



# Delta UPS Solutions

All Power Ranges, One Trusted Source

**RTsystems**



[www.deltaww.com](http://www.deltaww.com)

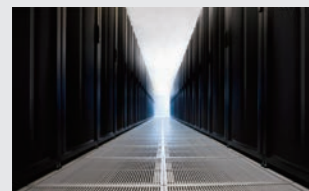
# Delta's UPS Systems Demonstrate the Power Behind Competitiveness

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 the mission critical systems, making it an indispensable 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



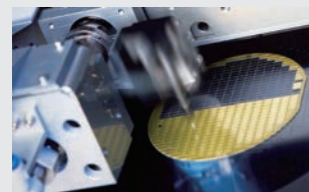
**Financial Services**  
 ATM  
 Customer Service Kiosks & E-trading  
 Server & Network Infrastructure  
 Security System



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



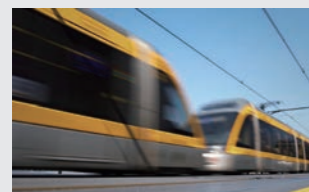
**Government**  
 Smart City & E-government Infrastructure  
 Surveillance & Security System  
 Public Safety System  
 Building Management System



**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

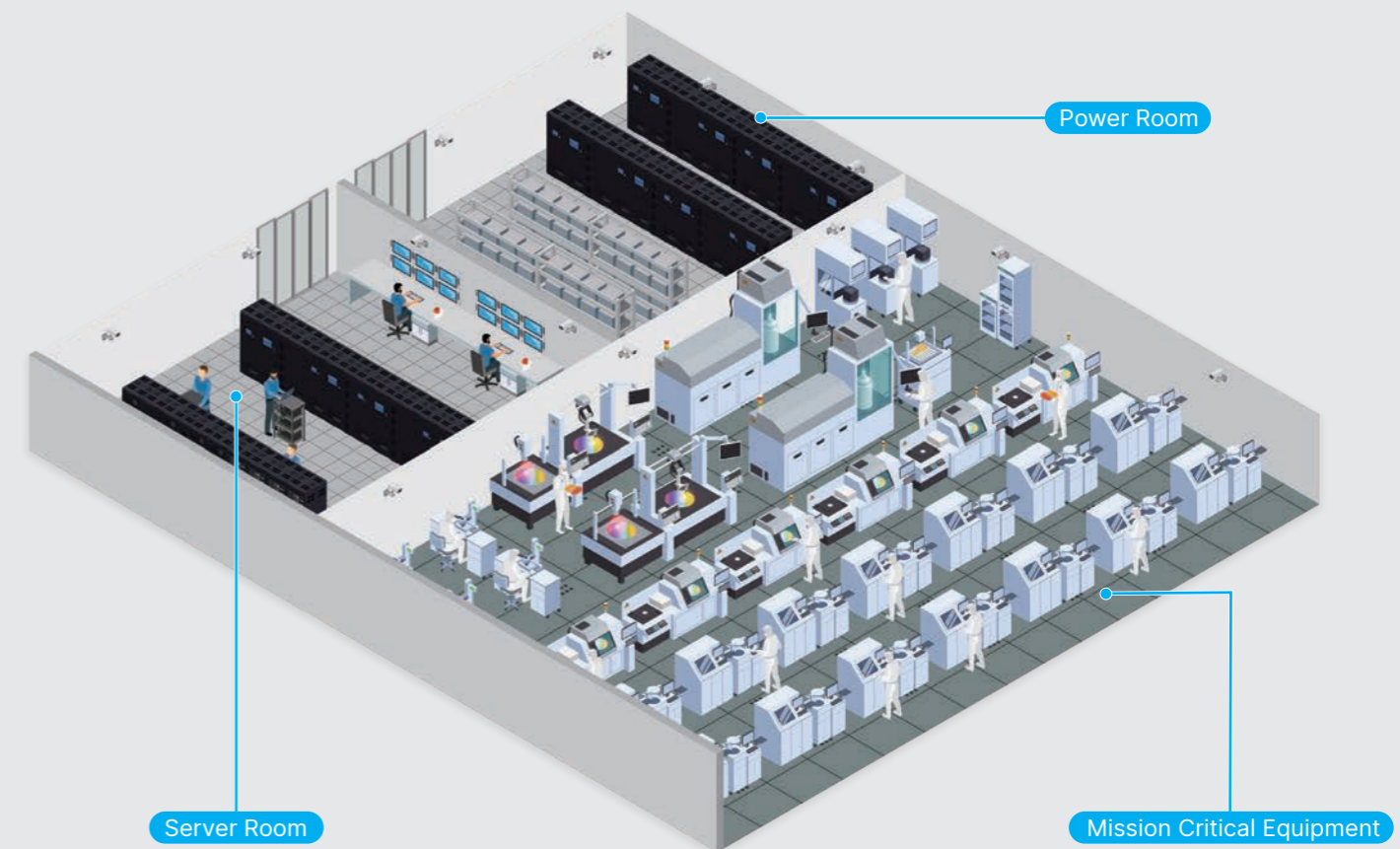


**Transportation**  
 Traffic Signalling & Crossing  
 Auto Ticketing & Fare Gate  
 Security & Monitoring System  
 IT Closet & Server Room



**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 in worldwide. Delta has 51 manufacturing facilities in Taiwan, China, Thailand, India, USA, Brazil, Slovakia and other locations.

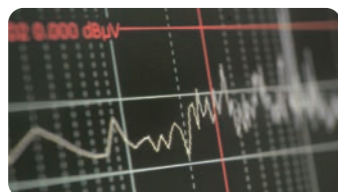


### Accredited laboratory

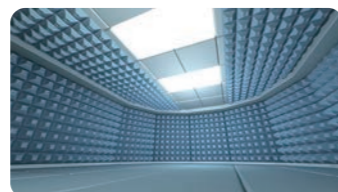
Delta's outstanding product design capability comes from our R&D team and its various precision measurement instruments. Our R&D centers utilize diverse advanced equipment and programs including CAD to facilitate circuit simulation, mechanical design, and PCB layout. Delta has well-equipped laboratories 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 lightning discharge

## Why Delta UPS?



### Quality

- **Mass Production Line with Reliable Quality Control:**  
We do things right and deliver the best at one go
- **Pass 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



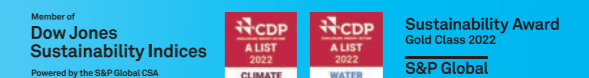
### Service

- **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





# 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      Industry      Enterprise Data Center      Hyperscale Data Center

Line-interactive		On-line							
1-phase		3-phase							
VX 0.6-1.5 kVA	MX 1.1-3 kVA	N 1-3 kVA 6-10 kVA	RT 1-3 kVA 5-20 kVA	HPH 20-200 kVA	NT 20-500 kVA	DPH 20-200 kVA	DPH 50-600 kVA	DPS 300-1200 kVA	DPM 250-1750 kVA

## Product Matrix

Series	Topology	Configuration	Form	Battery	Page	
<b>Agilon Family Under 1.5 kVA</b>						
	VX Series 0.6-1.5 kVA	Line-interactive	1:1	Tower	Internal	7-8
<b>Amplon Family 1 to 20 kVA</b>						
	MX Series 1.1-3 kVA	Line-interactive	1:1	Rackmountable Tower	Internal	9-10
	N Series 1-3 kVA (Gen3) 6-10 kVA	On-line	1:1	Tower	Internal External	11-14
	RT Series 1-3 kVA (Gen3) 1-3 kVA (Pro)	On-line	1:1	Rackmountable Tower	Internal External	15-18
	RT Series 5-20 kVA	On-line	1:1 (5-10 kVA) 3:1, 3:3 (10-20 kVA)	Rackmountable Tower	External	19-20
<b>Modulon Family 20 to 600 kVA</b>						
	DPH Series 20-200 kVA	On-line	3:3	Modular	Internal (80k) External	21-24
	DPH Series 50-600 kVA	On-line	3:3	Modular	External	25-26
<b>Ultron Family 20 to 1700 kVA</b>						
	HPH Gen2 Series 20-40 kVA	On-line	3:3	Monolithic	Internal (BN/B) External	27-28
	HPH Series 60-200 kVA	On-line	3:3	Monolithic	External	29-32
	NT Series 20-500 kVA (Transformer-based)	On-line	3:1, 3:3	Monolithic	External	33-34
	DPS Series 300-1200 kVA	On-line	3:3	Monolithic	External	35-36
	DPM Gen2 Series 250-1750 kVA	On-line	3:3	Monolithic	External	37-38

# Delta UPS – Agilon Family

## VX Series, Single-Phase 600/1000/1500 VA

The Agilon VX series line-interactive UPS designed with microprocessor control offers reliable and cost-effective power protection for PCs, monitors, POS, and other sensitive electronics used in home offices and small businesses. The integrated Automatic Voltage Regulation (AVR) ensures all electronics are receiving stable power while providing higher availability. The Agilon VX series' LCD display, auto-shutdown software and other superior features make these units perfect for your data protection.



### Reliability

- The integrated AVR (Automatic Voltage Regulation) stabilizes the output voltage for better power quality
- Excellent microprocessor control enables accurate detection of power frequency for higher reliability
- Wide input voltage range allows the UPS to work in harsh electrical environments and reduces battery discharging time
- Batteries automatically recharge even when the UPS is in off mode and the UPS can start without mains (Cold-Start)
- UPS restarts automatically while utility power is recovering
- Surge protection defends your critical load against damage

### Convenience

- Several standard IEC 320 output sockets simplify the connectivity to computer and IT peripherals
- Compact size saves more space for critical equipment

### Manageability

- Standard USB communication port enhances monitoring and manageability
- Touch screen LCD for a clear display of UPS information (Only applicable for LCD models)
- Advanced UPS management software provides remote shutdown and control

#### Applicable Sectors



SME



Retail

### Technical Specifications

Model	VX-600VA	VX-1000VA	VX-1500VA
Topology	Line interactive		
Power Rating	600 VA 360 W	1000 VA 600 W	1500 VA 900 W
<b>INPUT</b>			
Nominal Voltage	230 Vac, 1P2W+PE		
Voltage Range	170-280 Vac (100% load)		
Frequency Range	45-65 Hz		
Plug Type <sup>(1)</sup>	IEC		
<b>OUTPUT</b>			
Nominal Voltage	230 Vac, 1P2W+PE		
Voltage Regulation	±10%		
Frequency	50/60 ± 1 Hz		
Power Factor	0.6		
Connection <sup>(2)</sup>	EMEA Model SEA Model	IEC C13 x4	IEC C13 x6 IEC C13 x4
Overload Capability	110 ± 10%: < 5 mins		
<b>EFFICIENCY</b>			
Online Mode	Up to 95%		
<b>BATTERY</b>			
Battery Type	VRLA		
Nominal Voltage	12 Vdc	24 Vdc	
Quantity	1 pcs	2 pcs	2 pcs
Runtime <sup>(3)</sup>	EMEA Model SEA Model	5.7 mins 5 mins	6.8 mins 5.5 mins
Recharge Time	6-8 hours to 90%		
<b>COMMUNICATION INTERFACE</b>			
Display	EMEA Model SEA Model	LCD touch panel LED indicator	LCD touch panel
Port	USB		
Audible Alarm	Battery mode, Low battery, Overload, Fault		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	101 x 279 x 142 mm	130 x 320 x 182 mm	
Net Weight	EMEA Model SEA Model	4.4 kg 4.2 kg	8.2 kg 9.7 kg
Packing Dimensions (W x D x H)	140 x 344 x 220 mm		192 x 390 x 275 mm
Packing Weight	EMEA Model SEA Model	4.7 kg 4.5 kg	11.1 kg 10.4 kg
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 40°C		
Humidity	0-95% (non-condensing)		
Audible Noise	< 40 dBA		< 45 dBA
Altitude	0-1000 m		
Storage Temperature	-20 to 50°C		
Ingress Protection Level	IP20		
<b>CONFORMANCE</b>			
Safety	CE, UKCA, EAC, TISI, RCM, BIS, KC		
Sustainability	RoHS, REACH		

(1) Models with Australian, Korean, Indian, and Schuko input plugs are also available

(2) Options include Schuko, AU and IN output connections

(3) Runtime with 50% load

All specifications are subject to change without prior notice.

