities that simplify and automate critical device monitoring. It allows users to observe the status of all devices, query event logs or history data, and assists users in taking appropriate action. With cost effective deployment, this software solution is scalable to match your business growth.

Free to Download

InfraSuite Device Master is free to download with 5 nodes by default for monitoring your devices. Various infrastructure facilities such as power and cooling in a data center can be monitored.

Easy to Deploy

The download file is ready on the Delta Software website. InfraSuite Device Master is easy to install on your server or PC, with software designed for quick installation and implementation.

Real-Time Monitoring

Users can gather the latest status of critical facilities in a data center through the system screens of InfraSuite Device Master. InfraSuite Device Master also lets you view all of a site's device information, query history and events at the same time, even for multiple sites in different countries.

Migration to InfraSuite Manager (DCIM)

If you are not only looking for device monitoring but also a complete DCIM solution, InfraSuite Device Master is the quickest way of migrating to InfraSuite Manager, which is Delta's full feature DCIM software solution.

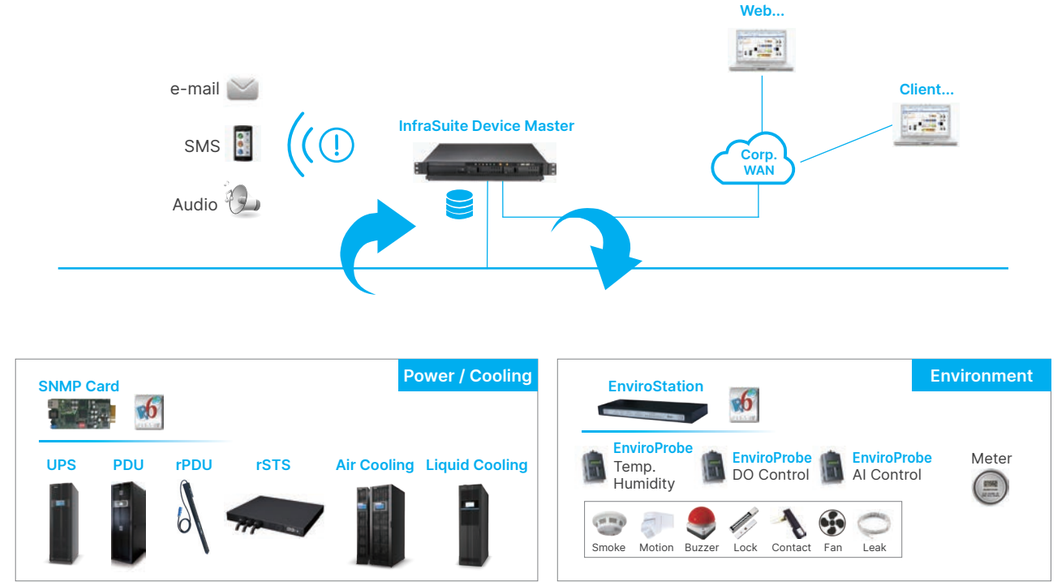


FIGURE 1. Delta InfraSuite Device Master Monitoring Application

Free Download

To download InfraSuite Device Master, go to:
https://www.deltaww.com/en-us/products/management-system/data-center-infrasuite-device-master

Product Features

Navigational Graphics

Navigational graphics of the InfraSuite Device Master are customizable. Users can design a floor layout using the provided components.

FIGURE 2. Navigational Graphics

Multiple Protocol Support

InfraSuite Device Master supports multiple device protocols, such as Modbus, SNMP and OPC.

Proactive Notification

Proactive notifications provide automated, personalized email, short messages, and audio to users.

User Account Management

Users can be classified into groups based on privilege levels. The job scope of each privilege level is defined by administrators. The jobs include the level of visible access to layout plans, device control and system operation.

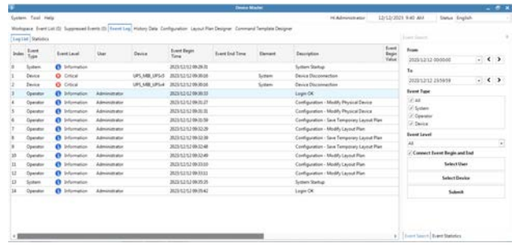


FIGURE 3. Event Log List

Event Management

InfraSuite Device Master has categorized event levels with 16 levels to help users take appropriate action accordingly. In addition, events can be queried by time, type, level and devices. InfraSuite Device Master records the system, operator and device events in its database where the user can review the events' status.

Data Storage and Backup

InfraSuite Device Master stores all history events and data into its database. Users may use this data for analysis. In addition, the database can be backed up automatically according to user preference.

