

**KSTAR**



YDC3300 Series  
10kVA ~ 200kVA

# Company Profile

## Comprehensive Introduction

Shenzhen Kstar Science and Technology Co., Ltd., listed under the stock code 002518, traces its roots back to 1993 and made its public debut on the Shenzhen Stock Exchange in 2010. Distinguished as a national enterprise technology center and honored as a national technological innovation demonstration enterprise, it has attained the prestigious status of a national high-tech enterprise. This Company shines as a standout player in the dynamic landscape of intelligent network energy supply services, particularly within the spheres of Internet Data Centers (IDC) and new energy. Shenzhen Kstar specializes in the complete spectrum of activities, from research and development to production and sales, focusing on critical infrastructure products for data centers, photovoltaic power generation systems, energy storage systems, and electric vehicle charging solutions. The product portfolio is extensive, featuring uninterruptible power supplies (UPS), precision air conditioners, batteries, lithium-ion UPS systems, network server cabinets, power and environment monitoring systems, photovoltaic grid-connected inverters, household energy storage systems, energy storage converters, lithium battery storage system, EV charger modules, new energy vehicle charging equipment, and more. The unwavering commitment of Shenzhen Kstar lies in delivering comprehensive life cycle solutions for intelligent network energy.

## Industrial Distribution

Kstar Group boasts a workforce of over 4200+ employees, with a notable contingent of 630+ dedicated to research and development. The group, headquartered in Nanshan, Shenzhen, China, operates two significant research and development centers located in Shenzhen, Guangdong, and Fuzhou, Fujian. Furthermore, it runs seven production bases strategically positioned in Shenzhen Guangming, Shenzhen Guanlan, Guangdong Huizhou, Jiangxi Yichun, Fujian Ningde, Jiangsu Wuxi, and Haiphong, Vietnam. The Shenzhen Guangming Production Base has earned distinction as a national green factory and secured a spot on the Ministry of Industry and Information Technology's 2022 green factory list. Kstar Group is dedicated to delivering high-quality products and comprehensive services, reaching users in more than 180 countries and regions across the globe.

## Data Center Critical Infrastructure Products



As one of the pioneering domestic companies in the data center product sector, our company has emerged as a leader with the most comprehensive range of data center infrastructure products after years of dedicated development. Our independently developed data center products have evolved into a diversified and integrated portfolio, encompassing uninterruptible power supplies (UPS), high-voltage DC power supplies, precision air conditioners, power supply system for communications, precision power distribution, batteries, network server cabinets, and power and environment monitoring equipment and systems. These cutting-edge products find widespread application across various industries such as finance, communications, IDC, Internet, government agencies, rail transit, industrial manufacturing, electric power, medical care, education, and more. Our primary goal is to ensure the security of data center information and uphold its stable, reliable, and continuous operation. Responding to the nuanced requirements of specific scenarios, our company has introduced industrial UPS models tailored for industrial environment applications, garnering success in related industries. In addressing the unique demands of industry data center construction, we leverage standardized and modular data center products. By integrating cabinet systems, sealed cold aisle containment systems, power supply and distribution systems, cooling systems, and monitoring systems, we offer highly integrated data center solutions. This approach provides users with comprehensive, one-stop data center solutions, including micro data center solutions (IDU), small and micro data center solutions (IDM), large and medium-sized data center solutions (IDR), integrated outdoor cabinets (IOU), and prefabricated containerized data centers (IDB). Our data center products and integrated construction solutions effectively address users' needs for energy efficiency, rapid deployment, and improved operation and maintenance efficiency.

## Service System

Kstar Group has pioneered the implementation of a comprehensive multi-level service system, strategically designed for complete coverage and proximity to users. This innovative structure comprises the "National Customer Service Center - Regional Technical Support Center - Provincial After-sales Service Center - Regional Service Center". This setup ensures users have access to reliable 24/7 service.