# Delta UPS – Amplon Family

## MX Series, Single-Phase 1.1/2/3 kVA

The Amplon MX line-interactive UPS provides pure sine-wave quality compatibility for versatile application to protect devices and prevent small-and-medium businesses from power failure and voltage variations all in a small footprint. The Amplon MX series features enhanced output power factor 0.9, and AVR efficiency up to 96.5%, resulting in a greater power supply for critical loads at significantly less operating cost.



### Availability

- Microprocessor-based line interactive design for fast response to power disturbances
- Programmable outlet disconnects non-critical loads when a blackout occurs and reserves more battery power for critical loads
- Automatic voltage regulator (AVR) delivers stable output voltage during brownouts or over-voltages
- Wide input voltage range allows the UPS to work in harsh electrical environments
- Hot-swappable battery design protects equipment during battery replacement

### Flexibility

- Supports both rack and tower installation
- Excellent management through a user-friendly graphical and easy-shift LCD display to suit different installation formats
- Supports multiple communication interfaces, including USB port, RS-232, Mini Slot, Surge Protection, and REPO for enhanced monitoring and manageability

### Low Total Cost of Ownership

- Output power factor is up to 0.9 to provide more real power to critical loads
- Delivers up to 98.5% efficiency at full load in normal operating mode
- Wide input range and protection against over voltage prolongs battery life

Applicable Sectors



IT



Financial



Government



SME



Retail

## Technical Specifications

Model	MX-1.1K	MX-2K	MX-3K
Topology	Line interactive		
Waveform	Sinewave		
Power Rating	1.1 kVA 0.99 kW	2 kVA 1.8 kW	3 kVA 2.7 kW
<b>INPUT</b>			
Nominal Voltage	200/ 208/ 220/ 230(default)/ 240 Vac, 1P2W+PE		
Voltage Range	170-280 Vac <sup>(1)</sup>		
Frequency Range	45-65 Hz		
Connection	IEC C14	IEC C20	
<b>OUTPUT</b>			
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE		
Voltage Regulation	±1.5%		
Frequency	50/60 ± 1 Hz		
Total Harmonic Distortion (THDv)	< 2% (linear load); < 5% (non-linear load)		
Power Factor	0.9		
Connection	Programmable outlet IEC C13 x4, Non-programmable outlet IEC C13 x4		Programmable outlet IEC C13 x4, Non-programmable outlet IEC C13 x4, IEC C19 x1
Overload Capability	< 103%: continues; 103-120%: 5 mins; 120-150%: 10 secs		
Current Crest Ratio	3:1		
<b>EFFICIENCY</b>			
Normal Mode	98%	98.3%	98.5%
AVR Mode	95.5%	96.5%	
<b>BATTERY</b>			
Battery Type	VRLA		
Nominal Voltage	24 Vdc	48 Vdc	72 Vdc
Quantity	2 pcs	4 pcs	6 pcs
Runtime	100% Load 75% Load	2.7 mins 5 mins	3.4 mins 6.1 mins
Recharge Time	4 hours to 90%		
<b>COMMUNICATION INTERFACE</b>			
Display	LCD display with LED indicators		
Port	USB, RS-232, Mini slot, REPO, Surge protection		
Audible Alarm	Battery mode, Low battery, Battery missing/replacement, Overload, Fault, EPO enable, Over temperature		
Emergency Power Off	Yes		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	438 x 410 x 88 mm	438 x 510 x 88 mm	438 x 630 x 88 mm
Net Weight	14.1 kg	21.3 kg	32.1 kg
Packing Dimensions (W x D x H)	500 x 560 x 180 mm	565 x 700 x 200 mm	600 x 760 x 200 mm
Packing Weight	16.1 kg	29.7 kg	35.3 kg
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 40°C (without derating)		
Humidity	20-90% (non-condensing)		
Audible Noise <sup>(2)</sup>	< 45 dBA		
Altitude	0-3000 m (without derating)		
Storage Temperature	-20 to 50°C		
Ingress Protection Level	IP20		
<b>CONFORMANCE</b>			
Safety	CE, UKCA, TISI, RCM		
Sustainability	RoHS, REACH		

(1) 200 V: 150-234 Vac, 208 V: 156-243 Vac, 220 V: 162-268 Vac, 240 V: 177-290 Vac

All specifications are subject to change without prior notice.

# Delta UPS – Amplon Family

## N Gen3 Series, Single-Phase 1/2/3 kVA

The Amplon N Gen3 Series 1-3 kVA is an online double-conversion uninterruptible power system (UPS) in a best-in-class compact size tower design. It supplies clean sine-wave input power for IT and other sensitive equipment and prevents work interruption, data loss or equipment damage from voltage sags, spikes, harmonic distortion and other power failures.



### High Availability

- Output power factor 0.9 provides more wattage to critical loads
- True online double-conversion topology and zero transfer time to battery mode
- Generator compatibility ensures clean, uninterrupted power to the loads during an extended power outage

### Green with Low TCO

- Capable of working in harsh electrical environments with wide I/P voltage range to minimize battery usage
- Excellent overload capacity allows the overload condition to continue within the timeframe
- AC-AC efficiency up to 90%, and ECO mode efficiency up to 95% for better energy savings

### Easy Management

- The intuitive LCD display provides UPS status information with the ability to configure locally
- Supports multiple communication interfaces, including USB port, RS-232 port and Mini slot (option for mini SNMP, mini Modbus and mini relay I/O card) for remote monitoring and configuration
- Battery self-test function ensures early detection of the battery status when batteries need to be replaced

#### Applicable Sectors



IT



Telecom



Industrial



Transportation



Financial



Government



SME



Retail

### Technical Specifications

Model	NX-1K	NX-2K	NX-3K
Topology	Online double-conversion		
Power Rating	1 kVA 0.9 kW	2 kVA 1.8 kW	3 kVA 2.7 kW
<b>INPUT</b>			
Nominal Voltage	220/ 230 Vac, 1P2W+PE		
Voltage Range	180-285 Vac (100% load); 120-180 Vac (with derating to 60-100% load)		
Frequency Range	40-70 Hz		
Power Factor	> 0.99 (100% load)		
Connection	IEC C14		IEC C20
<b>OUTPUT</b>			
Nominal Voltage	208 <sup>(1)</sup> / 220/ 230/ 240 Vac, 1P2W+PE		
Voltage Regulation	±1%		
Frequency	50/60 ± 3 Hz		
Total Harmonic Distortion (THDv)	≤ 3% (linear load)		
Power Factor	0.9		
Connection	IEC C13 x4		IEC C13 x4 + Terminal
Overload Capability	≤ 105%: continuous; 106-110%: 10 mins.; 111-130%: 30 secs; 131-150%: 3 secs		
Current Crest Ratio	3:1		
<b>EFFICIENCY</b>			
Online Mode	Up to 90%		
ECO Mode	Up to 95%		
<b>BATTERY</b>			
Battery Type	VRLA		
Nominal Voltage	24 Vdc	48 Vdc	72 Vdc
Quantity	2 pcs	4 pcs	6 pcs
Runtime	100% Load 70% Load	3.1 mins 6.1 mins	3.3 mins 6.5 mins
Charge Current	1 A		
<b>COMMUNICATION INTERFACE</b>			
Display	LCD display with LED indicators		
Port	USB, RS-232, Mini slot		
Audible Alarm	Battery mode, Low battery, Overload, Fault, Bypass mode		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	145 x 282 x 220 mm	145 x 492 x 220 mm	190 x 421 x 318 mm
Net Weight	9.2 kg	16.8 kg	27 kg
Packing Dimensions (W x D x H)	230 x 360 x 325 mm	230 x 590 x 355 mm	320 x 560 x 460 mm
Packing Weight	10.3 kg	18.6 kg	28.4 kg
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 50°C (40 to 50°C de-rating to 70% load)		
Humidity	20-90% (non-condensing)		
Audible Noise <sup>(2)</sup>	< 45 dBA		
Altitude	0-4000 m (derating 1%/100 m from 1000-4000 m)		
Storage Temperature	-20 to 50°C		
Ingress Protection Level	IP20		
<b>CONFORMANCE</b>			
Safety	CE, UKCA, TISI, RCM, KC		
EMC	IEC 62040-2		
Sustainability	RoHS, REACH		

(1) De-rating to 70% load

(2) Audible noise test with UPS < 75% load at 25°C in online mode

All specifications are subject to change without prior notice.



# Delta UPS – Amplon Family

## N Series, Single-Phase 6/10 kVA

The Amplon N series 6-10 kVA UPS is a single-phase on-line UPS with pioneering technology that provides output power factor up to unity and AC-AC efficiency to a maximum 95%. Its remarkably compact dimensions reserve more room for critical equipment such as workstations, POSs, ATMs, office appliances, small server rooms, and production equipment. The Amplon N series superior features include a N+X parallel redundancy function and variable fan speed control to guarantee high system availability and best Total Cost of Ownership (TCO).



### The Most Compact Design and Best TCO

- The smallest dimensions in its class saves significant space for more critical equipment
- A pioneer in unity power factor (kVA=kW) to maximize power availability
- The highest AC-AC efficiency up to 95% and efficiency of 98% in ECO mode for exceptional energy cost savings
- Automatic speed regulation function with multi-stage fan speed control to maximize system efficiency, significantly reduce audible noise, and prolong the service life of the fans

### High Availability

- True online double-conversion topology and zero transfer time to battery to ensure high reliability
- Parallel configuration for expansion and N+X redundancy up to 4 units
- Advanced DSP (Digital Signal Processor) controller for fast computation capabilities and a simplified control circuit for enhanced stability
- Generator compatibility to ensure continuous and reliable power

### Intelligent Management

- Excellent local communications through user-friendly LCD display and LED indicators
- Intelligent battery management to maximize battery performance and extend battery life
- Various types of communication interfaces for monitoring and manageability

