

UPS Catalog

| Sustainable Value Creator |





**Global
UPS**

Competitive Strategy
Innovation and
Leadership Award
(Frost & Sullivan)



No.4

World largest
supplier of modular
UPS (Omdia
2022&2023)



No.1

Chinese UPS
market in the field of
transportation (CCID
2022)



No.1

Chinese UPS market
share (FORWARD
2023)



About us

As a leading power solution provider, KEHUA was established in 1988 and went public in 2010 (002335.SZ). KEHUA adheres to the mission of providing safe, green and smart power for everyone, and carries the vision of becoming a world-leading supplier of integrated solutions for power protection and energy conservation.

KEHUA is committed to establish an Intelligent and Comprehensive Energy Management System, with the core technology of power electronics and cutting edge technologies of AI and IoT. KEHUA provides full range of UPS from 1kVA~1600kVA. It also supports the upgrade of various sectors including Finance, Industries, Telecom, Government, Transportation, Medical etc. With superior R&D capabilities and excellent services, KEHUA is widely recognized by users in over 100 countries and regions.





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KR11 Plus Series

(1-10kVA)



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



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)



Outstanding Profitability

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

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% (non-linear)				
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	48	72	192	192
Battery Type (Standard)	2×9Ah 12V	4×9Ah 12V	6×9Ah 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	17.7	22.9	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.

KR-RM Rack/Tower Series

(1-10kVA)



KR1000-RM



KR2000~3000-RM



KR6000~10K-RM



Green Power

- AC/AC efficiency up to 95%, 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)



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	KR6000-RM	KR1110-RM
Input					
Voltage (Vac)	120-295			80-275	
Frequency (Hz)	40-70 (50/60Hz auto-sensing)				
Power Factor	≥0.99				
THDi	<4% (full linear load)				
Output					
Capacity (VA)	1000	2000	3000	6000	10000
AC/AC Efficiency Max.	92.5%	93.5%	93.8%	95.5%	95.5%
Power Factor	0.9/1.0				
Voltage (Vac)	208/220/230/240±1% (selectable on display panel)				
Frequency (Hz)	50/60±0.1 (battery mode)				
THDv	THD <2% (linear load), THD < 3% (nonlinear load)			THD <1% (linear load), THD < 4% (nonlinear load)	
Overload*	PF0.9:101~105% load long run,106~110% load 10 mins, 111~130% load 1 min, 131~150% load 1s, above 150% load 200 ms PF1.0:101~105% 1min,106~120% 5s, over 120% 200 ms			101~105% Long run, 106~130% load for 10mins, 131~150% 30s, over 150% 500ms.	
Transfer Time	0				
Current Crest Ratio	3:1				
Battery					
Voltage(Vdc)	36	48	72	192-240	
UPS Internal Battery (VRLA)	3×7Ah/12V	4×9Ah/12V	6×9Ah/12V	16×7Ah/12V	16×9Ah/12V
External Battery Module (EBM) Model	B2U-36-01-2B	B2U-48-02-2B	B2U-72-03-2B	B3U-192-20-2C	B3U-192-20-2C
EBM battery (VRLA)	2*3*7AH/12V	2*4*9AH/12V	2*6*9AH/12V	16*7AH/12V (16~20 unit settable)	16*9AH/12V (16~20 unit settable)
Charging Current (A).	Default 1A, (2~8A when adding charger module)			Default 1A, 1~8A settable	
Other					
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		Terminal + 2×IEC320 C13	
Display	Blue screen LCD (Software rotate)				
Display Details	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*	-5~ 50°C (40~50°C auto derating)				
Relative Humidity	0 ~ 95%, No condensation				
Altitude(m)	1000, no derate.				
Regulatory Approvals	CE, IEC62040-1, IEC62040-2				
UPS (W×D×H)(mm)	438×420×87(2U)	438×570×87(2U)		438×660×174(4U)	
UPS Weight (kg)	14	20	26	55.6	64
External Battery Module (W×D×H) (mm)	438×420×87(2U)	438×570×87 (2U)	438×570×87 (2U)	438×500×130 (3U)(16*7/9AH)	
Battery Cabinet Weight (kg)	20	29	40	45	48

• Specification is subject to change without prior notice.

