



UPS Catalog

www.kehua.com

Stock Code.
002335.SZ

Kehua Tech

HISTORY

- 2021** 2021 Global UPS Competitive Strategy Innovation and Leadership Award (source:Frost & Sullivan)
- 2020** Kehua's global first launch of 125kW UPS power module which fills the industry gap with our ultra-strong technology
- 2018** No.1 in Asian Industry UPS Market
No.3 in Global Industry UPS Market (source: IHS Markit)
- 2017** Took over 35% market share of critical power product in Chinese rail transport
NO.1 Chinese Brand in >20kVA UPS market for 20 years
- 2013** Introduced PLM systems
Successfully publish the modular data center
- 2012** Introduced CRM systems
Set up 30,000m² Xiamen new factory
Set up 80,000m² Jiaomei factory
- 2011** Introduced ERP systems for processing management.
- 2010** Kehua officially went public and listed on the Shenzhen Stock Exchange
- 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
- 1997** Exported UPS to Japan, America etc.
- 1995** Passed ISO9001 authentication
- 1988** Company established



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Kehua Group



Telecom



Industry



Finance



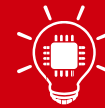
Traffic



Electric
Power



Medical
Device



Data Center



Renewable
Energy



Critical Power

KEHUA TECH - POWER SOLUTION SPECIALIST

Kehua Data Co., Ltd. as the leading power solution provider in mainland China, was founded in 1988. On January 13th, 2010 Kehua officially went public and was listed on Shenzhen Stock Exchange.

Till now Kehua owns 50 subsidiaries, 5 production bases, 3 R&D centers, 1 EMC test center and a UL witness Test Data Program. With more than 50 offices in domestic market, Kehua has a R&D team composed of over 1000 engineers and 3 national experts in power industry, engaged in more than 130 national and industrial standards establishment, and also has been authorized more than 1000 national patents and software copyrights and other intellectual property rights.

33 years specializing in power market, Kehua's products have been installed in 104 countries and regions, products could match the certificates of CE, SAA, TUV, UL and others for different markets' request.

Kehua supply IDC power, industrial power, electric power, communication power, elevator power, nuclear island power etc. According to the CCID Report, Kehua is the No.1 UPS Brand in China for 22 years. According to the global research organization IHS Markit, Kehua's industrial UPS market share has jumped to the third in the world, No.1 in Asia in 2017. Kehua products are widely used in finance, industry, transportation, communications, government, defense, nuclear power, education, medical, electric power etc.



Listed on Shenzhen
Stock Exchange



Zhangzhou factory



Foshan factory



Xiamen factory



Jiamei factory

Applications

With high reputation and good service in power electronics field, Kehua has participated and undertaken many power projects for key events, such as Hong Kong-Zhuhai-Macao Bridge, PMB Project in Brunei, 2016 G20 Summit, the 16th Asian Games, Angolan Luanda Stadium (for 2010 African Cup football games), 2008 Beijing Olympic Games, the Golden Tax Project...



Qualifications

Being a 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, UL, TUV, KC certificates are available to meet different market requirements.



KR11 Plus Series (1-10kVA)



- Data center
- Network device
- Commercial facility
- Precision instrument

Green Power:

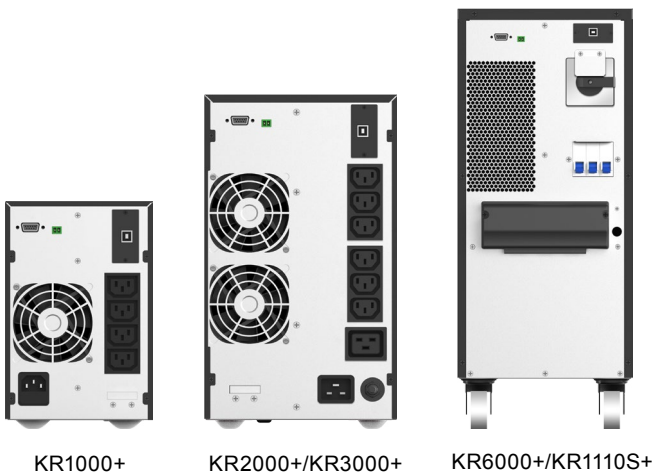
- Input power factor up to 0.996, low THDi (< 5%), decrease pollution to city power
- AC/AC efficiency up to 95%, energy saving and low carbon emission
- Compliance with RoHS standard, innocuous and environmental friendly
- Design in accordance to International EMC and Safety standard

Outstanding Profitability:

- Minimum 0.05m² footprint, save delivery cost and easy for installation

Excellent Flexibility:

- Output voltage and ECO mode are selectable via LCD
- 1~8A charging current settable via software (6-10KVA)
- Batteries quantity are settable (16/17/18/19/20 for 6-10kVA)
- Maintenance bypass for 6-10kVA (option)
- Battery disconnection alarm (option)
- SNMP or RS485+dry contact (option)
- Charging voltage temperature compensation (option)



Technical Specification

MODEL	KR1000+/ KR1000L+	KR2000+/ KR2000L+	KR3000+/ KR3000L+	KR6000+/ KR6000L+	KR1110S+/ KR1110+
INPUT					
Voltage (Vac)	120~295			80~275	
Frequency (Hz)	50/60± 10% (50/60Hz auto-sensing)				
Power Factor	≥0.99				
THDi	<5%				
OUTPUT					
Capacity (VA)	1000	2000	3000	6000	10000
Max. AC/AC Efficiency	92%	93%	94%	95%	95%
Power Factor	0.9 (1.0 optional)				
Voltage (Vac)	208/220/230/240±1% (selectable on display panel)				
Frequency (Hz)	50/60±0.2% (battery mode)				
THDv	THD < 2% (linear load); THD < 5% (nonlinear load)			THD < 1% (linear load); THD < 4% (nonlinear load)	
Transfer Time (ms)	0				
BATTERY					
Voltage (Standard)(Vdc)	24 or 36	48 or 72	72 or 96	192	192
Battery Type (Standard)	2×9AH 12V or 3×7AH 12V	4×9AH 12V or 6×7AH 12V	6×9AH 12V or 8×7AH 12V	16×7AH 12V	16×9AH 12V
Voltage (Long backup)(Vdc)	36	72	96	192~240	192~240
Battery Type (Long backup)	External			External (16~20 units settable)	
Charger Current (A) Max.	1 (Standard)/4 (Long backup)			1~8 (adjustable)	
GENERAL					
Communication Interface	RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)				
LCD Display	AC input & output voltage, frequency, Load level, battery level, temperature; AC mode, battery mode, bypass mode, and fault				
Alarm	Low battery, abnormal AC input, UPS failure, etc.				
Protection	Low battery, overload, short-circuit and over temperature, etc.				
Noise (dB)	<50	<55			
Working Temperature (°C)	-5~40				
Relative Humidity	0 ~ 95%, no condensation				
Dimension (W×D×H) mm	145×360×225	190×400×330		230×502×553/190×422×337	
Weight (Standard)(kg)	9.2 or 11.6	17.7 or 22.4	22.9 or 27.6	54.5	56.2
Weight (Long backup)(kg)	4.5	8.5	9.2	10.9	12.5

- Specification is subject to change without prior notice.

