

SCALA

New Model
Available

Scala Next Modular UPS Series



**The Next Generation of Power Protection for
Mission Critical Application**

+ Compact + Scalable + Hot swappable

**Three Phase Online Double Conversion UPS
30 – 900 kVA**

The Specialist of innovative UPS Design

Scala Power Corporation , a company specialist in power and energy recovery systems with many years of experience in providing high availability power solutions for unpredictable evolution in IT Infrastructure. Our manufacturer's expertise naturally extends to a continuous innovation for complete range of services designed to facilitate the research, implementation and operation of our solutions.

As an industry-leading UPS provider, we're constantly working to ensure that our service standards meet your needs precisely. The experience and know-how of our servicing resources provide a dedicated support package which helps to ensure your data center can maximize availability , keeping low cost and maintaining a flexible infrastructure.



Scala Next

The Scala Next by Scala Power Corporation is the innovative and reliable solution for protecting critical applications in computer rooms , data centers , banks , healthcare , facilities , insurance and telecom.

The Scala Next is a next generation of world-class, redundant, scalable, high-efficiency power protection systems for business high availability , cost effective and flexible response to unpredictable demands.

Seamlessly integrating into today's state-of-the-art data center designs, the Scala Next UPSs are true modular system , built from swappable— all engineered into a design that is easily and efficiently serviceable. This architecture can scale power and runtime as demand grows or as higher levels of availability are required.

Highly manageable, each Scala Next offer features self-diagnostic capabilities and standardized modules that mitigate the risk of human error, resulting in increased overall data center reliability. Optional N+1 module-level redundancy further enhances power protection and peace of mind without increasing the footprint of your power protection solution.

Scala Next delivers high availability, extreme agility, and low total cost of ownership in an aesthetic form factor. With industry-leading power density, the Scala Next has the ability to fit seamlessly onto the data center floor or into the back room.

Available Model

Scala Next 1830

Scala Next 1830 maximum power 162kW / cabinet

Designed to house 6 power modules to reach maximum capacity of 180 kVA and expandable to 540kVA by connecting three frames in parallel

Scala Next 1830U

Scala Next 1830U maximum power 180kW / cabinet

Each Frame delivers Unity Power Factor ($pF=1$) to provide full capacity of 180kW with 6 power modules and 540kW by parallel three frames



Scala Next 3030

Scala Next 3030 maximum power 270kW/cabinet

Designed to house 10 power modules to reach maximum capacity of 300 kVA and expandable to 900kVA by connecting three frames in parallel

Scala Next 3030U

Scala Next 3030U maximum power 300kW/cabinet

Each Frame delivers Unity Power Factor ($pF=1$) to provide full capacity of 300kW with 10 power modules and 900kW by parallel three frames

Main feature and benefits

TRUE MODULAR design

Power expansion simply by adding power module without any downtime and extra space

