

ENERGY EFFICIENT UPS Family UNINTERRUPTED SAVING

Gaia Series

High Efficiency Up to 92%

High Input Power Factor (>0.99) and Low iTHD ($<5\%$)

1+1 Redundancy

Wide Input Voltage Range

NH Plus Series

High Efficiency Up to 94%

Hot-swappable Modular Design

N+X Redundancy

Low Total Cost of Ownership



Current Automation

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NHP Series

Green UPS
Delta NH Plus UPS—superior efficiency and ease of use. The new NH series uninterruptible power system features unparalleled overall efficiency of over 94%. Modular design and scalability enable easy expansion to satisfy growing power demands.

Industry-leading energy efficiency

UPS's or uninterruptible power supplies ensure continuous and disturbance-free power supply. The core of Delta's UPS solutions consists of modular, hot-swappable products that are easy to install and maintain. Our broad product portfolio offers solutions that answer a broad range of needs from those of individual homes to the large-scale requirements of major industrial plants. Our products are used in, for example, PCs, data centres, banking, medical applications, industrial equipment and energy production.



NHP Series & Battery Cabinet



NHP screen interface

Applications



The NH Plus series is Delta's next generation UPS featuring high efficiency, a hot swappable modular structure and N+X redundancy. With its industry leading 94% high efficiency, the NH Plus series delivers remarkable low total cost of ownership in terms of both capital expense and operation expense. With N+X module and system redundancy to guarantee reliability and availability, the NH Plus series sets a new milestone for UPS protection and mission critical applications.

Availability

- Available from 20 to 480kVA (4 units x 120kVA in parallel)
- Redundancy at module and system level.
- Hot-swappable function ensures uninterrupted operations during maintenance.
- Redundant auxiliary power and control circuit ensures higher reliability.
- Built-in maintenance and static bypass switch.

Flexibility

- Modular design provides easy maintenance and scalability.
- Multi-language LCD display.
- Two smart slots and six programmable dry contact outputs.
- Optional extended battery cabinet for longer backup time.



Lowest Total Cost of Ownership

- High input power factor (pf > 0.99) and low harmonic distortion (iTHD<3%)
- Savings in installation costs.
- Energy savings with maximum 94% high efficiency for lower operation costs.
- Compatible with generator installation.

Model			NHP20	NHP40	NHP60	NHP80	NHP100	NHP120
Power Rating - kVA			20	40	60	80	100	120
Power Rating - kW			16	32	48	64	80	96
Input	Rating Voltage	VAC	380/220, 400/230, 415/240 (3 Phase, 4-wire plus ground)					
	AC Voltage Range	VAC	208~477 / 120~276 (line-neutral)					
	DC Input Range	VDC	40 x 12Vdc (-240Vdc and +240Vdc)					
	Input Current Harmonic Distortion	%	<3 (full load)					
	Power Factor		>0.99					
	Frequency	Hz	50 or 60 ±5Hz					
Output	Voltage	V	380/220, 400/230, 415/240 (3 Phase, 4-wire plus ground)					
	Voltage Harmonic	%	< 3 (Linear load)					
	Voltage regulation	Static	±1Static					
	Frequency	Hz	50 or 60					
	Frequency Regulation	Hz	±0.05 (interior oscillator)					
	Overload	Hz	±5 (Synchronized, adjustable in steps of 0.1Hz)					
	Overload	Hz	≤ 125% : 10minutes ; ≤ 150% : 1 minute					
Overall	Efficiency	Normal	94					
		Eco	97					
	Transfer Time	ms	0					
	Temperature	°C	0~40					
	Dimension (WxDxH)	mm	520(W) x 910(D) x 1165(H)				520(W) x 975(D) x 1695(H)	
Interface	Weight	kg	170	200	230	260	320	350
	Standard		RS232 x 1, Smart Slot x 2, Dry contact output x 6, Contact input x 2, Parallel port x 1, Battery cabinet temperature x 4					
	Optional Accessories		SNMP card, Modbus card, Relay I/O control card, Environmental monitoring box, SNMP+5 ports hub, Battery cabinet temperature sensor, Battery cabinet temperature kit (For Delta cabinet), Battery cabinet status cable					

Gaia Series - With built-in batteries

Applications



UPSentry Smart Monitor

The GAIA series is a true on-line, double-conversion UPS designed in a rack or tower configuration and recommended for servers, VOIP, telecommunications and networking. A GAIA series UPS has inbuilt batteries to provide continuous and stable power to your critical loads when power events occur. With an extended battery cabinet, it can fulfill longer backup time requirements.