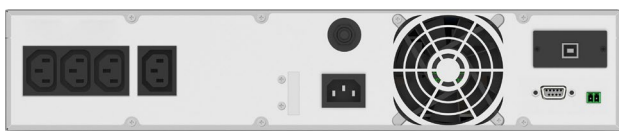
KR11-J Plus Series (1-10kVA)



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

Green Power:

- AC/AC efficiency up to 95.5%, less operation cost and more energy saving
- Output power factor up to 1.0 (optional), more powerful to connect more critical loads
- Input PF >0.996 and THDi <5%, less power pollution and lower TCO



KR1000-J+

Flexible Rear Panel Configuration:

- Dry contact kits and SNMP are optional
- Selectable output sockets
- External battery pack port available



KR2000-J+/KR3000-J+

User-friendly and Easy-shift LCD Display:

- Intelligent RS232+USB+EPO
- ECO function
- Selectable output sockets
- Rack and tower convertible
- Suitable for vertical/horizontal installation
- External battery bank, rack kits (optional)+



KR6000-J+/KR1110S-J+

Technical 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			80-275		
Frequency (Hz)	50/60± 10% (50/60Hz auto-sensing)					
Power Factor	≥0.99					
THDi	<5%					
OUTPUT						
Capacity (VA)	1000	2000	3000	6000	10000	
Max. AC/AC Efficiency	92%	92.5%	93.3%	95.5%	95.5%	
Power Factor	0.9 (1.0 optional)					
Voltage (Vac)	208/220/230/240±1% (settable on display panel)					
Frequency (Hz)	50/60±0.2% (battery mode)					
THDv	THD <2% (linear load), THD < 5% (nonlinear load)			THD <1% (linear load), THD < 4% (nonlinear load)		
Transfer Time (ms)	0					
BATTERY						
Voltage (Vdc)	24/36	48/72	72/96	192~240	192~240	
Battery Type	2×9AH 12V/External	4×9AH 12V/External	6×9AH 12V/External	16×9AH 12V/External (16~20 units settable)		
Charger Current (A) Max.	1/4	1/4	1/4	1~8 adjustable	1~8 adjustable	
GENERAL						
Communication Interface	RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)					
LCD Display	AC input & output voltage, frequency, load level, battery level, temperature; AC mode, battery mode, bypass mode, and fault					
Alarm	Low battery, abnormal AC input, UPS failure, etc.					
Protection	Low battery, overload, short-circuit and over temperature, etc.					
Noise (dB)	< 50		< 55			
Working Temperature (°C)	-5~40					
Relative Humidity	0~95%, no condensation					
Dimension (W×D×H) mm (standard)	438×413×2U	438×413×2U (UPS)+ 438×413×2U (Batt. pack)		438×500×2U (UPS)+ 438×500×3U (Batt. pack)		
Dimension (W×D×H) mm (long backup)	438×413×2U	438×413×2U			438×500×2U	
Weight (kg)	11/5.8	7.2+13/8	7.2+17.5/8	10.6+45/10.6	12.2+45/12.2	

- Specification is subject to change without prior notice.

KR-RM Rack/Tower Series (1-3kVA)



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

Green Power:

- AC/AC efficiency up to 93.8%, less operation cost and more energy saving
- Output power factor 1.0, more powerful to connect more critical loads
- Input PF >0.996 and THDi<5%, less power pollution and lower TCO

Flexible Rear Panel Configuration:

- Dry contact and SNMP are optional
- Selectable output sockets
- External battery pack port available
- Programmable power management outlet (optional)



KR1000-RM



KR2000~3000-RM

Hot-swappable Battery Design

- External battery pack is optional
- Easy for online battery replacement

User-friendly and Easy-shift LCD Display

- The digital display can be easily shifted through LCD setting to suit for vertical/horizontal installation

Technical Specification

MODEL	KR1000-RM	KR2000-RM	KR3000-RM
INPUT			
Voltage (Vac)	120-295		
Frequency (Hz)	40-70		
Power Factor	≥0.99		
THDi	<5%		
OUTPUT			
Capacity(VA)	1000	2000	3000
Max. AC/AC Efficiency	92.5%	93.5%	93.8%
Power Factor	0.9 (1 optional)		
Voltage (Vac)	208/220/230/240±1% (settable)		
Frequency (Hz)	50/60±0.2 (battery mode)		
THDv	THD < 3% (linear load), THD < 5% (nonlinear load)		
ECO mode	YES		
Transfer Time (ms)	0		
Overload	106%~110% load for 10min, 111%~130% load for 1min, 131%~150% load for 1s, above 150% load for 0.2s		
BATTERY			
Voltage (Vdc)	36	48	72
Battery Type	3×7AH 12V	4×9AH 12V	6×9AH 12V
Charging Current (A) Max.	1~8A settable		
GENERAL			
Communication Interface	RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)		
*Output outlet	8×IEC320 C13	8×IEC320 C13 + 1×IEC320 C19	
Display	Blue screen LCD		
Alarm	Low battery, abnormal AC input, UPS failure, etc.		
Protection	Low battery, overload, short-circuit and over temperature, etc.		
Noise (dB)	< 50		
Working Temperature (°C)	0~50 (Best operating temperature is 0~40°C, output power derated from 40°C~50°C)		
Relative Humidity	0 ~ 95%, no condensation		
Dimension (W×D×H) (mm)	438×420×87 (2U)	438×570×87 (2U)	
Weight (kg)	14	20	26
BATTERY BOX (optional)			
Battery Type	2 groups of 3×7AH12V	2 groups of 4×9AH12V	2 groups of 6×9AH12V
Dimension (W×D×H) (mm)	438×420×87 (2U)	438×570×87 (2U)	
Weight (kg)	20	29	40

- IEC outlet is standard, other outlets are available and optional.
- Specification is subject to change without prior notice.

KR-RM Li Series Lithium Battery UPS (1-3kVA)



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

Built-in Lithium-ion Battery:

- Super-long backup time - 11 minutes backup time by internal battery
- Wide temperature range - tolerant for up to 60°C with no harm to the battery
- Internal lithium-ion battery long service life - up to 8 years of service life
- More circles for charge and recharge - up to than 1000 times
- Environment-friendly - lithium-ion battery



KR1000-RM Li

Green Power:

- AC/AC efficiency up to 93.0%, less operation cost and more energy saving

Compact Dimension:

- Space-saving, easy for installation



KR2000~3000-RM Li

Rotatable LCD display:

- The LCD display easily rotate for horizontal and vertical application

Technical Specification

MODEL	KR1000-RM Li	KR2000-RM Li	KR2200-RM Li	KR3000-RM Li
INPUT				
Voltage (Vac)	120-295			
Frequency (Hz)	50/60±10% (50/60Hz auto-sensing)			
Power Factor	≥0.99			
THDi	<5%			
OUTPUT				
Capacity (VA)	1000	2000	2200	3000
AC/AC Efficiency	91.5%	91.5%	91.6%	93%
Power Factor	0.9			
Voltage (Vac)	208/220/230/240±1% (settable)			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	<3% (linear load)			
Transfer Time (ms)	0			
ECO Mode	Yes			
Overload	101%~115% load for 1 min, 116%~133% load for 1s, above 134% load for 200ms			
LITHIUM-ION BATTERY				
Voltage (Vdc)	24	48	72	72
Backup Time (mins)	11	11	22	11
Charging Current (A) Max.	4			
GENERAL				
Communication Interface	USB and SNMP (slot) (RS232+dry contact is optional in slot)			
Output Outlet	(1)IEC C19 + (6)IEC C13			
Display	LCD displays the running status of UPS			
Alarm	Battery low-voltage, mains abnormal, UPS fault, output overload			
Protection	Battery under-voltage protection, overload protection, short-circuit protection, over-temperature protection, input over-voltage protection			
Noise (dB)	< 55			
Working Temperature	The operating temperature is 0°C~60°C (Best operating temperature is 0~40°C, output power derated from 40°C~60°C)			
Relative Humidity	0 ~ 95%, No condensation			
Dimension (W×D×H) (mm)	438×420×87	438×570×87	438×615×87	438×570×87
Weight (kg)	8.9	13.6	19.1	16.1

- Specification is subject to change without prior notice.