HOT SWAP design

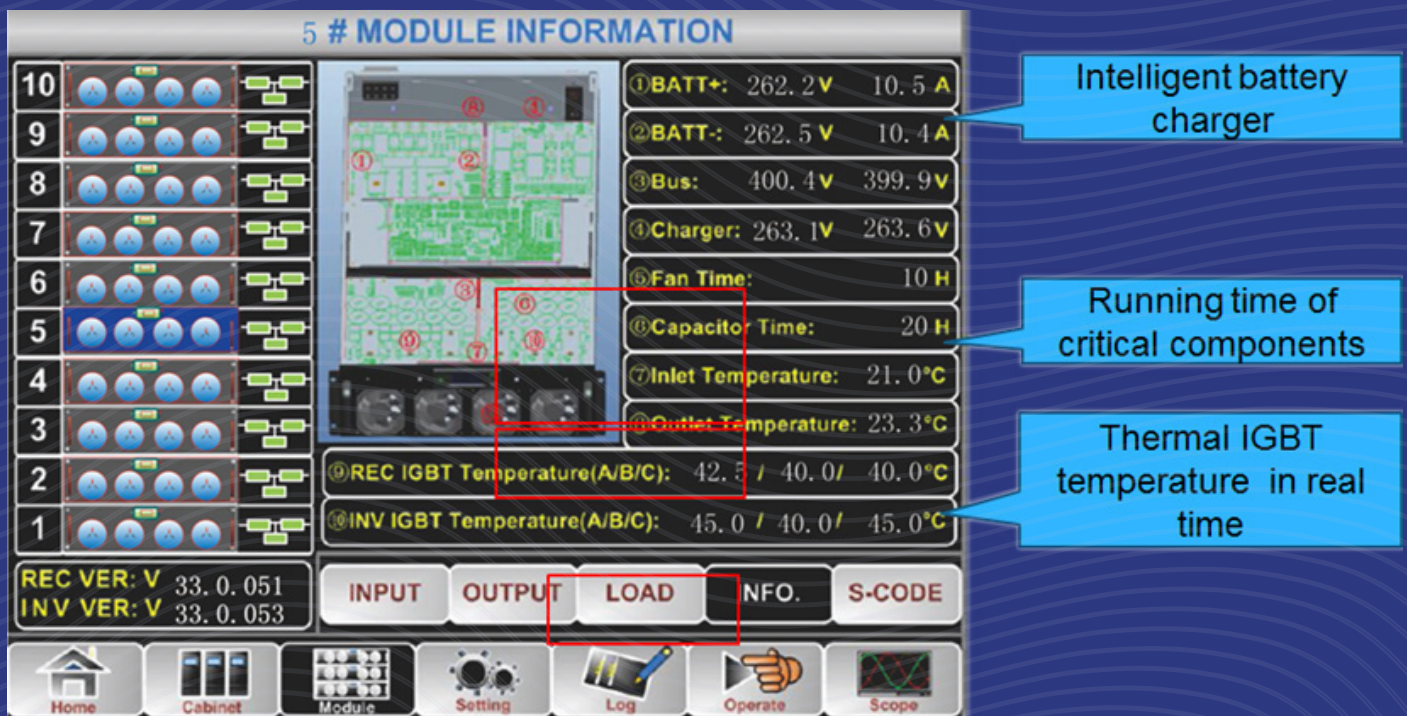
Power module can be replaced or added while another module continues protecting the load.

REDUNDANCY and CAPACITY

Power Frame can be paralleled for redundancy or expansion

Dual-mains input

Two separate power inputs for increased availability.

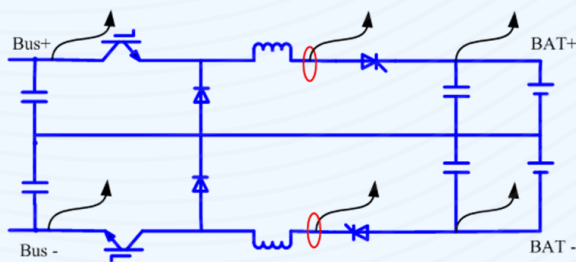


LED light and LCD touch screen

10.4" touch colorful LCD screen, Multi languages to select , 896 history logs.
Password control at different levels to manage access of UPS configuration

Independent Charger

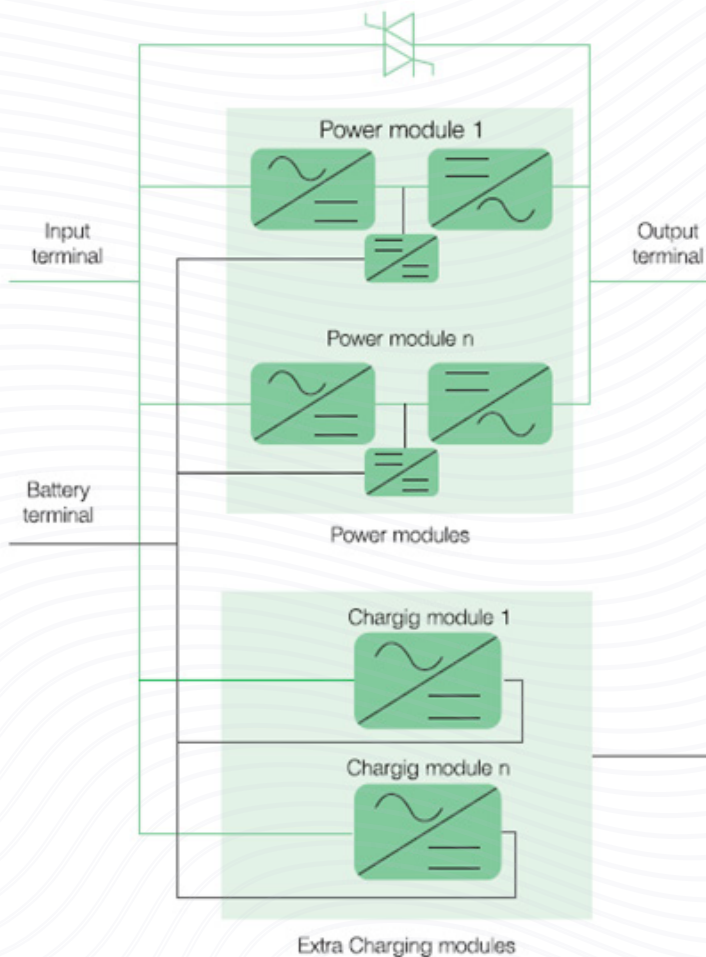
- Each Power has Independent Charger and full digital control
- Max Charger Current: $20\% \times \text{Power}$, adjustable



Why Independent Charger?