1993  
|  
1996

- Company Establishment
- Recognition as a National High-tech Enterprise
- Launch of Line-interactive UPS products
- Introduction of Small Online UPS products
- Enter the European and American markets

1997  
|  
2000

- Completion and commencement of operations in Guanlan Industrial Park, Shenzhen
- Recognition as a National Technology Innovation Demonstration Enterprise
- Launch of Medium-power Online UPS products



Global Service Network



7 × 24 Response and Support



Online Technical Support



78 Domestic Service Centers  
259 Domestic Service Stations



32 Overseas Technical Service Centers  
900+ Overseas Service Engineers



Kstar Industrial Park, Guangming High-tech Zone, Shenzhen



Kstar Industrial Park, Zhongkai High-tech Zone, Huizhou City, Guangdong



Kstar Industrial Park, Fuyuan Industrial Zone, Guanlan, Shenzhen



Kstar (Vietnam) Co., Ltd.



Jiangxi Changxin Golden Sun Power Co., Ltd.



Jiangsu Kstar New Energy Technology Co., Ltd.

2001  
|  
2004

2005  
|  
2009

2010  
|  
2013

2014  
|  
2022

- Launch of valve-regulated Lead-Acid Battery products
- Launch of High-power Online UPS products

- Completion and commencement of operations in Zhongkai Industrial Park, Huizhou
- Official recognition as a National High-tech Enterprise
- Launch of Photovoltaic Inverter products
- Launch of rack cabinets, distribution cabinets, and power and environment monitoring products
- Launch of direct current power supply products
- Launch of Precision Air-conditioner products

- Completion and commencement of operations in Guangming Industrial Park, Shenzhen
- Inclusion as one of the initial inverter manufacturers in the Golden Sun Demonstration Project
- Listing on the Shenzhen Stock Exchange (Stock Code: 002518)
- Launch of electric vehicle charger products

- 2018 Ranked 3rd among the Top 20 Photovoltaic Inverter Enterprises in China
- Recognized as a National Technology Innovation Demonstration Enterprise
- Accredited with the National Enterprise Technology Center certification
- Leading domestic UPS sales market share consistently among local brands for several years
- Launch of an integrated energy system solution tailored for the 5G market
- Designation by the Ministry of Industry and Information Technology as a "National Green Factory"

|   |                               |    |
|---|-------------------------------|----|
| 1 | YDC3300- II Series (10~40kVA) | 04 |
| 2 | YDC3300S Series (50~80kVA)    | 07 |
| 3 | YDC3300H Series (50~200kVA)   | 09 |

## YDC3300- II Series 3:3

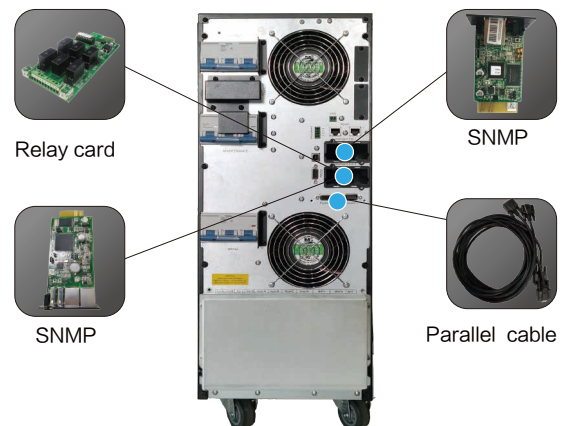
3:3 phase PF 0.9 (PF 1.0 optional)

Power range: 10kVA ~ 40kVA



## Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with DSP control
- Input current harmonic: < 3%
- Wide input voltage range: 208~478Vac
- Wide input frequency range 40~70Hz
- Optimization battery group, the quantity of battery  
10~30kVA: 16/18/20pcs (30~50pcs supportable)  
40kVA: 30~50pcs
- Maximum charging current up to 20A (Settable)
- Dual input source (Optional for standard unit)
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display LCD are optional
- Versatile LCD human-computer interface
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Cold start
- The output can meet 100% unbalanced load
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (Optional), Relay card (Optional), Battery temperature sensor (Optional)



