# Delta UPS - Modulon Family

NH Series, Three Phase Modular 20 - 60 kVA

The Modulon NH series is a true on-line, double-conversion, three phase UPS featuring high efficiency, a modular structure and N+X redundancy. With its industry leading 94% high efficiency, the NH series delivers remarkably low total cost of ownership in terms of both capital expense and operating expense.

With N+X module and system redundancy to guarantee reliability and availability, the NH series sets a new milestone for power protection in mission critical applications.

### **Availability**

- Available from 20 to 120 kVA (60kVA x 2 units in parallel).
- Redundancy at module and system level.
- Redundant auxiliary power and control circuit ensures higher reliability.
- Advanced battery management optimizes battery performance and lifetime.
- Easy power module replacement reduces MTTR (Mean Time To Repair).
- · Inbuilt maintenance and static bypass switch.

### **Flexibility**

- Modular design provides high scalability for increasing power requirement.
- Multi-language mimic LCD display and LED status indicators.
- Two smart slots and six programmable dry contact outputs.
- Optional external battery cabinet for longer backup time.

#### **Low Total Cost Of Ownership**

- $\bullet$  High input power factor (pf > 0.99) and low harmonic distortion (iTHD < 5%)
  - savings in installation costs.
- Maximum 94% high efficiency saving energy and operating cost.
- Optimum generator sizing and saving initial investment.













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## NH Series, Three Phase Modular 20 - 60 kVA

| Technical Specifi  | ications                          |                 |  |               |                                  |                     |
|--------------------|-----------------------------------|-----------------|--|---------------|----------------------------------|---------------------|
| Model              |                                   |                 | NH-20K**   | NH-40K        |                                  | NH-60K              |
| Power Rating - kVA |                                   |                 | 20   | 40            |                                  | 60                  |
| Power Rating - kW  |                                   |                 | 16   | 32            |                                  | 48                  |
| Input              | Nominal Voltage                   |                 | 208/120 Vac (3 phase, 4-wire + G)  |               |                                  |                     |
|                    | Voltage Range                     |                 | 156 ~ 249 Vac (line-line) / 90 ~ 144 Vac (line-neutral) *  |               |                                  |                     |
|                    | Current Harmonic Distortion       |                 | < 5% (full load)   |               |                                  |                     |
|                    | Power Factor                      |                 | > 0.99   |               |                                  |                     |
|                    | Frequency                         |                 | 50 or 60 ± 5 Hz  |               |                                  |                     |
| Output             | Voltage                           |                 | 208/120 Vac (3phase, 4-wire + G)   |               |                                  |                     |
|                    | Voltage Harmonic Distortion       |                 | < 3% (linear load)   |               |                                  |                     |
|                    | Voltage Regulation                |                 | ± 1% (static)  |               |                                  |                     |
|                    | Frequency                         |                 | 50 or 60 Hz  |               |                                  |                     |
|                    | Frequency Regulation              |                 | ± 0.05 Hz (interior oscillator)  |               |                                  |                     |
|                    |                                   |                 | ± 5 Hz (synchronized, adjustable in steps of 0.1 Hz)   |               |                                  |                     |
|                    | Overload Capability               |                 | ≤ 125%: 10 minutes; ≤ 150%: 1 minute   |               |                                  |                     |
| Interface          | Standard                          |                 | RS232 x 1, SNMP slot x 2, Dry contact output x 6, Dry contact input x 2,                           |               |                                  |                     |
|                    |                                   |                 | Battery cabinet temperature x 4, Battery cabinet status detection x 1, Parallel port x 1, REPO x 1 |               |                                  |                     |
|                    | Management Peripherals            |                 | SNMP card, Modbus card, Relay I/O control card, EnviroProbe,                                       |               |                                  |                     |
|                    |                                   |                 | SNMP hub, Battery cabinet temperature sensor,  |               |                                  |                     |
|                    |                                   |                 | Battery cabinet status cable   |               |                                  |                     |
| Conformance        | Safety & EMC                      |                 | EN62040-1, EN62040-2 Class A   |               |                                  |                     |
| Other Features     | Parallel Redundancy and Expansion |                 | Module and system redundancy; Maximum 2 units in parallel up to 120 kVA                            |               |                                  |                     |
|                    | Emergency Power Off               |                 | Local and remote   |               |                                  |                     |
|                    | SRAM Event Log                    |                 | 500 records  |               |                                  |                     |
| Efficiency         | AC-AC                             |                 | 94%  |               |                                  |                     |
|                    | ECO Mode                          |                 | 97%  |               |                                  |                     |
| Environment        | Operating Temperature             |                 | 0 ~ 40°C   |               |                                  |                     |
|                    | Relative Humidity                 |                 | 0 ~ 90% (non-condensing)   |               |                                  |                     |
|                    | Audible Noise (at one meter)      |                 | 68 dBA   | 70 dBA        |                                  | 70 dBA              |
| Physical           | Dimensions<br>(W x D x H)         | UPS             | 520 x 855 x 1696 mm  | 520 x 855     | x 1696 mm                        | 520 x 975 x 1696 mm |
|                    |                                   | Battery Cabinet | NHB26: 520 x   | 855 x 1165 mm | 65 mm NHB40: 520 x 855 x 1696 mm |                     |
|                    | Weight                            | UPS             | >400 kg  | >450 kg       |                                  | >580 kg             |





Smart Slots and Interface



Up to 3 Modules in One Cabinet



2 Units x 60 kVA in Parallel



Delta offers full range UPS solutions from 600 VA to 4000 kVA to fulfill your p ower security needs.



Forbes Asia's

Fabulous 50

\* \* Cabinet of 40kva.



All specifications are subject to change without prior notice.

 $^{\star}$  Lower range 208  $\sim$  300 / 120  $\sim$  173 Vac is acceptable under 70  $\sim$  100% loading condition.

2009 Frost & Sullivan Green Excellence Award for Corporate Leadership



Delta's Manufacturing System is Certified by ISO 9001 and ISO 14001 Standards



IECQ Certificate of Hazardous Substance Process Management