Applicable Sectors



IT



Telecom



Industrial



Transportation



Financial



Government



SME



Retail

## Technical Specifications

Model	N-6K	N-10K
Topology	Online double-conversion	
Power Rating	6 kVA 6 kW	10 kVA 10 kW
Parallel Configuration	Up to 4 units	
<b>INPUT</b>		
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE	
Voltage Range <sup>(1)</sup>	195-280 Vac (100% load); 100-195 Vac (with derating to 50-100% load)	
Frequency Range	40-70 Hz	
Total Harmonic Distortion (THDi)	< 3%	
Power Factor	≥ 0.99 (100% load)	
Connection	Terminal	
<b>OUTPUT</b>		
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE	
Voltage Regulation	±1%	
Frequency	50/60 ± 0.5 Hz	
Total Harmonic Distortion (THDv)	< 2% (linear load); < 5% (non-linear load)	
Power Factor	1	
Connection	Terminal	
Overload Capability	< 105%: continues; 105-125%: 2 mins; 126-150%: 30 secs	
Current Crest Ratio	3:1	
<b>EFFICIENCY</b>		
Online Mode	Up to 95%	
Eco Mode	Up to 98%	
<b>BATTERY</b>		
Battery Type	VRLA	
Nominal Voltage	240 Vdc <sup>(2)</sup>	
Quantity	16-22 pcs	
Charge Current	1.5-8 A (selectable)	
<b>COMMUNICATION INTERFACE</b>		
Display	LCD display with LED Indicators	
Port	USB, RS-232, Smart slot, REPO	
Audible Alarm	Battery mode, Low battery, Battery missing/replacement, Overload, Fault	
Emergency Power Off	Yes	
<b>PHYSICAL</b>		
Dimensions (W x D x H)	190 x 390 x 325 mm	
Net Weight	10.1 kg	12.7 kg
Packing Dimensions (W x D x H)	300 x 500 x 443 mm	
Packing Weight	13 kg	15.2 kg
<b>ENVIRONMENT</b>		
Operating Temperature	0 to 55°C (45 to 55°C de-rating to 80% load)	
Humidity	5-95% (non-condensing)	
Audible Noise	< 50 dBA	
Altitude	0-1000 m	
Storage Temperature	-15 to 55°C	
Ingress Protection Level	IP20	
<b>CONFORMANCE</b>		
Safety	CE, UKCA, TISI, RCM, BIS, KC	
EMC	IEC 62040-2	
Sustainability	RoHS, REACH	

(1) 200/ 208 V: 176-280 Vac (90% load), 100-174 Vac (with derating to 40-90% load)

(2) KR model battery default voltage is 192 Vdc

All specifications are subject to change without prior notice.



# Delta UPS – Amplon Family

## RT Gen3 Series, Single-Phase 1/2/3 kVA

Delta's Amplon RT series UPS is a robust online double-conversion UPS offering strong power protection with a convertible rack and tower configuration in 2U size. With its clean output power in pure sine wave, RT Gen3 can handle a wide range of utility problems, from blackout to harmonic distortion. Rest assured that your device is always fortified and safeguarded with RT Gen3!



### High Availability

- True online double-conversion topology and zero transfer time to battery mode
- Operates at up to 50°C adapting to various environments
- Excellent overload capacity allows the overload condition to continue within the timeframe

### Green with Low TCO

- Output power factor 0.9 provides more capacity to load
- Up to 90% online mode efficiency and 95% ECO mode efficiency contributes to significant energy cost savings
- Capable of working in harsh electrical environments with a wide input voltage range to minimize battery usage

### Easy Management

- Convertible rack and tower configuration with rotatable LCD screen
- LCD display and intuitive interface offer effortless monitoring and configuration
- Excellent local communications through rotatable LCD display
- Intelligent management software connectivity via RS-232, mini slot or USB port for remote monitoring and setting

#### Applicable Sectors



IT



Telecom



Industrial



Transportation



Financial



Government



SME



Retail

### Technical Specifications

Model	RT-1K	RT-2K	RT-3K		
Topology	Online double-conversion				
Power Rating	1 kVA 0.9 kW	2 kVA 1.8 kW	3 kVA 2.7 kW		
<b>INPUT</b>					
Nominal Voltage	208 <sup>(1)</sup> / 220/ 230/ 240 Vac, 1P2W+PE				
Voltage Range	180-280 Vac (100% load); 120-180 and 280-300 Vac (with derating to 50-100% load)				
Frequency Range	40-70 Hz				
Power Factor	≥ 0.99 (100% load)				
Connection	IEC C14		IEC C20		
<b>OUTPUT</b>					
Nominal Voltage	208 <sup>(1)</sup> / 220/ 230/ 240 Vac, 1P2W+PE				
Voltage Regulation	±1%				
Frequency	50/60 ± 3 Hz				
Total Harmonic Distortion (THDv)	< 3% (linear load)				
Power Factor	0.9				
Connection	IEC C13 x4	IEC C13 x4 + IEC C19 x1			
Overload Capability	105-109%: 10 mins; 110-129%: 30 secs; 130-149%: 3 secs; ≥ 150%: 0.5 secs				
Current Crest Ratio	3:1				
<b>EFFICIENCY</b>					
Online Mode	88%		90%		
ECO Mode	93%	94%	95%		
<b>BATTERY</b>					
Battery Type	VRLA				
Nominal Voltage	Standard <sup>(2)</sup> Extended <sup>(2)</sup>	24 Vdc 36 Vdc	48 Vdc 72 Vdc	72 Vdc	
Runtime	Standard	100% Load 70% Load	3.1 mins 6.1 mins	3.3 mins 6.5 mins	3.5 mins 6.9 mins
Parallel Configuration	Extended	Up to 4 EBCs			
Charge Current	Standard Extended	1 A 1/ 2/ 4/ 6 A (configurable)			
<b>COMMUNICATION INTERFACE</b>					
Display	LCD display with LED indicators				
Port	USB, RS-232, Mini slot (option for mini SNMP, mini Modbus and mini relay I/O card)				
<b>PHYSICAL</b>					
Dimensions (W x D x H)	Standard Extended	438 x 310 x 86 mm 438 x 310 x 86 mm	438 x 410 x 86 mm 438 x 410 x 86 mm	438 x 630 x 86 mm 438 x 460 x 86 mm	
Net Weight	Standard Extended	10.6 kg 5.7 kg	17.9 kg 8.4 kg	26.6 kg 8.9 kg	
Packing Dimensions (W x D x H)	Standard Extended	600 x 500 x 240 mm 600 x 500 x 240 mm	565 x 700 x 240 mm 565 x 700 x 240 mm	600 x 760 x 240 mm 545 x 760 x 240 mm	
Packing Weight	Standard Extended	13.9 kg 9.4 kg	22 kg 12.8 kg	31.5 kg 13.3 kg	
<b>ENVIRONMENT</b>					
Operating Temperature	0 to 50°C (40 to 50°C de-rating to 70% load)				
Humidity	10-90% (non-condensing)				
Audible Noise <sup>(2)</sup>	≤ 50 dBA				
Altitude	0-3000 m (derating 1%/100 m from 2000-3000 m)				
Ingress Protection Level	IP20				
<b>CONFORMANCE</b>					
Safety	CE, UKCA, KC				
EMC	IEC 62040-2				
Sustainability	RoHS, REACH				

(1) De-rating to 70% load

(2) Standard model: built-in batteries; Extended model: capability to add external battery packs

All specifications are subject to change without prior notice.

# Delta UPS – Amplon Family

## RT Pro Series, Single-Phase 1/2/3 kVA

Introducing Delta RT Pro UPS, a top-tier high-performance online double-conversion solution featuring industry-leading AC-AC efficiency, unity power factor, and superior flexibility, all in a compact 2U size. Engineered to safeguard your critical applications from diverse power challenges, RT Pro ensures a resilient power foundation, paving the way for continuous business success and growth!



### Power More from Less

- Unity power factor (kVA=kW), provides maximum power for your facility
- Industry leading AC-AC efficiency up to 94.3% and ECO mode efficiency up to 99% offer significant energy cost savings
- Extends battery lifespan through reduced usage with wide 120-280V input range and a smart 3-stage battery charge mechanism

### Superior Flexibility

- Two programmable outlets group for power-cycling and optimize battery runtime for most critical applications
- Easily scales for longer backup time with optional external battery pack
- REPO/ROO enables remote shutdown and restart during accidents to ensure safety
- Integrated dry-contacts with user-selectable definition
- Convertible rack and tower configuration with rotatable LCD screen

### Easy Management

- CE and UL certified, streamlines global models and service management for multinational operations
- LCD display and intuitive interface offer effortless monitoring and configuration
- Intelligent management software connectivity via RS-232, USB, or mini slot port for remote monitoring and setting

#### Applicable Sectors



IT



Telecom



Industrial



Transportation



Financial



Government



SME



Retail

## Technical Specifications

Model	RT Pro-1K	RT Pro-2K	RT Pro-3K
Topology	Online double-conversion		
Power Rating	1 kVA 1 kW	2 kVA 2 kW	3 kVA 3 kW
<b>INPUT</b>			
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE		
Voltage Range	175-280 Vac (100% load); 120-175 Vac (with derating to 70-100% load) <sup>(1)</sup>		
Frequency Range	40-70 Hz		
Power Factor	0.99 (100% load)		
Connection	IEC C14	IEC C20	
<b>OUTPUT</b>			
Nominal Voltage	200 <sup>(2)</sup> / 208 <sup>(2)</sup> / 220/ 230/ 240 Vac, 1P2W+PE		
Voltage Regulation	±3% (linear load)		
Frequency	50/60 ± 0.05 Hz		
Total Harmonic Distortion (THDv)	≤ 2% (linear load)		
Power Factor	1		
Connection	IEC C13 x2, Programmable IEC C13 x2 x2 groups	IEC C13 x2, IEC C19 x1, Programmable IEC C13 x2 x2 groups	
Overload Capability	< 105% continuous; 105-125%: 1 min ± 5 secs; 126-150%: 15 ± 3 secs; 151-155%: 0.1 secs		
Current Crest Ratio	3:1		
<b>EFFICIENCY</b>			
Online Mode	93.5%	94%	94.3%
ECO Mode	99%		
<b>BATTERY</b>			
Battery Type	VRLA		
Nominal Voltage	24 Vdc	48 Vdc	72 Vdc
Quantity	2 pcs	4 pcs	6 pcs
Runtime	100% Load 70% Load	2.4 mins 4.6 mins	2.5 mins 4.9 mins
Charge Current	Up to 2.5 A		
<b>COMMUNICATION INTERFACE</b>			
Display	LCD display with LED indicators		
Port	USB, RS-232, REPO, Mini Slot, Input dry contact x1, Output dry contact x3		
REPO (Emergency Power Off)	Standard		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	440 x 335 x 88 mm	440 x 430 x 88 mm	440 x 565 x 88 mm
Net Weight	11.7 kg	21 kg	28 kg
Packing Dimensions (W x D x H)	484 x 579 x 220 mm	594 x 508 x 220 mm	605 x 1005 x 220 mm
Packing Weight	18 kg	28.8 kg	38 kg
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 55°C <sup>(3)</sup>		
Humidity	5-95% (non-condensing)		
Audible Noise <sup>(4)</sup>	< 40 dBA		
Altitude	0-3,000 m (derating 1%/100 m from 1,000-3,000 m)		
Ingress Protection Level	IP20		
<b>CONFORMANCE</b>			
Safety	CE, UL, cUL, RCM, UKCA		
EMC	IEC 62040-2		
Sustainability	RoHS, REACH		

(1) 200/ 208 Vac: 160-280 Vac (100% load); 120-160 Vac (with derating to 70-100% load)

(2) Derating to 90% load

(3) 40 to 50°C de-rating to 90% load; 50 to 55°C de-rating to 75% load

(4) ECO mode at front side 1 meter

All specifications are subject to change without prior notice.