KR11-J Plus Series

(1-10kVA)



KR1000-J+



KR2000-J+/KR3000-J+



KR6000-J+/KR1110S-J+



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



Flexible Rear Panel Configuration

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



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)+

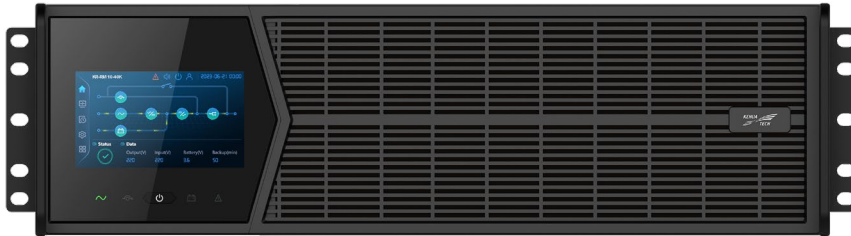
Technical Specification

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% (non-linear)					
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% (non-linear load)			THD <1% (linear load), THD < 4% (non-linear 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 Series

(10-40kVA)



Green Power

- Low THDi: 3% at linear load
- High AC/AC efficiency up to 96%
- Low noise, Less noise pollution



Excellent Flexibility

- 3U height tower and rack compatible design
- Adjustable input and output to 33\31\11
- Common battery
- Touch screen display, easy for setting and information checking.
- Adjustable battery pcs and charging current
- Intelligent slots design, for different communication choice



