# Delta UPS-Ultron Family

HPH Series, Three Phase 20 - 120 kW

# Best-in-class power protection with maximum power and cost efficiency

The Ultron HPH is a true online double-conversion UPS offering the best-in-class combination of maximum available power. unbeatable energy efficiency and superior power performance for small data centers and other mission critical applications . With fully rated power (kVA=kW), the Ultron HPH provides maximum available power without de-rating the UPS. Thanks to the three level IGBT topology for both PFC (power factor correction) and inverter, the Ultron HPH features up to 96% AC-AC efficiency. Delta's advanced digital PFC control also contributes low iTHD < 3% and high input power factor > 0.99 resulting in significant TCO (Total Cost of Ownership) savings. Facilitating increased availability and power performance, the Ultron HPH is an ideal solution for protecting your mission critical operations.

## **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 reduction in the number of electronic components to lower failure rate
- · Redundant auxiliary power and fan design\* enhance system reliability

#### **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**

- · Front-door battery replacement with hot-swappable battery tray design supports easy and quick replacement without turning the unit off (HPH-B / BN)
- Swappable interior architecture and front access servicing enables quick and easy maintenance\*
- · Multi-connectivity interface supports remote UPS monitoring and management







Industrial



Network

















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# HPH Series, Three Phase 20 - 120 kW

