

HPM Series 100kVA High Frequency Modular UPS Datasheet

1. Product Overview

HG Group HPM 100kVA high-density online double-conversion modular UPS fits 300~1200kVA unified cabinets, designed for medium & hyperscale data centers, finance, oil & gas, railway transit critical loads. All modules support hot swap and N+X parallel redundancy. It adopts 138~485Vac ultra-wide input, normal efficiency $\geq 97\%$, peak 99% under ECO mode, compatible with diesel generators. Certified by CE, TUV, IEC62040, ISO and RoHS to adapt global power grids.

Warranty Note: Standard 3-year full system warranty; 5-year extended warranty is available for large projects by application.

2. Electrical Specifications

2.1 Main Input

Item	Specification
Wiring	3 Phase 5 Wire (3P+N+PE)
Rated Voltage	380/400/415Vac
Voltage Range	138~485Vac; full power ≥ 305 Vac, linear derating 138~305Vac
Frequency	40~70Hz
Input PF	≥ 0.99
Input THDi	$< 3\%$ @ 100% linear load

2.2 Bypass Input

Item	Specification
Rated Bypass Voltage	380/400/415Vac
Adjustable Voltage Margin	Upper: $+10\% \sim +25\%$, Lower: $-10\% \sim -45\%$
Sync Tracking Range	± 10 Hz configurable

2.3 Battery System

Item	Specification
DC Voltage	360~600VDC
Battery Bank	30~50pcs 12V lead-acid (default 40pcs), compatible with HV lithium retrofit
Charge Control	3-stage intelligent charging, single cell fault alarm, mixed new & old battery support

2.4 Output Performance

Item	Specification
Output Line Voltage	380/400/415Vac
Output Power Factor	1.0
Frequency	Auto 50/60Hz
Output THDv	<1% linear load, <2% non-linear load
Dynamic Response	Voltage swing <5% under 0~100% step load, recovery < 20ms
Overload Rule	110% → 60min bypass; 125% → 10min; 150% → 1min; >150% transfer within 200ms

3. System & Environmental Parameters

Item	Specification
Architecture	Hot-swappable power / bypass / control modules
Max Parallel Units	Up to 6 units for N+X redundancy
IP Rating	IP20
Operating Temp	0~40°C; customized 45°C high-temp version optional
Storage Temp (No Battery)	-25°C~55°C

Item	Specification
Humidity	0~95%RH non-condensing
Full Power Altitude	≤1500m, derate above 1500m
Noise @1m	<68dB
Communication	CAN, RS485, Ethernet, dry contacts, optional SNMP; Modbus RTU/TCP for DCIM

4. Cabinet & Module Dimensions & Weight

Model	Total Capacity	Cabinet W×D×H (mm)	Cabinet Weight (kg)	100kVA Module Size (mm)	Module Weight (kg)
HPM300/100	300kVA	600×1000×2000	226	442×750×130	50
HPM400/100	400kVA	600×1000×2000	246	442×750×130	50
HPM500/100	500kVA	800×1000×2000	340	442×750×130	50
HPM600/100	600kVA	800×1000×2000	360	442×750×130	50
HPM800/100	800kVA	1600×1000×2000	715	442×750×130	50
HPM1000/100	1000kVA	1600×1000×2000	755	442×750×130	50
HPM1200/100	1200kVA	1600×1000×2000	825	442×750×130	50

5. Certifications & Services

1、Certifications: CE, TUV, IEC62040, ISO9001, ISO14001, RoHS

2、Energy Compliance: EU ErP compliant; ≥97% normal efficiency, peak 99% ECO mode

3、Warranty Policy: Standard 3-year full system warranty; 5-year extended warranty available upon application for large projects

4、Global Support: 48-hour spare parts delivery via regional warehouses, 24/7 multilingual remote support, on-site commissioning, custom OEM & ODM solutions