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



More Options

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

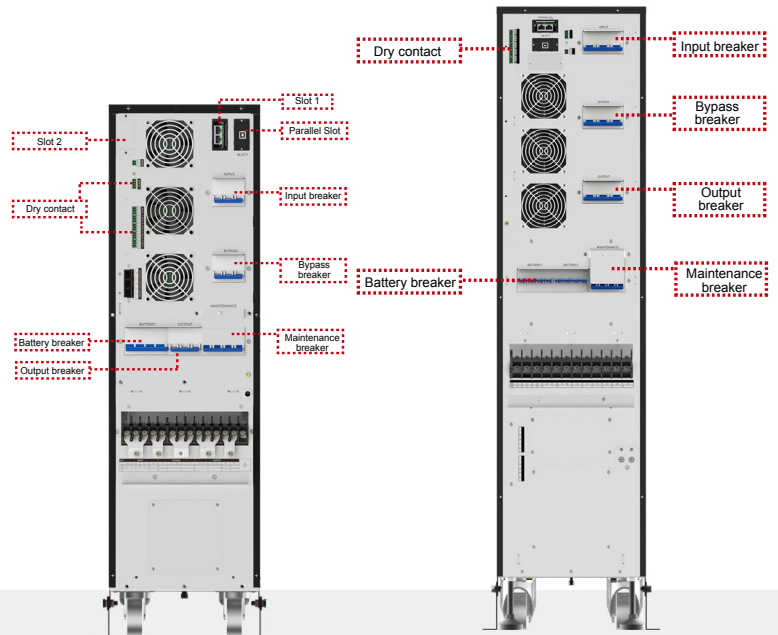
Technical Specification

MODEL	KR10KVA-RM	KR20KVA-RM	KR30KVA-RM	KR40KVA-RM
INPUT				
Voltage (Vac) ¹	10~20KVA: 121~268 (155~268) 10~40KVA: 138-485 (305-485)			
Frequency (Hz)	40-70			
Power Factor	≥0.99			
THDi	<3% (linear load)			
Phase	1:1/3:1/3:3		3:1/3:3	
OUTPUT				
AC/AC Efficiency (Max.)	96%			
Power Factor	1.0 (at 40°C, allow derating at low pressure input)			
Voltage (Vac)	380/400/415±1% (L-L)			
Frequency (Hz)	50/60±0.1 (battery mode)			
THDv	THD <2% (linear load), THD < 4% (nonlinear load)			
Transfer Time (ms)	0			
Overload	105%~110%: 60min, 110%~130% load: 10 min, 130%~155% load: 1 min, 155%□Load: 200ms			
ECO Mode	Yes			
BATTERY				
Voltage (Vdc)	±192 (±96~±240 adjustable, Minimum ±96Vdc derating to 50% load)			
Charging Current (A)	4 (1-10 settable)		10 (1-20 settable)	
GENERAL				
Communication Interface	RS232+EPO (RS485+Dry contact, SNMP, Protocol Conversion Kit are optional in slot)			
Display	4.3" touch screen			
Alarm	Low battery, abnormal AC input, UPS failure, etc.			
Protection	Low battery, overload, short-circuit and over temperature, etc.			
Noise (dB)	< 60			
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	17.5	20	32.5 34
	Distribution Box	8		14

- Specification is subject to change without prior notice.

Myria Series

(10-40kW)



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



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

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% (linear load)				
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	≤2% (linear load), ≤4% (non-linear load)		≤1% (linear load), ≤4% (non-linear load)		
Crest Factor	3:1				
Overload	110% load for 60 mins, 130% load for 10 mins, 155% load for 1 min, above 155%-200% load for 200ms				
EPO	Remote and Local				
Cold Start	Yes				
BATTERY					
Voltage (Vdc)	±96 (±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)



4.3" Touch Screen



7" Touch Screen



Normal Mode



Bypass Mode



Warning Mode



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.



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

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% (linear load)					
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%					
THDv	<1% at linear load, <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)		±216 (±168 ~±288 adjustable)			
Battery Type	External					
Charging Current (A) MAX	30				60	
GENERAL						
Communication Interface	RS485, RS232/MODBUS, dry contact (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.

MR33 Series Modular UPS

(30kW/50kW/100kW Module)



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 (Black box)
- Programmable dry contacts



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



↑
2U
↓

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



↑
3U
↓

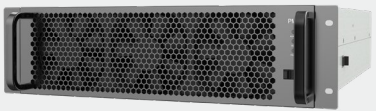
50K Module
Dimension (W×D×H): 440×640×130mm



MR33120-300



MR33400-600



↑
3U
↓

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



MR33600



MR33800



MR331200

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	3% (linear 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.Efficiency	96%	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	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					
THDi	1.5% (linear load)					
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)	±240 (±180~±276 settable)					
Output						
Power Factor	1.0					
Phase	3Ph+N+PE					
Voltage (Vac)	380/400/415±1%					
Frequency (Hz)	50/60±0.1%					
THDv	<1% (linear load), <3% (non-linear 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					
Cold 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)	800*1000*2000		1400*1000*2000		1800*1000*2000	
Weight(kg)	Cabinet	439	439	580	740	
	Bypass Module	32	46	60	120	
	Power Module	47				

- 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.

FR-UK33 GEL Series

(10-200kVA)



Reliability

- Wide input voltage range
- Suitable charge scheme
- Anti-corrosion coating for all PCB
- 3*2 redundancy design
- Digital dual DSP control technology
- Redundant design of fans



Intelligent

- Self-load test, saving electric energy and electricity bill.
- Fan health status detection
- Capacitor health status detection



Flexibility

- Programmable dry contact
- Wide battery number
- Compatible with lithium-ion battery



Green Power

- Low total harmonic distortion, THDi <5%, THDv<1%
- AC-AC efficiency: 94%, ECO mode efficiency: 99%
- Noise <65dB, more friendly to the user and environment

