RM31 Low Frequency Series

Product Introduction

The RM31 three-phase input, single-phase output UPS is a high-performance intelligent online uninterruptible power supply with industrial-frequency topology, specially designed for data centers, network computer rooms and intelligent precision equipment. Thanks to its high reliability, it provides critical power protection for industries including finance, telecommunications, insurance, transportation, taxation, military, securities, energy, education, government, manufacturing, enterprises and other sectors. As an intelligent double-conversion online UPS, the RM31 Series incorporates internationally advanced technologies such as cutting-edge IGBT power devices, high-performance SPWM inverters and intelligent multi-mode battery management systems, complemented by comprehensive power management software. It delivers outstanding cost-effectiveness and enjoys a solid user base. Optional accessories are also available for users, including isolation transformers, custom non-standard units with special voltage and frequency ratings, external battery chargers and SNMP adapters.

Application Scenarios

network centers, server clusters, telecommunications, banking systems, hospitals, government, securities, finance, industrial process control applications, routers, switches, office automation equipment, computer equipment and precision instruments, among others.

Product Features

- Grid-oriented design to improve system availability
- High-reliability design to ensure stable network operation
- Intelligent battery management to extend battery life
- Comprehensive protection functions for higher stability and reliability
- Advanced digital parallel control technology
- User-friendly HMI: LCD + LED and network management for easy monitoring

6-120KVA Product Parameters

Model RM31-	6K	10K	15K	20K	25K	30K	40K	60K	80K	100K	120K
Capacity	6KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA
AC input											
Input voltage	3-phase380VAC±25%							3-phase380VAC±15%,±25%(optional)			
Input frequency	50(60Hz ±5%										
Bypass input											
Voltage range	Single-phase 160–275 VAC (optional AVR: 110–300 VAC)										
Voltage range	50(60)Hz±5%										
AC output											
Output voltage	Single-phase 220VAC										
Output frequency	50(60)Hz										
Voltage regulation	±1%										
Frequency stability	±0.5%(when utility fails)										
Waveform	SPWMsine wave										
Power factor	0.8 (lagging) (optional 0.9)										
THD	<3%(linear load)										
Transient response	Voltage change ≤ 3% (100% load step on/off)										
Crest factor	3:1(max)										
Max. current	10A	16A	24A	32A	46	56A	76A	95A	126A	160A	190A
Battery											
Battery voltage	192VDC				192/240VDCoptional)			384VDC			
Battery type	Maintenance-free lead-acid battery										
Recharge time	8–10 hours to reach 90% capacity										
Alarms											
Utility failure	Buzzer beeps once every 4 seconds										
Utility abnormal	Buzzer beeps once every 4 seconds; utility mode indicator flashes										
Battery low	Buzzer beeps once every 1 second; battery mode indicator flashes; low-battery LED on										
Overload	Overload LED on; continuous buzzer										
UPS fault	Fault LED on; continuous buzzer										
Internal protection											
Battery	Low-battery auto shutdown; auto restart when utility returns; miniature circuit breaker protection										
Overload	110%: normal; 125%: transfer to bypass after 10 min; 150%: after 1 min; >150%: after 200 ms; auto recovery when load returns to normal										
Over-temperature	Internal temperature > 85°C: transfer to bypass automatically										
Output short circuit	Current limiting; auto shutdown; miniature circuit breaker protection										
UPS fault	Transfer to bypass automatically; load powered by utility										
Noise filter	10~100KHzat 40dB;100KHz~100MHzat 70dB										
Control panel	LCD+LED										
LCD display	UPS status; input/output voltage; input/output frequency; battery voltage; output load (%); inverter temperature										
Low-battery indicator	On when battery voltage is low										
Overload indicator	On when overloaded										
Fault indicator	On when fault occurs										
UPS status	Utility mode; Battery mode; Inverter; Bypass; UPS abnormal										
Safety standards											
Safety	GB4943										
EMI	IEC62040-2,GB7260.2										
EMS	IEC61000-4-2~5,GB/T17626.2~5										
Environment											
Operating temperature	-10~50℃										
Relative humidity	20~90% RH (non-condensing)										
Altitude	< 2000 m (derate output by 2% for every +500 m)										
Noise (1 m in front)	<58dB										
Physical											
Wiring method (I/O)	Terminal block										
Net weight (no battery), kg	85	130	140	220	260	300	330	479	504	640	700
Dimensions (W×D×H) mm	230×580×700	310×590×870		435x680x900	435×680×1000			800×800×1480		800×800×1800	
Others											
Overall efficiency	>87%										
Transfer time (utility failure)	0ms										
Transfer time (inverter / bypass)	≤1ms										
Communicationport	RS232 (external SNMP card supported); optional RS485 and DB9 dry contacts										
Custom options available: input isolation transformer, surge protector, 220 VAC input / 110 VAC output or 110 VAC input / 220 VAC output, non-standard special versions, and medical UPS.											

Note:Specifications are subject to change without prior notice.