



UPS Catalog

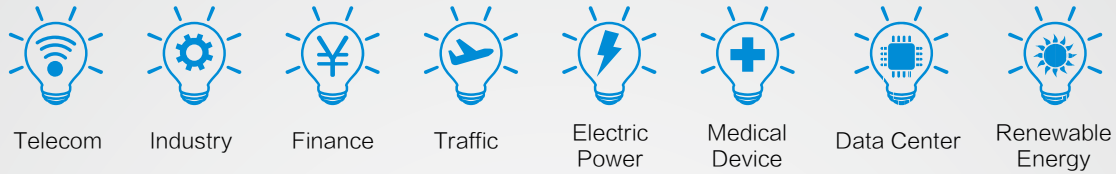
HISTORY

- 2014 Introduced MES systems
- 2013 Introduced PLM systems
- 2012 Introduced CRM systems
 - Set up 30,000M² Xiamen new factory
 - Set up 80,000M² Jiaomei factory for wind turbine and solar system producing
- 2011 Introduced ERP systems for processing management.
- 2010 Kehua officially went public and listed on the Shenzhen Stock Exchange
 - Joint-venture company NHEOLIS was set up, which is mainly producing wind turbine.
- 2009 Recognized as “UPS Well-known Trademark” by government
- 2008 Passed Ohsas18001 authentication
- 2006 Set up 70,000M² production base
 - Complied with RoHS requirement
- 2005 Passed ISO14001 authentication
- 2002 Implemented 6sigma management system
- 2001 Set up EMC test center
- 2000 Developed no-master-slave parallel UPS and won the national patent
- 1999 Transformed into private enterprise
- 1997 Exported UPS to Japan, America etc.
- 1995 Passed ISO9001 authentication
- 1988 Company established



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KEHUA TECH — CREDIBLE POWER PROTECTOR

Stock NO.: 002335

Kehua, as the leading high-end power solution provider in mainland China, was founded in 1988. On Jan. 13th 2010, Kehua officially went public and was listed on the Shenzhen Stock Exchange, which represented a milestone in the history of UPS manufacturers in mainland China.

With more than 27 years' expertise in power technology, Kehua's products have been installed in more than 80 countries and regions. Covering 180,000m² land areas, Kehua owns 8 subsidiaries, 1 joint venture company, 4 production bases, 3 research centers, 1 EMC test center and UL Witness Test Data Program, over 50 branches all over mainland China, over 2000 employees including more than 250 R&D engineers.

Products range: All IGBT UPS, Online double conversion UPS (1kVA to 1000kVA), Modular UPS (20kVA to 520kVA), Line-interactive UPS, Lithium UPS, Outdoor UPS, EPS, STS, Telecom inverter, On-grid & Off-grid solar system, Wind turbine, and Hybrid wind-solar street light etc.



Listed on Shenzhen Stock Exchange



Zhangzhou factory



Shenzhen factory



Xiamen factory



Jiaomei factory

Applications

With high reputation and good service in electrical & electronic field, Kehua has participated and undertaken many power projects for key events, such as The 16th Asian Games, 2010 Shanghai EXPO, Angolan Luanda Stadium (for 2010 African Cup football games), 2008 Beijing Olympic Games, The Golden Tax Project...



Qualifications

Being the qualified high-end UPS manufacturer, Kehua passed ISO9001 authentication in 1995, ISO14001 in 2005 and OHSAS18001 in 2008. With years' efforts in extending global market, UPS with CE, CB, TUV, KC, SONCAP certificates are available to meet different market requirements.





FR-UK 11 Series Online UPS (1-15kVA)

Main Features:

- Online double conversion
- Output isolation transformer
- Wide input voltage range
- Full protection function
- High reliability and performance
- Intelligent RS232 /RS485& DB9 dry contact communication port
- Management software (optional)
- External battery bank (optional)
- SNMP adapter or USB (optional)

Application:

- IT device
- Data center
- Commercial facility
- Telecommunication
- Industry

Specification:

| MODEL | FR-UK10/ FR-UK10L | FR-UK20/ FR-UK20L | FR-UK30/ FR-UK30L | FR-UK50/ FR-UK50L | FR-UK60/ FR-UK60L | FR-UK110S/ FR-UK1110 | FR-UK115S/ FR-UK1115 |
|--------------------------------------|---|------------------------|------------------------|-------------------------|-------------------------|------------------------------|-------------------------|
| INPUT | | | | | | | |
| Voltage (Vac) | 220/230/240V MODEL:165-275 110/120V MODEL: 85~137 | | | | | | |
| Frequency (Hz) | 50/ 60±5% (50/60Hz settings) | | | | | | |
| Phase | Single phase three wires | | | | | | |
| OUTPUT | | | | | | | |
| Capacity(VA) | 1000 | 2000 | 3000 | 5000 | 6000 | 10000 | 15000 |
| Power Factor | 0.8 (0.7/0.9 optional) | | | | | | |
| Voltage range(Vac) | 220/230/240±2% or 110/120±2% | | | | | | |
| Frequency (Hz) | 50 / 60 ±0.5% (battery mode) | | | | | | |
| Waveform | Pure Sine wave, THD<3% (Linear load) | | | | | | |
| Transfer Time | 0 | | | | | | |
| Overload | 125% load for 60 seconds , 150% load for 1 second | | | | | | |
| BATTERY | | | | | | | |
| Voltage (Vdc) | 48 | | 96/192 | | 192 | | |
| BATT Type | 4×7Ah 12V/ External | 8×7Ah 12V/ External | 8×7Ah 12V/ External | 16×7Ah 12V/ External | 16×7Ah 12V/ External | 32×7Ah 12V/ External | 48×7Ah 12V/ External |
| Charger Current(A)Max | 1/4.5 | 1/4.5 | 1/4.5 | 1/4.5 | 1/4.5 | 3/4.5 | |
| OTHER | | | | | | | |
| Communication Interface | RS232,dry contact (USB and SNMP adapter are optional) | | | | | | |
| Display | LCD display input voltage, output voltage, load capacity, battery voltage, etc.LED indicates running status | | | | | | |
| Alarm | Overload, abnormal AC input, low battery | | | | | | |
| Protection | Low battery, overload, over temperature, short circuit, output over voltage, output low voltage | | | | | | |
| Noise (dB) | ≤55 | | | | | | |
| Working Temperature | 0~40℃ | | | | | | |
| Relative humidity | 0~95% (no condensation) | | | | | | |
| Dimension (W×D×H)(mm) | 230×620 × 470 (L) /230×635 × 690 | | | | | 400×800×1180/ 300×590×700 | 400×800×1180 |
| Weight (kg) Standard/ Long backup | 48/36 | 74/49 | 82/44 | 90/45 | 91/47 | 308/90 | 353/158 |

- ◆ Specification is subject to change without prior notice.
- ◆ 110V, 120V systems are available with some different parameters.



FR-UK31 Series Online UPS (10–50kVA)

Main Features:

- Online double conversion
- IGBT inverter and output isolation transformer
- High reliability DSP control
- Wide input voltage range
- DC cold start function
- Full protection function
- Intelligent RS232 /RS485 & DB9 dry contact communication port
- SNMP adapter (optional)
- Advanced no-master-slave parallel technology (optional)
- Intelligent battery monitor system – MMBM (optional)

Application:

- Computer room
- Data center
- Precision instrument
- Intelligent equipment
- Industrial application

Specification:

| MODEL | FR-UK3110S/ FR-UK3110 | FR-UK3115S/ FR-UK3115 | FR-UK3120 | FR-UK3130 | FR-UK3140 | FR-UK3150 |
|--------------------------------------|---|--------------------------|--|-----------|-----------|-----------|
| INPUT | | | | | | |
| Voltage(Vac) | 380/400/415±25% | | | | | |
| Frequency(Hz) | 50/60±5% | | | | | |
| Phase | Three phase in single phase out(L1,L2,L3,N,G) | | | | | |
| OUTPUT | | | | | | |
| Capacity (KVA) | 10 | 15 | 20 | 30 | 40 | 50 |
| Power Factor | 0.8 (0.9 optional) | | | | | |
| Voltage (V) | 220/230/240±1% | | | | | |
| Frequency(Hz) | 50/60±0.5% (battery mode) | | | | | |
| Waveform | Pure sine wave THD <3% (linear load) | | | | | |
| Overload | 125% load for 1 minute, 150% load for 1 second | | 125% load for 1 minute, 150% load for 20 seconds | | | |
| Transfer Time | 0 | | | | | |
| BATTERY | | | | | | |
| Voltage (Vdc) | 192 | | 348 | | | |
| BATT Type | 32×7Ah 12V/ External | 48×7Ah 12V/ External | External | | | |
| Charger Current(A)Max | 3/5 | | 10~20 setting | | | |
| OTHER | | | | | | |
| Maintenance Bypass Switch | Optional | | Standard | | | |
| Communication Interface | RS232/RS485 and dry contact (MODBUS and SNMP adapter are optional) | | | | | |
| Display | LCD Display indicates frequency, voltage, load, battery voltage, etc.LED indicates running status | | | | | |
| Alarm | Low battery, abnormal AC input, overload, UPS failure | | | | | |
| Protection | Low battery, overload, output over voltage, short-circuit, over temperature | | | | | |
| Noise (dB) | <60 | | <65 | | | |
| Working Temperature | 0 ~ 40°C | | | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | | | |
| Dimension (W×D×H)(mm) | 400×800×1180/ 350×780×720 | | 400×800×1180 | | | |
| Weight (kg) Standard/ Long backup | 230/130 | 320/160 | 205 | 230 | 270 | 300 |

- ◆ Specification is subject to change without prior notice.
- ◆ For Parallel system, Maintenance Bypass Switch is not available.