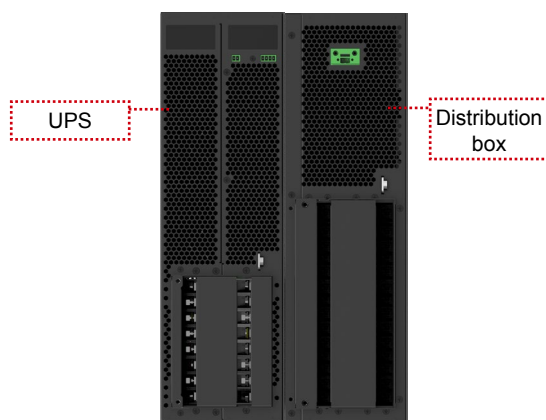
KR-RM Series (10-40kVA)



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

Advanced Technology:

- Super wide input voltage range -60%~+25% for high grid adaptability
- Dual DSP control technology for top performance
- Anti-corrosion resistant coating for all PCB boards
- Intelligent fan speed control reduces the noise and prolongs fan service life
- Anti-corrosion resistant coating in all PCB boards
- ECO and EPO



Model: KR-RM 30-40kVA

Green Power:

- Low THDi: <5%
- High AC/AC efficiency up to 96%

Excellent Flexibility:

- 3U height tower and rack compatible design
- Adjustable input and output to 33\31\11
- Common battery
- LCD rotate setting by (10-20kVA), gravity auto-rotate by (30-40kVA)
- Adjustable battery pcs and charging current

More Options:

- External UPS input and output distribution box
- Dry contact kits and SNMP
- Input and output isolation transformer
- 19 inch rail kits

Technical Specification

MODEL	KR10KVA-RM	KR15KVA-RM	KR20KVA-RM	KR30KVA-RM	KR40KVA-RM
INPUT					
Voltage (Vac) ¹	138-485 (L-L)				
Frequency (Hz)	40-70				
Power Factor	≥0.99				
THDi	<3% (linear load)				
Phase	1:1/3:1/3:3			3:1/3:3	
OUTPUT					
Capacity (kVA)	10	15	20	30	40
AC/AC Efficiency (Max.)	96%				
Power Factor	0.9 (1.0 at 40°C)				
Voltage (Vac) ²	380/400/415±1% (L-L)				
Frequency (Hz)	50/60±0.1 (battery mode)				
THDv	THD <2% (linear load), THD < 4% (nonlinear load)			THD <1% (linear load), THD <3% (nonlinear load)	
Transfer Time (ms)	0				
Overload	115%~130% load: 15 min, 130%~150% load: 1 min, >150% load: 200ms				
ECO Mode	Yes				
BATTERY					
Voltage (Vdc)	±192 (±144~±240 adjustable)/32 pcs default (28-40 pcs adjustable)				
Charging Current (A)	4 (1-10 settable)			15 (1-20 settable)	
GENERAL					
Communication Interface	RS485+EPO (RS232+Dry contact, SNMP are optional in slot)				
Display	LCD				
Alarm	Low battery, abnormal AC input, UPS failure, etc.				
Protection	Low battery, overload, short-circuit and over temperature, etc.				
Noise (dB)	< 55				
Working Temperature (°C)	-5~40			-5~50	
Relative Humidity	0 ~ 95%, no condensation				
Dimension (W×D×H)(mm)	UPS	438×500×130(3U)		438×680×130 (3U)	
	Distribution Box	438×500×130(3U)		438×680×130 (3U)	
	Batt. Pack	438×500×130(3U)		438×680×130 (3U)	
Weight (kg)	UPS	20		34	
	Distribution Box	8		14	

- Specification is subject to change without prior notice.
- 80-280 (L-N) for single phase input;
- 220/230/240 (L-N) for single phase output.

Myria Series (10-40kW)



- Finance
- Data center
- Transportation
- Commercial facility
- Intelligent equipment
- Medical industry

Advanced Technology:

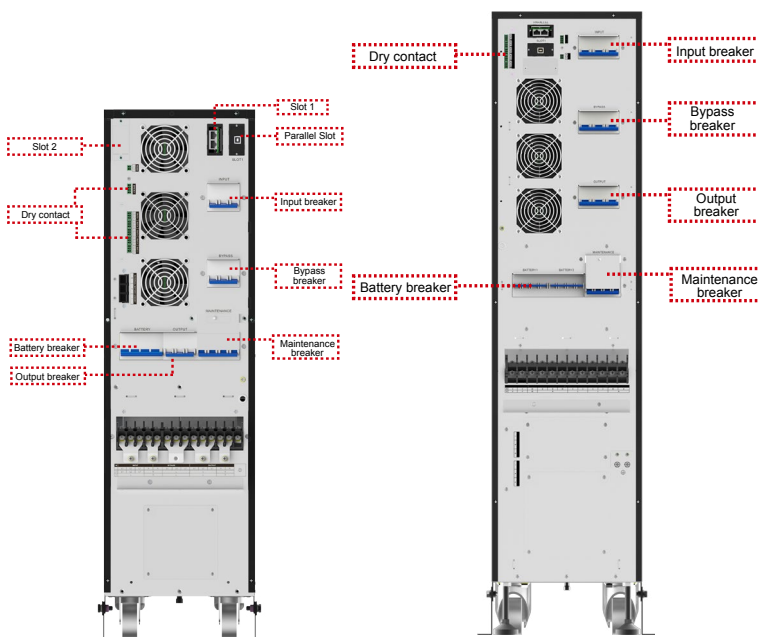
- Super wide input voltage range -65%~+20% for higher grid adaptability
- Dual DSP control for high performance
- Intelligent fan speed control reduce noise and prolong fan life
- Anti-corrosion resistant coating for all PCB boards
- Full protection with input, output, bypass, maintenance bypass and battery breaker
- ECO mode and EPO function

Green Power:

- AC/AC efficiency up to 96%, less TCO and more energy saving
- Output power factor up to 1.0, more powerful to connect more critical loads
- 3 level IGBT technology for higher efficiency and less interference to grid

Flexible Design:

- Adjustable output voltage
- Built-in battery and flexible battery configuration
- Common battery bank
- Easy onsite parallel slot modification
- Wheel design
- Options are displayed in 7 languages: English, Russian, Chinese, Spanish, Polish, Italian and Korean



Technical Specification

MODEL	MY10	MY20	MY30	MY40	
INPUT					
Phase	3:3/3:1/1:1		3:3/3:1		
Voltage (Vac)	80-280 (L-N)/138-485 (L-L)		138-485 (L-L)		
Frequency (Hz)	40-70				
Power Factor	≥0.99				
THDi at full Linear load	<3%				
Dual Main Input	Yes				
OUTPUT					
Capacity (kW)	10	20	30	40	
AC/AC Efficiency (Max.)	96%				
Power Factor	1.0				
Voltage (Vac)	220/230/240±1% (L-N) 380/400/415±1%(L-L)				
Frequency (Hz)	50/60±0.1 (battery mode)				
THDv	THD <1% (linear load),THD <3% (nonlinear load)				
Crest Factor	3:1				
Overload	110% load for 60 mins, 130% load for 10 mins, 155% load for 1 min, above 155% load for 200ms				
EPO	Remote and Local				
Cold Start	Yes				
BATTERY					
Voltage (Vdc)	±192 (±96 ~±240 adjustable)	±192 (±144 ~±240 adjustable)*			
Internal Battery	16~40*9AH/12V	24~40*9AH/12V	48~80*9AH/12V		
Charging Current (A)	1-10 settable		1-20 settable		
GENERAL					
Communication Interface	RS485+EPO+Dry contact (1 input,5 output)(SNMP are optional in slot)				
Display	4.3 Inch Touch Screen+ LED+ Physical buttons				
Alarm	Low battery, abnormal AC input, UPS failure, etc.				
Protection	Low battery, overload, short-circuit and over temperature, etc.				
Noise (dB)	<55				
Working Temperature (°C)	-5~40				
Relative Humidity	0 ~ 95%, no condensation				
Altitude (m)	2000, no derate				
Dimension (W×D×H)(mm)	250×755×880		300×785×1250		
Weight (kg)	with Battery	98 (20 ×9AH)	132 (32×9AH)	240 (64×9AH)	240 (64×9AH)
	without Battery	50		85	
	with TX	143		240	

● Specification is subject to change without prior notice.

