RM33 Low Frequency Series

Product Introduction

The industrial-frequency RM33 Series is a three-phase input, three-phase output online double-conversion UPS featuring full DSP digital control. It supports multi-voltage and multi-frequency power grid systems, delivers an output power factor of 0.9 and a 10% higher load capacity, adapts to harsh grid environments, and allows parallel expansion of up to 8 units. Equipped with zero transfer time, comprehensive circuit protection and intelligent battery management, it incorporates an N+1 redundant power scheme and high-efficiency heat dissipation design. The extra-large multi-language LCD screen simplifies operation and maintenance, making it a stable and reliable power protection solution for applications demanding high-quality power supply.

Application Scenarios

Government, finance, telecommunications, education, transportation, meteorology, radio and television, industry and commerce, taxation, healthcare, energy and power, and various other industrial sectors.

Product Features

Zero transfer time
Online double-conversion; zero transfer time; fixed-frequency output

Digital control
Full digital control; stable sine-wave output

High input power factor
Active PFC; input PF ⩾0.8

Robust design
Robust double-sided PCB; corrosion-resistant

High environmental adaptability
Conformal coating (3-proof) for harsh environments

Flexible I/O mode
3-phase in / 3-phase out

LCD display
LCD shows real-time status and parameters

10-200KVA Product Parameters

Model RM33-		10K	15K	20K	30K	40K	60K	80K	100K	120K	160K	200K
Capacity		10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW	40KVA/32KW	60KVA/48KW	80KVA/64KW	100KVA/80KW	120KVA/96KW	160KVA/128KW	200KVA/160KW
Main input												
Input voltage range		380/400/415Vac;165-280(Ph-N)/285-485(Ph-Ph)										
Input wiring		3Ph+N+PE										
Voltage range		50Hz±5(10%)/60Hz±5(10%)										
Input power factor		≥0.7 (without filter); ≥0.97 (with filter)										
Rectifier technology		SCR (thyristor)										
THDI		<50% (without filter); <15% (with filter)										
Bypass input												
Bypass voltage range		176-264Vac(Ph-N)/304-456Vac(Ph-Ph)										
Bypass wiring		3Ph+N+PE										
Frequency tracking range		50±5(10%)/60 Hz±5(10%)										
Bypass overload capability		150%-180%1H-300s;>180%300S										
Output												
Output voltage		3×380VAC/400VAC/415VAC 3Ph+N										
Voltage regulation		±1%										
Output power factor		0.8										
Frequency sync range		Utility mode / Battery mode: 50/60 Hz ± 0.01 Hz										
Waveform		Sine wave										
THDv		≤2%(linear load);≤4%(non-linear load);										
Phase unbalance		120° ±1% (balanced load); 120° ±2% (50% unbalanced load)										
Recovery time		Recover to 90% of rated value within 3 cycles										
Transfer time (Utility → Battery)		0ms										
Overload capability		≤110%60min;≤125%10min;≤150%1min;>150%200ms										
Crest factor		3:1 (max)										
Load power factor range		0.6–1 (capacitive or inductive)										
Unbalanced output voltage @ 100% unbalanced load		<1%										
Current limiting		Severe overload, short circuit; RMS voltage limiting; inrush current; peak voltage limiting.										
Transfer time (Inverter → Bypass)		Synchronized mode: seamless transfer; Non-synchronized mode: 10 ms.										
Transfer to bypass		Immediate; overload 160%.										
Return to inverter		Auto transfer after alarm is cleared										
Efficiency	Online mode	89%		90%		91%		92%				
	Battery mode	90%		91%		92%		93%				
Rectifier												
Rectifiertype		6pulse										
Rated DC voltage		384VDC										
Charging voltage		395VDC-435VDC(Adjustable)										
Battery & Charging												
Battery quantity (12 V)		29/30/31/32Pcs (Adjustable)										
Charging current		Max. = Capacity (kW) / Battery voltage (real-time) × max. current; max. current never exceeds 40 A		Max. 40 A; 5 A @ full load								
Battery type		Sealed lead-acid; NI-Cd										
Communication & Management												
Communicationports		Dry contact, USB, RS232, RS485; 1 slot for communication card; optional SNMP										
Control panel		3.5" LCD; optional 5" color touch screen										
Alarms		output overload, utility abnormal, UPS fault, low battery; history log supported										
Protections		output short circuit, overload, over-temp, low battery, output over/under-voltage, fan fault, lightning protection										
Other functions												
ECO mode		Supported										
EPO mode		Supported										
Walk-in function		Supported										
Parallel quantity		Up to 4 units										
Environment												
Operating temperature		0~55℃										
Storage temperature		-25~55℃(no battery)										
Relative humidity		< 95% RH(non-condensing)										
Altitude		0–1500 m at 100% load; above 1000 m, derate output power by 1% per 100 m.										
Noise (1 m in front)		70dB@100%load										
Protection												
IP rating		IP20										
Conformal coating (3-proof)		Standard										
Dust filter		Standard										
Physical												
Dimensions (L×W×H) mm		560x 360×900			683×450×1100		821×432×1159		975×554×1286		1051×705x1646	
Weight (kg)		108	146	146	220	256	297	400	472	573	720	790

Note:Specifications are subject to change without prior notice.