# Delta UPS – Amplon Family

## RT Series

### Single-Phase 5/6/8/10 kVA, Three-Phase 10/15/20 kVA

Introducing the Amplon RT Series 5-20 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 Breaker 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

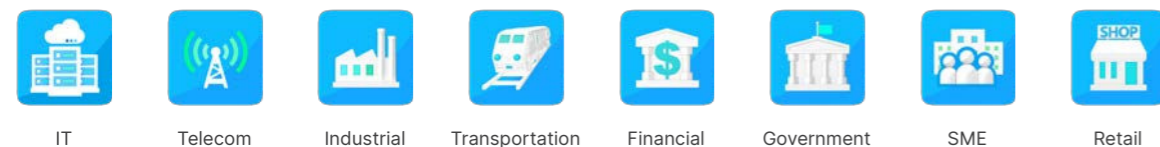
#### Availability and Flexibility

- Unity output power factor ensures no de-rating with loads
- Up to 4 units parallel capacity for redundancy and load expansion
- Programmable load bank disconnects non-critical loads during blackouts, saving battery power for critical loads
- VRLA and Li-ion External Battery Cabinet (EBC) for scalable runtime
- Extended Runtime models support flexible battery quantity, reducing maintenance costs
- The Power Distribution Box (PDB) and Maintenance Bypass Breaker (MBB) come standard with RT 5-10 kVA 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

#### Applicable Sectors



## Technical Specifications

Model	RT-5K	RT-6K	RT-8K	RT-10K	RT-10K-3P	RT-15K-3P	RT-20K-3P	
Topology	Online double-conversion							
Power Rating	5 kVA 5 kW	6 kVA 6 kW	8 kVA 8 kW	10 kVA 10 kW		15 kVA 15 kW	20 kVA 20 kW	
Parallel Configuration	Up to 4 units							
<b>INPUT</b>								
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE				380/ 400/ 415 Vac, 3P4W+PE			
Voltage Range	175-280 Vac (100% load); 100-175 Vac (with derating to 50-100% load)				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				Input terminal x1, Bypass input terminal x1			
<b>OUTPUT</b>								
Nominal Voltage	200/ 208/ 220/ 230/ 240 Vac, 1P2W+PE				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	Standard <sup>(2)</sup>	C13 x6, C19 x2, Terminal x1 Programmable C19 outlet x1		C13 x6, C19 x4, Terminal x1 Programmable C19 outlet x1		Terminal x1		
	Extended <sup>(2)</sup>	Terminal x1, Programmable terminal x1						
Overload Capability	106-125%: 2 mins; 126-150%: 1 min; > 150%: 500 ms				106-125%: 2 mins; 126-150%: 30 secs; > 150%: 200 ms			
Current Crest Ratio	3:1							
<b>EFFICIENCY</b>								
Online Mode	Up to 95.5%				Up to 96%		Up to 96.5%	
Eco Mode	Up to 99%							
<b>BATTERY</b>								
Battery Type	VRLA/ Lithium-ion							
Nominal Voltage	Standard	192 Vdc	240 Vdc		144 <sup>(1)</sup> , 192-264 Vdc		±144 <sup>(1)</sup> , ±192-±264 Vdc	
	Extended	144 <sup>(1)</sup> , 192-264 Vdc						
Charge Current	Standard	1 A (default), up to 8 A		1.5 A (default), up to 8 A		Up to 8 A		
	Extended	Up to 8 A						
<b>COMMUNICATION INTERFACE</b>								
Display	Graphical LCD display with LED indicators							
Port	USB, RS-485, Mini Slot, REPO, Input dry contact x1, Output dry contact x3							
<b>PHYSICAL</b>								
Dimensions (W x D x H)	Standard	440 x 665 x 176 mm	440 x 750 x 218 mm		440 x 649 x 88.2 mm		440 x 760 x 88.2 mm	
	Extended	440 x 430 x 88.2 mm						
Net Weight	Standard	54 kg	85.5 kg		16.6 kg		22 kg	
	Extended	10.9 kg					15.2 kg	22.5 kg
<b>ENVIRONMENT</b>								
Operating Temperature	0 to 55°C (45 to 55°C de-rating to 75% load)							
Humidity	5-95% (non-condensing)							
Audible Noise	< 48 dBA		< 50 dBA			< 54 dBA		
Altitude	0-3000 m (derating 1%/100 m from 1000-3000 m)							
Ingress Protection Level	IP20							
<b>CONFORMANCE</b>								
Safety	CE, UKCA, UL/cUL, TISI, RCM, BIS, BSMI							
EMC	IEC 62040-2							
Performance	IEC 62040-3							
Sustainability	RoHS, REACH, Energy Star 2.0							

(1) Derating to 70% load

(2) Standard model: built-in batteries; Extended model: capability to add external battery packs

All specifications are subject to change without prior notice.



# Delta UPS – Modulon Family

## DPH Series, Three-Phase 20 - 80/120 kVA

In this IT intensive world with heavy data traffic driven by the 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 ultimate availability, excellent performance, and high efficiency. The brand-new Delta Modulon DPH series UPS 80/120 kVA provides exceptional power density of 20 kW per module in a 2U height, offering the smallest footprint and best space utilization. The Modulon DPH Series UPS is the ideal modular power protection for all critical IT applications with its small package, flexibility and seamless integration.



### Excellent Power Performance

- High AC-AC efficiency over 96% and ECO mode to 99% resulting in marked energy cost savings
- Green mode featuring a load aggregation function optimizes system efficiency
- Up to 120 kW within all equipped breakers in 162.8 kW/m<sup>3</sup> which supports top/bottom cable entry without an additional cabinet to achieve the best utilization compared with its peers

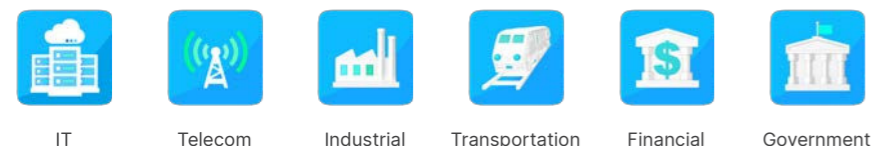
### Ultimate Availability

- Fully modularized design and hot-swappable key modules ensure Mean Time To Repair (MTTR) is close to zero without downtime risk
- Redundant components and dual CAN bus delivers highest system availability and avoids single point of failure
- Key components aging pre-warning mechanism provides proactive reliability to minimize human error and reduce downtime risk (optional)

### High Manageability

- User-friendly 10" color touch screen enables easy local UPS management
- Environment information such as temperature, humidity and transmitting signals from environment sensors 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

#### Applicable Sectors



### Technical Specifications

Model	DPH-80K	DPH-120K
Power Rating	20/ 40/ 60/ 80 kVA 20/ 40/ 60/ 80 kW	20/ 40/ 60/ 80/ 100/ 120 kVA 20/ 40/ 60/ 80/ 100/ 120 kW
Frame Size	80 kW	120 kW
Parallel Configuration	Up to 8 units	
<b>INPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Range	305-477 Vac (100% load); 228-305 Vac (with derating to 70-100% load)	
Frequency Range	40-70 Hz	
Total Harmonic Distortion (THDi)	< 2% <sup>(1)</sup>	
Power Factor	> 0.99 (100% load)	
<b>OUTPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Regulation	±1%	
Frequency	50/60 ± 0.05 Hz	
Total Harmonic Distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)	
Power Factor	1	
Overload Capability	≤ 125%: 10 mins; ≤ 150%: 1 min; > 150%: 1 sec	
Current Crest Ratio	3:1	
<b>EFFICIENCY</b>		
Online Mode	Up to 96.2%	
Eco Mode	Up to 99%	
<b>BATTERY</b>		
Battery Type	VRLA/ Vented lead-acid/ Lithium-ion	
Nominal Voltage	±180-±276 Vdc (configurable, ±240 Vdc default)	
Quantity	30-46 pcs (configurable)	
Maximum Charge Current	32 A	48 A
<b>COMMUNICATION INTERFACE</b>		
Display	10-inch color touchscreen	
Port	Smart slot x1, Modbus port (RS-485), REPO, EMS/Console (RJ45), BMS (RS-485), Ethernet port x1, Input dry contact x4, Output dry contact x6, External battery temperature detection x4, External switch/breaker status dry contact x4	
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNMP, SMTP, Syslog, BOOTP, DHCP	
<b>PHYSICAL</b>		
Dimensions (W x D x H)	600 x 850 x 1445 mm	
Net Weight	UPS System Per Power Module	150 kg 18 kg
<b>ENVIRONMENT</b>		
Operating Temperature	0 to 40°C	
Humidity	0-95% (non-condensing)	
Audible Noise	< 65 dBA	< 75 dBA
Altitude	0-1000 m	
Storage Temperature	-20 to 70°C	
Ingress Protection Level	IP20	
<b>CONFORMANCE</b>		
Safety	CE, UKCA, RCM, BSMI	
EMC	IEC 62040-2	
Performance	IEC 62040-3	
Sustainability	RoHS, REACH	
<b>FEATURES</b>		
Standard	Burn-in test without load bank, Cold start function, Frequency conversion, Failure prediction	

(1) Input voltage total harmonic distortion < 1%

All specifications are subject to change without prior notice.

# Delta UPS – Modulon Family

## DPH Series, Three-Phase 20 - 80/200 kVA

Experience unmatched power solutions with our advanced 80K and 200K UPS models. The 80K is crafted to seamlessly integrate a battery in a 42U rack, and both models boast high power density, exceptional reliability, and fault tolerance—perfect for small and medium data centers. Enjoy exceptional energy efficiency with up to 96.5% AC-AC efficiency and an exclusive green mode, ensuring optimal system performance. Opt for our modular UPS for unparalleled flexibility that scales seamlessly with your growing business.



### Low Total Cost of Ownership

- AC-AC efficiency up to 96.5% and Eco mode to 99% optimize energy costs
- Activate Green mode with a load aggregation function to boost system efficiency
- Remarkable power density of 50 kW per module in a 3U height (20 kW/2U height) offering best space utilization
- Unleash the on-site full-load and full-battery test. No need for load banks, no set-ups streamline the process and cut costs effectively

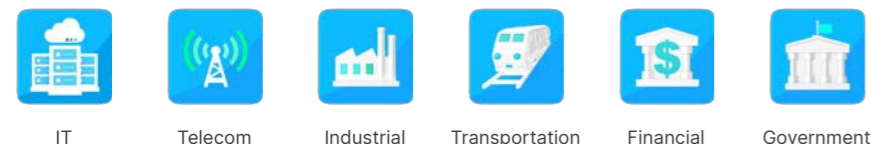
### Maximum Uptime

- Redundant components and dual CAN bus deliver the highest system availability and thwart single point of failure
- Power and control modules self-synchronize to prevent downtime from control module failure
- Fully modularized design and hot swappable STS module, power module and controller card ensure minimizing Mean Time To Repair (MTTR)
- Integrated manual bypass eliminates maintenance-related downtime
- Pre-warning of key components aging reduces downtime risk (optional)

### Easy Management

- Precisely meet your power backup needs now and unlock the ability to effortlessly scale up as your business flourishes
- Color 10" touchscreen provides easy access to UPS information and streamlined operation
- Intuitive LCD integrated UPS system, inbuilt battery and environment information are visible and easy to manage
- Built-in USB port provides effortless connectivity to over 10,000 data logs for event diagnosis