Availability

- Double-conversion technology. Provides 24/7 full-time protection.
- Built-in batteries for basic runtime demands.
- Battery-start capability without utility power.
- RS232 and USB connectivity with power management software.
- Built-in data line surge protector for phone/fax/network.

Flexibility

- Rack or tower configuration in 2U size cabinets.
- Optional extended battery cabinet for longer backup time.
- Smart slot for mission critical applications.
- Programmable output saves energy for important loads.

Lowest Total Cost of Ownership

- Wide input voltage range and stable power supply extends battery lifetime.
- High input power factor (pf > 0.97). Savings in installation costs.
- Intelligent management prevents battery from over-discharge.

Model			GA1000R	GA2000R	GA3000R
Power Rating - kVA/Watt			1KVA/800W	2KVA/1600W	3KVA/2100W
Input	Rating Voltage	VAC	200/208/220/230/240, single phase		
	AC Voltage Range	VAC	160~275 (full load)		
	DC Input Range	VDC	130~160 (linearly de-rating between 70%~100% loading)		
	Power Factor		24Vdc		
	Frequency	Hz	≥ 0.97		
Output	Voltage	V	50 or 60 ±5		
	Voltage Harmonic	%	200/208/220/230(default)/240, single phase		
	Voltage regulation	%	≤ 3 (Linear load); ≤6 (computer load)		
	Frequency	Hz	±2		
	Wave Form		50 or 60 ±0.05		
Battery	Transient response		Pure Sine wave		
	Overload		<8%		
	Rating	V	<105% : Continuous ; 105~125% : 3 minutes		
	Charging capability	A	125~150% : 30 seconds ; >150% : 0.5 second		
	Typical Backup Time		12V/8.5Ah; 2 pcs	12V/8.5Ah; 4 pcs	12V/8.5Ah; 8 pcs
Display	LED		0.6 ~ 1.2 (default 0.8A)		
	Standard		0.74 ~ 1.38 (default 0.1A)		
Interface	Optional Accessories		12 minutes (half load)	13 minutes (half load)	15 minutes (half load)
	Battery Start		4 minutes (full load)	4 minutes (full load)	5 minutes (full load)
Others	Rail Kit		Online, Bypass, On-battery, Overload, Battery low, Fault, Replace battery, Battery level, Loading level		
	Efficiency	%	RS232 x 1, USB x 1, SNMP Slot x 1		
Overall	Dimension	mm	SNMP card, Modbus card, Relay I/O control card, EnviroProbe, SNMP+5ports hub		
	Weight UPS	kg	Yes		
	Weight Battery Cabinet	kg	Optional		
	Efficiency	%	> 87 (full load)		
Overall	Dimension	mm	440 x 335 x 89	440 x 432 x 89	440 x 610 x 89
	Weight UPS	kg	13	21	31
	Weight Battery Cabinet	kg	16	29	43

Insight Power Manager

InsightPower Manager is a centralized UPS management system that manages and controls the UPSs installed in your network. The application allows you to save user operation logs, UPS event logs and historical parameter data in a database.

Insight Power Client

InsightPower Client is an advanced UPS shutdown management application that supports Simple Network Management Protocol (SNMP). Its unattended operating system shutdown and file saving capability enable remote PC shutdown.

Shutdown Agent

Shutdown Agent assists in shutting down PCs in case of emergency. It features a multi-server shutdown function using an SNMP card. The Shutdown Agent runs an external file before shutdown.