Technical Specification

MODEL	FR-UK 3310-GEL	FR-UK 3320-GEL	FR-UK 3330-GEL	FR-UK 3340-GEL	FR-UK 3350-GEL	FR-UK 3360-GEL	FR-UK 3380-GEL	FR-UK 33100-GEL	FR-UK 33120-GEL	FR-UK 33160-GEL	FR-UK 33200-GEL	
INPUT												
Input Voltage (Vac)	380/400/415 (L-L)											
Voltage Range (Vac)	-25%~+25%											
Frequency (Hz)	50/60±10% (±5% optional)											
Bypass	50/60±10% (±5 optional)											
Frequency (Hz)	4W+PE											
Phase	348~480											
OUTPUT												
Power Factor (PF)	0.9											
Voltage (Vac)	380/400/415±1%											
Frequency (Hz)	50Hz (60Hz)±0.1%											
Wave	Pure Sinewave											
Overload	125%:10min, 150%:1min											
Efficiency	Maximum 94%											
OTHERS												
Communication	Dry Contact, RS485, MODBUS											
Alarm	Abnormal AC input, low battery, Overload											
Option	DC cold start, Parallel, Waterproof Roof, SNMP/RS232, Lightening Protection C											
Protection	Low battery voltage, Overload, Short circuit, over temperature, low input voltage											
Working Temperature (°C)	-5 ~40											
Relative Humidity	0%~95% (RH)											
Noise (dB)	<65											
Dimension (W×D×H)(mm)	600×800×2000						1000×800×2000					
Weight (kg)	350	380	420	445	500	525	630	670	800	1020	1150	

- Specification is subject to change without prior notice.
- *Parallel need to choose parallel kits

FR-UK33 Series

(10-600kVA)



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)



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)

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)



Green Power

- High AC/AC efficiency up to 97%
- ECO mode efficiency up to 99%
- High power factor up to 1
- Low THDi <3%