* Capacity will derate when battery voltage between ±144~±180

Myria Series (60-200kW)



- Finance
- Data center
- Transportation
- Commercial facility
- Intelligent equipment
- Medical industry

Advanced Technology:

- Latest generation IGBT and three level technology, Low harmonic, high efficiency, effectively energy-saving.
- The most advanced and dual DSP control prevents single failure point and increase performance.
- Intelligent fan control and redundant design: 15% load can be driven when 2 fans fail and 40% load when 1 fan fails
- Anti-corrosion resistant coating for all PCB boards
- Separate internal air channel which hot air drives directly towards heat sink without distressing the PCB's and other internal sensitive components

Green Power:

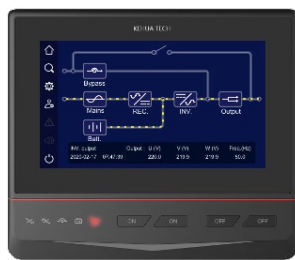
- AC/AC efficiency up to 96.5% and 30% load up to 95% efficiency reduces heat dissipation and limits power consumption costs
- High input power factor up to 0.99 and low Input THDi: < 3.0% at full load, much less grid pollution and costs
- Intelligent sleep mode which UPS sleep in random keep maximum efficiency and energy saving

Flexible Design:

- Colorful 4.3" and 7" touch screen with LED Indicators, ensure comprehensive and visualized information display.
- Multicolor LED bar allowing quick and easy detection of the system status and simplified trouble shooting
- Main unit display allow to check the information of each UPS status during parallel mode.



4.3" Touch Screen



7" Touch Screen



Normal Mode



Bypass Mode



Warning Mode

Technical Specification

MODEL	MY60	MY80	MY100	MY120	MY160	MY200
INPUT						
Voltage (Vac)	380/400/415 (138~485 L-L)					
Frequency (Hz)	40~70					
Power Factor	≥0.99					
Phase	3φ4W+PE					
THDi at full linear load	<3%					
BYPASS						
Bypass Voltage (Vac)	380/400/415					
Voltage Range	+20% (-10/-15/-30 selectable)/+15% (10/20/25 selectable)					
Overload	≤130%: long run; 130%< load ≤150%: 5min; 150%< load ≤200%: 1s; 200%< load≤300%: 100ms; >300%: immediately.					
OUTPUT						
Capacity (kW)	60	80	100	120	160	200
Power Factor	1					
Voltage (Vac)	380/400/415±1%					
Frequency (Hz)	50/60±0.1% (Battery mode)					
Phase	3φ4W+PE					
Three Phase Difference	≤1%					
Waveform	Pure sine wave, THDv<1% at linear load,THDv<4% at non-linear load					
Transfer Time (ms)	0					
AC-AC Efficiency	up to 96.5%					
Overload	101-105% Long run, 106-110% load for 60 minutes, 111%-125% load for 10 minutes, 126%-150% load for 1 minute, over 150% load transfer to bypass					
BATTERY						
Battery Voltage (Vdc)	±192 (±168 ~±288 adjustable)		±240 (±168 ~±288 adjustable)			
Battery Type	External					
Charging Current (A) MAX	30				60	
GENERAL						
Communication Interface	RS485, MODBUS, dry contact (RS232, BMS,SNMP, expend dry contact card are optional in slot)					
Display	4.3" Touch screen+LED+LED bar				7" Touch screen+LED+LED bar	
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		<70			
Altitude(m)	0-2000 no derate. 2000-3000 m derate power by 1% per each 100 m increase					
IP	IP20					
Working Temperature (°C)	0 ~ 40 no derate,40~50 auto derate.					
Relative Humidity	0 ~ 95%, no condensation					
Dimension (W×D×H)(mm)	400×960×1200				600×1000×1600	
Weight (kg)	145	161			312	

- Specification is subject to change without prior notice.

FR-UK33 Series (10-600kVA)



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

Advanced Technology:

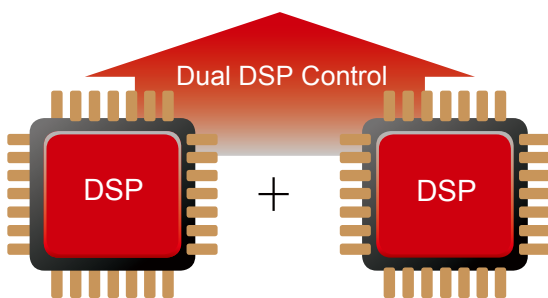
- Online double conversion
- Wide input voltage range
- IGBT inverter and output isolation transformer
- Advanced battery charging management
- Advanced no-master-slave parallel technology (optional)

Green & Reliability:

- High reliability DSP control
- Intelligent fan speed control
- Full protection function
- ECO mode and EPO function
- Efficiency 98% at ECO-mode
- 10,000 events logs
- Battery self-test function
- 12 Pulse rectifier (optional)
- Bypass isolation transformer (optional)

Excellent Flexibility:

- Allow 100% three phase unbalance load
- Intelligent RS232/RS485 & DB9 dry contact communication port
- DC cold start function (optional)
- Intelligent battery monitor system-MMBM (optional)
- MODBUS & SNMP adapter (optional)



Technical Specification

MODEL	FR-UK 3310	FR-UK 3320	FR-UK 3330	FR-UK 3340	FR-UK 3360	FR-UK 3380	FR-UK 33100	FR-UK 33120	FR-UK 33160	FR-UK 33200	FR-UK 33250	FR-UK 33300	FR-UK 33400	FR-UK 33500- 12P	FR-UK 33600- 12P
INPUT															
Voltage (Vac)	380/400/415±25%														
Rectifier Frequency (Hz)	40~70														
SYNC Frequency Tracking (Hz)	50/60±10% (±5% settable)														
Phase	3φ4W+PE														
OUTPUT															
Capacity (KVA)	10	20	30	40	60	80	100	120	160	200	250	300	400	500	600
Power Factor	0.9														
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≤2% (linear load)														
3 Phases 100% Load Unbalance Voltage Stability	≤2%, allow 100% unbalance														
Overload	125% load for 10mins, 150% load for 1 min														
BATTERY															
Voltage (Vdc)	348 (360 settable)									384 (348/360/372 settable)					
Battery Type	External														
Charging Current (A)	10~40A settable									10-100A settable					
GENERAL															
Maintenance Bypass	Yes														
Communication Interface	RS485, MODBUS, dry contacts (SNMP is optional)									RS232, RS485, dry contacts (SNMP is optional)					
Display	Touch screen + LED														
Alarm	Overload, abnormal AC input, low battery, UPS failure, etc.														
Protection	Low battery, overload, over temperature, short circuit, output over voltage, output low voltage, etc.														
Noise (dB)	< 65									< 70					
Working Temperature(°C)	0~40														
Relative Humidity	0 ~ 95%, no condensation														
Dimension (W×D×H)(mm)	500×600×1180			500×800×1600			700×800×1800			1400×1000×1850		1600×1000×1850		3000×1000×1850	
Weight (kg)	230	260	300	400	450	520	600	650	825	1280	1568	1830	2050	4500	

- Specification is subject to change without prior notice.
- If the higher charging current is adjusted, the UPS capacity shall be derated.

KR33 Series (300-1200kVA)



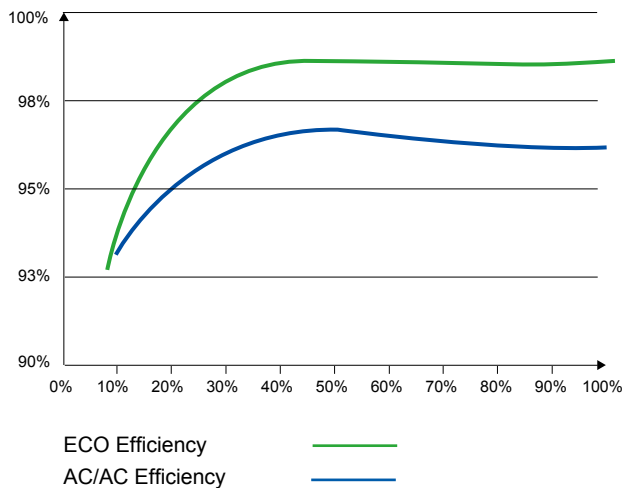
- Computer room
- Data center
- Precision instrument
- Commercial facility
- Intelligent equipment
- Telecom system
- Industry

Advanced Technology:

- Three level inverter technology
- Support parallel mode up to 9.6MVA
- External input/output transformer connection
- Auxiliary power supply redundancy design