Applicable Sectors



## Technical Specifications

Model	DPH-80K-FR	DPH-200K-FR
Power Rating	20/ 40/ 60/ 80 kVA 20/ 40/ 60/ 80 kW	50/ 100/ 150/ 200 kVA 50/ 100/ 150/ 200 kW
Frame Size	80 kW	200 kW
Parallel Configuration	Up to 8 units	
<b>INPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Range	305-477 Vac (100% load); 229-305 Vac (with derating to 70-100% load)	
Frequency Range	40-70 Hz	
Total Harmonic Distortion (THDi)	< 3%	
Power Factor	> 0.99 (100% load)	
<b>OUTPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Regulation	±1% (static)	
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	
<b>EFFICIENCY</b>		
Online Mode	Up to 96.5%	
Eco Mode	Up to 99%	
<b>BATTERY</b>		
Battery Type	VRLA/ Vented lead-acid/ Lithium-ion	
Nominal Voltage	±240 Vdc	
Quantity	40 pcs	30 <sup>(1)</sup> -46 pcs (configurable)
Maximum Charge Current	32 A	75 A
Internal Battery	Optional, up to 5 strings	N/A
External Battery Cabinet (Optional)	Parallel to 4 cabinets <sup>(2)</sup>	
<b>COMMUNICATION INTERFACE</b>		
Display	10-inch color touchscreen	
Port	Modbus (RS-485) port, REPO, EMS/Console (RJ45), BMS (RS-485), Ethernet port x1, Input dry contact x4, Output dry contact x6, External battery temperature detection x4, External switch/breaker status dry contact x4	
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNTP, SMTP, Syslog, BOOTP, DHCP	
<b>PHYSICAL</b>		
Dimensions (W x D x H)	600 x 1109 x 2000 mm	
Net Weight	UPS System	269 kg
	Per Power Module	18 kg
	Per Battery Module <sup>(2)</sup>	32.6 kg
275 kg	36.9 kg	
<b>ENVIRONMENT</b>		
Operating Temperature	0 to 40°C	
Humidity	0-95% (non-condensing)	
Audible Noise	< 65 dBA	< 75 dBA
Altitude	0-1000 m	
Ingress Protection Level	IP20	
<b>CONFORMANCE</b>		
Safety	CE, UKCA, RCM, BSMI	
EMC	IEC 62040-2	
Performance	IEC 62040-3	
Sustainability	RoHS, REACH	
<b>FEATURES</b>		
Standard	Burn-in test without load bank, Cold start function, Frequency conversion, Failure prediction, Software Integration with Delta Lithium Battery BMS	

(1) Input voltage total harmonic distortion < 1%

(2) Up to 10 battery strings per cabinet, featuring 40 pcs x12V 9Ah VRLA batteries each; 4 battery modules compose 1 string

All specifications are subject to change without prior notice.

# Delta UPS – Modulon Family

## DPH Series, Three-Phase 50 - 300/500/600 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 50-300/500/600 kVA 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 96.5% and ECO mode to 99% provide marked energy cost savings
- Green mode featuring a load aggregation function optimizes system efficiency

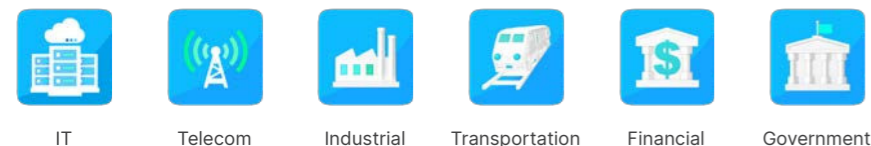
### Ultimate Availability

- 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 8 units for 4.8 MVA of total power capacity

### High Manageability

- User-friendly 10" color touch screen 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

#### Applicable Sectors



### Technical Specifications

Model	DPH-300K	DPH-500K	DPH-600K
Power Rating	100/ 150/ 200/ 250/ 300 kVA 100/ 150/ 200/ 250/ 300 kW	300/ 350/ 400/ 450/ 500 kVA 300/ 350/ 400/ 450/ 450 kW	500/ 550/ 600 kVA 500/ 550/ 600 kW
Frame Size	300 kW	450 kW	600 kW
Parallel Configuration	Up to 8 units		
<b>INPUT</b>			
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE		
Voltage Range	305-478 Vac (100% load); 229-305 (with derating to 70-100% load)		
Frequency Range	40-70 Hz		
Total Harmonic Distortion (THDi)	< 3% <sup>(1)</sup>		
Power Factor	> 0.99 (100% load)		
Connection	Single or dual feed		
<b>OUTPUT</b>			
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE		
Voltage Regulation	±1%		
Frequency	50/60 ± 0.05 Hz		
Total Harmonic Distortion (THDv)	≤ 0.5% (linear load)		
Power Factor	1 <sup>(2)</sup>		
Overload Capability	≤ 125%: 10 mins; ≤ 150%: 1 min; > 150%: 1 sec		
Current Crest Ratio	3:1		
<b>EFFICIENCY</b>			
Online Mode	Up to 96.5%		
ECO Mode	Up to 99%		
<b>BATTERY</b>			
Battery Type	VRLA/ Vented lead-acid/ Lithium-ion		
Nominal Voltage	±240 Vdc		
Quantity	30-46 pcs		
Maximum Charge Current	90 A	135 A	180 A
<b>COMMUNICATION INTERFACE</b>			
Display	10-inch color touchscreen		
Port	Modbus (RS-485), Smart slot, REPO, Input dry contact x4, Output dry contact x6, External battery temperature detection x4, External switch/breaker status dry contact x4, BMS (RS-485), EMS/Console (RJ45), Ethernet port		
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNMP, SMTP, Syslog, BOOTP, DHCP		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	600 x 1100 x 2000 mm		1200 x 1100 x 2000 mm
Net Weight	UPS System	317 kg	605 kg
	Per Battery Module	36 kg	
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 40°C		
Humidity	0-95% (non-condensing)		
Audible Noise	< 70 dBA	< 80 dBA	< 85 dBA
Altitude	0-3000 m (derating 1%/100 m from 1000-3000 m)		
Storage Temperature	-20 to 70°C		
Ingress Protection Level	IP20		
<b>CONFORMANCE</b>			
Safety	CE, UKCA		
EMC	IEC 62040-2		
Performance	IEC 62040-3		
Sustainability	RoHS, REACH		
<b>FEATURES</b>			
Standard	Sequential start for generator, Backfeed protection, Burn-in test without load bank, Cold start function, Remote emergency power off (REPO), Frequency conversion, Failure prediction, Software integration with Delta lithium-ion battery BMS		
Optional	DC battery ground fault, Integrated battery switch cabinet		

(1) When input vTHD < 1%

(2) 0.9 for the DPH-500K model

All specifications are subject to change without prior notice.



# Delta UPS – Ultron Family

## HPH Gen2 Series, Three-Phase 20/30/40 kVA

The HPH Gen2 20-40 kVA UPS offers a best in class footprint and high-level performance. With advanced technology and thermal management, it achieves the world's leading power density and promises 40°C without de-rating. The 0.99 input PF and iTHD < 2% ensure maximum upstream source compatibility. Low total cost of ownership is achieved by > 96% efficiency, energy recycle mode, wider battery quantity configuration and inbuilt 15 A charger. In addition, it provides a user-friendly interface touch panel, manual protection devices and caster wheels for easy deployment, installation and operation. All these features provide the ideal solution for various small and medium-sized data centers and critical power backups.



### Easy Deployment and Maintenance with Compact Design

- Inbuilt casters for easy move-in, positioning and maintenance
- Inbuilt input/ bypass input/ output/ maintenance bypass breakers for completed distribution panel
- Slim design and smallest footprint (40 kW in 0.15 m<sup>2</sup>) to reduce wasted space

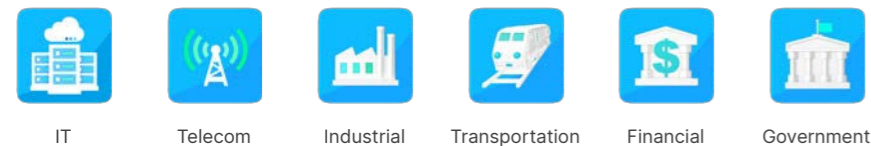
### Low Total Cost of Ownership

- Wide battery quantity configuration (30-46 pcs) optimizes the battery solution
- High AC-AC efficiency over 96% and ECO mode to 99% provide marked energy cost savings
- Low input harmonic distortion (iTHD < 2%) is highly compatible with upstream of UPS power without additional filter or over sizing generator

### High Manageability and Flexibility

- User-friendly 5-inch color touchscreen enables easy local UPS management
- Optional SNMP IPv6 and Modbus communication cards for remote monitoring
- Inbuilt 15 A charger for long backup solution without additional cost
- Optional IP42 kit for harsh environment applications
- Front access and easy battery replacement for inbuilt battery models

#### Applicable Sectors



## Technical Specifications

Model	HPH-20K	HPH-30K	HPH-40K
Power Rating	20 kVA 20 kW	30 kVA 30 kW	40 kVA 40 kW
Parallel Configuration	Up to 4 units		
<b>INPUT</b>			
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE		
Voltage Range	305-478 Vac (100% load); 228-305 (with derating to 70-100% load)		
Frequency Range	40-70 Hz		
Total Harmonic Distortion (THDi)	≤ 2.5%	≤ 2%	
Power Factor	> 0.99 (100% load)		
Connection	Single or dual feed		
<b>OUTPUT</b>			
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE		
Voltage Regulation	±1%		
Frequency	50/60 ± 0.05 Hz		
Total Harmonic Distortion (THDv)	≤ 1.5% (linear load); ≤ 4% (non-linear load)		
Power Factor	1		
Overload Capability	≤ 105%: continues; > 105-110%: 60 mins; > 110-≤ 125%: 10 mins; > 125-≤ 150%: 1 min; > 150%: 1 sec		
Current Crest Ratio	3:1		
<b>EFFICIENCY</b>			
Online Mode	Up to 96%		
ECO Mode	Up to 99%		
<b>BATTERY</b>			
Battery Type	VRLA/ SMF		
Nominal Voltage	±240 Vdc		
Quantity	30 <sup>(1)</sup> -46 pcs		
Maximum Charge Current	15 A		
<b>COMMUNICATION INTERFACE</b>			
Display	LCD touchscreen		
Port	Mini Slot x2 ,USB x1, RS-232 x1, Input dry contact x2, Output dry contact x4, External battery temperature dry contact x1		
Protocols	SNMP, Modbus TCP/IP, HTTP(S), SNMP, SMTP, BOOTP, DHCP, SSH, SFTP, FTP, Telnet, Syslog		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	External Battery Model	240 x 630 x 650 mm	
	Integrated Battery Model	470 x 780 x 1200 mm	
Net Weight	External Battery Model	44 kg	50 kg
	Integrated Battery Model	334 kg (with Battery)	340 kg (with Battery)
		94 kg (without Battery)	100 kg (without Battery)
<b>ENVIRONMENT</b>			
Operating Temperature	0 to 50°C (40 to 50°C de-rating to 90% load)		
Humidity	0-95% (non-condensing)		
Audible Noise	< 50 dBA	< 56 dBA	
Altitude	0-2000 m (derating 1%/100 m from 1000-2000 m)		
Storage Temperature	-25 to 70°C		
Ingress Protection Level	IP20 (standard), IP42 (Optional for long backup model)		
<b>CONFORMANCE</b>			
Safety	CE, UKCA, RCM		
EMC	IEC 62040-2		
Performance	IEC 62040-3		
Sustainability	RoHS, REACH		
<b>FEATURES</b>			
Standard	Backfeed protection, Cold start function, Frequency conversion		
Optional	Synchronized multiple bus (SMB), DC battery ground fault		

(1) 30-34 pcs required load derating

All specifications are subject to change without prior notice.

# Delta UPS – Ultron Family

## HPH Series, Three-Phase 60-120 kVA

Elevate your power game with the Ultron HPH UPS: unbeatable energy efficiency and superior performance for mission-critical applications and small data centers. Fully rated power, advanced IGBT topology, and Delta's digital PFC controls ensure uninterrupted power excellence. Unleash uncompromised power with the Delta HPH UPS!