- Independent DC bus, fault isolated.
- Fully digital controlled, charging voltage & current are regulated and settable
- The number of battery ranges from 32-44, settable
- Optimized battery management

More reliable
More flexible
Higher performance
Longer battery service life



Supercharger (Optional)

0-50A adjustable

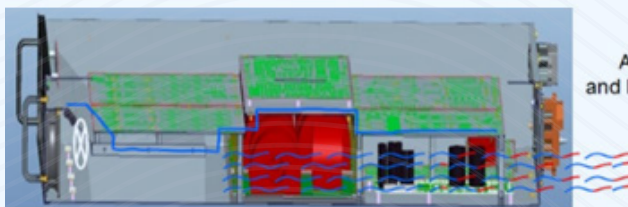
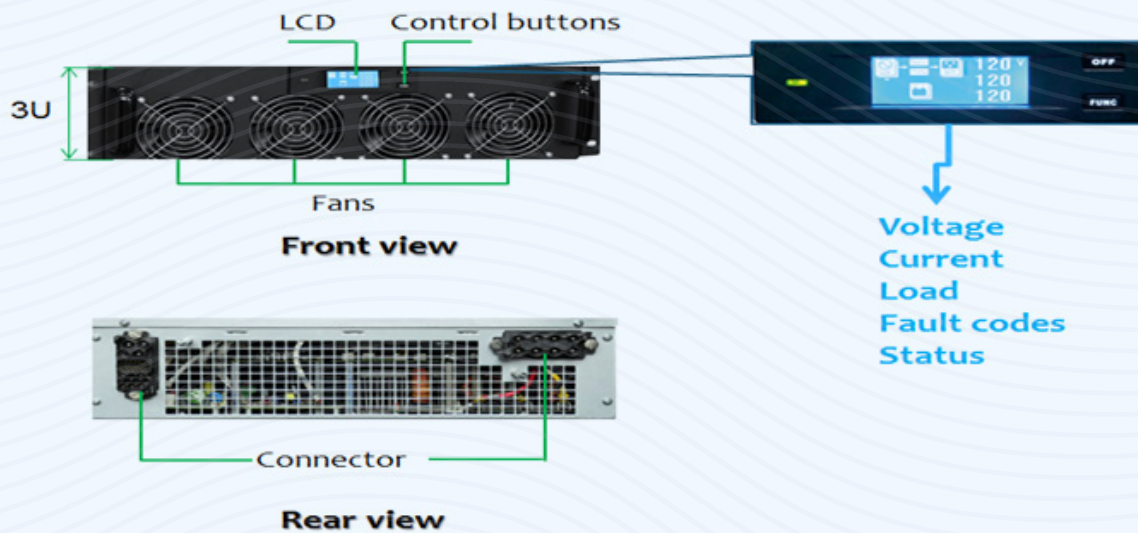


Hot swappable

Power Module

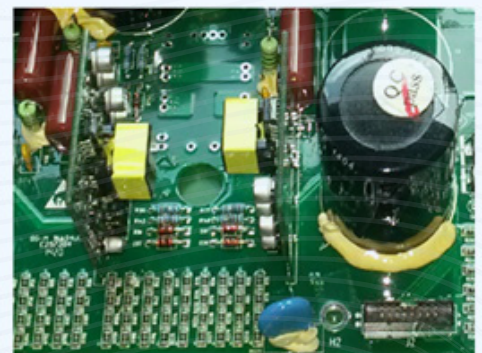
Scala Next M30 : 30kVA / 27kW (for Frame 1830 and 3030)

Scala Next M30U : 30kVA / 30kW (for Frame 1830U & 3030U)