FR-UK 33 Series Online UPS (10-500kVA)

Main Features:

- Online double conversion
- IGBT inverter and output isolation transformer
- 3 phases UPS allow 100% unbalance load
- Fully DSP control, high reliability and performance
- Wide input voltage range
- DC cold start function
- Advanced battery charging management
- Intelligent fan speed control
- ECO mode and EPO function.
- Intelligent RS232/RS485, DB9 dry contact communication port
- SNMP adapter (optional)
- Advanced no-master-slave parallel technology (optional)
- Intelligent battery monitor system – MMBM (optional)
- 12 Pulse rectifier (optional)
- Bypass isolation transformer (optional)

Application:

- Computer room
- Data center
- Precision instrument
- Intelligent equipment
- Industrial application

Specification:

| MODEL | FR-UK 3310/FR- UK3310S | FR-UK 3320/FR- UK3320S | FR-UK 3330/FR- UK3330S | FR-UK 3340 | FR-UK 3350 | FR-UK 3360 | FR-UK 3380 | FR-UK 33100 | FR-UK 33120 | FR-UK 33160 | FR-UK 33200 | FR-UK 33300 | FR-UK 33400 | FR-UK 33500 |
|--|--|------------------------------|------------------------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|--------------------|----------------|--------------------|--------------------|
| INPUT | | | | | | | | | | | | | | |
| Voltage(Vac) | 380/400/415±25% | | | | | | | | | | | | | |
| Rectifier Frequency(Hz) | 40~70 | | | | | | | | | | | | | |
| SYNC Frequency Tracking(Hz) | 50/60±10%(±5% optional) | | | | | | | | | | | | | |
| Phase | 3φ4W+PE | | | | | | | | | | | | | |
| OUTPUT | | | | | | | | | | | | | | |
| Capacity (KVA) | 10 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 160 | 200 | 300 | 400 | 500 |
| Power Factor | 0.9 (0.8/1.0 optional) | | | | | | | | | | | | | |
| Phase | 3φ4W+PE | | | | | | | | | | | | | |
| Voltage (Vac) | L-N: 220/230/240±1%, L-L:380/400/415±1%, | | | | | | | | | | | | | |
| Frequency(Hz) | 50/60±0.2 (battery mode) | | | | | | | | | | | | | |
| Waveform | Pure sine wave, THD≤3% (linear load) | | | | | | | | | | | | | |
| 3 Phases 100% Load Unbalance Voltage Stability | ≤2%, allow 100% unbalance | | | | | | | | | | | | | |
| Overload | 105% load for 60mins, 125% load for 10 mins, 150% load for 1min. | | | | | | | | | | | | | |
| BATTERY | | | | | | | | | | | | | | |
| Voltage (Vdc) | 348 (360 optional) | | | | | | | | | | 384 | | 348 (360 optional) | |
| BATT Type | External /Max 7Ah 12V 58pcs | | | External | | | | | | | | | | |
| Charger Current(A)Max | 10~40A setting | | | | | | | | | | 20~80A setting | | | |
| Battery Self-testing | Automatically alarm and estimate battery status in battery abnormal status | | | | | | | | | | | | | |
| OTHER | | | | | | | | | | | | | | |
| Maintenance Bypass | Yes | | | | | | | | | | | | | |
| Communication Interface | RS232/RS485 and dry contact(MODBUS and SNMP adapter are optional) | | | | | | | | | | | | | |
| Display | LCD Display indicates frequency, voltage, load, battery voltage, etc. LED indicates running status | | | | | | | | | | | | | |
| Alarm | Overload, abnormal AC input, low battery, UPS failure | | | | | | | | | | | | | |
| Protection | Low battery, overload, over temperature, short circuit, output over voltage, output low voltage | | | | | | | | | | | | | |
| Noise (dB) | < 65 | | | | | | | | | | | | | |
| Working Temperature | 0 ~ 40℃ | | | | | | | | | | | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | | | | | | | | | | | |
| Dimension (W×D×H)(mm) | 500×800×1180/ 500×800×1600 | | | 800×800×1600 | | | 1000×800×1800 | | | | 1400×1000 x1850 | 1600×1000×1850 | | 4200×1000 x2000 |
| Weight(kg) | 200/380 | 240/420 | 290/470 | 450 | 470 | 490 | 690 | 725 | 775 | 905 | 1280 | 1830 | 2050 | 3300 |

◆ Specification is subject to change without prior notice.



FR-UK33A Series Online UPS (10-200kVA)

Main Features:

- Online double conversion
- IGBT inverter and output isolation transformer
- 3 phases UPS allow 100% unbalance load
- Fully DSP control, high reliability and performance
- Wide input voltage range
- DC cold start function
- Advanced battery charging management
- Intelligent fan speed control
- ECO mode and EPO function.
- Intelligent RS232/RS485 communication port
- SNMP adapter (optional)
- Advanced no-master-slave parallel technology (optional)
- Intelligent battery monitor system – MMBM (optional)
- Bypass isolation transformer (optional)

Application:

- Computer room
- Data center
- Precision instrument
- Intelligent equipment
- Industrial application

Specification:

| MODEL | FR-UK 3310A/FR- UK3310AS | FR-UK 3320A/FR- UK3320AS | FR-UK 3330A/FR- UK3330AS | FR-UK 3340A | FR-UK 3350A | FR-UK 3360A | FR-UK 3380A | FR-UK 33100A | FR-UK 33120A | FR-UK 33160A | FR-UK 33200A | |
|--|--|--------------------------------|--------------------------------|--------------------|----------------|----------------|----------------|-----------------|-----------------|--------------------|-----------------|--|
| INPUT | | | | | | | | | | | | |
| Voltage(Vac) | 208/220 ±20% (±25% optional) | | | | | | | | | | | |
| Rectifier Frequency(Hz) | 40~70 | | | | | | | | | | | |
| SYNC Frequency Tracking(Hz) | 50/60±10%(±5% optional) | | | | | | | | | | | |
| Phase | 3φ4W+PE | | | | | | | | | | | |
| OUTPUT | | | | | | | | | | | | |
| Capacity (kVA) | 10 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 160 | 200 | |
| Power Factor | 0.8 (0.9 optional) | | | | | | | | | | | |
| Phase | 3φ4W+PE | | | | | | | | | | | |
| Voltage (Vac) | L-N: 120/127±1%, L-L:208/220±1%, | | | | | | | | | | | |
| Frequency(Hz) | 50/60±0.5% (battery mode) | | | | | | | | | | | |
| Waveform | Pure sine wave, THD≤3% (linear load) | | | | | | | | | | | |
| 3 Phases 100% Load Unbalance Voltage Stability | ≤2%, allow 100% unbalance | | | | | | | | | | | |
| Overload | 105% load for 60mins, 125% load for 10 mins, 150% load for 1 min. | | | | | | | | | | | |
| BATTERY | | | | | | | | | | | | |
| Voltage (Vdc) | 192 | | | 348 (360 optional) | | | | | | | | |
| BATT Type | External /Max 7Ah 12V 64pcs | | | External | | | | | | | | |
| Charger Current(A) Max | 10~40A setting | | | | | | | | | | | |
| Battery Self-testing | Automatically alarm and estimate battery status in battery abnormal status | | | | | | | | | | | |
| OTHER | | | | | | | | | | | | |
| Maintenance Bypass | Yes | | | | | | | | | | | |
| Communication Interface | RS232/RS485 and dry contact (MODBUS and SNMP adapter are optional) | | | | | | | | | | | |
| Display | LCD Display indicates frequency, voltage, load, battery voltage, etc. LED indicates running status | | | | | | | | | | | |
| Alarm | Overload, abnormal AC input, low battery, UPS failure | | | | | | | | | | | |
| Protection | Low battery, overload, over temperature, short circuit, output over voltage, output low voltage | | | | | | | | | | | |
| Noise (dB) | <65 | | | | | | | | | | | |
| Working Temperature | 0 ~ 40℃ | | | | | | | | | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | | | | | | | | | |
| Dimension (W×D×H)(mm) | 500×800×1180 /500×800×1600 | | | 800×800×1600 | | | 1400×800×1800 | | | 1600×1000 ×2000 | | |
| Weight(Kg) | 300/500 | 325/530 | 340/540 | 590 | 620 | 670 | 970 | 1000 | 1200 | 1450 | 1700 | |

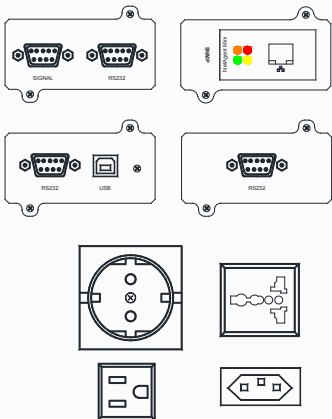
◆ Specification is subject to change without prior notice.



