# HT-RN Series 10-40 kVA

3 Phase Sodium ION UPS

HIGH EFFICIENCY | CLEAN ENERGY | ECO-FRIENDLY TECHNOLOGY | ALL DEVICES COMPATIBLE

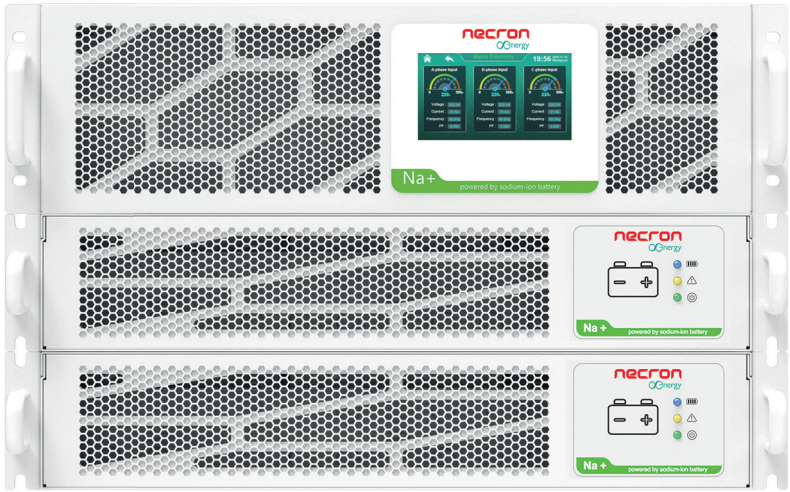
8 KAT DAHA KISA SÜREDE ŞARJ
8 TIMES SHORTER CHARGING TIME

10 KATA KADAR UZUN AKÜ ÖMRÜ
UP TO 10 TIMES LONGER BATTERY LIFE

-20°C / +40°C ÇALIŞIR
-20°C / +40°C OPERATES

KURŞUN VE LITYUM İÇERMEZ
LEAD AND LITHIUM FREE

%100 ÇEVRE DOSTU
100% ECO FRIENDLY




***High Reliability***
*- DSP central control, stable and reliable;*
*- Input power factor correction technology, input power factor up to 0.99;*

***Powered by Sodium-Ion batteries***
*- Top class sodium-ion cells with super high rate performance;*
*- Extra safety protections from sodium cell to battery pack;*
*- Super fast recharge within 1 hour ( to 90% capacity );*

***High Accessibility***
*- Supports rack and tower installations ,available for external battery packs;*
*- 4.3" Touchable LCD with real-time monitoring and easily setting;*

**Yüksek Güvenilirlik**
- DSP merkezi kontrol sistemi ile kararlı ve güvenilir çalışma;
- Giriş güç faktörü düzeltme teknolojisi sayesinde 0.99'a kadar giriş güç faktörü;

**Sodyum-İyon Bataryalarla Güçlendirilmiştir**
- Üst düzey, yüksek deşarj performansına sahip sodyum-iyon hücreler;
- Hücreden batarya paketine kadar ekstra güvenlik korumaları;
- 1 saat içinde ( %90 kapasiteye kadar ) ultra hızlı şarj özelliği;

**Yüksek Erişilebilirlik**
- Raf ve dikey kurulum desteği, harici batarya paketleriyle uyumluluk;
- 4.3" dokunmatik LCD ekran ile gerçek zamanlı izleme ve kolay ayar imkânı;