## Technical Specifications:

| MODEL    | YDC3310S/H | YDC3315S/H   | YDC3320S/H | YDC3330S/H | YDC3340S/H |
|----------|------------|--------------|------------|------------|------------|
| Capacity | 10kVA/9kW  | 15kVA/13.5kW | 20kVA/18kW | 30kVA/27kW | 40kVA/36kW |
|          | 10kVA/10kW | 15kVA/15kW   | 20kVA/20kW | 30kVA/30kW | 40kVA/40kW |

### INPUT

|                            |                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage            | 380/400/415Vac (3Ph+N+PE)                                                                                                                                        |
| Operating voltage range    | 305 ~ 478Vac (Full load); 208 ~ 478Vac (50% load)                                                                                                                |
| Operating frequency range  | 40 ~ 70Hz (50/60Hz Auto-Sensing)                                                                                                                                 |
| Power factor               | ≥0.99                                                                                                                                                            |
| Bypass voltage range       | Max.voltage: 220V: +25% (Optional +10%, +15%, +20%)<br>230V: +20% (Optional +10%, +15%)<br>240V: +15% (Optional +10%)<br>Min.voltage: -45% (Optional -20%, -30%) |
| Frequency protection range | 50/60Hz ±10%                                                                                                                                                     |
| ECO range                  | Same as bypass                                                                                                                                                   |
| Harmonic distortion (THDi) | ≤3% Linear load                                                                                                                                                  |

### OUTPUT

|                            |                                                                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output voltage             | 380/400/415Vac (3Ph+N+PE)                                                                                                                                   |
| Voltage regulation         | ±1%                                                                                                                                                         |
| Power factor               | 0.9                                                                                                                                                         |
| Output frequency           | Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)<br>Bat. mode: 50/60 (±0.1%)Hz                                                             |
| Transfer time              | AC mode to Batmode: 0ms<br>Inverter to Bypass: 0ms                                                                                                          |
| Output waveform            | Pure Sinewave                                                                                                                                               |
| Crest factor               | 3:1                                                                                                                                                         |
| Harmonic distortion (THDv) | ≤2% Linear load<br>≤5% Non linear load                                                                                                                      |
| Overload                   | AC mode: ≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass<br>Bat.mode: ≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down |

### EFFICIENCY

|            |             |             |
|------------|-------------|-------------|
| Efficiency | Up to 93.5% | Up to 94.5% |
|------------|-------------|-------------|

### BATTERY

|                 |               |                                                                                                                                                                                                                                                                                               |                                                                |                                                 |                                                                                              |
|-----------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------|
| Battery voltage | Standard unit | Chassis 1: ±120Vdc (20pcs 9Ah)<br>(20pcs 7Ah, 2×20pcs 7/9Ah optional)<br>Chassis 2: ±96Vdc (16pcs 9Ah)                                                                                                                                                                                        | ±120Vdc (2×20pcs 9Ah)<br>(2×20pcs 7Ah, 3×20pcs 7/9Ah optional) | ±120Vdc (3×20pcs 9Ah)<br>(3×20pcs 7Ah optional) | ±180Vdc (2×30pcs 9Ah)<br>(2×30pcs 7Ah optional)                                              |
|                 | Long run unit | 10~30kVA: ±96/108/120Vdc; battery quantity (16~20pcs, 16pcs default, Standard unit and 20pcs no power derating; 18pcs output power factor 0.8/0.9; 16pcs output power factor 0.7/0.8)<br>±180/192/204/216/228/240/252/264/276/288/300Vdc<br>(30/32/34/36/38/40/42/44/46/48/50pcs supportable) |                                                                |                                                 | 40kVA: ±180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs) |
| Charge Current  | Standard unit | 1.35A<br>(2.7A optional)                                                                                                                                                                                                                                                                      | 2.7A                                                           | 4.05A                                           | 2.7A                                                                                         |
|                 | Long run unit | 14A (Max. )                                                                                                                                                                                                                                                                                   | 16A (Max.)                                                     | 18A (Max.)                                      | 20A (Max.)                                                                                   |