System Requirements

	InfraSuite Device Master: Server	InfraSuite Device Master: Windows Application UI	InfraSuite Device Master: Web Monitor UI
Hardware	CPU: > 2 GHz Memory: ≥ 4 G Free HD Space: ≥ 50 G	CPU: > 2 GHz Memory: ≥ 4 G	CPU: > 2 GHz Memory: ≥ 4 G
Software	Supported OS: Windows 10, 11 Windows Server 2016, 2019, 2022	Supported OS: Windows 10, 11 Windows Server 2016, 2019, 2022	Recommended Browser: Google Chrome, Mozilla Firefox and Microsoft Edge.

Delta: Your Complete Data Center Solutions Provider

In the data center environment, reliable power distribution and efficient cooling are equally vital alongside high performance UPSs. Delta ensures excellence on every front, delivering uninterrupted power flow for optimal performance.

Power Management

Power Distribution Unit (PDU)

- Support for customization
- Robust resilience: adopts compartmentalized electrical components, redundant aux-power, K-factor isolation transformer
- Enhanced efficiency: uplevels natural convection cooling and DOE-compliant copper transformer
- Easy management: offers real-time & optional billing grade metering system

Rack Power Distribution Unit (rPDU)

- Basic, metered and switched types available (Support for customization)
- Space saving: supports Zero-U, vertical/horizontal, rear and side installation
- Effortless handling: uses network module for remote management

Busway

BL Series

- Rating: 250-5000 A. IP 68 certified, designed for outdoor use
- Crafted with vacuum-cast epoxy, ensures safety and reliability with copper or aluminum conductors for efficient power transmission
- IEC 61439, UL 857 certified

BR Series

- Rating: 250-1600 A. IP20 (IP55 optional) for white space use
- Uses epoxy cast resin for safety and reliability, with copper conductors exceeding 99.9% purity
- Hot-swappable plug-in units and successive plug-in slot
- IEC 61439, UL 857 certified

Static Transfer Switch (STS)

- Rating 200-800 A (Support for customization)
- Excellent reliability: provides redundant aux-power, control board and fan
- Easy maintenance: modular design offers full front access, top/bottom cable entry

Rack Static Transfer Switch (rSTS)

- 1-phase and 3-phase rPDUs with CE or UL certification
- Patented SCR with parallel relay enhances reliability without sacrificing efficiency

Cooling

Liquid Cooling

- Liquid-to-Liquid CDU
- Liquid-to-Air CDU
- Single-phase immersion cooling (Hydrocarbon)
- Two-phase immersion cooling

Air Cooling

- Rear door heat exchanger (RDHx)
- Room cooling
- In-row cooling

Rack & Accessories

Modular Rack

- Tool-less setup, smooth cable management with 70% perforation for heat dissipation
- Compliant with EIA-310-D rack standards
- Versatile accessories for organized data centers with customized service

Management System

Data Center Infrastructure Management (DCIM)

- Consolidates all aspects of facility and IT equipment management into one platform
- Integrates modules for data center operations, including asset and server management, PUE energy monitoring, and graphical analysis for energy optimization

About Delta Group

Leading expert in power management and thermal management solutions

Delta, founded in 1971, is a global provider of power and thermal management solutions. Its mission statement, "To provide innovative, clean and energy-efficient solutions for a better tomorrow," focuses on addressing key environmental issues such as global climate change. As an energy-saving solutions provider with core competencies in power electronics and automation, Delta's business categories include Power Electronics, Automation, and Infrastructure.

Delta offers some of the most energy-efficient power products in the industry, including switching power supplies with efficiency over 90%, telecom power with up to 98%, and PV inverters with up to 99.2% efficiency. We have also developed the world's first server power supply certified as 80 Plus Titanium.

Global Footprint

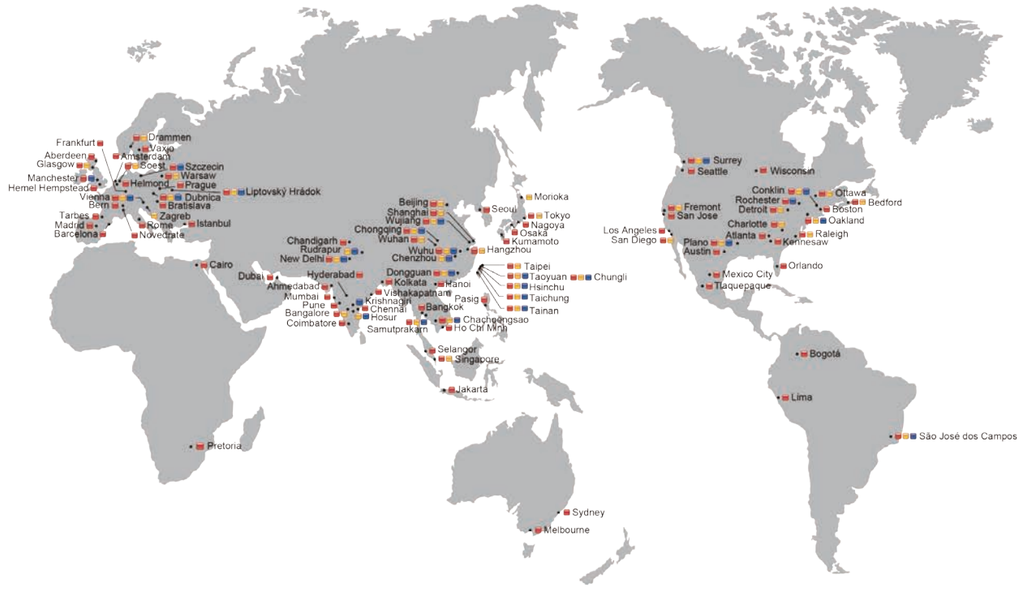
World's No. 1 in Switching Power Supplies, DC Brushless Fans and Telecom Power Systems.