KR11 Series Online UPS (1-10kVA)

Main Features:

- Online double conversion
- High input power factor
- Wide input voltage range
- Full protection function
- Automatic bypass
- High reliability and performance
- Intelligent RS232 communication port
- 6KVA & 10KVA have ECO&EPO function
- THDi≤5% (6KVA & 10KVA)
- UPS management software (optional)
- SNMP or USB or dry contact (optional)
- External battery bank (optional)
- Output transformer (optional)

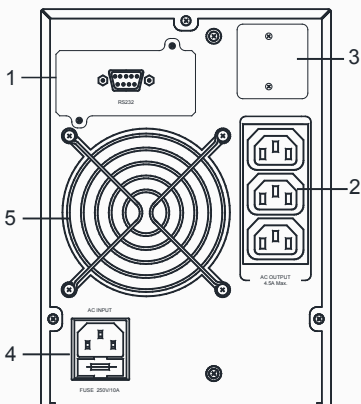


Application:

- Data center
- Point-of-sale
- Router
- Hub and other network device
- Commercial facility
- Precision instrument

1kVA Rear panel:

1. Communication interface
2. AC output sockets
3. External battery connector
4. AC input socket
5. Fan



Specification:

| MODEL | KR1000/KR1000L | KR2000/KR2000L | KR3000/KR3000L | KR6000/KR6000L | KR1110S/KR1110 |
|---|--|--------------------|--------------------|--|----------------|
| INPUT | | | | | |
| Voltage (Vac) | 120~295 | | | 120~276 | |
| Frequency (Hz) | 50/60 ± 5% (50/60Hz ± 10% settings) | | | | |
| Power Factor | ≥ 0.99 | | | | |
| OUTPUT | | | | | |
| Capacity(VA) | 1000 | 2000 | 3000 | 6000 | 10000 |
| Power Factor | 0.9 (0.7/ 0.8 optional) | | | | |
| Voltage (Vac) | 220/230/240 ± 2% | | | | |
| Frequency(Hz) | 50/60 ± 0.2% (battery mode) | | | | |
| Waveform | Pure sine wave THD < 3% (linear load) | | | | |
| Transfer Time | 0 | | | | |
| Overload | 105%~129% for 60 seconds, 130%~150% for 30 seconds, above 150% for 300ms | | | 105%~129% for 10minutes, 130~150% for 1 minute, above 150% for 1 second. | |
| BATTERY | | | | | |
| Voltage(Vdc) | 36 (24 option) | 72 (48 option) | 96 (72 option) | 192 | |
| BATT Type | 3×7Ah 12V/External | 6×7Ah 12V/External | 8×7Ah 12V/External | 16×7Ah 12V/External | |
| Charger Current(A)Max | 1/5 | 1/5 | 1/5 | 1/6 | |
| OTHER | | | | | |
| Communication Interface | RS232 (Dry contact, USB and SNMP adapter is optional) | | | RS232+USB+EPO (Dry contact, SNMP, MBS are optional) | |
| Display | LED indicates the status of UPS (LCD is optional) | | | LCD & LED display | |
| Alarm | Low battery, abnormal AC input, UPS failure | | | | |
| Protection | Low battery, overload, short-circuit and over temperature | | | | |
| Noise (dB) | < 45 | | | < 60 | |
| Working Temperature | 0 ~ 40°C | | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | | |
| Dimension (W×D×H) mm Standard/ Long backup | 156×400×220 | 198×490×347 | | 255×565×700/255×565×500 | |
| Weight (kg) Standard/ Long backup | 13/7 | 25/14 | 29/15 | 69/23 | 70/24 |

- ◆ Specification is subject to change without prior notice.
- ◆ Isolated transformers are optional for this series ups.



KR UL Series Online UPS (1–5kVA)



Main Features:

- Online double conversion
- High input power factor
- Wide input voltage range
- Full protection function
- Automatic bypass
- High reliability and performance
- Intelligent RS232 communication port
- UPS management software (optional)
- SNMP or USB or dry contact (optional)
- EPO for 5kVA
- Manual bypass switch optional for 5kVA
- External Battery Bank (optional)

Application:

- Data center
- Point-of-sale
- Router
- Hub and other network device
- Commercial facility
- Precision instrument.

Specification:

| MODEL | KR1000A/KR1000AL | KR2000A/ KR2000AL | KR3000A/ KR3000AL | KR5000A/ KR5000AL |
|-------------------------|--|--------------------|--------------------|--|
| INPUT | | | | |
| Voltage (Vac) | 80~148 | | | 83~138 |
| Frequency (Hz) | 50/60Hz±5% | | | |
| Power Factor | >0.99 at full load | | | |
| OUTPUT | | | | |
| Capacity(VA) | 1000 | 2000 | 3000 | 5000 |
| Power Factor | 0.8 | | | |
| Voltage (Vac) | 110/115/120±2% | | | |
| Frequency(Hz) | 50/60±0.2%(battery mode) | | | |
| Waveform | Pure sine wave THD < 3% (linear load) | | | |
| Transfer Time | 0ms | | | |
| Overload | 105%~129% for 60 seconds, 130%~150% for 30 seconds, above 150% for 300ms | | | 105%~129% load for 10 minutes 130%~149% load for 1 minute above 150% load for 1 second |
| BATTERY | | | | |
| Voltage(Vdc) | 36 | 72 | 96 | |
| Internal BATT Type | 3×7Ah 12V/External | 6×7Ah 12V/External | 8×7Ah 12V/External | 16×7Ah 12V/ External |
| Charger Current(A)Max | 1/5 | | | |
| OTHER | | | | |
| Communication Interface | RS232 (USB or Dry contact or SNMP adapter is optional) | | | |
| Display | LCD display parameters of UPS | | | |
| Alarm | Low battery, abnormal AC input, UPS failure | | | |
| Protection | Low battery, overload, short-circuit and over temperature | | | |
| Noise (dB) | < 45 | | | < 60 |
| Working Temperature | 0 ~ 40℃ | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | |
| Dimension (W×D×H) mm | 156×400×220 | 198×490×347 | | 255×565×700/255×565×500 |
| Weight (kg) | 13/7 | 28/16 | 34/17 | 70/24 |

◆ Specification is subject to change without prior notice.



KR11 T Series Online UPS (6–10kVA)

Main Features:

- Online double conversion
- High input power factor
- Wide input voltage range
- Full protection function
- Automatic bypass
- High reliability and performance
- Isolation output transformer
- THDi \leq 5%
- Dual Output 208V/120V voltage
- Intelligent RS232 communication port
- UPS management software (optional)
- SNMP or USB or dry contact (optional)
- EPO
- Manual bypass switch optional
- External Battery Bank (optional)

Application:

- Data center
- Point-of-sale
- Router
- Hub and other network device
- Commercial facility
- Precision instrument.

Specification:

| MODEL | KR6000T/ KR6000TL | KR1110T |
|-------------------------|---|----------|
| INPUT | | |
| Voltage (Vac) | 120~276 (L1, L2, G) | |
| Frequency (Hz) | 50/60Hz±5% | |
| Power Factor | >0.99 at full load | |
| OUTPUT | | |
| Capacity(VA) | 6000 | 10000 |
| Power Factor | 0.8 (0.7 optionl) | |
| Voltage (Vac) | 200/208/220/230/240±2% or 110/120±3% | |
| Frequency(Hz) | 50/60±0.2%(battery mode) | |
| Waveform | Pure sine wave THD < 3% (linear load) | |
| Transfer Time | 0ms | |
| Overload | 105%~129% for 10minutes, 130~150% for 1 minute, above150% for 1 second. | |
| BATTERY | | |
| Voltage(Vdc) | 192 | |
| Internal BATT Type | 16×7Ah 12V/External | External |
| Charger Current(A)Max | 1/5 | 5 |
| OTHER | | |
| Communication Interface | RS232 (USB or Dry contact or SNMP adapter is optional) | |
| Display | LCD display parameters of UPS | |
| Alarm | Low battery, abnormal AC input, UPS failure | |
| Protection | Low battery, overload, short-circuit and over temperature | |
| Noise (dB) | < 60 | |
| Working Temperature | 0 ~ 40℃ | |
| Relative Humidity | 0 ~ 95%, No condensation | |
| Dimension (W×D×H) mm | 255×650×790 | |
| Weight (kg) | 147/105 | 107 |

◆ Specification is subject to change without prior notice.