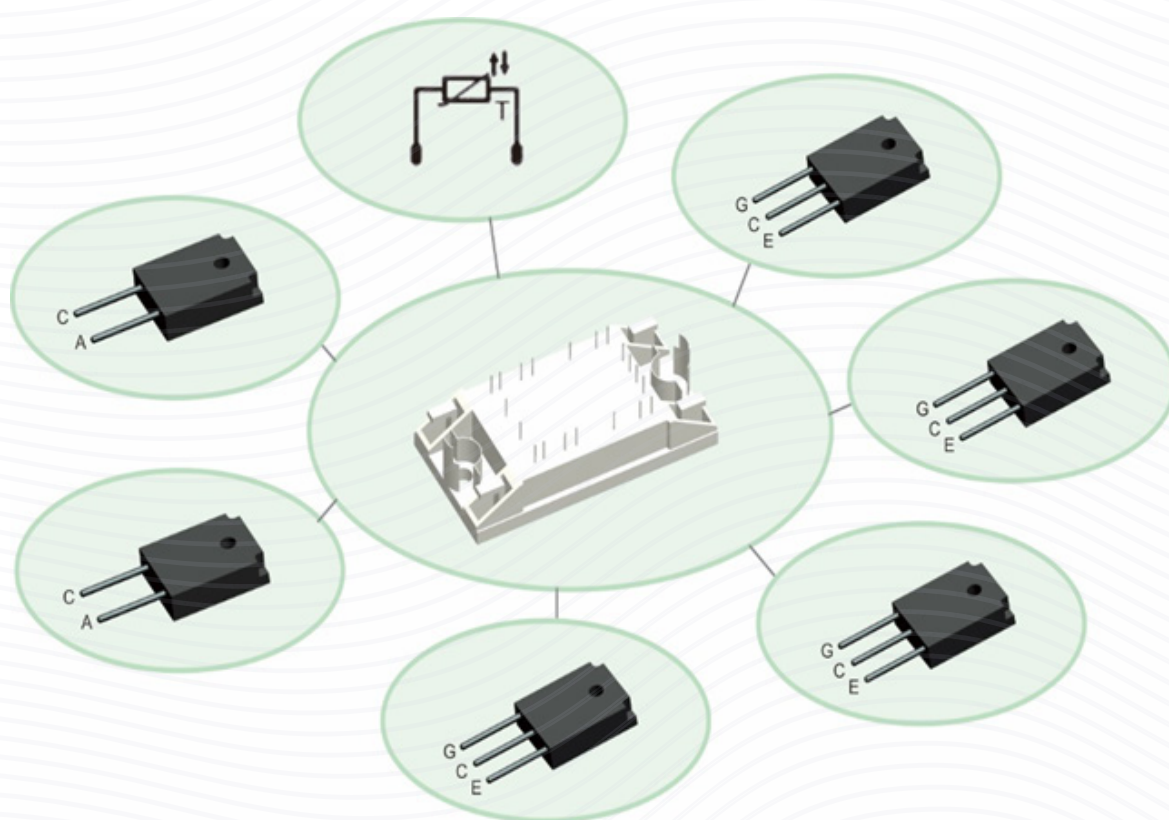
Keep PCB free of dust,
Higher reliability