### PHYSICAL

|                        |               |                                                              |  |                       |                       |                       |                       |
|------------------------|---------------|--------------------------------------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Dimension<br>W × D × H | Standard unit | Chassis 1: 250 × 900 × 868mm<br>Chassis 2: 250 × 645 × 715mm |  |                       |                       |                       |                       |
|                        | Long run unit | 250 × 580 × 655mm                                            |  |                       |                       |                       |                       |
| Net weight             | Standard unit | Chassis 1: 129kg (20pcs 9Ah)<br>Chassis 2: 80kg (16pcs 9Ah)  |  | 186kg (2 × 20pcs 9Ah) | 187kg (2 × 20pcs 9Ah) | 236kg (3 × 20pcs 9Ah) | 239kg (2 × 30pcs 9Ah) |
|                        | Long run unit | 35kg                                                         |  | 39kg                  | 40kg                  | 43kg                  | 46kg                  |

### ENVIRONMENTAL

|                       |                                      |       |       |       |
|-----------------------|--------------------------------------|-------|-------|-------|
| Operating temperature | 0 ~ 40℃                              |       |       |       |
| Storage temperature   | -25 ~ 55℃ (No battery)               |       |       |       |
| Humidity range        | 0 ~ 95% (Non condensing)             |       |       |       |
| Altitude              | <1500m, derating required when>1500m |       |       |       |
| Noise level           | <55dB                                | <58dB | <61dB | <64dB |

### STANDARDS

|        |                                                                                                                                          |
|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| Safety | IEC/EN 62040-1, IEC/EN 62477-1                                                                                                           |
| EMC    | IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2) |

- Specifications are subject to change without prior notice
- Data above are typical values for reference only, not as a basis for engineering design

## BT 10–40kVA battery pack specification

| MODEL                           | MP31 BT40120N                                                    | YDC3320 BT80120N | YDC3330 BT80120N               | YDC3340 BT60180N | YDC3340 BT80240N |
|---------------------------------|------------------------------------------------------------------|------------------|--------------------------------|------------------|------------------|
| BATTERY SYSTEM                  |                                                                  |                  |                                |                  |                  |
| Battery type                    | VRLA (Lead acid maintenance free battery)                        |                  |                                |                  |                  |
| Typical battery recharging time | 6 ~ 8 hours (To 90% of full capacity)                            |                  |                                |                  |                  |
| Typical battery life            | 3 ~ 5 years, depend on discharging cycle and ambient temperature |                  |                                |                  |                  |
| System voltage                  | ± 120Vdc                                                         |                  |                                | ± 180Vdc         | ± 240Vdc         |
| Battery quantity                | 2 × 20 PCS                                                       | 4 × 20 PCS       |                                | 2 × 30 PCS       | 2 × 40 PCS       |
| Capacity                        | 7Ah/9Ah (12V)                                                    |                  |                                |                  |                  |
| PHYSICAL                        |                                                                  |                  |                                |                  |                  |
| Dimension W × D × H             | 250 × 619 × 616mm(With wheel)                                    |                  | 250 × 900 × 868mm (With wheel) |                  |                  |
| Net weight                      | 122kg/134kg                                                      | 244kg/265kg      |                                | 200kg/215kg      | 244kg/265kg      |
| ENVIRONMENT                     |                                                                  |                  |                                |                  |                  |
| Safety                          | CE                                                               |                  |                                |                  |                  |
| Operating environment           | 0℃ ~ 40℃                                                         |                  |                                |                  |                  |
| Relative humidity               | 0 ~ 95% (Non condensing)                                         |                  |                                |                  |                  |
| Noise level                     | < 40dB at 1 Meter                                                |                  |                                |                  |                  |

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3. Remark: YDC3340 BT80240N "YDC3340" means series; "BT" means Battery Tower cabinet; "80" means battery number inside the cabinet; "240" means the battery system voltage; "N" means battery with neutral connection.