### Best-in-Class Power Performance and Efficiency

- Fully rated power (kVA=kW) for maximum power availability
- Leading AC-AC efficiency up to 96% saves energy costs
- Low harmonic pollution (iTHD < 3%) and high input power factor (> 0.99) reduce upstream investment costs

### Assured Reliability

- Wide input voltage range allows the UPS to operate in harsh electrical environments and extends battery life
- DSP based technology enables a reduction in the number of electronic components to lower the failure rate
- Redundant auxiliary power and static switch control circuit\* design prevents single point of failure

(\* Applicable to HPH-100/120K)

### Greater Flexibility

- A wide choice of configurations, such as N+X redundancy and hot stand-by
- Adjustable charging current and charging voltage meet different battery configuration requirements
- Flexible battery configuration optimizes battery investment

### Superior Serviceability and Management

- Swappable interior architecture and front access servicing enables quick and easy maintenance
- Multi-connectivity interface supports remote UPS monitoring and management

Applicable Sectors



IT



Telecom



Industrial



Transportation



Financial



Government

## Technical Specifications

Model	HPH-60K	HPH-80K	HPH-100K	HPH-120K
Power Rating	60 kVA 60 kW	80 kVA 80 kW	100 kVA 100 kW	120 kVA 120 kW
Parallel Configuration	Up to 4 units			
<b>INPUT</b>				
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE			
Voltage Range	332-477 Vac (100% load); 229-332 Vac (with derating to 63-100% load)			
Frequency Range	40-70 Hz			
Total Harmonic Distortion (THDi)	< 3%			
Power Factor	> 0.99 (100% load)			
Short Circuit Withstand Rating	15 A	22 A		
<b>OUTPUT</b>				
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE			
Voltage Regulation	±1%			
Frequency	50/60 ± 0.05 Hz			
Total Harmonic Distortion (THDv)	≤ 2% (linear load)			
Power Factor	1			
Overload Capability	≤ 125%: 10 mins; 126-150%: 1 min; > 150%: 1 sec			
Current Crest Ratio	3:1			
<b>EFFICIENCY</b>				
Online Mode	> 96%			
ECO Mode	Up to 99%			
<b>BATTERY</b>				
Battery Type	VRLA/ Lithium-ion			
Nominal Voltage	±240 Vdc			
Quantity	32-46 pcs <sup>(1)</sup>			
Charge Current	10 A	15 A	20 A	
Max. Charger Current with Optional Charger Board	20 A		40 A	
<b>COMMUNICATION INTERFACE</b>				
Display	LCD display with LED indicators			
Port	Smart slot x1, Mini slot x1, Parallel port x2, RS-232 x1, Charger detection port x1, Input dry contact x2, Output dry contact x6, USB x1, REPO port x1, External battery temperature sensing port x2			
Emergency Power Off	Yes			
<b>PHYSICAL</b>				
Dimensions (W x D x H)	520 x 800 x 1175 mm		520 x 800 x 1760 mm	
Net Weight	186.5 kg	191 kg	312 kg	
Packing Dimensions (W x D x H)	685 x 1003 x 1337 mm		720 x 994 x 1952 mm	
Packing Weight	220.5 kg	225 kg	388 kg	
<b>ENVIRONMENT</b>				
Operating Temperature	0 to 45°C (40 to 45°C with load derating)			
Humidity	5-95% (non-condensing)			
Audible Noise	< 65 dBA			
Altitude	0-1000 m (without derating)			
Storage Temperature	-20 to 50°C			
Ingress Protection Level	IP20			
<b>CONFORMANCE</b>				
Safety	CE, UKCA			
EMC	IEC 62040-2			
Performance	IEC 62040-3			
Sustainability	RoHS, REACH			
<b>FEATURES</b>				
Standard	Backfeed protection, Cold start function, Synchronized multiple bus (SMB)			
Optional	Advanced power walk-in for generator, Dual input			

(1) 32-36 pcs require service setting and load derating

All specifications are subject to change without prior notice.

# Delta UPS – Ultron Family

## HPH Series, Three-Phase 160/200 kVA

The brand-new Ultron HPH series 160-200 kVA is a true online double-conversion UPS offering the best-in-class combination of power performance and efficiency for medium data centers, pan-IT, and other mission critical applications. The Ultron HPH features up to 96.5% AC-AC efficiency, low iTHD < 3%, and high input power factor > 0.99 resulting in significant total cost of ownership (TCO) savings. Highlights of the highly reliable Ultron HPH series UPS design include key component redundancy and proactive battery health detection. With its combination of superior availability and power performance, the Ultron HPH 160-200 kVA is the top choice for power protection of sustainable medium business operations.



### Best-in-Class Power Performance and Efficiency

- High AC-AC efficiency of up to 96.5% and ECO mode to 99% for significant energy cost savings
- Low harmonic pollution (iTHD < 3%) and high input power factor (> 0.99) reduce upstream investment costs

### Assured Availability

- Optional redundant controller supports dual CAN bus and ring connection for high system availability
- Proactive battery aging detection for high reliability
- Easy event log check via touch panel and firmware upgrade via USB port

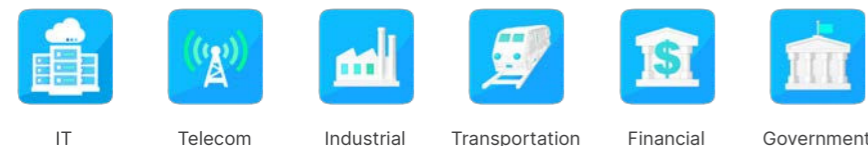
### Greater Flexibility

- Parallel expansion and redundancy up to 8 units, 1.6 MVA of total power capacity
- Flexible battery configuration for 30-46 pieces optimizes battery investment
- Supports either top or bottom cable entry in the single cabinet. The unique fixed symmetric terminal design avoids cable bending issues to enhance cable reliability

### Superior Manageability

- User-friendly 10-inch colored LCD with touch panel 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 features Delta's battery management system, the battery information integrates seamlessly for LCD monitoring

Applicable Sectors



## Technical Specifications

Model	HPH-160K	HPH-200K
Power Rating	160 kVA 160 kW	200 kVA 200 kW
Parallel Configuration	Up to 8 units	
<b>INPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Range	305-477 Vac (100% load); 228-305 Vac (with derating to 70-100% load)	
Frequency Range	40-70 Hz	
Total Harmonic Distortion (THDi)	≤ 3% <sup>(1)</sup>	
Power Factor	> 0.99 (100% load)	
Connection	Single or dual feed	
<b>OUTPUT</b>		
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE	
Voltage Regulation	±1%	
Frequency	50/60 ± 0.05 Hz	
Total Harmonic Distortion (THDv)	≤ 0.5% (linear load)	
Power Factor	1	
Overload Capability	≤ 125%: 10 mins; ≤ 150%: 1 min; > 150%: 1 sec	
Current Crest Ratio	3:1	
<b>EFFICIENCY</b>		
Online Mode	Up to 96.5%	
Eco Mode	Up to 99%	
<b>BATTERY</b>		
Battery Type	VRLA	
Nominal Voltage	±240 Vdc	
Quantity	30-46 pcs	
Maximum Charge Current	45 A	60 A
<b>COMMUNICATION INTERFACE</b>		
Display	10-inch color touchscreen	
Port	Modbus (RS-485), BMS (RS-485), EMS/Console (RJ45), SMART slot x1, REPO x1, Input dry contact x4, Output dry contact x6, External battery temperature dry contact x4, External switch/breaker status dry contact x4	
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNMP, SMTP, Syslog, BOOTP, DHCP	
<b>PHYSICAL</b>		
Dimensions (W x D x H)	600 x 1100 x 1600 mm	
Net Weight	340 kg	376 kg
<b>ENVIRONMENT</b>		
Operating Temperature	0 to 40°C	
Humidity	0-95% (non-condensing)	
Audible Noise	< 70 dBA	
Altitude	0-1000 m	
Storage Temperature	-25 to 70°C	-20 to 70°C
Ingress Protection Level	IP20	
<b>CONFORMANCE</b>		
Safety	CE, UKCA, RCM	
EMC	IEC 62040-2	
Performance	IEC 62040-3	
Sustainability	RoHS, REACH	
<b>FEATURES</b>		
Standard	Backfeed protection, Cold start function, Frequency conversion	
Optional	Synchronized multiple bus (SMB), DC battery ground fault	

(1) When input vTHD < 1%

All specifications are subject to change without prior notice.



# Delta UPS – Ultron Family

## NT Series, Three-Phase 20-500 kVA



The Ultron NT series is a three phase UPS featuring customized I/P-O/P ratings for various applications. With N+X parallel redundancy or expansion, it guarantees high availability and reliability for your critical loads.

The Ultron NT series offers continued seamless protection for your business even under 100% unbalanced loading conditions. Its economy mode improves efficiency and saves operating cost.

### Availability

- Available from 20 to 4,000 kVA (8 x 500 kVA in parallel)
- Parallel redundancy without requiring extra hardware to increase reliability
- Optional harmonic filter and 12-pulse rectifier
- Redundant auxiliary power and control circuit ensures higher reliability
- Inbuilt maintenance and static bypass switch

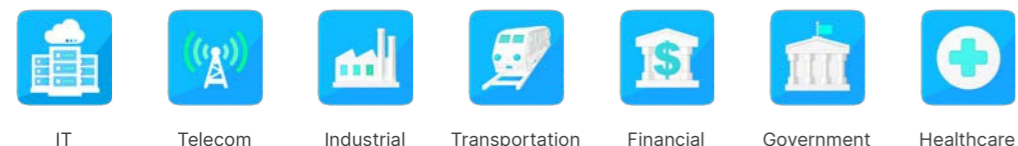
### Flexibility

- Multi-language LCD display and LED status indicators
- RS-232, RS-485 and six programmable dry contact outputs
- Compatible with generator installation and unbalanced loads
- Optional external battery cabinet for longer backup time

### Low Total Cost Of Ownership

- Parallel expansion as your business grows and consequently saves initial investment
- Wide input voltage range extends battery lifetime
- ECO mode saves energy and operating cost
- Common battery installation saves initial investment