POwer Rating	Model		HPH-20K	HPH-30K	HPH-40K	HPH-60K	HPH-80K	HPH-100K	HPH-120K
Input			HPH-20K-BN/B	HPH-30K-BN/B	HPH-40K-BN/	HPH-40K-BN/B			
Voltage Range   300-477 Vac (full load)   238-302 Vac (63%-100% load)   228-332 Vac (63%-100d)   228-332 Vac (63%-100d)	Power Rating		20kVA/kW	30kVA/kW	40kVA/kW	60kVA/kW	80kVA/kW	100kVA/kW	120kVA/kW
228-300 Vac (70%-100% load)   228-332 Vac (63%-100% load)	Input	Nominal Voltage	380/220Vac, 400/230Vac, 415/240Vac (3 phase, 4-wire + G)						
Frequency		Voltage Range	300~477 Vac (full load) 332~477 Vac (full load)						
Power Factor			228~300 Vac (70%~100% load)			228~332 Vac (63%~100% load)			
Current Harmonic Distortion   < 3%		Frequency	40~70Hz						
Output		Power Factor	> 0.99 (full load)						
Voltage Regulation		Current Harmonic Distortion	< 3%						
Voltage Harmonic Distortion   < 1.5 % (linear load)   <2% (line	Output	Voltage	380/220Vac, 400/230Vac, 415/240Vac (3 phase, 4-wire + G)						
Overload Capability Output Power Factor Frequency         ≤105 %; continuous; 106% ~ ≤125%; 10 minutes; 126% ~ ≤150%; 1 minute; >150%; 1 second           Battery         50/60Hz +/- 0.05Hz           Battery         Battery Voltage Type         240Vdc Support SMF/VRLA/Tubular/Ni-Cd Quantity         32-46 pcs***           Charge Current (Max.)         5A         9A         9A         10A         15A         20A         20A           Built-in Additional charger board (optional) Typical Backup Time **         15 min         10 min         9.5 min         20A         20A         40A         40A         40A           Communication Interfaces         SMART Slot x 1, MINI Slot x 1, Parallel Port x 2, RS232 Port x 1, REPO Port x 1, Charger Detection Port x 1, Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1*         CE         CE </td <td>Voltage Regulation</td> <td>±1 %</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Voltage Regulation	±1 %						
Output Power Factor   Frequency   50/60Hz +/- 0.05Hz		Voltage Harmonic Distortion	< 1.5 % (linear lo	ad)		<2% (linear	load)		
Frequency   \$0/60Hz +/- 0.05Hz		Overload Capability	$\leq$ 105 %: continuous; 106% ~ $\leq$ 125%: 10 minutes; 126% ~ $\leq$ 150%: 1 minute; >150%: 1 second						
Battery   Sattery Voltage   240Vdc   Type   Support SMF/VRLA/Tubular/Ni-Cd   Quantity   32-50 pcs   32-46 pcs***   Charge Current (Max.)   5A   9A   9A   10A   15A   20A   20A   20A   Sulli-in   Additional charger board (optional)   20A   20A   20A   40A   40A   40A   Typical Backup Time **   15 min   10 min   9.5 min   Communication   Interfaces   SMART Slot x 1, MINI Slot x 1, Parallel Port x 2, RS232 Port x 1, REPO Port x 1, Charger Detection Port x 1, Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1*   CE   CE   CE   CE   CE   CE   CE   C		Output Power Factor	1						
Type Support SMF/VRLA/Tubular/Ni-Cd Quantity 32-50 pcs 32-46 pcs***  Charge Current (Max.) 5A 9A 9A 10A 15A 20A 20A Built-in Additional charger board (optional) Typical Backup Time ** 15 min 10 min 9.5 min  Communication Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1, REPO Port x 1, Charger Detection Port x 1, Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1*  Conformance Safety CE, RCM CE  Other Features Parallel Redundancy Up to 4 units Emergency Power Off Local and remote Maintenance Bypass Switch Efficiency AC-AC Up to 99%  Environment Operating Temperature 0 ~ 40 °C Relative Humidity 5% ~ 95 % (non-condensing) Audible Noise < 55 dB < 60 dB < 65 dB  Physical Dimensions (W x D x H) 380 x 800 x 800 mm Weight 66.5 kg 86.06 kg 86.05 kg 186.5 kg 191 kg 312 kg 312 kg  Physical Dimensions (W x D x H) 490 x 830 x 1400 mm (BN / B) Weight (with batt.) 365 kg 385 kg		Frequency	50/60Hz +/- 0.05l	Hz					
Quantity   32-50 pcs   32-46 pcs***	Battery	Battery Voltage	240Vdc						
Charge Current (Max.)   5A   9A   9A   10A   15A   20A   20A   20A   20A   20A   40A   4		Туре	Support SMF/VRLA/Tubular/Ni-Cd						
Built-in Additional charger board (optional) Typical Backup Time ** 15 min 10 min 9.5 min  Communication Interfaces		Quantity	32-50 pcs 32-46 pcs***						
Typical Backup Time **		. ,	5A	9A	9A	10A	15A	20A	20A
SMART Slot x 1, MINI Slot x 1, Parallel Port x 2, RS232 Port x 1, REPO Port x 1, Charger Detection Port x 1, Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1*		Additional charger board (opt	tional)			20A	20A	40A	40A
Input Dry Contact x 2, Output Dry Contact x 6, USB Port x 1*   Conformance		Typical Backup Time **	15 min	10 min	9.5 min				