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| Technical Specifications | HT10RN | HT15RN | HT20RN | HT30RN | HT40RN |
|---|---|---|---|---|---|
| Capacity | 10kVA / 10kW | 15kVA / 15kW | 20kVA / 20kW | 30kVA / 30kW | 40kVA / 40kW |
| Phase | 1:1 / 3:1 / 3:3 | | | 3:3 | |
| **INPUT** | | | | | |
| Nominal Voltage | 220/230/240Vac, (1Ph+N+PE) 380/400/415Vac, (3Ph+N+PE) | | | 380/400/415Vac, (3Ph+N+PE) | |
| Dulle Input | Support | | | | |
| Operating Voltage Range | 138~485Vac for 40% Load; 305~485Vac For Full-Load | | | | |
| Operating Frequency Range | 40Hz-70Hz | | | | |
| Power Factor | ≥0.99 | | | | |
| THDi | 3% (100%linear load) | | | | |
| Bypass Voltage Range | Max. Voltage: 220V: +25% (optional +10%,+15%,+20%); 230V: +20% (optional +10%,+15%)<br>240V: +15% (optional +10%); Min. Voltage: -45% (optional-10%, -20%,-30%) | | | | |
| Bypass Frequency Range | Frequency Protection Range: ±10% | | | | |
| Generator Input | Support | | | | |
| **OUTPUT** | | | | | |
| Rated Voltage | 220/230/240Vac, (1Ph+N+PE) 380/400/415Vac, (3Ph+N+PE) | | | 380/400/415Vac, (3Ph+N+PE) | |
| Power Factor | 1.0 | | | | |
| Voltage Regulation | ± 1% | | | | |
| Output Frequency (Line Mode) | ±1%/±2%/±4%/±5%/±10% of the Rated Frequency (optional) | | | | |
| Output Frequency (Battery Mode) | 50/60Hz ± 0.1% | | | | |
| Crest Factor | 3:1 | | | | |
| THDu | ≤2% (linear load); ≤4% (non-linear load) | | | | |
| Efficiency (Max) | 94.6% | 95.3% | | | 95.6% |
| **BATTERY** | | | | | |
| Battery Type | Sodium-Ion | | | | |
| Phase | Positive and Negative Voltage | | | | |
| Battery Model | (DTR192BCN)*2 | (DTR240BCN)*2 | (DTR288BCN)*2 | (DTR240BCN)*4 | (DTR288BCN)*4 |
| Battery Capacity | ±192V 6.4Ah | ±240V 6.4Ah | ±288V 6.4Ah | ±240V 12.8Ah | ±288V 12.8Ah |
| Runtime (50% Load) | 18min | 15min | 13min | 15min | 13min |
| Runtime (100% Load) | 6.5min | 5min | 4min | 5min | 4min |
| Charge Time | ≈1 hour | | | | |
| Intelligent Battery Management System (BMS) | Specific dual-level real-time monitoring of sodium-ion battery status, precise management of charging and discharging; protect from over-charging/ over-discharging /over-temperature ; extend service lives ; WIFI remote monitoring (optional); | | | | |
| **SYETEM FEATURES** | | | | | |
| Transfer Time | Utility to Battery: 0ms; Utility to Bypass: 0ms | | | | |
| Overload (Line Mode) | 105% < load ≤ 110%: Transfer to Bypass Mode After 60 min<br>110% < load ≤ 125%: Transfer to Bypass Mode After 10 min<br>125% < load ≤ 150%: Transfer to Bypass Mode After 1 min<br>150% < load : Transfer to Bypass Mode After 1.2sec | | | | 100% < load ≤ 110%: Transfer to Bypass Mode After 10 min<br>110% < load ≤ 125%: Transfer to Bypass Mode After 1 min<br>125% < load : Transfer to Bypass Mode After 200 ms |
| Overload (Bypass Mode) | 130% Overload For Long Term; >1000% Overload For 100 ms | | | | Temp. ≤ 30°C, load ≤ 135%: run for a long time; Temp. ≤ 40°C, load ≤ 125%: run for a long time<br>1000% Load: Run For 100 ms |
| Audible & Visual Alarms | Fault, Battery, Bypass and Normal | | | | |
| LCD | 4.3-Inch Touchable | | | | |
| Interface Communication | USB, RS485, Parallel, EPO Dry Contact Port, Maintenance Breaker DRY Contact Port, Relay Card (optional), SNMP Card (optional), Battery Temperature Sentor (optional) | | | | |
| Interface Communication | RS485, Back-Feed Drive Contact Port, Output Breaker DRY Contact Port | | | RS485, Output Breaker DRY Contact Port, Battery Breaker DRY Contact Port, Back-Feed or Battery Breaker Drive Contact Port (optional) | |
| Parallel Function | Support, Up to 4 Units | | | | |