## YDC3300S Series

Online Transformerless UPS series

Power range: 50~80kVA (3-Level PF: 1.0)

Mode: 3 phase input and 3 phase output



### High reliability design

- Wide input voltage range 138~485Vac (Phase voltage 80~280Vac), no derating when input voltage  $\geq$  305Vac

### Power saving

- High input power factor, up to 0.99
- 3-level inverter topology, the efficiency can be up to 95.5%

### Parallel redundancy function

- Support parallel expanded operation: maximum is 6 units
- Support sharing batteries for the UPS in parallel

### Build-in battery design

- Integrated solution, no additional battery cabinet is required, saving construction costs
- Maximum 6 groups of internal batteries, selectable according to autonomy time's requirement

### Strong load capacity

- Output power factor is 1.0, so that UPS can supply power to 100% unbalance load
- High adaptability for load can connect full inductive load or capacitive load

### Compatible with generator

- Power Walk in function, reduces the start current impact to system, and reduce the capacity of generator

### LBS function

- LBS function can realize 2 independent UPSs work in synchronization, and enhance the reliability of the system

### Intelligent management

- Support USB, RS485, RS232, SNMP and dry contact card

## Technical Specifications:

| MODEL    | YDC3350S | YDC3360S | YDC3380S |
|----------|----------|----------|----------|
| Capacity | 50kVA    | 60kVA    | 80kVA    |

### INPUT

|                            |                                                                                                                                                                              |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage            | 380/400/415Vac (3Ph + N + PE)                                                                                                                                                |
| Operating voltage range    | 138~305Vac for 40% load; 305~485Vac for 100% load                                                                                                                            |
| Operating frequency range  | 40~70Hz (50/60Hz Auto-Sensing)                                                                                                                                               |
| Power factor               | ≥0.99                                                                                                                                                                        |
| Harmonic distortion (THDi) | ≤3% Linear load                                                                                                                                                              |
| Bypass voltage range       | Max.voltage: 220V: +25% (Optional +10%, +15%, +20%)<br>230V: +20% (Optional +10%, +15%)<br>240V: +15% (Optional +10%)<br>Min.voltage: -45% (Optional -10%, -15%, -20%, -30%) |
| Frequency protection range | 50/60Hz ±10%                                                                                                                                                                 |
| Generator input            | Support                                                                                                                                                                      |

### OUTPUT

|                            |                                                                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output voltage             | 380/400/415Vac (3Ph + N + PE)                                                                                                                                               |
| Voltage regulation         | ±1%                                                                                                                                                                         |
| Power factor               | 1.0                                                                                                                                                                         |
| Output frequency           | Line mode: Synchronize with input, when the input frequency > ±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)<br>Bat. mode: (50/60±0.2%)Hz                           |
| Crest factor               | 3:1                                                                                                                                                                         |
| Harmonic distortion (THDv) | ≤2% with linear load<br>≤4% with non linear load                                                                                                                            |
| Overload                   | Inverter mode: ≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately shut down inverter<br>Bypass mode: 30°C: 135% for long term; 40°C: 125% for long term; >100°C: 100ms |

### EFFICIENCY

|            |             |
|------------|-------------|
| Efficiency | Up to 95.5% |
|------------|-------------|

### BATTERY

|                 |                             |
|-----------------|-----------------------------|
| Battery voltage | ±240Vdc (6 × 40pcs 9Ah/12V) |
| Charge current  | 20A (Max.)                  |

### SYSTEM FEATURES

|                     |                                                                                                                   |
|---------------------|-------------------------------------------------------------------------------------------------------------------|
| Transfer time       | Utility to Battery: 0ms; Utility to Bypass: 0ms                                                                   |
| Backfeed protection | Support                                                                                                           |
| Alarm               | Overload, utility abnormal, UPS fault, battery low, etc                                                           |
| Protection          | Short circuit, overload, over temperature, battery low, fan fault alarm                                           |
| Remote LCD          | Support                                                                                                           |
| Communication       | USB, RS232, RS485, parallel port, dry contact, intelligent slot, LBS, SNMP card (Optional), relay card (Optional) |

### ENVIRONMENTAL

|                       |                                       |
|-----------------------|---------------------------------------|
| Operating temperature | 0°C ~ 40°C                            |
| Storage temperature   | -25°C ~ 55°C (No battery)             |
| Humidity range        | 0 ~ 95% (Non condensing)              |
| Altitude              | <1000m, derating required when >1000m |
| Noise level           | <58dB                                 |