Other Features         Parallel Redundancy         Up to 4 units           Emergency Power Off         Local and remote           Maintenance Bypass Switch         Yes           Efficiency         AC-AC         Up to 96%         > 96% (HPH 40-120K peak efficiency is tested by TÜV)           ECO Mode         Up to 99%         Environment         Operating Temperature         0 ~ 40 °C           Relative Humidity         5% ~ 95 % (non-condensing)         40 dB         40 dB           Audible Noise         < 55 dB									
Emergency Power Off Local and remote  Maintenance Bypass Switch Yes  Efficiency AC-AC Up to 96% > 96% (HPH 40-120K peak efficiency is tested by TÜV)  ECO Mode Up to 99%  Environment Operating Temperature 0 ~ 40 °C  Relative Humidity 5% ~ 95 % (non-condensing)  Audible Noise < 55 dB < 60 dB <65 dB  Physical Dimensions (W x D x H) 380 x 800 x 800 mm 520 x 800 x 1175 mm 520 x 800 x 1760 mm  Weight 66.5 kg 86.06 kg 86.5 kg 186.5 kg 191 kg 312 kg 312 kg  Physical Dimensions (W x D x H) 490 x 830 x 1400 mm  (BN / B) Weight (with batt.) 365 kg 385 kg	Conformance	Safety	CE, RCM			CE			
Maintenance Bypass Switch Yes           Efficiency         AC-AC         Up to 96%         > 96% (HPH 40-120K peak efficiency is tested by TÜV)           ECO Mode         Up to 99%         Pup to 99%         Up to 90%	Other Features	Parallel Redundancy	Up to 4 units						
Efficiency AC-AC Up to 96% > 96% (HPH 40-120K peak efficiency is tested by TÜV)  ECO Mode Up to 99%  Environment Operating Temperature 0 ~ 40 °C Relative Humidity 5% ~ 95 % (non-condensing) Audible Noise < 55 dB < 60 dB <65 dB  Physical Dimensions (W x D x H) 380 x 800 x 800 mm Weight 66.5 kg 86.06 kg 86.5 kg 186.5 kg 191 kg 312 kg 312 kg  Physical Dimensions (W x D x H) 490 x 830 x 1400 mm  Weight (BN / B) Weight (with batt.) 365 kg 385 kg		Emergency Power Off	Local and remote						
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Relative Humidity       5% ~ 95 % (non-condensing)         Audible Noise       < 55 dB       < 60 dB       < 65 dB         Physical       Dimensions (W x D x H)       380 x 800 x 800 mm       520 x 800 x 1175 mm       520 x 800 x 1760 mm         Weight       66.5 kg       86.06 kg       86.5 kg       186.5 kg       191 kg       312 kg       312 kg         Physical (BN / B)       Dimensions (W x D x H)       490 x 830 x 1400 mm       490 x 830 x 1400 mm       490 x 830 x 1400 mm		ECO Mode	Up to 99%						
Audible Noise < 55 dB < 60 dB <65 dB  Physical Dimensions (W x D x H) 380 x 800 x 800 mm 520 x 800 x 1175 mm 520 x 800 x 1760 mm  Weight 66.5 kg 86.06 kg 86.5 kg 186.5 kg 191 kg 312 kg 312 kg  Physical Dimensions (W x D x H) 490 x 830 x 1400 mm  (BN / B) Weight (with batt.) 365 kg 385 kg	Environment	Operating Temperature	0 ~ 40 °C						
Physical         Dimensions (W x D x H)         380 x 800 x 800 mm         520 x 800 x 1175 mm         520 x 800 x 1760 mm           Weight         66.5 kg         86.06 kg         86.5 kg         191 kg         312 kg         312 kg           Physical (BN / B)         Dimensions (W x D x H)         490 x 830 x 1400 mm         490 x 830 x 1400 mm         490 x 830 x 1400 mm		Relative Humidity	5% ~ 95 % (non-condensing)						
Weight         66.5 kg         86.06 kg         86.5 kg         186.5 kg         191 kg         312 kg         312 kg           Physical (BN / B)         Dimensions (W x D x H)         490 x 830 x 1400 mm		Audible Noise	< 55 dB	< 60 dB		<65 dB			
Physical (BN / B)         Dimensions (W x D x H)         490 x 830 x 1400 mm           490 x 830 x 1400 mm         365 kg         385 kg	Physical	Dimensions (W x D x H)	380 x 800 x 800 mm 520 x 800 x 1175 mm 520 x 800 x 1760 mm					760 mm	
(BN / B) Weight (with batt.) 365 kg 385 kg		Weight	66.5 kg	86.06 kg	86.5 kg	186.5 kg	191 kg	312 kg	312 kg
weight (with batt.) 505 kg 505 kg	•	Dimensions (W x D x H)	490 x 830 x 1400 mm						
Weight (without batt.) 131 kg 162 kg		Weight (with batt.)	365 kg	385 kg					
		Weight (without batt.)	131 kg	162 kg					



High power performance HPH series UPS



Control and LCD Display Panel



Swappable interior architecture for quick and easy maintenance



Redundant fan design enhances system reliability



Delta offers a full range of UPS solutions from 600 VA to 4000 kVA to fulfill your power security needs.

HPH-B: UPS integrated battery model has batteries inside HPH-BN: UPS integrated battery model has no batteries inside

- \* Applied for models HPH-60/80/100/120K
- \*\* At 70% load with internal battery strings.
- \*\*\* UPS needs de-rating for battery quantity 32-36 pcs. Please contact authorized Delta personnel.

All specifications are subject to change without prior notice.



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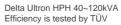
E SON SGS

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



IECQ Certificate of Hazardous Substance Process Management









Applied for models HPH-20/30/40K