#### Applicable Sectors



### Technical Specifications

Model	NT-	20K	30K	40K	50K	60K	80K	100K	120K	160K	200K	260K	320K	400K	500K	
Power Rating	kVA	20	30	40	50	60	80	100	120	160	200	260	320	400	500	
	kW	18	24	32	40	48	64	80	96	128	160	208	256	320	400	
Parallel Configuration	Up to 8 units															
<b>INPUT</b>																
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE															
Voltage Range	305-499 Vac (100% load)															
Frequency Range	45-65 Hz															
Total Harmonic Distortion (THDi)	< 3% <sup>(1)</sup>															
Connection	Single or dual feed															
<b>OUTPUT</b>																
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE															
Voltage Regulation	±1%															
Frequency	50/60 ± 0.01 Hz															
Total Harmonic Distortion (THDv)	< 3% (linear load)															
Power Factor	0.8 <sup>(2)</sup>															
Overload Capability	≤ 110%: 60 mins; 111-125%: 10 mins; 126-150%: 1 min															
Current Crest Ratio	3:1															
<b>EFFICIENCY</b>																
Online Mode	90%	91%	91.5%	92%	92.5%											93%
ECO Mode	> 97%   Up to 97.5%															
<b>BATTERY</b>																
Battery Type	VRLA															
Nominal Voltage	393 Vdc															
Quantity	29 pcs															
Charge Current	4 A	5 A	7 A	9 A	11 A	14 A	18 A	22 A	29 A	36 A	30 A	35 A	40 A			
<b>COMMUNICATION INTERFACE</b>																
Display	LCD display with LED Indicators															
Port	Smart slot, RS-232, RS-485, REPO, Output dry contact x6, Ethernet port															
Protocols	SNMP, Modbus TCP/IP, HTTP(S), SNMP, SMTP, Syslog, BOOTP, DHCP, SSH, SFTP, FTP, Telnet															
<b>PHYSICAL</b>																
Dimensions (W x D x H)	mm	600 x 800 x 1400					800 x 830 x 1700			1200 x 830 x 1700			1600 x 995 x 1950			1900 <sup>(3)</sup> x 995 x 1950
Net Weight	kg	365	425	460	506	525	700	745	1050	1085	1680	1720	1920	3110 <sup>(3)</sup>		
<b>ENVIRONMENT</b>																
Operating Temperature	0 to 40°C (without derating)															
Humidity	0-95% (non-condensing)															
Audible Noise	dBA	≤ 60			≤ 65			≤ 68			≤ 72			≤ 77		
Altitude	0-2000 m (without derating)															
Ingress Protection Level	IP20															
<b>CONFORMANCE</b>																
Safety	CE															
EMC	IEC 62040-2															
Sustainability	RoHS, REACH															
<b>FEATURES</b>																
Standard	DC Battery ground fault															
Optional	Sequential start-up for generator, Cold start function, Frequency conversion															

(1) With optional power filter, full load

(2) Options tailored for models with an output power factor of 0.9

(3) The 500 kVA model comprises two cabinets: Inverter (1100 mm width, 1760 kg) and Rectifier (800 mm width, 1350 kg)

All specifications are subject to change without prior notice.

# Delta UPS – Ultron Family

## DPS Series, Three-Phase 300-1200 kVA

Delta's superior Ultron DPS series 300-1200 kVA UPS supports unity output power factor to deliver up to 9.6 MW power capacity to meet the demands of large data centers and colocations. The Ultron DPS series guarantees the highest level of system reliability by supporting self-detection of key components with pre-warning function, multi-layered redundancy design, and complete power rating coverage. Along with optional battery management software, the DPS series enables users to achieve predictive maintenance and minimize system downtime, while lowering the total cost of ownership (TCO).



### Ultimate Availability

- Supports up to 9.6 MW power capacity with parallel redundancy and expansion up to 8 units
- Redundant components and dual CAN bus ensures system availability
- Proactive detection of key component status for early diagnosis of UPS malfunction
- Intelligent battery health diagnosis enables better battery maintenance and replacement
- Advanced event analysis, including 10,000 event logs, waveform capturing and key parameters recording, to detect UPS abnormality and ensure higher availability

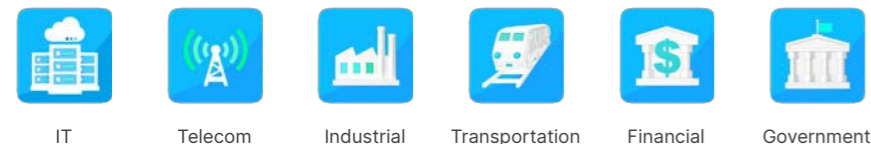
### Excellent Performance

- The industry's leading power density and smallest footprint with the design of both top/bottom cable entry\* and inbuilt switches (\* For DPS-300K, only top cable entry is available)
- Unity output power factor guarantees no-rating and provides 100% kW
- AC-AC efficiency of up to 96.5% and 99% in ECO mode provides marked energy cost savings
- Supports both VRLA and environment-friendly Li-ion batteries

### Sophisticated Manageability and Flexibility

- Environment information, such as security, water, fire, and temperature can be integrated and monitored via the LCD panel of the UPS
- If the UPS is equipped with an external battery management system, the battery information can be integrated and monitored via the LCD panel of the UPS
- Flexible battery quantity of 30-46 pcs achieves optimal battery investment

#### Applicable Sectors



### Technical Specifications

Model	DPS-300K	DPS-400K	DPS-500K	DPS-600K	DPS-800K	DPS-1000K	DPS-1200K
Power Rating	300 kVA 300 kW	400 kVA 400 kW	500 kVA 500 kW	600 kVA 600 kW	800 kVA 800 kW	1000 kVA 1000 kW	1200 kVA 1200 kW
Parallel Configuration	Up to 8 units						
<b>INPUT</b>							
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE						
Voltage Range	305 <sup>(1)</sup> -477 (100% load); 229-305 (with derating to 70-100% load)						
Frequency Range	40-70 Hz						
Total Harmonic Distortion (THDi)	< 3% (linear load); < 5% (non-linear load)						
Power Factor	> 0.99 (100% load)						
Short Circuit Withstand Rating	65 kA				100 kA		
Connection	Single or dual feed						
<b>OUTPUT</b>							
Nominal Voltage	380/ 400/ 415 Vac, 3P4W+PE						
Voltage Regulation	±1%						
Frequency	50/60 ± 0.05 Hz						
Total Harmonic Distortion (THDv)	< 1.5% (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						
<b>EFFICIENCY</b>							
Online Mode	Up to 96.5%						
ECO Mode	Up to 99%						
<b>BATTERY</b>							
Battery Type	VRLA/ Vented lead-acid/ Lithium-ion						
Nominal Voltage	480 Vdc						
Quantity	30-46 pcs						
Maximum Charge Current	90 A	120 A	150 A	180 A	240 A	300 A	360 A
<b>COMMUNICATION INTERFACE</b>							
Display	10-inch color touchscreen						
Port	Modbus (RS-485), Smart slot, REPO, Input dry contact x4, Output dry contact x6, External switch/breaker status dry contact x4, External battery temperature detection x4, Ethernet port, BMS (RS-485), EMS/ Console (RJ45)						
Protocols	SNMP, Modbus RTU, Modbus TCP/IP, HTTP(S), SNMP, SMTP, Syslog, BOOTP, DHCP						
<b>PHYSICAL</b>							
Dimensions (W x D x H)	600 <sup>(2)</sup> x 900 x 2000 mm	1200 <sup>(2)</sup> x 900 x 2000 mm			1800 x 900 x 2000 mm	2450 x 900 x 2000 mm	
Net Weight	515 kg	700 kg	811 kg	970 kg	1270 kg	1850 kg	2000 kg
<b>ENVIRONMENT</b>							
Operating Temperature	0 to 40°C						
Humidity	0-95% (non-condensing)						
Audible Noise	< 80 dBA						
Altitude	0-3000 m (derating 1%/100 m from 1000-3000 m)						
Storage Temperature	-25 to 70°C						
Ingress Protection Level	IP20						
<b>CONFORMANCE</b>							
Safety	CE, UKCA						
EMC	IEC 62040-2						
Performance	IEC 62040-3						
Sustainability	RoHS, REACH						
<b>FEATURES</b>							
Standard	Sequential start for generator, Backfeed protection, Burn-in test without load bank, Cold start function, Frequency conversion, Failure prediction, Software integration with Delta lithium-ion battery BMS						
Optional	DC battery ground fault, IR scan window						

(1) 305-324 Vac with conditional application

(2) The width of the UPS includes 4 built-in switches

All specifications are subject to change without prior notice.

# Delta UPS – Ultron Family

## DPM Gen2 Series, 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

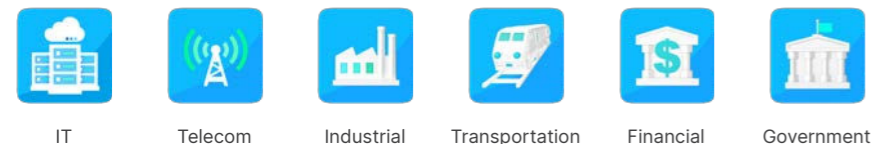
### Impeccable Reliability

- 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

#### Applicable Sectors



### Technical Specifications

Model	DPM G2-	250K	500K <sup>(1)</sup>	750K <sup>(1)</sup>	1000K	1250K	1500K <sup>(1)</sup>	1750K <sup>(1)</sup>	
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							
<b>INPUT</b>									
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			
Connection		Single or dual feed							
<b>OUTPUT</b>									
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							
<b>EFFICIENCY</b>									
Online Mode		Up to 97.3%							
Clean Mode (VI)		Up to 99%							
<b>BATTERY</b>									
Battery Type		VRLA/ Vented lead-acid/ Lithium-ion/ Ni-Zinc							
Nominal Voltage		480 Vdc							
Quantity		34-35 <sup>(2)</sup> , 36-46 pcs (VRLA 12 V)							
Charge Current		125 A	250 A	375 A	500 A	625 A	750 A	875 A	
Protection Design		Battery shunt trip x1, Battery temperature detection x4, Battery breaker status dry contact x1							
<b>COMMUNICATION INTERFACE</b>									
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), SNMP, SMTP, BOOTP, DHCP							
<b>PHYSICAL</b>									
Dimensions (W x D x H)		1030 x 990 x 2000 mm	* <sup>(3)</sup>		3070 x 990 x 2000 mm	3400 x 900 x 2000 mm	* <sup>(3)</sup>		
Net Weight		676 kg	* <sup>(3)</sup>		2408 kg	2779 kg	* <sup>(3)</sup>		
<b>ENVIRONMENT</b>									
Operating Temperature		0 to 40°C							
Humidity		0-95% (non-condensing)							
Audible Noise		< 78 dBA	* <sup>(3)</sup>		< 84 dBA	< 85 dBA	* <sup>(3)</sup>		
Altitude		0-2000 m (derating 1%/100 m from 1001-2000 m)							
Ingress Protection Level		IP20							
<b>CONFORMANCE</b>									
Safety		IEC 62040-1, CE, UKCA							
EMC		IEC 62040-2							
Performance		IEC 62040-3							
Sustainability		RoHS, REACH, Energy Star 2.0							
<b>FEATURES</b>									
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							
Optional		Advance failure prediction, Grid interactive, Software integration with Delta lithium 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

## SNMP IPv6 Card



## 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	SNMP IPv6 Card	G3 SNMP IPv6 Card	Mini SNMP IPv6 Card
<b>DEPLOYMENT</b>			
Network Connection	10/100 M RJ45 Connector	10/100/1000 M RJ45 Connector	10/100 M RJ45 Connector
Input Power	12 Vdc		
Power Consumption	< 2 W	< 4 W	< 2 W
Operation Temperature	0 to 60°C		
Operation Humidity	0-95%		
<b>PHYSICAL</b>			
Dimensions	130 x 60 mm		87 x 70 x 30 mm
Net Weight	75 g		
<b>CONFORMANCE</b>			
Standard	EN 55022 Class A, EN 55024 ICES-003	EN 55032:2015+A11:2020, EN 55035:2017+A11:2020	
Product Certifications	FCC Class B, CE, UL, CAN/CSA	FCC Class B, CE, 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
<b>DEPLOYMENT</b>	
Input Power	12 Vdc
Power Consumption	0.5 W
Operation Temperature	0 to 40°C
Operation Humidity	10-80%
<b>PHYSICAL</b>	
Dimensions	68 x 43 mm
Net Weight	30 g