### PHYSICAL

|                     |                     |
|---------------------|---------------------|
| Dimension W × D × H | 600 × 1000 × 2000mm |
| Net weight          | 740kg               |

### STANDARDS

|        |                                                                                                                                          |
|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| Safety | IEC/EN 62040-1, IEC/EN 62477-1                                                                                                           |
| EMC    | IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11) |

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## YDC3300H Series

Online Transformerless UPS series

Power range : 50 ~ 200kVA (3-Level PF: 1.0)

Mode: 3 phase input and 3 phase output



### High reliability design

- Wide input voltage range 138~485Vac (Phase voltage 80~280Vac), no derating when input voltage  $\geq$  305Vac

### Power saving

- High input power factor, it can be up to 0.99
- 3-level inverter topology, the efficiency can be up to 95.5%

### Parallel redundancy function

- Support parallel expanded operation: maximum is 6 units
- Support sharing batteries for the UPS in parallel

### Compatible with generator

- Power Walk In function, it can reduce the start current impact to system, and it can reduce the capacity of generator

### Strong load capacity

- Output power factor is 1.0, UPS can supply power to 100% unbalance load
- High adaptability for load, it can connect full inductive load or capacitive load

### VRLA&Lithium battery supportable

- Compatible with VRLA or lithium battery

### LBS function

- LBS function can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system

### Intelligent management

- Support USB, RS485, RS232, BMS, SNMP, dry contact card

## Technical Specifications:

| MODEL                      |               | YDC3350H                                                                                                                                 | YDC3360H   | YDC3380H | YDC33100H          | YDC33120H | YDC33150H  | YDC33160H | YDC33180H | YDC33200H                                                          |
|----------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|--------------------|-----------|------------|-----------|-----------|--------------------------------------------------------------------|
| Capacity                   |               | 50kVA                                                                                                                                    | 60kVA      | 80kVA    | 100kVA             | 120kVA    | 150kVA     | 160kVA    | 180kVA    | 200kVA                                                             |
| INPUT                      |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Nominal voltage            |               | 380/400/415Vac (3Ph + N + PE)                                                                                                            |            |          |                    |           |            |           |           |                                                                    |
| Operating voltage range    |               | 138~305Vac for 40% load; 305~485Vac for 100% load                                                                                        |            |          |                    |           |            |           |           |                                                                    |
| Operating frequency range  |               | 40 ~ 70Hz                                                                                                                                |            |          |                    |           |            |           |           |                                                                    |
| Power factor               |               | ≥0.99                                                                                                                                    |            |          |                    |           |            |           |           |                                                                    |
| Harmonic distortion (THDi) |               | ≤3% (100% Linear load)                                                                                                                   |            |          |                    |           |            |           |           |                                                                    |
| Bypass voltage range       |               | Max.voltage: 220V: + 25% (Optional + 10%, + 15%, + 20%)                                                                                  |            |          |                    |           |            |           |           |                                                                    |
|                            |               | 230V: + 20% (Optional + 10%, + 15%)                                                                                                      |            |          |                    |           |            |           |           |                                                                    |
|                            |               | 240V: + 15% (Optional + 10%)                                                                                                             |            |          |                    |           |            |           |           |                                                                    |
|                            |               | Min.voltage: - 45% (Optional -10%, -15%, -20%, -30%)                                                                                     |            |          |                    |           |            |           |           |                                                                    |
| Frequency protection range |               | 50/60Hz ± 10%                                                                                                                            |            |          |                    |           |            |           |           |                                                                    |
| Generator input            |               | Support                                                                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| OUTPUT                     |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Output voltage             |               | 380/400/415Vac (3Ph + N + PE)                                                                                                            |            |          |                    |           |            |           |           |                                                                    |
| Voltage regulation         |               | ± 1%                                                                                                                                     |            |          |                    |           |            |           |           |                                                                    |
| Power factor               |               | 1.0                                                                                                                                      |            |          |                    |           |            |           |           |                                                                    |
| Output frequency           | Line mode     | Synchronize with input, when the input frequency > ± 10% ( ± 1%/ ± 2%/ ± 4%/ ± 5% optional), output 50/60 ( ± 0.1Hz)                     |            |          |                    |           |            |           |           |                                                                    |