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



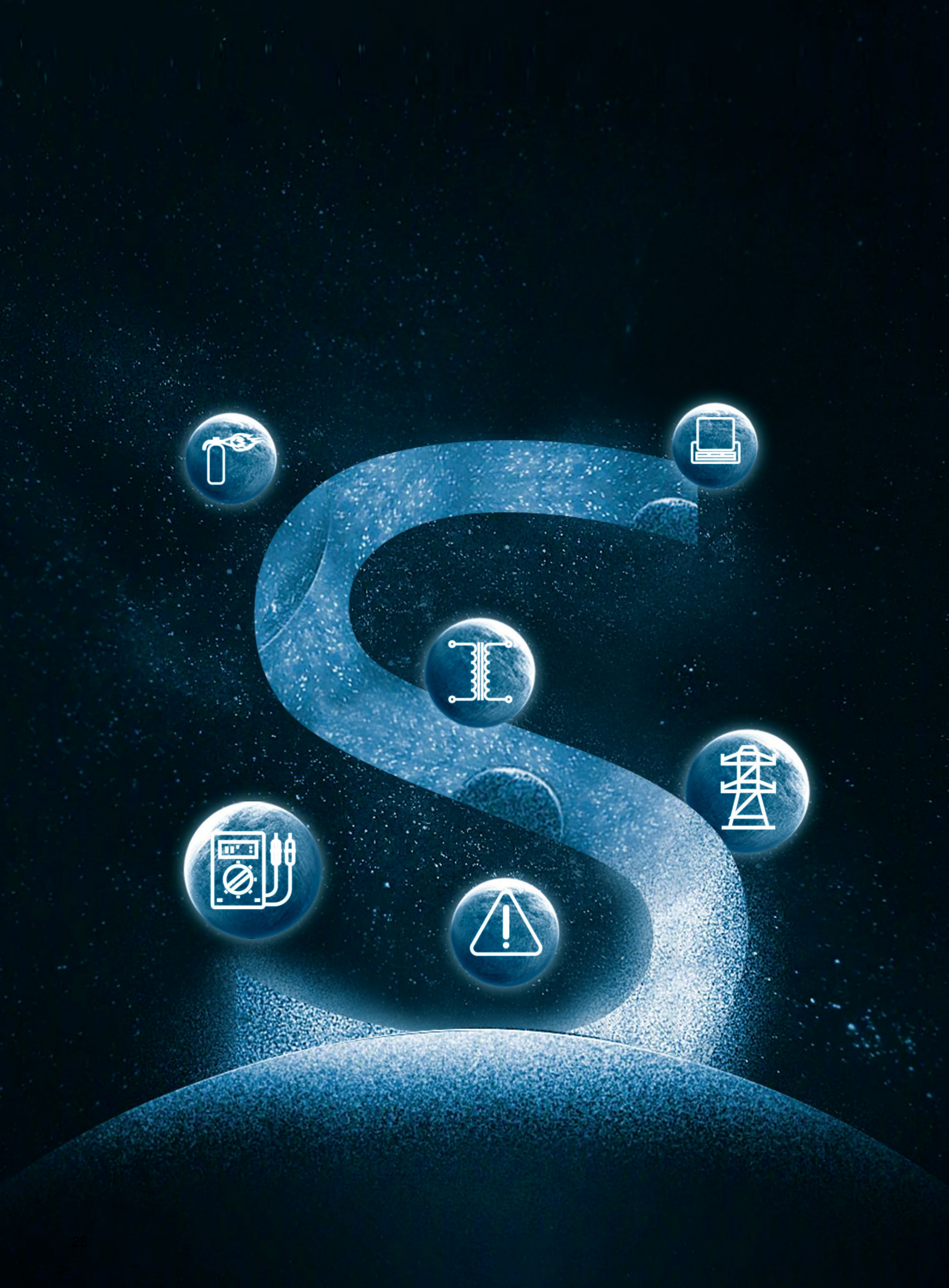
Advanced Technology

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

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	<3% (linear load)						
OUTPUT							
Output Voltage (Vac)	380/400/415±1%						
Frequency (Hz)	50/60±0.5%						
THDv	<1% (linear load), <3% (non-linear 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, above 150% will transfer to bypass after 1s						
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.



Lithium-ion Battery System Product Family

KR-RM Li Series Lithium Battery UPS (1-3kVA)	30
UPS+S ³ Lithium-ion Battery All-in-one Solution	32
S ³ Smart Backup Lithium-ion Battery System Solution	34

KR-RM Li Series Lithium Battery UPS

(1-3kVA)



KR1000-RM Li



KR2000~3000-RM Li



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 cycles for charge and recharge - up to than 1000 times
- Environment-friendly - lithium-ion battery



Green Power

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



Compact Dimension

- Space-saving, easy for installation



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% (non-linear)			
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	EPO, USB (SNMP, RS232+dry contacts 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.

UPS+S³ Lithium-ion Battery All-in-one Solution



40Ah/50Ah lithium-ion
battery system cabinet



100Ah lithium-ion
=battery system cabinet



Compact

- Modular parallel design, flexible for expansion
- Combine with the DC/DC module
- Failure module exit automatically



Safe

- DC/DC isolated solution
- Fire-fighting protection
- Full breaker design



Convenient

- Centralized monitoring the batteries and the UPS
- Modular design, Minute-level maintenance
- Tilt design touch screen