Green Power:

- High AC/AC efficiency up to 97%
- ECO mode efficiency up to 99%
- High power factor up to 1
- Low THDi $\leq 2\%$



Flexible Design:

- Common battery bank sharing in parallel system
- Multiple communication interface
- 3-stage battery charging mode
- Self-load test function without load enables onsite commission
- Common bypass cabinet
- External input and output isolation transformer

Technical Specification

MODEL	KR33300	KR33400	KR33500	KR33600	KR33800	KR331000	KR331200
INPUT							
Rate Voltage (Vac)	380/400/415						
Voltage Range (Vac)	228-477 (-40%~+25%)						
Phase	3Ph+N+PE						
Frequency Range (Hz)	50/60±10% (±5% settable)						
Power Factor	≥ 0.99						
THDi	≤ 2% full load, ≤ 4% half load, ≤ 5% 30% load						
OUTPUT							
Output Voltage (Vac)	380/400/415±1%						
Frequency (Hz)	50/60±0.5%						
THDv	Pure sine wave, THD<1% (linear load), THD<3% (nonlinear load)						
PF	0.9 (1.0 optional)						
Max. Efficiency	97%						
Phase	3Ph+N+PE						
Overload	110% load for 60 min , 125% load for 10 min, 150% load for 1 min						
BATTERY							
Voltage (Vdc)*	480 (12V battery from 32 to 44 cells settable)			528 (12V battery from 32 to 48 cells settable)			
Charging Current (A)	25-100			25-200			
Common Battery	Yes						
GENERAL							
Communication Interface	RS232, RS485, Dry contact, MODBUS, SNMP (optional)						
Display	7-inch touch screen+LED						
Working Temperature (°C)	-5~40						
Alarm	Input abnormal, battery low-voltage, output overload, UPS failure						
Protection	Short-circuit, overload, over-temperature, battery under voltage, input under voltage						
IP	IP20						
Noise (dB)	<75						
Altitude (m)	1500						
Dimension (W×D×H) (mm)	1000×900×1950	1400×900×1950		1900×900×1950	3000×900×1950		
Weight (kg)	750	1100		1450	2400		

- Specification is subject to change without prior notice.

MR33 Series Modular UPS



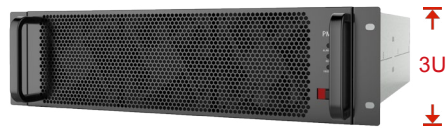
- Data center
- Telecom system
- Computer room
- Financial system
- Precision instrument
- Intelligent equipment

Advanced Technology:

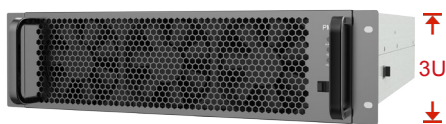
- Online double conversion
- Battery cold start function
- Advanced power module sleep mode
- Dual system control card
- Self-load test function
- Frequency converter function
- Redundant design
- 30k 2U design



30K Module
Dimension (W×D×H): 440×640×86mm



50K Module
Dimension (W×D×H): 440×640×130mm



100K Module
Dimension (W×D×H): 440×750×130mm

Green Power:

- Efficiency up to 97%
- Intelligent fan speed control
- ECO mode and EPO function

Excellent Flexibility:

- Allow 100% three phase unbalance load
- Intelligent battery management
- Parallel expansion up to 8 units
- Fault Trace Management (FTM)
- Programmable dry contacts

Technical Specification

MODEL	MR33120	MR33200	MR33300	MR33400	MR33500	MR33600
Power Module	MR3330-J	MR3350-J				
Capacity (kW)	30	50				
INPUT						
Rated Voltage (Vac)	380/400/415					
Voltage Range (Vac)	L:L 138~485					
Input Frequency (Hz)	40~70					
Bypass Voltage Range (Vac)	-15% (-20%/-30% optional) ~+15%(+10% /+20% optional)					
Power Factor	≥0.99					
THDi	<5% (nonlinear, full load)					
Phase	3Φ4W+PE					
Battery Voltage (Vdc)	±192 (±168~±276 settable)	±192 (±180~±276 settable)	±240 (±168~±276 settable)			
Charging Current (A)	N×10 Maximum (N: the number of power modules)					
OUTPUT						
Capacity (kVA)	120	200	300	400	500	600
Power Factor	1					
Phase	3Φ4W+PE					
Waveform	sine wave					
Voltage (Vac)	L-L:380, 400, 415±1%					
Frequency (Hz)	50/60± 0.2% (battery mode)					
Three Phase Difference	≤1 degrees					
THDv	≤1% (linear load, full load), ≤4% (nonlinear load, full load)					
Static Bypass Transfer Time	0					
Max. System Efficiency	97%					
Parallel Mode	Advanced no-master-slave parallel technology, N+1 redundancy					
Overload Capacity	106-110% load for 60mins, 111%-130% load for 10mins, 131%-150% load for 1 min, 151%-200% load for 200ms					
GENERAL						
Working Temperature (°C)	-5~40					
Storage Temperature (°C)	-40~70					
Relative Humidity	0%~95%, no condensing					
Battery Type	Lead-acid batteries and lithium iron phosphate batteries					
Communication Interface	RS485, RS232, dry contact (SNMP optional)					
Noise (dB)	< 65	< 70				
Dimension (W×D×H) (mm)	600×860×2000			1200×860×2000		
Weight (kg)	Cabinet	180	224	236	427	
	Bypass Module	17	19	25	25	31
	Power Module	27	33			

● Specification is subject to change without prior notice.

Technical Specification

MODEL	MR33400	MR33500	MR33600	MR33800	MR331000	MR331200
Power Module	MR33100-J					
Capacity (kW)	100					
INPUT						
Voltage Range (Vac)	138~485 (324~485 no derating, 138~323 linear derating)					
Frequency Range (Hz)	40~70					
Power Factor	>0.99					
Phase	3Ph+N+PE/3Ph+PE (optional)					
Bypass synchronization tracking range (Hz)	50/60±4					
Bypass input voltage range (Vac)	304~438					
Battery Voltage(VDC)	±180~±300					
OUTPUT						
Power Factor	1.0					
Phase	3Ph+N+PE					
Voltage (Vac)	380/400/415±1%					
Frequency (Hz)	50/60±0.1%					
THDv	THD<1% (linear load), THD<3% (nonlinear load)					
Max. Efficiency	97%					
Overload Capacity	106-110% load for 60 minutes, 111%-125% load for 10 minutes, 126%-150% load for 1minute, 151%~200% load change to bypass immediately					
Static Bypass Transfer Time	0					
Cool Start	Yes					
GENERAL						
Working Temperature (°C)	0-40					
Storage Temperature (°C)	-40~70					
Relative Humidity	0~95%, no condensation					
Battery Type	Lead-acid batteries and lithium iron phosphate batteries					
Communication Interface	RS232, RS485, Dry contact, MODBUS, SNMP (optional)					
Alarm	Input abnormal, battery low-voltage, output overload, UPS failure					
Protection	Short-circuit, overload, over-temperature, battery under voltage, input under voltage					
Noise (dB)	<70					
Dimension (W×D×H)(mm)	1200*1000*2000			1400*1000*2000		1800*1000*2000
Weight(kg)	Cabinet	480	506	580	731	
	Bypass Module	32	50	60	120	
	Power Module	55				

- There are other optional accessories to choose;
- Specifications are subject to change without notice;
- Because of module redundancy, it is not recommended to configure only one power module.