SNMP Card



Relay Card



Modbus Card



Environmental Sensor Box

Long Backup UPS's

Input voltage bears up to 330Vac for severe utility conditions



Gaia LCD screen



R-Series LED screen



Maintenance Bypass Switch



Gaia external battery enclosures



Rail kits



Server



Network



Security



Medical



POS



Banking

R Series Long Backup

The R series is a true on-line, double-conversion UPS that comes in either a **rack or tower configuration** and is recommended for servers, VOIP, telecommunications and networking. The R series is designed for **long backup time applications** with the addition of a customized battery source. The inbuilt high level charger shortens the recharging period and increases availability.

Availability

- Double-conversion technology. Provides 24/7 full-time protection.
- Automatic input frequency (50 or 60Hz) detection.
- AC-start and battery-start capabilities.
- Rail kit is included in the package.

Flexibility

- Rack or tower configuration in 2U size cabinets.
- Suitable for long backup time applications with customized battery source.
- Additional charger installs inside the UPS to reduce recharging time.

Lowest Total Cost of Ownership

- High input power factor (pf > 0.99) and low harmonic distortion (iTHD < 5%)
- Wide input voltage range and stable power supply extends battery life.



Gaia - Long Backup

The GAIA series delivers high power density, high input power factor, and low current harmonics with its advanced architecture. Designed in a rack or tower configuration, this UPS offers unmatched performance for servers, data centers, networking, VOIP and telecommunications.

You can install the GAIA series 5-11 kVA in **1+1 parallel redundancy** to provide even higher reliability. With an extended battery source, it delivers the desired runtime for your mission critical applications. The inbuilt high level charger shortens the recharging period and increases availability.

Model			R-1K	R-2K	R-3K	GA5000RL	GA7000RL	GA11000RL
Power Rating - kVA/Watt			1KVA/700W	2KVA/1400W		5kVA / 3.5kW	7kVA / 4.9kW	11kVA / 8kW
Input	Rating Voltage	VAC	220/230/240, single phase					
	AC Voltage Range	VAC	80~280			100~300 (full load)		
	DC Input Range	VDC	36Vdc	72Vdc	72Vdc	192	240	
	Power Factor		≥ 0.99					
	Frequency	Hz	50 or 60 ±5					
Output	Voltage	V	200/208/220/230(default)/240, single phase					
	Voltage Harmonic	%	≤ 3 (Linear load); ≤6 (computer load)			≤ 2 (linear load)		
	Voltage regulation	%	±2			± 1 (static) ; ± 2 (typical)		
	Frequency	Hz	50 or 60 ±0.05					
	Wave Form		Pure Sine wave					
	Overload		<105% : Continuous ; 105~125% : 3 minutes 125~150% : 30 seconds ; >150% : 1 second			≤ 105% : Continuous ; 105~110% : 10 minutes ; 111~125% : 5 minutes ; 126~150% : 30 seconds ; >150% : Immediately		
	Charging capability	A	3 Amp (adjustable, max. 4.5 Amp)	3.4 Amp (adjustable, max. 4 Amp)	3.4 Amp (adjustable, max. 4 Amp)	Built-in : max. 4 Amp (adjustable)		
	Optional Extra Charger	A	5 Amp (internal installation)			4 Amp (internal installation)		
Display	LED		Online, Bypass, On-battery, Overload, Battery low, Fault, Replace battery, Battery level, Loading level			AC input/output, Bypass, Inverter, Fault, Overload, Battery replacement, Battery backup		
	LCD (Multi-Language)					Input/Output, Bypass, Inverter, Frequency, Loading and battery level, Abnormal message and intelligent self diagnosis		
Inter-face	Standard		RS232 x 1, SNMP slot x 1			RS232 x 1, SNMP slot x 1, Smart slot x 1, Parallel port x 1		
	Optional Accessories		SNMP card, Modbus card, Relay I/O control card, EnviroProbe, SNMP+5 ports hub					
Others	Battery Start		Yes			Yes		
	Optional / Accessories		Rail Kit Included in package			Rail kit ; Maintenance bypass box ; Extended battery cabinet		
Overall	Efficiency	%	> 87 (full load)			92 (normal ac-ac) / 96 (eco mode)		
	Dimension	mm	440 x 450 x 89			440 x 670 x 89		440 x 628 x 131
	Weight UPS	kg	67	92		14.5	15	20.5

Please refer to www.rectifier.co.za for detailed specifications.