KR-J Series Online UPS (1-10kVA)

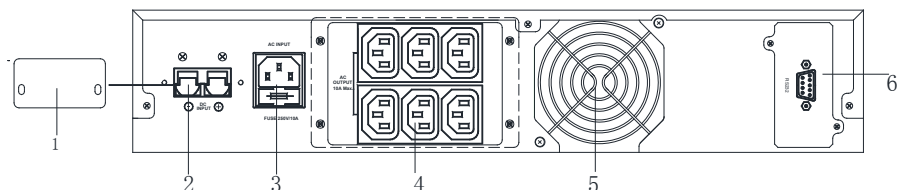
Main Features:

- Online double conversion
- Rack and tower convertible
- High input power factor
- Wide input voltage range
- Compact and light weight
- High reliability and performance
- Full protection function & Automatic bypass
- Intelligent RS232 communication port
- 6KVA & 10KVA UPS have ECO&EPO function
- THDi ≤ 5% (6KVA & 10KVA)
- UPS management software (optional)
- SNMP, USB, dry contact (optional)
- External battery bank, Tower housing, Rack kits (Optional)

Application:

- 19" rack device
- Data center
- Router
- Commercial facility
- Computer room
- Point-of-sale
- Hub and network device
- Precision instrument.

1kVA Rear panel:



- | | |
|--------------------|----------------------------|
| 1. DC input cover | 4. AC output socket |
| 2. DC input port | 5. Fan |
| 3. AC input socket | 6. Communication interface |

Specification:

| MODEL | KR1000-J/ KR1000L-J | KR2000-J/ KR2000L-J | KR3000-J/ KR3000L-J | KR6000-J/ KR6000L-J | KR1110S-J/ KR1110-J |
|---|--|--|------------------------|---|------------------------|
| INPUT | | | | | |
| Voltage (Vac) | 120~295 | | | 120~276 | |
| Frequency (Hz) | 50/60± 5% (50/60Hz ± 10%settings) | | | | |
| Power Factor | ≥0.99 | | | | |
| OUTPUT | | | | | |
| Capacity (VA) | 1000 | 2000 | 3000 | 6000 | 10000 |
| Power Factor | 0.9 (0.7/ 0.8 optional) | | | | |
| Voltage (Vac) | 220/230/240±2% | | | | |
| Frequency (Hz) | 50/60±0.2%(battery mode) | | | | |
| Waveform | Sine wave, THD<3% at linear load | | | | |
| Transfer Time | 0 | | | | |
| Overload | 105%~129% for 60 seconds, 130%~150% for 30 seconds, above 150% for 300ms | | | 105%~129% for 10minutes, 130%~150% for 1 minute, above 150% for 1 second. | |
| BATTERY | | | | | |
| Voltage (Vdc) | 36 | 72 | 96 | 192 | |
| BATT Type | 3×7Ah 12V/External | 6×7Ah 12V/External | 8×7Ah 12V/External | 16×7Ah 12V/External | |
| Charger Current(A)Max | 1/5 | 1/4 | 1/4 | 1.5 (2.5A is optional) | |
| OTHER | | | | | |
| Communication Interface | RS232 (Dry contact, USB or SNMP adapter is optional) | | | RS232+USB+EPO (Dry contact or SNMP are optional) | |
| Display | LED indicates the status of UPS (LCD is optional) | | | LCD & LED display | |
| Alarm | Low battery, abnormal AC input, UPS failure | | | | |
| Protection | Low battery, overload, short-circuit and over temperature | | | | |
| Working Temperature | 0~40℃ | | | | |
| Relative Humidity | 0~95%, No condensation | | | | |
| Dimension (W×D×H) mm Standard/ Long backup | 440×500×2U | 440×500×2U(UPS)+ 440×500×2U (Battery pack)/ 440×500×2U(UPS) | | 440×550×3U(UPS)+ 440×550×3U (Battery pack)/ 440×550×3U(UPS) | |
| Weight (kg) Standard/ Long backup | 14/7 | 10+22/12 | 11+28/13 | 21+53/ 21 | |

◆ Specification is subject to change without prior notice.



KRA-J Series Online UPS (1-5kVA)

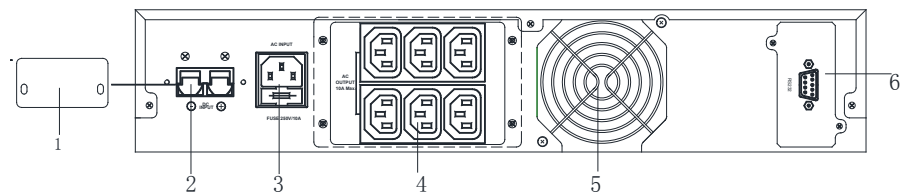
Main Features:

- Online double conversion
- Rack and tower convertible
- High input power factor
- Wide input voltage range
- Compact and light weight
- High reliability and performance
- Full protection function & Automatic bypass
- Intelligent RS232 communication port
- 5KVA UPS has ECO&EPO function
- UPS management software (optional)
- SNMP, USB, dry contact (optional)
- External battery bank, Tower housing, Rack kits (optional)

Application:

- 19" rack device
- Data center
- Router
- Commercial facility
- Computer room
- Point-of-sale
- Hub and network device
- Precision instrument.

1kVA Rear panel:



1. DC input cover
2. DC input port
3. AC input socket
4. AC output socket
5. Fan
6. Communication interface

Specification:

| MODEL | KR1000A-J/KR1000AL-J | KR2000A-J/ KR2000AL-J | KR3000A-J/ KR3000AL-J | KR5000A-J/ KR5000AL-J |
|--|--|--|-----------------------|---|
| INPUT | | | | |
| Voltage (Vac) | 80~148 | | | 60~138 |
| Frequency (Hz) | 50/60± 5% (50/60Hz ± 10%settings) | | | |
| Power Factor | ≥0.99 | | | |
| OUTPUT | | | | |
| Capacity (VA) | 1000 | 2000 | 3000 | 5000 |
| Power Factor | 0.8 | | | |
| Voltage (Vac) | 110/120±2% | | | |
| Frequency (Hz) | 50/60±0.2%(battery mode) | | | |
| Waveform | Sine wave, THD<3% at linear load | | | |
| Transfer Time | 0ms | | | |
| Overload | 105%~129% for 60 seconds, 130%~150% for 30 seconds, above 150% for 300ms | | | 105%~125% for 10minutes, 125~150% for 1 minute, above150% for 1 second. |
| BATTERY | | | | |
| Voltage (Vdc) | 36 | 72 | 96 | 96 |
| BATT Type | 3×7Ah 12V/External | 6×7Ah 12V/External | 8×7Ah 12V/External | 16×7Ah 12V/External |
| Charger Current(A)Max | 1/5 | 1/4 | 1/4 | 1/3 |
| OTHER | | | | |
| Communication Interface | RS232 (Dry contact, USB or SNMP adapter is optional) | | | RS232+USB+EPO (Dry contact or SNMP are optional) |
| Display | LED indicates the status of UPS | | | LCD & LED display |
| Alarm | Low battery, abnormal AC input, UPS failure | | | |
| Protection | Low battery, overload, short-circuit and over temperature | | | |
| Working Temperature | 0~40℃ | | | |
| Relative Humidity | 0~95%, No condensation | | | |
| Dimension (W×D×H)(mm) Standard/Long backup | 440×500×2U | 440×500×2U(UPS)+ 440×500×2U(Battery pack)/ 440×500×2U(UPS) | | 440×550×3U(UPS)+ 440×550×3U(Battery pack)/ 440×550×3U(UPS) |
| Weight(kg) Standard/long backup | 14/7 | 10+22/12 | 11+28/13 | 18+48/18 |

◆ Specification is subject to change without prior notice.



KR31 Series Online UPS (10–20kVA)

Main Features:

- Online double conversion
- High reliability DSP control
- Advanced PFC technology
- Wide input voltage range
- DC cold start function
- Intelligent fan speed control
- Full protection function
- Advanced battery charging management
- Intelligent RS232+USB+EPO communication port
- SNMP adapter or dry contact (optional)
- Advanced no–master–slave parallel technology (optional)
- 1P/1P or 3P/1P is suitable without additional settings (15K and 20K only)

Application:

- IT device
- Data center
- Precision instrument
- Intelligent equipment

Specification:

| MODEL | KR3110S/KR3110 | KR3115 | KR3120 |
|--|--|------------------|--------|
| INPUT | | | |
| Voltage (Vac) | 380/400/415±25% (-45% in half load) | | |
| Frequency (Hz) | 50/60 ±10% | | |
| Power Factor | ≥0.98 | | |
| Phase | 3φ4W+PE | | |
| THDi | ≤5% | | |
| Bypass Voltage (Vac) | 180-260 | | |
| OUTPUT | | | |
| Capacity (KVA) | 10 | 15 | 20 |
| Power Factor | 0.9 (0.8 optional) | | |
| Voltage(Vac) | 220/230/240 ±1% | | |
| Frequency(Hz) | 50/60±0.2%(battery mode) | | |
| Waveform | Pure sine wave THD <3% (linear load) | | |
| Overload | 105%~125% load for 10 mins,126%~150% load for 1 min, above150% load for 1 second | | |
| Transfer Time | 0 | | |
| Efficiency | 90%(linear load) | 91%(linear load) | |
| Crest Factor | 3:1 | | |
| BATTERY | | | |
| BATT Voltage(Vdc) | 192 | | |
| BATT Type | 16×7Ah 12V/External | External | |
| Charger Current(A)Max | 1/5 | 5 | |
| OTHER | | | |
| Maintenance Bypass Switch | Standard | | |
| Communication Interface | RS232+USB+EPO (SNMP adapter, Dry contact are optional) | | |
| Display | LCD Display indicates frequency, voltage, load, battery voltage, etc. LED indicates running status | | |
| Alarm | Low battery, abnormal AC input, Overload, UPS failure | | |
| Protection | Low battery, overload, short-circuit, UPS failure, and input over/low voltage | | |
| Noise(dB) | <60 | | |
| Working Temperature | 0 ~ 40°C | | |
| Relative Humidity | 0 ~ 95%, No condensation | | |
| Dimension (W×D×H) mm Standard/Long backup | 255×565×700/255×565×500 | 255×565×585 | |
| Weight (kg) Standard/ Long backup | 71/27 | 37 | 37 |

◆ Specification is subject to change without prior notice.