|                            | Bat. mode     |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
|                            |               | (50/60 ± 0.2%)Hz                                                                                                                         |            |          |                    |           |            |           |           |                                                                    |
| Crest factor               |               | 3:1                                                                                                                                      |            |          |                    |           |            |           |           |                                                                    |
| Harmonic distortion (THDv) |               | ≤2% with linear load; ≤4% with non linear load                                                                                           |            |          |                    |           |            |           |           |                                                                    |
| Overload                   | Inverter mode | ≤110% 60min, ≤125% 10min, ≤150% 1min, > 150% 1.2s shut down inverter                                                                     |            |          |                    |           |            |           |           | ≤110% 60min,<br>≤125% 1min,<br>>125% 1.2s<br>shut down<br>inverter |
|                            | Bypass mode   | 30℃: 135% for long term; 40℃: 125% for long term; > 1000%, 100ms                                                                         |            |          |                    |           |            |           |           |                                                                    |
| EFFICIENCY                 |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Efficiency                 |               | Up to 95.5%                                                                                                                              |            |          |                    |           |            |           |           |                                                                    |
| BATTERY                    |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Battery voltage            |               | 360Vdc ~ 600Vdc                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Battery type               |               | VRLA / Li                                                                                                                                |            |          |                    |           |            |           |           |                                                                    |
| Charge Current             |               | 20A (Max.)                                                                                                                               | 40A (Max.) |          |                    |           | 60A (Max.) |           |           |                                                                    |
| SYSTEM FEATURES            |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Transfer time              |               | Utility to Battery: 0ms; Utility to Bypass: 0ms                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Backfeed protection        |               | Support                                                                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Alarm                      |               | Overload, utility abnormal, UPS fault, battery low, etc                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Protection                 |               | Short circuit, overload, over temperature, battery low, fan fault alarm                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Remote LCD                 |               | Support                                                                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Communication              |               | USB, RS232, RS485, BMS, parallel port, dry contact, intelligent slot, LBS, SNMP card (Optional), relay card (Optional)                   |            |          |                    |           |            |           |           |                                                                    |
| ENVIRONMENTAL              |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Operating temperature      |               | 0℃ ~ 40℃                                                                                                                                 |            |          |                    |           |            |           |           |                                                                    |
| Storage temperature        |               | -25℃ ~ 55℃ (No battery)                                                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Humidity range             |               | 0 ~ 95% (Non condensing)                                                                                                                 |            |          |                    |           |            |           |           |                                                                    |
| Altitude                   |               | < 1000m, derating required when > 1000m                                                                                                  |            |          |                    |           |            |           |           |                                                                    |
| Noise level                |               | < 55dB                                                                                                                                   | < 58dB     | < 60dB   | < 62dB             | < 63dB    | < 63dB     | < 64dB    | < 64dB    | < 66dB                                                             |
| PHYSICAL                   |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Dimension W × D × H        |               | 250 × 828 × 868mm                                                                                                                        |            |          | 442 × 850 × 1200mm |           |            |           |           |                                                                    |
| Net weight                 |               | 80kg                                                                                                                                     | 83kg       | 144kg    | 147kg              | 152kg     | 190kg      | 200kg     | 220kg     | 230kg                                                              |
| STANDARDS                  |               |                                                                                                                                          |            |          |                    |           |            |           |           |                                                                    |
| Safety                     |               | IEC/EN 62040-1, IEC/EN 62477-1                                                                                                           |            |          |                    |           |            |           |           |                                                                    |
| EMC                        |               | IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11) |            |          |                    |           |            |           |           |                                                                    |

1. Specifications are subject to change without prior notice

2. Data above are typical values for reference only, not as a basis for engineering design



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