Technical Specification

Product Type	S3C-S08-1106 S3C-L04-1106*	S3C-S08-1110 S3C-L04-1110	S3C-S08-3310 S3C-L04-3310	S3C-S08-3320 S3C-L04-3320	S3C-S08-3330	S3C-S08-3340
Power Rating	6K	10K	10K	20K	30K	40K
INPUT						
Phase	1:1		1:1/3:1/3:3		3:1/3:3	
Voltage (Vac) ¹	80-275		138-485 (L-L)			
Frequency (Hz)	50/60± 10% (50/60Hz auto-sensing)		40-70			
Power Factor	≥0.99					
THDi	<3% (linear load)					
OUTPUT						
Phase	1:1		1:1/3:1/3:3		3:1/3:3	
Capacity (kVA)	6	10	10	20	30	40
AC/AC Efficiency (Max.)	95.5%		96%			
Power Factor	0.9 (1.0 optional)		0.9 (1.0 at 40°C)			
Voltage (Vac) ²	208/220/230/240±1% (settable on display panel)		380/400/415±1% (L-L)			
Frequency (Hz)	50/60±0.2% (battery mode)		50/60±0.1% (battery mode)			
THDv	THD <1% (linear load), THD < 4% (non-linear load)		THD <2% (linear load), THD < 4% (nonlinear load)		THD <1% (linear load), THD <3% (nonlinear load)	
Transfer Time (ms)	0					
Overload	115%~130%: 10min; 130%~150%: 30s; >150%: 500ms		115%~130% load: 15 min, 130%~150% load: 1 min, >150% load: 200ms			
GENERAL						
Communication Interface	RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)		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	438×500×87 (2U)		438×500×130 (3U)		438×680×130 (3U)
	Cabinet	600×860×1200				
Weight (kg)	UPS	10.6	12.2	20		34
	Cabinet**	120				

¹S means 40Ah/50Ah lithium-ion battery module, L means 100Ah lithium-ion battery module, 04&08 means the max. number of modules to be installed.

**Without built-in UPS and batteries.

Technical parameters (Battery)

Battery	S3M040-6C-240-X	S3M050-4C-240-X	S3M100-1C-240-X
Battery rated voltage (V)	51.2		57.6
Battery capacity (Ah)	40	50	100
Max. energy (kWh)	2.05	2.8	5.7
DC/DC rated output power (kW)	10		5
Dimensions (W*D*H) (mm)	223×665×153		440×665×132
Weight (kg)	36±2	38±2	50±2
Rated output voltage (V)	240±240/480		
SOC accuracy	≥95%		

• Specifications are subject to change without notice;

S³ Smart Backup Lithium-ion Battery System Solution



Safe

- Electrical and physical double isolation
- Fire protection
- Three-layer BMS structure
- Insulation testing



Simple

- Module design, plug and play
- Flexible for expansion
- Smart battery test



Smart

- Intelligent current equalization
- Fault recording, early warning
- Adaptive SOC management

Technical Specification

Battery Cell	40Ah	50Ah	100Ah
Type	LFP		
Dimensions (mm)	27.0×148.5×133.0		50.5×160.3×120.0
Weight (kG)	1.01±0.1	1.11±0.1	1.95±0.1
Rated capacity (Ah)	40	50	100
Discharge rate (C)	6	4	1
Charge rate (C)	1	1	0.5
Rated voltage (V)	3.2		
Cycle life	5,000 times (@50% DOD)		
Battery Pack	S3M040-6C-240-X	S3M050-4C-240-X	S3M100-1C-240-X
Battery rated voltage (V)	51.2	57.6	
Battery capacity (Ah)	40	50	100
Max. energy (kWh)	2.05	2.8	5.7
DC/DC rated output voltage (V)	240*2 (In series or parallel)		
DC/DC rated output power (kW)	10		5
Dimensions (W*D*H) (mm)	223×665×152		440×665×132
Weight (kG)	36±2	38±2	50±2
Battery Cabinet	S3C040-6C-20-MX	S3C050-4C-20-MX	S3C100-1C-12-MX
Battery max energy (kWh)	41	58	69
Rated output voltage (V)	240/±240/480		
System rated output power (kW)	200		60
Number of battery modules	20		12
Current-unbalance	≤3%		
SOC accuracy	≥95%		
Communication	RS485, CAN, TCP/IP and dry contact		
Working temperature (°C)	0~40 (+15~+30 recommended)		
Altitude (m)	≤4000m, above 2000m derate		
Dimensions (W*D*H) (mm)	600×860×2000		
Weight (kG)	960±10	1000±10	860±10
Maximum number of paralleled cabinets	15		
Optional	Distribution cabinet, Fire edge cabinet, IT rear frame		
Self-discharge rate	≤3% (0-30°C/1 month)		

- Specification is subject to change without prior notice.

Reliable • Flexible • Responsible

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