KR33 Series Online UPS (10–60kVA)

Main Features:

- Online double conversion
- Fully DSP control
- Advanced PFC technology, high input power factor
- High reliability and performance
- Wide input voltage range
- DC cold start function
- Advanced battery charging management
- Intelligent fan speed control
- ECO mode and EPO function
- Full protection function
- Intelligent RS232 /RS485 Communication Port
- DB9 dry contact, maintenance Bypass
- SNMP adapter (optional)
- Advanced no–master–slave parallel technology (optional)
- Intelligent battery monitor system – MMBM (optional)

Application:

- Computer room
- Data center
- Precision instrument
- Commercial facility
- Intelligent equipment

Specification:

| MODEL | KR3310S/ KR3310 | KR3320S/ KR3320 | KR3330S/ KR3330 | KR3340 | KR3350 | KR3360 |
|--|--|-------------------------|-------------------------|--------------|----------------|--------|
| INPUT | | | | | | |
| Voltage (Vac) | 380/400/415±25% (-45% in half load) | | | | | |
| Frequency (Hz) | 50/60 ±10% | | | | | |
| Bypass Voltage (Vac) | 380/400/415+15%(+20% can choose)/-25% | | | | | |
| Power Factor | ≥0.99 | | | | | |
| Phase | 3φ4W+PE | | | | | |
| OUTPUT | | | | | | |
| Capacity (KVA) | 10 | 20 | 30 | 40 | 50 | 60 |
| Power Factor | 0.9 (0.8/1.0 optional) | | | | | |
| Voltage (Vac) | L-N: 220/230/240±2% L-L: 380/400/415±2% | | | | | |
| Frequency (Hz) | 50/60±0.2%(battery mode) | | | | | |
| Phase | 3φ4W+PE | | | | | |
| Unbalance three-phase voltage stabilization with full load | ≤2% | | | | | |
| Waveform | Pure sine wave, THD<3% at linear load | | | | | |
| Transfer Time | 0 | | | | | |
| Efficiency | ≥91% | | | | | |
| Overload | 130% load for 1 minute, 150% load for 10 seconds | | | | | |
| BATTERY | | | | | | |
| Battery voltage (Vdc) | 348 | | | | | |
| BATT Type | 29×7Ah 12V/ External | 58×7Ah 12V/ External | 58×7Ah 12V/ External | External | | |
| Charging Current (A) Max | 1.5/3 (2.3/4.5 5 optional) | | 2.3/4.5 | | 3 (6 optional) | |
| OTHER | | | | | | |
| Maintenance Bypass | Yes | | | | | |
| Communication Interface | RS232/RS485, DB9 dry contact (MODBUS and SNMP adapter are optional) | | | | | |
| Display | LCD Display indicates frequency, voltage, load, battery voltage, etc. LED indicates running status | | | | | |
| Alarm | AC input abnormal, low battery, overload, failure | | | | | |
| Protection | Output short-circuit, overload, over-temperature, battery low voltage, output over/low voltage | | | | | |
| Noise (dB) | <65 | | | | | |
| Working Temperature | 0~40 | | | | | |
| Relative Humidity | 0 ~ 95%, No condensation | | | | | |
| Dimension (W×D×H) mm Standard/ Long backup | 400×800×1600 / 400×800×1180 | | | 500×800×1600 | | |
| Weight (kg) Standard/ Long backup | 200/110 | 210 / 125 | 330 / 135 | 215 | 235 | 255 |

◆ Specification is subject to change without prior notice.



KR33 Series IGBT UPS (80–200kVA)

Main Features:

- Online double conversion, three phases input, three phases output
- IGBT rectifier, high input power factor
- High reliability and performance
- Wide input voltage range
- DC cold start function
- Advanced battery charging management
- Intelligent fan speed control
- ECO mode and EPO function
- Full protection function
- Intelligent RS232 /RS485 & dry contact communication function
- Maintenance Bypass
- SNMP adapter (optional)
- Advanced no-master-slave parallel technology (optional)
- Intelligent battery monitor system – MMBM (optional)

Application:

- Computer room
- Data center
- Precision instrument
- Commercial facility
- Intelligent equipment

Specification:

| MODEL | KR3380/ KR/B3380 | KR33100/ KR/B33100 | KR33120/ KR/B33120 | KR33160/ KR/B33160 | KR33200/ KR/B33200 |
|---|--|-----------------------|-----------------------|---|-----------------------|
| INPUT | | | | | |
| Voltage range(Vac) | 380/400/415±25% | | | | |
| Rectifier frequency(Hz) | 50/60±10%Hz | | | | |
| Bypass synchronization tracking range(Hz) | 50/60±5%(±10% optional) | | | | |
| Bypass voltage range(V) | +15%(+20% optional)/-25% | | | +20%(+15%optional) -30%(-15% , -20%optional) | |
| Power factor(PF) | ≥0.99 | | | | |
| THDi | <5% | | | | |
| Phase | 3φ4W+PE | | | | |
| Battery voltage(Vdc) | 480V (32~40 Selectable) | | | | |
| Charging current(A) | 10A (18A optional) | | | 10~60A | |
| OUTPUT | | | | | |
| Capacity(kVA) | 80 | 100 | 120 | 160 | 200 |
| Power Factor | 0.9 (0.8/1.0 optional) | | | | |
| Phase | 3φ4W+PE | | | | |
| Waveform | Pure sine wave | | | | |
| Voltage(Vac) | L-N: 220/230/240±1%, L-L: 380/400/415±1% | | | | |
| Frequency(Hz) | 50/60±0.2%(battery mode) | | | | |
| Three phase difference | ≤2 degrees | | | | |
| Waveform distortion | THD≤3%(Linear load) | | | THD≤2%(Linear load) | |
| Static bypass transfer time(ms) | 0 | | | | |
| System efficiency | ≥92.0% | | | ≥95% | |
| Parallel mode | Advanced no-master-slave parallel technology, N+1 redundancy | | | | |
| Overload capacity | 130% load for 1 minute, 150% load for 10 seconds | | | | |
| OTHER | | | | | |
| Maintenance bypass | Yes | | | | |
| DC cold start function | Yes | | | | |
| Display | LCD+ LED | | | Touch screen+ LED | |
| Communication function | RS232/RS485 , dry contact (option for KR33160~200KVA) , SNMP (optional). | | | | |
| Approvals | CE (EN 62040-2, IEC 62040-1) | | | | |
| Noise(dB) | <70dB | | | <75dB | |
| Dimension(W×D×H)(mm) | 850×800×1800 | | | 1200×800×1800 | |
| Weight(kg) | 560 | 565 | 570 | 1010 | |

◆ Specification is subject to change without prior notice.



ZL Series 240VDC Power System(12–480kVA)

Main Features:

- Intelligent DSP control
- Touch screen interface
- Modular N+1 design for easy expansion
- Hot-swappable modules ensure quick and online maintenance
- Intelligent alternately working modules
- PFC technology for high power factor 0.99 and low THDi $\leq 5\%$
- DC power application with high efficiency $\geq 95\%$
- Flexible communication management: CAN bus and RS485 port
- ECO mode and temperature compensation (Optional)
- Voltage/current/capacity is adjustable (Optional)
- Multiple monitor modules are available (Optional)

Application:

- IDC data center
- Mobile communication data center
- Banks
- 3G, 4G base station
- Other equipments with 240VDC power source

Specification:

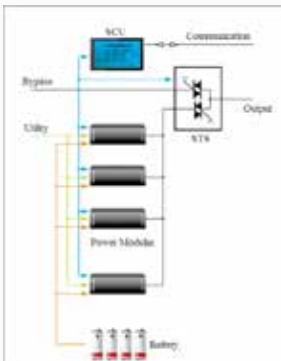
| MODEL | ZL304-G400 | ZL304-G600 | ZL304-G800 | ZL304-G1200 | ZL304-G1600 |
|------------------------------|--|---------------|---------------|-------------|---------------|
| INPUT | | | | | |
| Voltage (Vac) | 260~530 (>304Vac 100% load) | | | | |
| THDu | ≤5% | | | | |
| THDi | ≤3% (100% load) , ≤5% (50% load) | | | | |
| PF | ≥0.99 | | | | |
| Frequency (Hz) | 40-66 | | | | |
| Wires | 3 phase 3 wires+ground | | | | |
| Battery capacitor applicable | 100AH-2000AH | | | | |
| OUTPUT | | | | | |
| Power (kVA) | 120 | 180 | 240 | 360 | 480 |
| Voltage(VDC) | 240 | | | | |
| Voltage(VDC) | 180~300 adjustable | | | | |
| Current (A) | 400 | 600 | 800 | 1200 | 1600 |
| Current limit | rated current × (20% ~110%) | | | | |
| Voltage regulation | ≤±0.2% | | | | |
| Current regulation | ≤±1.0% | | | | |
| Ripple | ≤±0.13% | | | | |
| Efficiency | ≥94.5% | | | | |
| Parallel performance | ≤±1% | | | | |
| Charger | Boost and floating (manually and automatically) | | | | |
| OTHER | | | | | |
| Insulation monitor | DC BUS and DC circuit | | | | |
| Insulation resistor (MΩ) | ≥10 | | | | |
| Insulation grade | Output to ground, input to ground, input to output with 2.5kVAC, no arc in 1 minute | | | | |
| Alarm | Battery fault, insulation fault, AC fault, output fault, modular fault, system modular | | | | |
| IP grade | IP20 | | | | |
| Display | LCD | | | | |
| Noise(dB) | ≤60dB | | | | |
| Protection | AC over voltage, sag, DC output over voltage, protection for input phase missing, over load protection, DC output over current protection, protection for short circuit, over temperature protection | | | | |
| Cooling | Fans (speed adjustable) | | | | |
| Size(mm)(W×D×H) | 800×800×2000 | 1800×600×2000 | 2400×600×2000 | | 3200×600×2000 |
| Weight (kg) | 400 | 660 | 920 | 1080 | 1360 |

◆ Specification is subject to change without prior notice.



Typical Application:

- Data centers
- Telecom systems
- Computer rooms
- Financial systems
- Precision instruments
- Intelligent equipments



System working diagram



7 inch touch screen

MR Series Modular UPS (20–520kVA)

MR Series modular UPS20–520kVA is ideal for protecting data centres and telecommunication systems, IT networks and critical systems where poor power quality can lead to a loss of operations and services. The products are with excellent 95% efficiency and high output performance. The system includes power module, STS module and SCU module, all support hot–swap operation, delivering the best combination of reliability, functionality and flexibility.

Specification:

| Model | MR33120 | MR33200 | MR33260 | MR33520 |
|------------------|-----------------------------------|--|-------------------------------|---------------|
| Maximum Capacity | 120kVA | 200kVA | 260kVA | 520kVA |
| Power module | Power Module MR3320–J(20kVA) | | | |
| INPUT | Configuration | 3 phase 4 wires + ground | | |
| | Nominal voltage(Vac) | 380/400/415(L–L) | | |
| | Voltage Range (Vac) | 285~475(L–L) | | |
| | Frequency Range | 50/60Hz ± 10% | | |
| | PF | ≥0.99 | | |
| | THDi | ≤3% | | |
| | Batteries (VDC) | ±360 | | |
| OUTPUT | PF | 1 (0.8/0.9 optional) | | |
| | Frequency Range | 50/60Hz±0.1Hz at battery mode | | |
| | Voltage Stability (Vac) | 380/400/415±1% (static) | 380/400/415 ±2% (load 0~100%) | |
| | Transient Recovery Time | 20ms (loads 0~100%) | | |
| | Overload | 125% loads for 10 minutes, 150% loads for 1 minute | | |
| | Transfer Time | 0ms | | |
| | Efficiency | ≥95% (AC–AC) | | |
| OTHERS | Communication Interface | Dry contact, RS232/RS485 | | |
| | SNMP Adapter (optional) | Yes | | |
| | Display | Touch screen + LED | | |
| | Working Temperature | –5℃~40℃ | | |
| | Relative Humidity | ≤95% No condensation | | |
| | Protection Degree | IP20 | | |
| | Approvals | CE (EN 62040–2, IEC 62040–1) | | |
| | Noise | ≤60dB | ≤65dB | |
| | Power Module Dimension(W×D×H)(mm) | 497×590×133 | | |
| | Power module weight (kg) | 25.5 | | |
| | Cabinet Size (W×D×H)(mm) | 600×800×1400 | 600×800×2000 | 1200×800×2000 |

◆ Specification is subject to change without prior notice.

KI Series Sine-wave Line Interactive UPS (1-5kVA)

KI Series

Sine-wave Line Interactive UPS (1-5kVA)



Main Features:

- Digital technology
- Intelligent battery charger
- Reliable online interactive design, with output transformer
- Intelligent regulation system on utility power voltage
- Fully functional protection
- Intelligent RS232 communication port
- UPS management software (optional)
- External SNMP or USB or dry contactor (optional)
- External battery bank (optional)

Specification:

| MODEL | KI1000 | KI1000L | KI2000 | KI2000L | KI3000 | KI3000L | KI5000L |
|-------------------------|--|----------|-------------|----------|-----------|----------|-------------|
| INPUT | | | | | | | |
| Voltage (Vac) | 150-300 | | | | | | |
| Frequency (Hz) | 50/60 ± 5% (50/60Hz settings) | | | | | | |
| OUTPUT | | | | | | | |
| Capacity(VA/W) | 1000/700 | | 2000/1400 | | 3000/2100 | | 5000/3500 |
| Voltage (Vac) | 220/230/240 ± 2% (battery mode) | | | | | | |
| Frequency (Hz) | 50 /60 ± 0.1% (battery mode) | | | | | | |
| Waveform | Pure sine wave, THD < 3% | | | | | | |
| Transfer Time | Typical 4ms (Synchronous switch-over) | | | | | | Typical 8ms |
| Overload | Utility mode: 150% for 5 minutes, above 200% for 3 seconds Battery mode: 120% for 30 seconds, above 150% for 1 second | | | | | | |
| BATTERY | | | | | | | |
| Voltage (Vdc) | 24 | | 48 | | 72 | | 48 |
| BATT Type | 2×7Ah 12V | External | 4×7Ah 12V | External | 6×7Ah 12V | External | External |
| Charger Current(A)Max | 1 | 10 | 1 | 10 | 1 | 10 | 30 |
| OTHER | | | | | | | |
| Communication Interface | RS232. (Dry contact, USB and SNMP adapter are optional) | | | | | | |
| Display | LED or LCD display operation status of UPS | | | | | | |
| Alarm | Low battery, abnormal AC input, UPS failure | | | | | | |
| Protection | Low battery, overload, short-circuit and over temperature | | | | | | |
| Dimension (W×D×H)mm | 156×450×220 | | 198×525×347 | | | | 255×590×500 |
| Weight (kg) | 16 | 13 | 35 | 26 | 44 | 30 | 48 |

◆ Specification is subject to change without prior notice.



Mini-guard Series Off Line UPS (500–2000VA)

Main Features:

- Advanced digital control technology
- Streamline, colorful appearance design
- Comprehensive net equipment protection
- Green idea environmental design
- Flexible and practical cold start function
- Wide voltage range for intellectual regulating (SMART AVR)
- Intelligent power management (optional)

Specification:

| MODEL | UPS500 | UPS700/ UPS700L | UPS1000/ UPS1000L | UPS1600/ UPS1600L | UPS2000/ UPS2000L | SUPS500 | SUPS700 | SUPS1200 |
|-------------------------|--|--------------------|----------------------|----------------------|----------------------|--|-------------|----------|
| INPUT | | | | | | | | |
| Voltage(Vac) | 140~280 / 90~145 | | | | | 190~265 | | |
| Frequency (Hz) | 50/60 ± 10% | | | | | | | |
| OUTPUT | | | | | | | | |
| Power(VA/W) | 500/300 | 700/420 | 1000/600 | 1600/960 | 2000/1200 | 500/300 | 700/420 | 1200/720 |
| Voltage(Vac) | 220/230±10% ; 110/120±10% (on battery mode) | | | | | 220/230±10%(on battery mode) | | |
| Frequency(Hz) | Synchronizing with input AC while it is normal, and 50±0.5% or 60 ± 0.5% on battery mode | | | | | | | |
| Transfer Time | Typical 6ms, including detection time and switching time (Synchronous switch-over) | | | | | | | |
| Waveform | Square wave | | | | | Pure sine wave | | |
| BATTERY | | | | | | | | |
| Voltage (Vdc) | 12 | 12 | 12/24 | 36 | 36/48 | 12 | 24 | 24 |
| BATT Type | 1×7Ah | 1×7Ah/ External | 2×7Ah/ External | 3×7Ah/ External | 3×9Ah/ External | 1×7Ah | 2×7Ah | |
| Charger Current(A)Max | 1 | 1/8 | 1/6 | 1/5 | 1/5 | 1 | | |
| OTHER | | | | | | | | |
| Communication Interface | RS232, RJ11 / RJ45 (USB and SNMP adapter are optional) | | | | | RS232 (USB, SNMP adapter are optional) | | |
| Display | LCD display shows status of AC input, inverter, low battery, overload and battery capacity, or LED indicators show status of AC input, inverter, low battery, overload | | | | | | | |
| Dimension (W×D×H) | 90×325×165/ 120×380×220 | | 120×380 ×220 | 156×450×220 | | 122×280 ×167 | 122×380×167 | |
| Weight(kg) | 5 | 5.5/8 | 11/8 | 17/13 | 18/14 | 5 | 8 | 9 |

◆ Specification is subject to change without prior notice.