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|---|---|---|---|---|---|
| Capacity | 10kVA / 10kW | 15kVA / 15kW | 20kVA / 20kW | 30kVA / 30kW | 40kVA / 40kW |
| **ENVIRONMENT** | | | | | |
| Operating Temperature | -20-40°C | | | | |
| Recommonted Operating Temperature | 0-25°C | | | | |
| Storage Temperature | -20~50°C | | | | |
| Humidity Range | 0-95% (Non-Condensing) | | | | |
| Altitude | <1500m | | | | |
| Noise Level (From 1m Distance) | <56dB | | | <58dB | <60dB |
| **PHYSICAL** | | | | | |
| UPS Dimension [WxDxH] (mm) | 440x680x131 | | | | |
| Battery Dimension [WxDxH] (mm) | 440x680x85 | | | 440x680x85 | |
| UPS & Battery Dimension [WxDxH] (mm) | 440x680x301 | | | 440x680x471 | |
| UPS Net Weight (kg) | 25.0 | | | 26.5 | 28.0 |
| Battery Net Weight (kg) | 22.5 | 22.5 | 29.0 | 25.5 | 29.0 |
| UPS & Battery Net Weight (kg) | 70 | 76 | 83 | 128 | 144 |
| **STANDARD & CERTIFICATION** | | | | | |
| Safety | IEC/EN62040-1,IEC/EN60950-1 | | | | |
| EMC | IEC/EN62040-3,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8 | | | | |

Specifications subject to change without prior notice.


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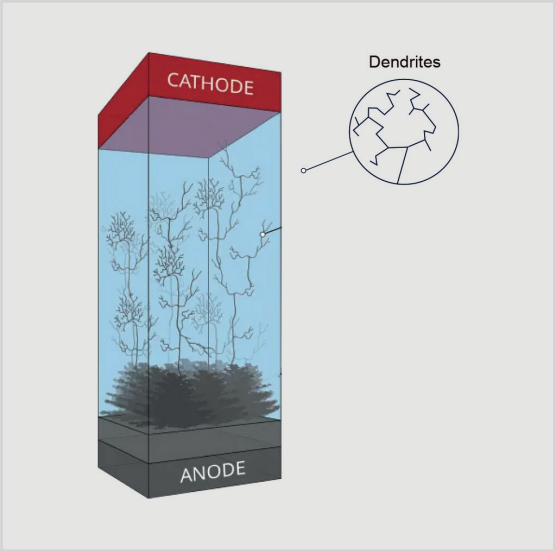


**SUPER HIGH RATE DISCHARGE**
Up to 12C discharge rate for sodium-ion cell, excellent matching the short time & high power backup of UPS;

**SUPER LONG LIFE**
3000 cycles equals to LiFePO4, 5 times longer than VRLA;

**GREEN & SUFFICIENT SUPPLY**
Sodium is common accessible material, no toxic and pollution in comparing with lead; Sodium-ion battery is greener than lead acid battery in whole life cycle;

Among the Earth's Crust, lithium element abundance is just 0.0017%, while sodium element abundance is 2.3%. Sodium-ion battery has more sufficient supply and lower costs than lithium-ion in long term;

**SUPER SAFETY**
Sodium is more active than lithium, during chemical reaction inside the cells, the dendrites generated between anode and cathode, would be self-dissolved easier than lithium, less risks to puncture the separator and cause short-circuit;

The unique ethylene carbonate (EC) electrolyte, has better sodium-ion solubility and higher flash-point, both guarantee sodium-ion barely cause thermal runaway;

Plus the enhanced safe design of cell mechanical structures, It will barely have smokes, fires, explosion even under worse cases like puncturing, squeezing, over-charge, over-discharge etc.;

**SUPER FAST RECHARGE**
Sodium-ion has much better solubleness and much smaller Stokes diameter in same density electrolytes, thus much better conductivity and >50% faster recharging rate than its lithium-ion counterpart;

**SUPER STRONG THERMAL TOLERANCE & LOW TEMPERATURE PERFORMANCE**
Sodium-ion cells can work under wider temperatures from -40°C-60°C, up to 88% capacity retention even under -20°C, >40% more than its lead acid or lithium-ion counterparts;