157 sales offices and **51** manufacturing facilities worldwide.

Over **8%** of annual sales revenues invested in R&D with over **10,000** engineers in **73** R&D centers worldwide.

Awarded over **12,000** patents and received internationally recognized design awards including iF, Reddot, and the Taiwan Excellence awards.

	Asia-Pacific	Americas	EMEA	Total
Sales Offices	99	29	38	166
Plant Sites	40	6	6	52
R&D Centers	48	11	14	73



Americas

The United States
Delta Electronics (Americas) Ltd.
T +1 510 668 5100
E ups.na@deltaww.com

Brazil
Delta Electronics Brasil Ltda.
T +55 12 3932 2300
E ups.brazil@deltaww.com

Colombia
Delta Electronics Colombia SAS
T +57 317 4052794
E ups.colombia@deltaww.com

Peru
Delta Electronics (Peru) Inc. S.R.L.
T +51 962 834 287
E ups.peru@deltaww.com

Europe

The Netherlands (EMEA Headquarters)
Delta Electronics (Netherlands) BV
T +31 (0) 20 800 39 00
E ups.netherlands@deltaww.com

Czech Republic
Delta Energy Systems
T +420 272 019 330
E ups.czech.republic@deltaww.com

Finland
Delta Solutions (Finland) Oy
T +358 9 84966 0
E ups.finland@deltaww.com

France
Delta Electronics (France) SAS
T +33 5623 40930
E ups.france@deltaww.com

Germany
Delta Electronics (Germany) GmbH
T +49 69 42002 0
E ups.germany@deltaww.com

Poland
Delta Electronics (Poland) Sp. z.o.o.
T +48 22 335 26 00
E ups.poland@deltaww.com

Slovak Republic
Delta Electronics (Slovakia) s.r.o.
T +421 2 6541 1258
E ups.slovakia@deltaww.com

Switzerland
Delta Electronics (Switzerland) AG
T +41 31 998 53 11
E ups.switzerland@deltaww.com

Spain
Delta Electronics Solutions (Spain) SLU.
T +34 91223 7420
E ups.spain@deltaww.com

Turkey
Delta Greentech Electronic San. Ltd.
T +90 216 499 9910
E ups.turkey@deltaww.com

United Kingdom
Delta Electronics (UK) Ltd.
T +44 1442 219355
E ups.united.kingdom@deltaww.com

Middle-East & Africa

South Africa
Delta Energy Systems MEA (South Africa)
T +27 12 663 2714
E ups.south.africa@deltaww.com

United Arab Emirates
Delta Electronics MEA DMCC
T +971 44 440 4966
E ups.middle.east@deltaww.com

Asia Pacific

Australia
Delta Electronics (Australia) Pty Ltd.
T +61 2 9479 4200 / +61 3 9543 3720
E ups.australia@deltaww.com

China
Delta GreenTech (China) Co., Ltd.
T +86 21 5863 5678 / +86 21 5863 9595
E ups.china@deltaww.com

India
Delta Electronics India Pvt Ltd.
T +91 124 4874 900
E ups.india@deltaww.com

Indonesia
Delta Electronics International (S) Pte Ltd.
T +65 9667 4687
E ups.indonesia@deltaww.com

Japan
Delta Electronics (Japan), Inc.
T +81 3 5733 1111
E jpstps@deltaww.com

South Korea
Delta Electronics (Korea), Inc.
T +82 2 515 5303
E ups.south.korea@deltaww.com

Malaysia
E ups.malaysia@deltaww.com

Philippines
Eltek Power Inc./ Delta
E ups.philippines@deltaww.com

Singapore
Delta Electronics Int'l (Singapore)
T +65 6747 5155
E ups.singapore@deltaww.com

Taiwan
Delta Electronics Inc.
T +886 6 505 6565
E ups.taiwan@deltaww.com

Thailand
Delta Electronics (Thailand) Public Co., Ltd.
T +662 709 2800
E ups.thailand@deltaww.com

Vietnam
Delta Electronics (Vietnam) Ltd.
T +84 (0) 966 53 22 66
E ups.vietnam@deltaww.com

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