DJN Series 48Vdc Inverter (1–5kVA)

DJN Series 48Vdc Inverter (1–5kVA)

DJN series inverters adapt to telecom systems with 48VDC power supply, adopting high efficiency SPWM inversion technology. DJN series inverter can be connected to teleprinter, telegraph terminal, wireless paging equipment, data switching exchange, local exchange, microwave communication equipment, program controlled exchange charging system, fax machine and all kinds of AC instrument, computer equipment and various communication equipment. Meanwhile, DJN-K Series inverter "on ECO mode" can be used for air conditioner, such as 3KVA for 1.5P and 5KVA inverter for 3P air conditioner.

Main Features:

- Compliant with communication standard of AC and DC power supply system
- High performance SPWM inversion technology
- Wholesome protective measures
- Low DC end current noise

Specification:

| Model | DJN1000-K / DJN1000-J | DJN1500-K | DJN2000-K / DJN2000-J | DJN3000-K / DJN3000-J | DJN5000-K |
|-------------------------|--|-------------|-------------------------------|-------------------------------|------------------------|
| INPUT | | | | | |
| Voltage (Vdc) | 40–60 | | | | |
| OUTPUT | | | | | |
| Capacity (VA) | 1000 | 1500 | 2000 | 3000 | 5000 |
| Power Factor | 0.7(0.8 optional) | | | | |
| Voltage (Vac) | 110/220/230 ± 2% | | | | |
| Waveform | Sine wave, THD<3% | | | | |
| Frequency (Hz) | 50/60 ± 0.5% | | | | |
| OTHER | | | | | |
| Panel Display | LED indicators show status of inverter's operation | | | | |
| Protection | Low battery, over voltage, overload, short-circuit and over temperature. | | | | |
| Communication Interface | dry contact / RS232 | dry contact | dry contact +RS232 / RS232 | dry contact +RS232 / RS232 | dry contact + RS232 |
| Dimension (WxDxH) (mm) | 440×286×1U / 440×465×2U | 440×360×1U | 440×350×2U / 440×465×2U | 440×350×2U / 440×465×2U | 440×440×3U |
| Weight (kg) | 5/10 | 6 | 10/11 | 10/12 | 14 |

◆ Specification is subject to change without prior notice.



DJN-J



DJN-K



DJN-P Series 48Vdc Modular Inverter (3-12kVA)

DJN-P inverters adopting rack imbed design so as to be more slinky and tide ,easy to install 3+1 parallel system for high MPBF, adapt to telecom systems with 48VDC power supply, adopting high efficiency SPWM inversion technology. DJN-P inverter can be connected to teleprinter, telegraph terminal, wireless paging equipment, data switching exchange, local exchange, microwave communication equipment, program controlled exchange charging system, fax machine and all kinds of AC instrument, computer equipment and various communication equipment.

DJN-P series paralleable inverter powers,3+1 for redundancy system, being able to supply high-performance uninterrupted AC power for various precision instruments

Main Features:

- Compliant with communication standard of AC and DC power supply system
- High performance SPWM inversion technology
- Wholesome protective measures
- Low DC end current noise

Specification:

| Model | DJN3000-P / DJN-S12 |
|-------------------------|--|
| INPUT | |
| Voltage (Vdc) | 43-60 |
| OUTPUT | |
| Capacity (VA) | 3000 (N+X) |
| Power Factor | 0.7 (0.8 optional) |
| Voltage (Vac) | 110/220/230 ±2% |
| Waveform | Sine wave, THD<3% |
| Frequency (Hz) | 50/60 ±1% |
| OTHER | |
| Panel Display | LED indicators show status of inverter' s operation |
| Protection | Low battery, over voltage, overload, short-circuit and over temperature. |
| Communication Interface | dry contact + RS232 (system) |
| Dimension (WxDxH) (mm) | 435×358×2U / 445×335×10U |
| Weight (kg) | 8.5/15 |

◆ Specification is subject to change without prior notice (DJN-S12, without moudule) .

Li UPS Series Lithium Sine wave UPS

Li UPS is intelligent UPS with Lithium batteries. Li UPS has high performance, reliable and fully protection function. With small and exquisite appearance, visual display and easy operation feature, LiUPS provide pure and stable AC power to computers and peripheral equipment. Lithium batteries have higher safety, more reliability and longer lifetime. It is a good replacement to lead-acid battery which has pollution, low energy ratio, big size and short cycling lifetime.



Main Features:

- Anti-feedback function, double output is available: AC output and 48V DC output
- Low THD, with pure sine wave output
- Advanced digital control technique
- Comprehensive net equipment protection
- Special Li battery charger
- DC cold start and automatic start at low voltage
- Intelligent power management (optional)
- Green power, high efficiency

Specification:

| Model | UPS500S UPS500Li | UPS1000S UPS1000Li | UPS1500Li | UPS2000Li | UPS3000Li | UPS5000Li |
|-------------------------|--|-----------------------|---|--|--------------|---|
| INPUT | | | | | | |
| Voltage(Vac) | 220/230 ± 20% | | 220/230 ± 25% | | | |
| Input frequency (Hz) | 50/60 ± 10% | | | | | |
| DC input(VDC) | 24/48 | | 48 | | | |
| OUTPUT | | | | | | |
| Power(VA/W) | 500VA/350W | 1000VA/700W | 1500VA/1050W | 2000VA/1400W | 3000VA/2100W | 5000VA/3300W |
| AC Voltage(Vac) | 220/230±10%(on battery mode) | | 220/230±2%(on battery mode) | | | |
| Frequency(Hz) | 50/60 ± 0.5% | | | | | |
| Transfer Time | <6ms | | <10ms | | | |
| Waveform | Pure Sine Wave | | | | | |
| BATTERY | | | | | | |
| Voltage (Vdc) | 24/48 | | 48 | | | |
| BATT Type | Lithium battery / External | | External | | | |
| Charger Current(A)Max | 0.7-1A / Max. 3A(external BAT) | | 3±0.5A | | | |
| OTHER | | | | | | |
| Communication Interface | RS232 or dry contact | | RS232 and dry contact(SNMP is optional) | | | |
| Display | LED indicators show status of AC input, inverter, low/high battery | | | | | |
| Dimension (W×D×H) | 440×300×1U | 440×320×1U | 440×360×1U | UPS 440×350×1U Charger+PDU&MBS: 440×350×2U | | UPS 440×350×3U Charger+PDU& MBS: 440×350×2U |
| Weight(kg) | 4 | 5 | 5 | 9 | 10 | 13 |

◆ Specification is subject to change without prior notice.



STS System (3 phase static transfer switch 63-400A/40-250kVA)

Main Features:

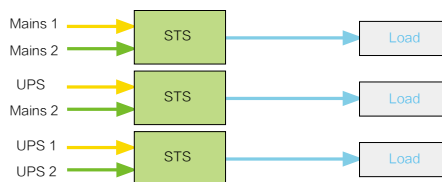
- Strong adaptability for input power
- Accurate synchronized detection system
- Human machine interface--Lovely touch screen
- Your choice for main input power source
- Perfect protection function
- Remote monitor via RS485
- Options--- Added-value service

Application:

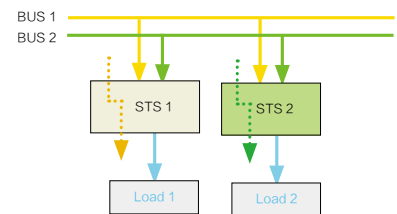
STS is applied for various important power supply environments, such as computer systems, working and fire fighting in buildings, hospitals, malls, hotels, highway, tunnels, subway, light rail, airport, electric power system, finance, telecommunication and so on.