Conformal Coating for
Power and Control
Boards



Modular IGBT design

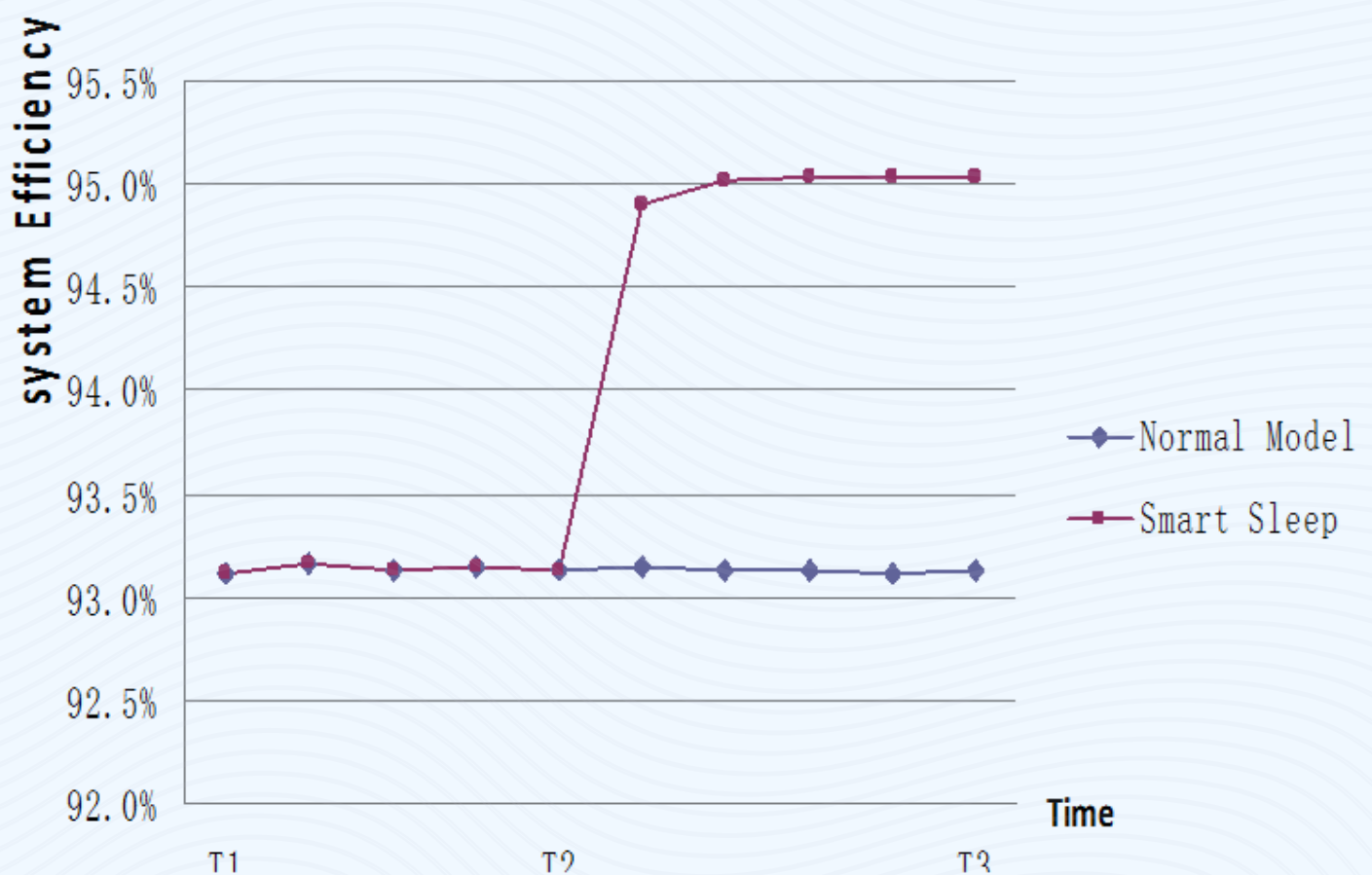
- **IGBT Rectifier** with PFC control to achieve input THDi <3% and input p.f is 0.99
- **IGBT Inverter** using 3 level IGBT power bridge technology with high frequency PWM modulation switching to perform high load factor and efficiency up to 96%.
- **DOUBLE DSP PRECISION CONTROLLER** for Rectifier, Inverter, Charger & Super Charger to achieve system stability, reliability and efficiency.



- One equals more
- Less fault points
- Smaller size
- Inner thermal sensor
- Higher reliability

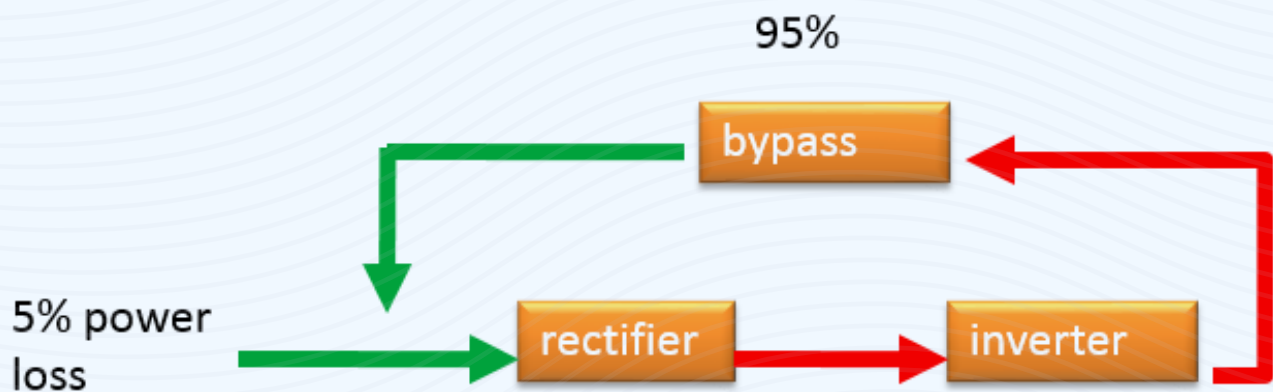
Smart Sleep function

- Increase system efficiency when in low load
- Easy setting, friendly for customers
- Power modules working in rotation, prolong the total life time