## Mini Dry Contact Card



### Functions and Features

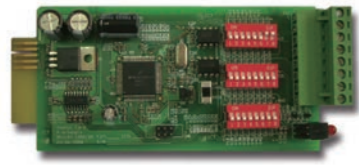
- UPS status information presented as 3 contact closures
- Configurable input signal as shutdown UPS or battery test
- Programmable output contact monitors status of UPS
- Configurable UPS shutdown delay time
- Protects up to 3 computers
- Unattended graceful shutdown

### Technical Specifications

Model	Mini Dry Contact Card
<b>DEPLOYMENT</b>	
Input Power	8-22 Vdc
Power Consumption	0.8 W
Operation Temperature	0 to 40°C
Operation Humidity	10-80%
<b>PHYSICAL</b>	
Dimensions	68 x 43 mm
Net Weight	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

- Enable 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
<b>DEPLOYMENT</b>		
Input Power	8-14 Vdc	10-14 Vdc
Power Consumption	< 1.2 W	< 1.5 W
Operation Temperature	0 to 40°C	0 to 50°C
Operation Humidity	10-80%	5-95% (non-condensing)
<b>COMMUNICATION INTERFACE</b>		
Port	RS-232 x1 <sup>(1)</sup> , RS-485 x1, RS-422 x1	RS-232 x1, RS-485 x1
<b>PHYSICAL</b>		
Dimensions	130 x 60 mm	87 x 69 x 30 mm
Net Weight	150 g	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
<b>DEPLOYMENT</b>		
Input Power	8-20 Vdc	9-15 Vdc
Power Consumption	< 1.2 W	< 3 W
Operation Temperature	0 to 40°C	0 to 50°C
Operation Humidity	10-80%	
<b>PHYSICAL</b>		
Dimensions	130 x 60 mm	87 x 69 x 30 mm
Net Weight	200 g	70 g

# UPS Management - Connectivity

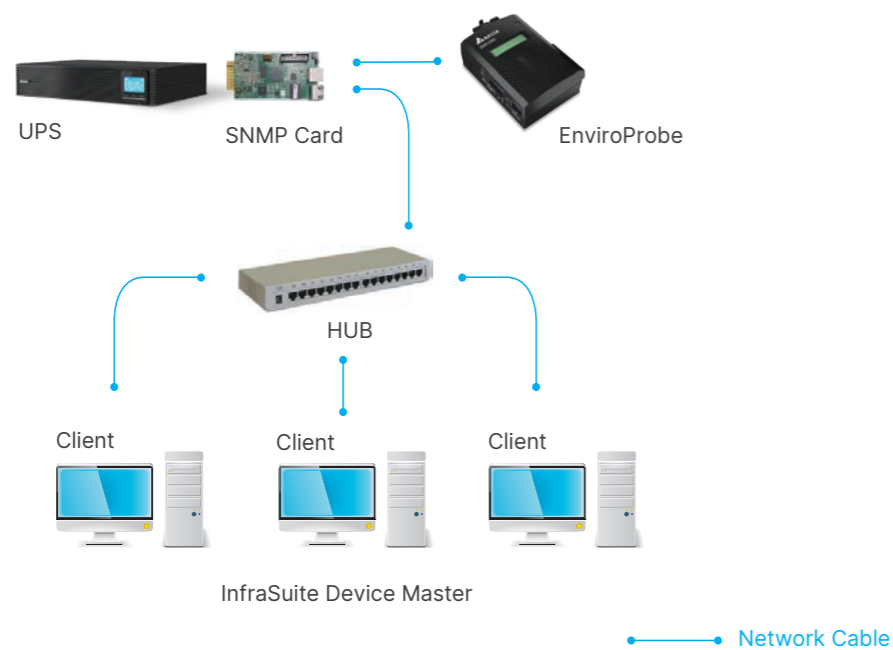
## EnviroProbe



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 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
- Supports Modbus RTU protocol
- InfraSuite Device Master software for remote monitoring and recording



## Technical Specifications

Model	EMS1000	EMS1100	EMS1200
<b>DEPLOYMENT</b>			
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	0 to 60°C	0 to 45°C	
Storage Temperature	-20 to 60°C	0 to 60°C	
Operation Humidity	0-90% ± 3% (non-condensing)		
<b>PHYSICAL</b>			
Dimensions (W x D x H)	66 x 33 x 103 mm		
Net Weight	120 g	130 g	
<b>CONFORMANCE</b>			
Standard	EN55022 Class B, EN55024		
Product Certifications	CE, UL, cUL		
Sustainability	RoHS, REACH		

## UPS Management - Software

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



# UPS Management - Software

## UPSentry 2012

### Functions and Features

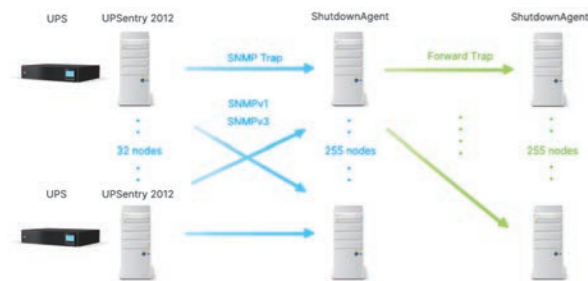
- Supports RS-232 and USB communication
- Provides web interface through HTTP and HTTPS
- Provides batch configuration to deploy settings with the snap of a finger
- Supports SNMP Trap v1, v2c, v3
- Supports SNMPv1, v3 server access for monitoring UPSentry 2012 status and configuring shutdown parameters
- 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 Enterprise 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

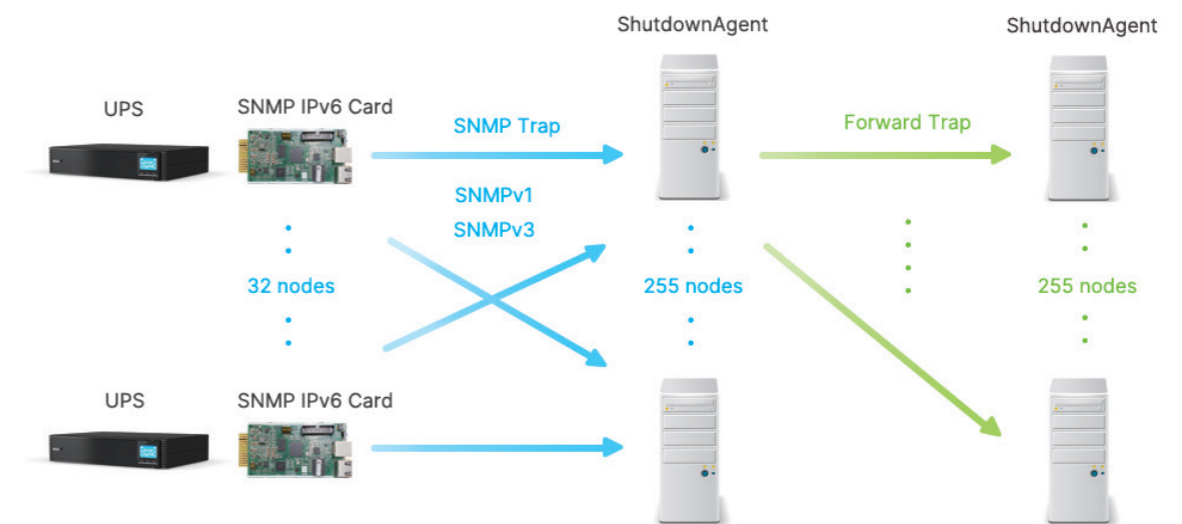
### Web Interface

- 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 2012

### 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.

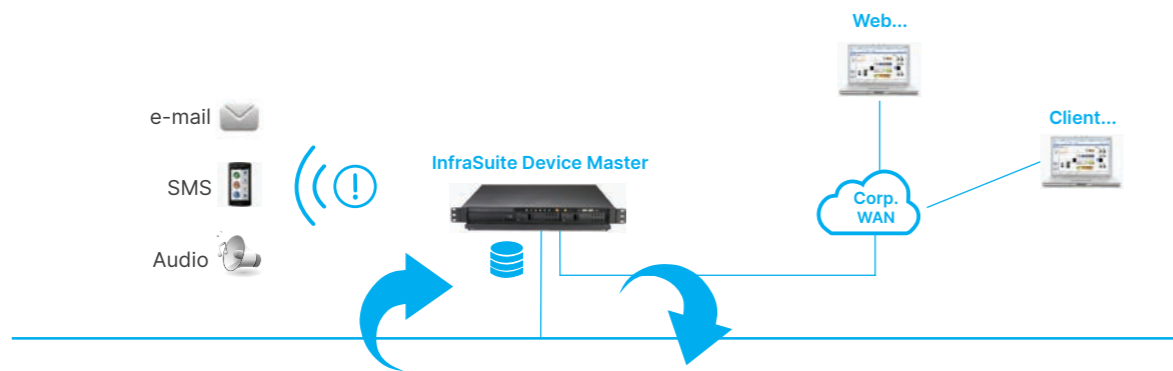


FIGURE 1. Delta InfraSuite Device Master Monitoring Application

## Product Features

### Navigational Graphics

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

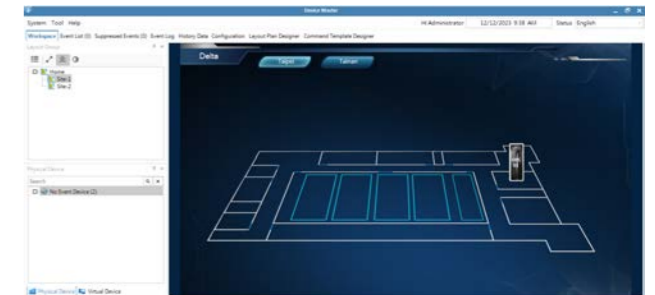


FIGURE 2. Navigational Graphics

### 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.

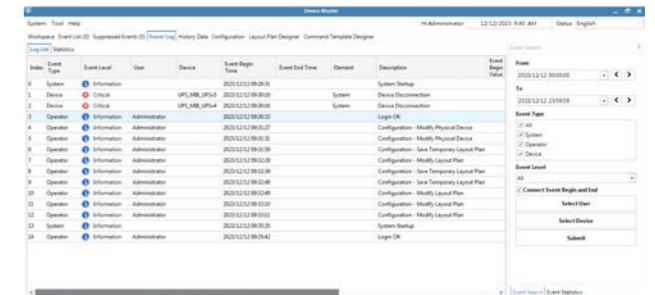


FIGURE 3. Event Log List

### 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
<b>Hardware</b>	CPU: > 2 GHz Memory: ≥ 4 G Free HD Space: ≥ 50 G	CPU: > 2 GHz Memory: ≥ 4 G	CPU: > 2 GHz Memory: ≥ 4 G
<b>Software</b>	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)

- Rating: 450/500/650/950 kVA (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: 400-6400 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: 250-2000 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/ 1800 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

## Precision Cooling



### Liquid Cooling

- Air-assisted liquid cooling (AALC)
- Coolant distribution unit (CDU)
- Rear door heat exchanger (RDHx)
- Single-phase immersion cooling (Hydrocarbon)
- Two-phase immersion cooling



### Air Cooling

- Room cooling: with both CW<sup>(1)</sup> and DX<sup>(2)</sup> system types
- In-row cooling: with both CW and DX system types
- Air distribution unit

(1) CW: Chilled water system (2) DX: Direct expansion system

## Rack & Accessories



### Modular Rack

- Tool-less setup, smooth cable management with 70% perforation for heat dissipation
- Compliant with EIA 310 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	27	31	157
■ Plant Sites	41	6	4	51
■ R&D Centers	48	10	15	73