Three common application modes are as below:

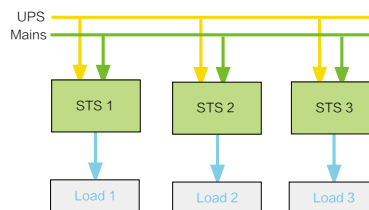
● Dual power supply application



● Dual BUS power supply application



● Concentration power supply application: STS is used for power distribution and increasing the reliability



Specification:

| Model | STS33063 | STS33100 | STS33160 | STS33250 | STS33400 |
|---|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| INPUT | | | | | |
| Input source | Two – routes three–phase power sources | | | | |
| Input way | 3 ϕ +N+PE or 3 ϕ +PE | | | | |
| Rated voltage | 190/208/220/380/400V/415Vac | | | | |
| Rated frequency | 50/60Hz | | | | |
| Input voltage range | $\pm 15\%$ | | | | |
| Input frequency range | $\pm 10\%$ | | | | |
| OUTPUT | | | | | |
| Current rating | 3 phases, 63A per phase | 3 phases, 100A per phase | 3 phases, 160A per phase | 3 phases, 250A per phase | 3 phases, 400A per phase |
| Overload capacity | < 150% With load for long time | | | | |
| | 150%~170% ,15 minutes ; >170% 1.5 seconds | | | | |
| Efficiency(100%linear load) | 98% | | | | |
| OUTPUT | | | | | |
| Synchronization transfer | Representative value: 4ms | | | | |
| Frequency range | Input frequency range: $\pm 0.5\text{Hz}$ | | | | |
| Synchronization window | $\pm 10^\circ$ | | | | |
| Operating temperature | 0°C~40°C | | | | |
| Humidity | 0%~95%(non–condensing) | | | | |
| Altitude | $\leq 3000\text{m}$ | | | | |
| Noise | < 55dB | | | | |
| Protection level | IP20 | | | | |
| EMC | Complies with CE(EN / IEC 62040–2) | | | | |
| Safety and regulatory | Complies with CE(EN / IEC 62040–1) | | | | |
| Dimensions(mm)(W \times D \times H) | 600mm \times 800mm \times 1600mm | | | | |
| Weight(kg) | 125 | 135 | 142 | 146 | 152 |
| Alarm | Abnormal AC input, SCR short or open, overloads etc. | | | | |
| Protection | Overloads, short circuits ,over temperature, input over/under voltage, input over/under frequency etc. | | | | |
| Communication | RS485 | | | | |

- ◆ Specification is subject to change without prior notice.
- ◆ Special capacity can be customized



RACK ATS (1 phase rack automatic transfer switch 10–32A/2–6kVA)

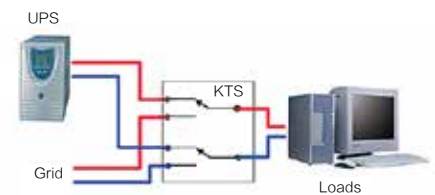
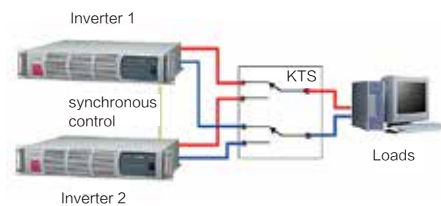
Main Features:

- Dual input route design, Dual AC input are completely isolated;
- Synchronization;
- Flexible control panel location (Front or Rear);
- It ensures the high MTBF and the system reliability of Inverter system or UPS system

Specification:

| Item | KTS010 | KTS032 |
|----------------------------|-----------------------------|------------|
| Input voltage (Vac) | 110/220±25% | |
| Input frequency (Hz) | 50/60Hz±6Hz | |
| Rated output capacity 110V | 1kVA/0.7kW | 3kVA/2.1kW |
| Rated output capacity 220V | 2kVA/1.4kW | 6kVA/4.2kW |
| Overload | 125%, not limited; 150%≥60S | |
| Output voltage (Vac) | 110/220±25% | |
| Transfer time (mS) | 6ms (typical) | |
| Dimension (mm) (W×D×H) | 440×286×1U | |
| Weight (kg) | 4 | |

◆ Specification is subject to change without prior notice.



MMBM-3 Intelligent Battery Monitoring System

Main Features:

- Perfect protection&Alarm detection function
- With LAN, RS232 & RS485 communication port
- Module design.
- Perfect management analysis

Specification:

| Item | 2V battery system | 12V battery system |
|--|---|--|
| System composition | Monitoring module MCU-3+ Sampling module BM02-3 | Monitoring module MCU-3+ Sampling module BM12-3 |
| Voltage detection accuracy | ≤ ±0.2% | |
| Voltage detection range | 1.5~3.0V | 9~16V |
| Current detection accuracy | ≤ ±1.0% | |
| Current detection range | 0~±1000A | |
| Internal resistance detection accuracy | ± (2.5%+25μΩ) | |
| Internal resistance detection range | 0.1mΩ~100mΩ | |
| Operation mode | Large screen, backlit LCD display, up to 320 × 240 lattice, the viewable area 118 x 88mm | |
| Temperature detection accuracy | ±0.5℃ | |
| Cell monitoring | Each monitor can monitor total max. 240 cells.For 2V system, each sampling module can collect total 27 cells battery information;For 12V system, each sampling module can collect total 24 cells battery information; | |
| Communication port | LAN, RS232, RS485 | |
| Input insulation resistance | 500M 1000VDC | |
| Communication protocol | CDT, POLLING or MODBUS(only one of them can be chosen) | |
| Working power | AC/DC220V±15% (standard) | |
| Nominal ambient temperature | -10℃ ~ +55℃ | |
| Ambient humidity | 40% ~ 70% Relative humidity | |
| Dimension/Weight | Sampling module :BM02-3: 420×200×43(mm); (for 2V battery) / (2.3kg); BM12-3: 483×200×44(mm); (for12V battery) / (2.5kg); Monitoring module : MCU-3: 322×140×48(mm) / (2 kg) | |

◆ Specification is subject to change without prior notice.





Emergency Power Supply

Main Features:

- High environmental adaptability
- Special maintenance design
- Intelligent fan speed control
- Output isolation transformer configuration
- Manual, automatic, testing, and force starting function
- Double DSP digital control, high reliability and performance
- Perfect protection function
- 3phase UPS allow 100% unbalance load
- Wide input voltage range
- Friendly LCD display
- MMBM-3 battery monitor system(optional)

Application:

- Schools
- Hospital
- Public Buildings
- Theaters
- Housing Complexes
- Parking

Specification:

| Model | KH-Z 3kVA | KH-Z 6kVA | KH-Z 8kVA | KH-Z 10kVA | KH-Z 15kVA | KH-Z 25kVA | KH-Z 30kVA | KH-Z 45kVA | KH-Z 50kVA | KH-Z 60kVA | KH-Z 80kVA | |
|------------------------------|--|--------------|--------------|---|---------------|---------------|---------------|---------------|------------------|---------------|---------------|--|
| INPUT | | | | | | | | | | | | |
| Voltage range(VAC) | 380 ± 20% | | | | | | | | | | | |
| Frequency (Hz) | 50/60 ± 10% | | | | | | | | | | | |
| Phase | 3 φ 4W+GND | | | | | | | | | | | |
| Battery(VDC) | 12 × 16=192 | | | 12 × 29=348 | | | | | | | | |
| Charge current (A) | 2.5A, 5A, 7.5A settable before leaving factory | | | According to battery capacity adjustment, 40 A maximum | | | | | | | | |
| OUTPUT | | | | | | | | | | | | |
| Capacity (kVA) | 3 | 6 | 8 | 10 | 15 | 25 | 30 | 45 | 50 | 60 | 80 | |
| Phase | 1 φ 2W+GND | | | 3 φ 4W+GND | | | | | | | | |
| Voltage (VAC) | Emergency : 220 ± 2% | | | Emergency state: 380 ± 2% | | | | | | | | |
| Frequency (Hz) | Emergency state: 50/60 ± 0.2% | | | | | | | | | | | |
| THDV | Emergency state: THD < 3% | | | | | | | | | | | |
| Emergency conversion time | <100 ms | | | 25ms default, according to different loads requirement, can be set to 3 ms, or 200 ms | | | | | | | | |
| System efficiency | ≥97% | | | | | | | | | | | |
| Overload capacity | 120% full load continuously; When 150% full load lasts 1 min | | | | | | | | | | | |
| OTHER | | | | | | | | | | | | |
| Maintenance bypass | No | | | Yes, with no conversion time | | | | | | | | |
| Starting function | With DC start function | | | | | | | | | | | |
| LCD display | Three-phase input voltage, input frequency, output voltage, load, battery voltage, working states, etc | | | | | | | | | | | |
| Alarm function | Input abnormal, battery low voltage, overload, fault etc. | | | | | | | | | | | |
| Communication | Dry contact communication and RS232/RS485 | | | | | | | | | | | |
| Battery test | Yearly and monthly test and manual test function | | | | | | | | | | | |
| EMC | Meet standard EN 62040-2: 2006 | | | | | | | | | | | |
| Emergency Time (min) | ≥90(Special requirement according to user demand) | | | | | | | | | | | |
| IP grade | IP31 | | | | | | | | | | | |
| Noise (dB) | < 50 | | | < 55 | | | | | | | | |
| Cooling | Force-air cooling | | | | | | | | | | | |
| Working Temperature | -20 ~ 40(°C) | | | | | | | | | | | |
| Humidity | 0 ~ 95%, non-condensing | | | | | | | | | | | |
| Dimension(W × H × D) (mm) | 600 × 400 × 1180 | | | 800 × 600 × 1900 | | | | | 800 × 800 × 1900 | | | |
| Weight(kg) | 74 | 87 | 98 | 280 | 300 | 320 | 345 | 410 | 470 | 490 | 560 | |

◆ Specification is subject to change without prior notice.



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