

Customization Oriented High Stability High Reliability

Typical applications:

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



FR-UK33 Series 200-400kVA

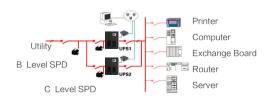




High-end intelligent power protection solution

FR-UK33 series UPS is Kehua's historic UPS, it brings a new choice for your critical applications. Thanks for 20 years of research and development experience, FR-UK 33 series UPS can be applied to wide application solutions as they possess high cost-effective advantages. With optional dual mains input and a built-in maintenance bypass switch, the system's stability is highly increased. Featuring with upgraded IP grade, replaceable filter screens and feedback protection, FR-UK33 series UPS satisfies your demands of industrial environments. In addition, customization products are available for special requirement.





Parallel System Application

Features and Advantages

High reliability

- Standard output isolated transformer
- •3 x 2 redundant power design
- ■No-master-slave N+1 parallel technology
- PCB boards feature with anti-corrosion paint coating

High performance

- ± 25% input Voltage
- ●40-70Hz Frequency (Mains)
- Double DSP and full digital control
- International IGBT power modules
- Allow 100% three phase unbalance load

Maximum protection

- Overload protection
- Short-circuit protection
- Reverse polarity protection
- Over temperature protection
- High input voltage protectionBattery overcharge protection
- High/Low output voltage protection

Smart management

- Fancy touch screen
- Intelligent RS232/RS485
- ●1000pcs of events logs●Battery management
- ●8+6 dry contact communication signals
- Multi-functional settings to view parameters

Added-value service (options)

- Customizable design ■Battery monitor system – MMBM
- Temperature Sensor
- SNMP adapter & Emergent alarm via SMS/Email
- ●IP grade upgrade Input/Bypass isolation transformer
- ■12 Pulse rectifier &Active/Passive filter





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Added-value Service and Customization

Harsh industrial environments

- Strong enclosure
- Shield box protection
 Control boards can be dust-proof and anti-interference
- Replaceable
 Prevent dust and debris from affecting ups performance
- IP31
 Prevents liquids and debris from entering the UPS

Intelligent battery monitor system – MMBM-3

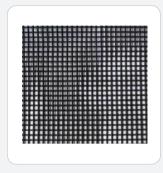
- Real time monitoring parameters
- Smart diagnosis status
- Real time abnormal alarm
- Record and save events logs

Flexible network management

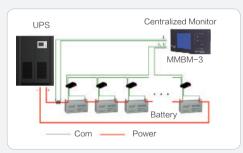
- ●8+6 dry contact communication signals
- Optional SNMP adapter
- Emergent alarm via SMS/Email
- Modbus for remote management

Customized design

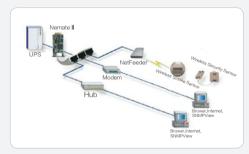
- External bypass cabinet
- Input/Bypass isolation transformer
- ●12 Pulse rectifier &Active/Passive filter
- Energy reverse absorber for industrial applications (feedback protection)



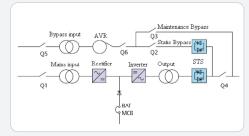
Filtering Screen



Intelligent Battery Management System



Flexible Network Management



Customized Design Structure





High-end intelligent power protection solution

Technical Specifications

| ModelName | | FR-UK33200 | FR-UK33250 | FR-UK33300 | FR-UK33400 |
|-------------|--|---|------------|------------|------------|
| I N P U T | Voltage (Vac) | 380 ± 25% | | | |
| | Rectifier Frequency range (Hz) | 40~65 | | | |
| | SYNC Frequency Tracking range(Hz) | 50/60 Hz ± 5%(10% Selectable) | | | |
| | Phase | 3 ¢ 4W+GND | | | |
| | Battery voltage (VDC) | 12V × 32=384 | | | |
| | Charging Current (A) | 10 A ~100A Selectable | | | |
| O U T P U T | Capacity (kVA) | 200 | 250 | 300 | 400 |
| | Phase | 3 \phi 4W | | | |
| | Voltage (Vac) | Utility mode, L-N: 230±10%; Battery mode, L-N: 230±2% | | | |
| | Frequency (Hz) | Utility mode, Utility frequency; Utility fault, Machine frequency 50/60HZ ± 0.2% | | | |
| | Phase difference | ≤2 degree | | | |
| | Waveform distortion | Linear Load, THD≤3% | | | |
| | Static-Maintenance Switch time(ms) | 0 | | | |
| | Efficiency | ≥93% | | | |
| | Overload capacity | 125% of rated load last for 10 minutes, 150% of rated load last for 1 minute | | | |
| O T H E R | LCD display | Input voltage of three phases; Input frequency; Output of three phases; Load; Battery voltage; Charge current etc. Multi languages to choose on the interface | | | |
| | LED display | Abnormal AC input, Fault inverter, Bypass, Low battery, Overload, Phase order | | | |
| | Alarm function | Include Overload, abnormal AC input, Low battery, UPS failure etc. | | | |
| | Communication function | Supporting dry communication and RS232/RS485. Realization of UPS Intelligent monitoring | | | |
| | Battery management | Switch uniform / floating charge automatically; Support battery self-testing; Alarm when battery is abnormal; Provide with battery temperature compensation. | | | |
| | Protection | Battery low voltage, Overload, Over-temperature, Output short circuit, Output over/low voltage etc. | | | |
| | Approvals | CE (EN 62040-2, IEC 62040-1) | | | |
| | Noise (dB) | <75 (1 meter from the frontispiece of the machine) | | | |
| | Cooling | Fans | | | |
| | Operation temperature | 0~40°C | | | |
| | Environment humidity | 0~95%, No condensation | | | |
| | Dimension (W \times D \times H) (mm) | 1400 × 1000 × 1850 1600 × 1000 × 1850 | | | 000 × 1850 |
| | Weight (kg) | 2200 | 2300 | 2500 | 2600 |

 $[\]ensuremath{\blacklozenge}$ Specifications are subject to change without prior notice.





INNOVA