Low Voltage UPS

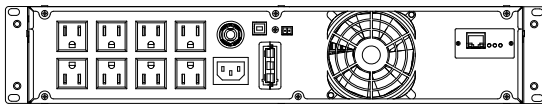
KRA-RM Li Series Lithium Battery UPS (1-3kVA)



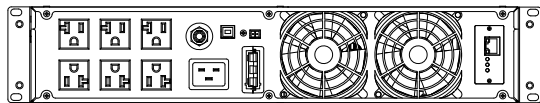
- 19" rack device
- Computer room
- Data center
- Router
- Hub and network device
- Commercial facility
- Precision instrument

Built-in Lithium-ion Battery:

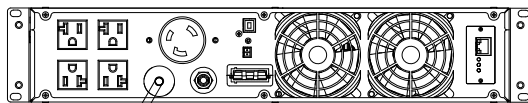
- Super-long backup time, 1 minutes backup time by internal battery
- Wide temperature range, tolerant for up to 60°C with no harm to the internal lithium-ion battery
- Long service life, up to 8 years of service life
- More circles for charge and recharge, up to than 1000 times of charge/recharge
- Lithium-ion battery is more environment-friendly



KRA1000-RM Li



KRA2000-RM Li



KRA3000-RM Li

Green Power:

- AC/AC efficiency up to 93.0%, less operation cost and more energy saving

Compact Dimension:

- Space-saving, easy for installation

Rotable LCD display:

- The LCD display easily rotate for horizontal and vertical application

Technical Specification

MODEL	KR1000A-RM Li	KR2000A-RM Li	KR2200A-RM Li	KR3000A-RM Li
INPUT				
Voltage (Vac)	60-148			
Frequency (Hz)	50/60±10% (50/60Hz auto-sensing)			
Power Factor	≥0.99			
THDi	<5%			
OUTPUT				
Capacity (VA)	1000	2000	2200	3000
AC/AC Efficiency	91.7%	92.5%	92.6%	92.5%
Power Factor	0.9			
Voltage (Vac)	110/120±1%			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	<3%			
Transfer Time (ms)	0			
ECO Mode	Yes			
Overload	101%~115% load for 1 min, 116%~133% load for 1s, above 134% load for 200ms			
LITHIUM-ION BATTERY				
Voltage (Vdc)	24	48	72	72
Backup Time (mins)	11	11	22	11
Charging Current (A) Max.	4			
GENERAL				
Communication Interface	USB, SNMP (slot) (RS232+dry contact is optional in slot)			
Output Outlet	(8) 5-15R	(6) 5-20R	(6) 5-20R	(4) 5-20R + (1) L5-30R
Display	LCD displays the running status of UPS			
Alarm	Battery low-voltage, mains abnormal, UPS fault, output overload			
Protection	Battery under-voltage protection, overload protection, short-circuit protection, over-temperature protection, input over-voltage protection			
Noise (dB)	< 55			
Working Temperature	The operating temperature is 0°C~60°C (Best operating temperature is 0~40°C, output power derated from 40°C~60°C)			
Relative Humidity	0 ~ 95%, no condensation			
Dimension (W×D×H) (mm)	438×420×87	438×570×87	438×615×87	438×570×87
Weight (kg)	8.9	13.6	19.1	17.1

- Specification is subject to change without prior notice.

KR11T Series (6~10kVA)



- Computer room
- Data center
- Router
- Hub and other network device
- Commercial facility
- Precision instrument
- Medical

High Performance:

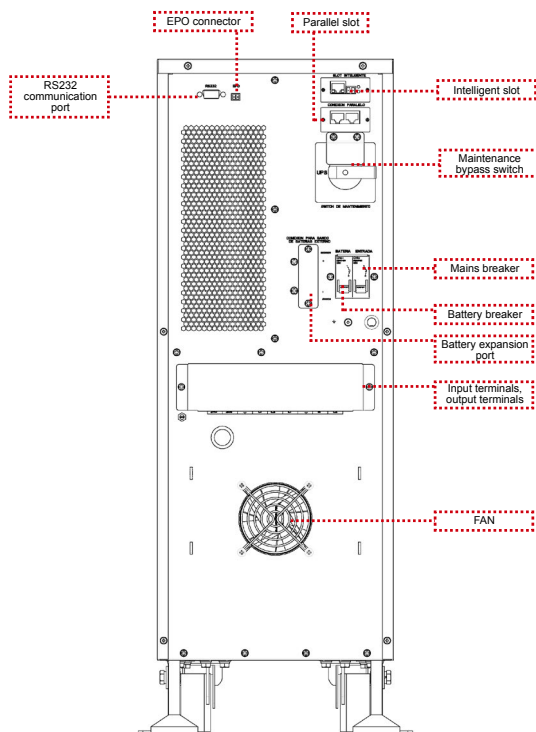
- Input power factor up to 0.996, low THDi (< 5%), decrease the pollution to utility power
- AC/AC efficiency up to 93.5%, energy saving and low CO₂ emission
- Wide input voltage range allows the UPS to work in harsh electrical environments
- Visualized LCD display providing comprehensive information including working status, operation data, etc.

Excellent Flexibility:

- Output voltage is selectable via LCD
- Batteries total quantity settable (16/17/18/19/20 for 6-10kVA)
- Maintenance bypass
- Battery disconnection alarm (optional)
- SNMP, RS485+dry contact, USB, Protocol transfer kit (optional)
- Charging voltage temperature compensation (optional)
- Parallel Kit (optional)

Outstanding Profitability:

- Minimum 0.16m² footprint, more units are available for delivery and installation
- Output voltage 120/208/220/230/240Vac, suitable different application
- Optional external battery pack for the standard model to improve system availability
- Full galvanic isolation for safer operation and stronger load adaptability



Technical Specification

MODEL	KR6000T(L)	KR1110T(L)
INPUT		
Voltage (Vac)	80~275	
Frequency (Hz)	50/60±10% (50/60Hz auto-sensing)	
Power Factor	≥0.99	
THDi	<5%	
Phase	3W (L+N+G/L1+L2+G)	
OUTPUT		
Capacity (kVA)	6	10
Power Factor	0.9	
Voltage (Vac)	120/208/220/230/240±1% (settable on display panel and output wiring line)	
Frequency (Hz)	50/60±0.2% (battery mode)	
THDv	THD<1% (linear load), THD<4% (nonlinear load)	
Transfer Time (ms)	0	
Max. Efficiency	93.5%	
Crest Factor	3:1	
Overload	105%<Load≤130%:10mins, 130%<Load≤150%: 30s, >150%: 0.5s.	
BATTERY		
Battery Voltage (Vdc)	192 (192~240V settable)	
Battery Type	16×7AH12V/External	16×9AH12V/External
Charging Current (A)	1A (default); 1~8A settable (external battery)	
GENERAL		
Communication Interface	RS232, EPO (SNMP, USB, RS485+dry contact, Protocol transfer kit are optional in slot)	
LCD Display	AC input & output voltage, frequency, load level, battery level, temperature; AC mode, battery mode, bypass mode, and fault	
Alarm	Low battery, abnormal AC input, UPS failure, etc.	
Protection	Low battery, overload, short-circuit and over temperature, etc.	
Noise (dB)	50	
Working Temperature (°C)	-5~40	
Relative Humidity	0~95%, no condensation	
Dimension (W×D×H) (mm)	250×660×720	
Weight (Kg)	96/60	113/73

- Specification is subject to change without prior notice.

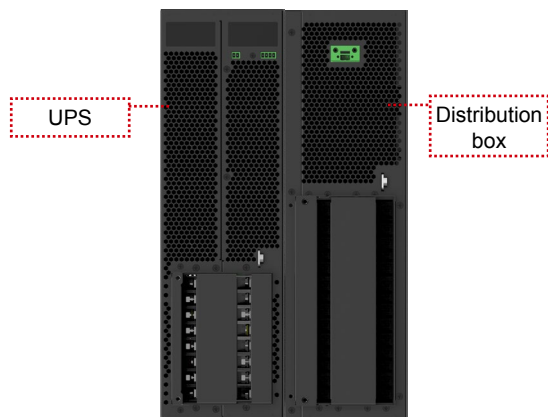
KRA-RM Series (10-20kVA)



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

Advanced Technology:

- Dual DSP control technology for top performance
- Anti-corrosion resistant coating for all PCB boards
- Intelligent fan speed control reduces the noise and prolongs fan service life
- Anti-corrosion resistant coating in all PCB boards
- ECO and EPO



Model: KR-RM 30-40kVA

Green Power:

- Low THDi: <5%
- PF=1.0
- High AC/AC efficiency up to 94.5%

Excellent Flexibility:

- 3U height tower and rack compatible design
- Common battery bank
- LCD gravity auto-rotate
- Adjustable battery pcs and charging current

More Options:

- External UPS input and output distribution box
- Dry contact kits and SNMP
- 19 inch rail kits

Technical Specification

MODEL	KR10A-RM		KR15A-RM	KR20A-RM
INPUT				
Voltage (Vac) ¹	138-485 (L-L)			
Frequency (Hz)	40-70			
Power Factor	≥0.99			
THDi	<3%			
OUTPUT				
Capacity (kVA)	10	15	20	
AC/AC Efficiency (Max.)	94.5%			
Power Factor	1.0			
Voltage (Vac) ²	190/200/208/220±1% (L-L)			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	THD <1% (linear load), THD < 3% (nonlinear load)			
Transfer Time (ms)	0			
Overload	105%~110% 60min, 110%~130% 10min,130%~150% 1min, above 150% load: change to bypass immediately			
ECO Mode	Yes			
BATTERY				
Voltage (Vdc)	±120(±96~±120 adjustable)			
Charging Current (A)	1-10 settable		1-20 settable	
GENERAL				
Communication Interface	RS485+EPO (RS232+Dry contact, SNMP are optional in slot)			
Display	LCD			
Alarm	Low battery, abnormal AC input, UPS failure, etc.			
Protection	Low battery, overload, short-circuit and over temperature, etc.			
Noise (dB)	< 55			
Working Temperature (°C)	-5~40			
Relative Humidity	0 ~ 95%, no condensation			
Dimension (W×D×H)(mm)	UPS	438×500×130(3U)	438×680×130(3U)	
	Distribution Box	438×500×130(3U)	438×680×130(3U)	
	Batt. Pack	438×500×130(3U)	438×680×130(3U)	
Weight (kg)	UPS	20	34	
	Distribution Box	8	14	

- Specification is subject to change without prior notice.
- 80-280 (L-N) for single phase input;
- 220/230/240 (L-N) for single phase output.

MYA Series (10~30kW)



- Finance
- Data center
- Transportation
- Commercial facility
- Intelligent equipment
- Medical industry

Advanced Technology:

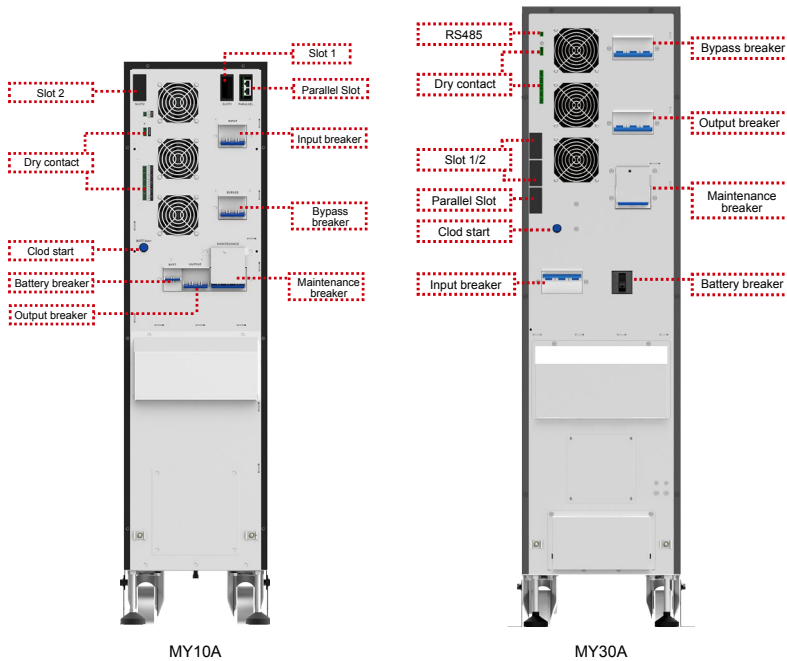
- Dual DSP control for top performance
- Intelligent fan speed control reduce noise and prolongs fan life
- Anti-corrosion resistant coating for all PCB boards
- Full protection with input, output, bypass, maintenance bypass and battery breaker
- ECO mode and EPO function

Green Power:

- AC/AC efficiency up to 94%, ECO mode up to 98%, less TCO and more energy saving
- PF=1.0, kVA=kW, more powerful to connect more critical loads
- 3 level IGBT technology for higher efficiency and minimized interference to grid
- Self-load test function

Flexible Design:

- Dual input design for mains and bypass
- Built-in battery and flexible battery configuration
- 5 min back-up time
- Easy onsite parallel slot modification
- Frequency converter function
- Cold start function
- 2 optional slot for SNMP and dry contact
- Dry contact signal selectable, input signal 13 choose 5, output 5 choose 1
- Internal transformer or internal battery



MY10A

MY30A

Technical Specification

MODEL	MY10A	MY15A	MY20A	MY30A
INPUT				
Voltage (Vac)	156~260 (L-L)			
Frequency (Hz)	40-70			
Power Factor	≥0.99			
THDi	<3%			
Dual Main Input	Yes			
OUTPUT				
Capacity (kW)	10	15	20	30
AC/AC Efficiency (Max.)	94%			
Power Factor	1.0			
Voltage (Vac)	190/200/208/220±1% (L-L)			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	THD <1% (linear load), THD <3% (nonlinear load)			
Transfer Time	0			
Overload	<105% continues, 105%~110% 60mins, 110%~130% load for 10 min, 130%~150% load for 1 min, >150% load: change to bypass immediately			
ECO Mode	Yes			
BATTERY				
Voltage (Vdc)	±120 (±96~±120 adjustable)	±96 (±96~±120 adjustable)	±120 (±96~±120 adjustable)	±120 (±96~±120 adjustable)
Internal Battery	20×9AH/12V	32×9AH/12V	40×9AH/12V	64×9AH/12V
Battery Number	1/2/3 battery pack (1 pack=16~20 pcs optional for different backup time, max. internal space 60 pcs)			1/2/3/4 battery pack max 80pcs
Charging Current (A)	1-10 settable	1-20 settable		
GENERAL				
Communication Interface	RS485+EPO, 5 output dry-contact (13 choose 5), 1 input dry-contact (5 choose 1) (RS232, SNMP are optional in slot)			
Display	Touch screen+LED/LCD			
Alarm	Low battery, abnormal AC input, UPS failure, etc.			
Protection	Low battery, overload, short-circuit and over temperature, etc.			
Noise (dB)	<55			<65
Working Temperature (°C)	-5~40			
Relative Humidity	0 ~ 95%, no condensation			
Dimension (W×D×H)(mm)	280×835×1100			320×880×1250
Weight (kg)*	93	109	109	139

- Specification is subject to change without prior notice.

MYA-US Series (10~30kW)



- Finance
- Data center
- Transportation
- Commercial facility
- Intelligent equipment
- Medical industry

Advanced Technology:

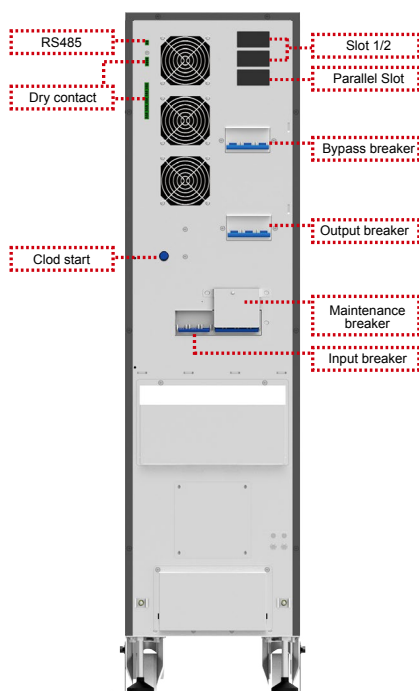
- Dual DSP control for top performance
- Intelligent fan speed control reduce noise and prolongs fan life
- Anti-corrosion resistant coating for all PCB boards
- Full protection with input, output, bypass, maintenance bypass
- ECO mode and EPO function

Green Power:

- AC/AC efficiency up to 94%, ECO mode up to 98%, less TCO and more energy saving
- PF=1.0, kVA=kW, more powerful to connect more critical loads
- 3 level IGBT technology for higher efficiency and minimized interference to grid
- Self-load test function

Flexible Design:

- Dual input design for mains and bypass
- Built-in battery and flexible battery configuration
- 15 min back-up time
- Easy onsite parallel slot modification
- Frequency converter function
- Cold start function
- 2 optional slot for SNMP and dry contact
- Dry contact signal selectable, input signal 13 choose 5, output 5 choose 1



Technical Specification

MODEL	MY10A-US	MY15A-US	MY20A-US	MY30A-US
INPUT				
Voltage (Vac)	122~268 (L-L)			
Frequency (Hz)	40-70			
Power Factor	≥0.99			
THDi	<3%			
Dual Main Input	Yes			
OUTPUT				
Capacity (kW)	10	15	20	30
AC/AC Efficiency (Max.)	94%			
Power Factor	1.0			
Voltage (Vac)	190/200/208/220±1% (L-L)			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	THD <1% (linear load), THD <3% (nonlinear load)			
Transfer Time	0			
Overload	<105% continues, 105%~110% 60mins, 110%~130% load for 10 min, 130%~150% load for 1 min, 150%~200% load for 200ms, >200% load: change to bypass immediately			
ECO Mode	Yes			
BATTERY				
Voltage (Vdc)	240			
Internal Battery	2.88KWH	5.76KWH	5.76KWH	8.64KWH
Battery Number	Support external lithium-ion battery bank			
Charging Current (A)	1-10 settable	1-20 settable		
GENERAL				
Communication Interface	RS485+EPO, 5 output dry-contact (13 choose 5), 1 input dry-contact (5 choose 1) (RS232, SNMP are optional in slot)			
Display	Touch screen+LED/LCD			
Alarm	Low battery, abnormal AC input, UPS failure, etc.			
Protection	Low battery, overload, short-circuit and over temperature, etc.			
Noise (dB)	<60			<65
Working Temperature (°C)	-5~40			
Relative Humidity	0 ~ 95%, no condensation			
Dimension (W×D×H)(mm)	320×960×1250			
Weight (kg)*	125	129	129	149

- Specification is subject to change without prior notice.
- Without battery

MYA Series (40-120kW)



- Finance
- Data center
- Transportation
- Commercial facility
- Intelligent equipment
- Medical industry

Advanced Technology:

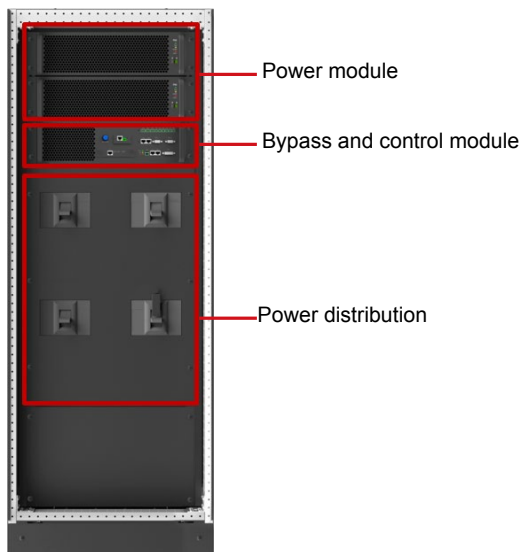
- Latest generation IGBT and three level technology
- Dual DSP control for top performance
- Intelligent fan control and redundant design: 15% load can be driven when 2 fans fail and 40% load when 1 fan fails
- Anti-corrosion resistant coating for all PCB boards
- Separate internal air channel which hot air drives directly towards heat sink without distressing the PCB's and other internal sensitive components

Green Power:

- AC/AC efficiency up to 94.5% and 30% load up to 94% efficiency reduces heat dissipation and limits power consumption costs
- High input power factor up to 0.99 and low Input THDI: < 3.0% at full load, much less grid pollution and costs
- Intelligent sleep mode which UPS sleep in random keep maximum efficiency and energy saving

Flexible Design:

- Colorful 7" touch screen with LED Indicators.
- Main unit display allow to check the information of each UPS status during parallel mode.
- Flexible Network Management: SNMP
- Expanded dry contact kit (4 in 4 out)
- BMS kit for lithium battery communication



Technical Specification

MODEL	MY40A	MY50A	MY60A	MY80A	MY100A	MY120A
INPUT						
Voltage (Vac)	70-155					
Frequency (Hz)	40~70					
Power Factor	≥0.99					
Phase	3φ4W+PE					
THDi at full linear load	<3%					
BYPASS						
Bypass Voltage (Vac)	208±20%					
Frequency Range (Hz)	50/60 (±5%/±10%)					
Overload	≤130%: long run; 130%< load ≤150%: 5min; 150%< load ≤200%: 1s; 200%< load≤300%: 100ms; >300%: immediately.					
OUTPUT						
Capacity (kW)	40	50	60	80	100	120
Power Factor	1 (0.5 leading to 0.5 lagging)					
Voltage (Vac)	190/200/208/220±1%					
Frequency (Hz)	50/60±0.1% (Battery mode)					
Phase	3φ4W+PE					
Three Phase Difference	≤1%					
Waveform	Pure sine wave, THDv<1% at linear load, THDv<4% at non-linear load					
Transfer Time (ms)	0					
AC-AC Efficiency	up to 94%					
Overload	101-105% Long run, 106-110% load for 60 minutes, 111%-125% load for 10 minutes, 126%-150% load for 1 minute, over 150% load transfer to bypass					
BATTERY						
Battery Voltage (Vdc)	±144 (±120~±144 adjustable)					
Battery Type	External					
Charging Current (A) MAX	30			60		
GENERAL						
Communication Interface	RS485, MODBUS, dry contact (RS232, BMS, SNMP, expend dry contact card are optional in slot)					
Display	7" touch screen+LED					
Alarm	AC input abnormal, low battery, overload, failure					
Protection	Output short-circuit, overload, over-temperature, battery low voltage, output over/low voltage					
Noise (dB)	<68					
Altitude(m)	0-2000 no derate					
IP Grade	IP20					
Working Temperature (°C)	0 ~ 40 no derate, 40~50 auto derate.					
Relative Humidity	0 ~ 95%, no condensation					
Dimension (W×D×H)(mm)	600×1000×1800					
Weight (kg)	161			260		

● Specification is subject to change without prior notice.

FR-UK33A Series (10-200kVA)



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

Advanced Technology:

- Online double conversion
- Fully DSP control
- No-master-slave N+1 parallel technology
- Advanced battery charging management
- DC startup function
- Advanced no-master-slave parallel technology (optional)

High Reliability:

- Wide input voltage range
- IGBT inverter and output isolation transformer
- Intelligent fan speed control
- Allow 100% three phase unbalance load
- ECO mode and EPO function
- Intelligent fans control
- Bypass isolation transformer (optional)

Excellent Flexibility:

- Intelligent RS232/RS485 communication port
- Intelligent battery monitor system - MMBM (optional)

Technical 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 10mins, 150% load for 1 min											
BATTERY												
Voltage (Vdc)	192			348 (360 settable)								
Battery Type	External /Max. 64pcs 7AH 12V			External								
Charging Current (A) Max.	10~40 settable											
Battery Self-testing	Automatically alarm and estimate battery status in battery abnormal status											
GENERAL												
Maintenance Bypass	Yes											
Communication Interface	MODBUS/RS485 and dry contact (RS232 and SNMP adapter are optional)											
Display	Touch screen 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 (°C)	0 ~ 40											
Relative Humidity	0 ~ 95%, no condensation											
Dimension (W×D×H)(mm)	500×800×1180 /500×800×1600			500×800×1600			1400×1000×1850			1600×1000 ×1850		
Weight (kg)	300/500	325/530	340/540	590	620	670	970	1000	1200	1450	1700	

- The UPS power capacity above 200kVA can be customized.
- Specification is subject to change without prior notice.

Reliable • Flexible • Responsible

Kehua Tech

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