Self-aging

- Simulate different load conditions without connecting to real load
- Energy-saving, saving 95% energy cost
- Support on-site setting and factory testing



Technical Data Sheet

| GENERAL | | |
|---------------------------|--|--|
| Model | SCALANEXT | |
| Description | Modular , Scalable , Swappable , Transformerless Online Double Conversion UPS | |
| CABINET FRAME | | |
| Part Number | ScalaNext 1830/1830 U | ScalaNext 3030/3030U |
| Max capacity | 180 kVA ; expandable to 540kVA (paralleling 3 units) | 300 kVA ; expandable to 900kVA (paralleling 3 units) |
| Max # of modules/frame | 6 | 10 |
| Dimension (WxDxH) | 600 x 1100 x 1600 mm | 600 x 1100 x 2000 mm |
| Weight | 165 kg | 242 kg |
| Display | 10.4" touch colour LCD+LED+Keyboard | |
| POWER MODULE | | |
| Part Number | ScalaNext M30 / M30U | |
| Capacity | 30kVA/27kW for M30 & 30kVA/30kW for M30U | |
| Dimension (WxDxH) | 460 x 790 x 134 mm | |
| Weight | 34 | |
| MAIN INPUT | | |
| Grid System | 3 Phases + Neutral + Ground | |
| Rated Input Voltage | 380/400/415VAC (Line-Line) | |
| Rated Frequency | 50/60Hz | |
| Input Voltage Range | 304~478Vac (Line-Line),full load; 228V~304Vac (Line-Line),load decrease linearly according to the min phase voltage | |
| Input Frequency Range | 40Hz~70Hz | |
| Input Power Factor | >= 0.99 | |
| Input Current THDi | <3% (full Linear Load) | |
| BYPASS INPUT | | |
| Rated Bypass Voltage | 380/400/415VAC (Line-Line) | |
| Rated Frequency | 50/60Hz | |
| Bypass Voltage Range | Selectable, default -20%~+15% Upper limit: +10%, +15%, +20%, +25%; Lower limit: -10%, -15%, -20%, -30%, -40% | |
| Bypass Frequency Range | Selectable, ±1Hz, ±3Hz, ±5Hz | |
| Bypass Overload | 110% Continuous; 110%~125% for 5min; 125%~150% for 1min; 150% to 400% -1s / >400% - ≤200ms | |
| OUTPUT | | |
| Rated Inverter Voltage | 380/400/415VAC (Line-Line) | |
| Rated Frequency | 50/60Hz | |
| Output Power Factor | 0.9 for M30 & 1 for M30U | |
| Voltage precision | ±1.5%(0-100% linear load) | |
| Transient Response | <5% for step load (20% - 80% -20%) | |
| Transient recovery | < 30ms for step load (20% - 100% -20%) | |
| Output Voltage THDu | <1% (linear load) | |
| Inverter Overload | 110%, 60min; 125%,10min; 150%,1min; >150%,200ms | |
| Frequency Regulation | 50/60Hz±0.1% | |
| Synchronized Range | Settable, ±0.5Hz ~ ±5Hz, default ±3Hz | |
| Crest Factor | 3:1 | |
| BATTERY AND CHARGER | | |
| Battery Rate Voltage | ±240VDC (32 - 44 blocks Lead Acid 12V) | |
| Charger Voltage precision | 1% | |
| Charger Power | max > 20% * total power | |
| EFFICIENCY | | |
| Normal Operation | >95% | |
| Battery Operation | >95% | |
| ECO Opetation | >99% | |
| SYSTEM | | |
| Optional | Supercharger 50A , Bottom entry kit | |
| Interface | Standard:RS232, RS485, USB,Dry Contact; ,SNMP Card | |
| ENVIRONMENTAL | | |
| Operation Temperature | 0 ~ 40 °C | |
| Storage Temperature | -40 ~ 70 °C | |
| Relative Humidity | 0 ~ 95% (Non condensing) | |
| Noise (1 meter) | 65dB @ 100% load, 62dB @ 45% load | |
| STANDARDS | | |
| General safety | EN50091-1/ IEC62040-1-1 / AS62040-1 | |
| EMC | EN50091-2 / IEC62040-2 (C3) / AS62040-2 | |
| Performance test | EN50091-3 / IEC62040-3 /AS62040-3(VFI SS111) | |

SCALA

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