

HP33SM Subrack Modular Series

Online Transformerless UPS series

Mode: 3 phase input and 3 phase output

Power range : 40 ~ 150kVA (3-Level PF: 1.0)

Module: 40/50/60kVA



Modular design 模块化设计

- All units adopt modular design, including power module, bypass module, monitoring module, can be easily integrated. 所有单元均采用模块化设计，包括功率模块、旁路模块、监控模块，可轻松集成。
- Power module, Bypass module, Monitoring module, ECU control module, all these modules are hot-swappable. 功率模块、旁路模块、监控模块、ECU控制模块，所有这些模块都支持热插拔。

High reliability 高可靠性

- Wide input voltage range, line voltage range is 138-485V, UPS will derate to 40% when input voltage is below 305V. 输入电压范围宽，线电压范围为 138-485V，输入电压低于 305V 时，UPS 降额 40%。
- UPS adopts multiple digital bus and redundancy parallel control system, making sure the whole system keep online if any single circuit fail. UPS 采用多条数字总线和冗余并联控制系统，确保任何一条电路发生故障时整个系统保持在线。
- The UPS will keep on single or parallel working, if any module fail. 如果任何模块发生故障，UPS 将继续单机或并机工作。
- Thickened conformal coating, applicable for harsh environment such as high heat, high humidity, dust. 加厚保形涂层，适用于高温、高湿、多尘等恶劣环境。

Green and power saving 绿色节能

- High input power factor, it is up to 0.99. 输入功率因数高，可达0.99。
- 3-level topology design, efficiency is up to 95.8%. 三电平拓扑设计，效率可达95.8%。
- THDi < 3% (100% linear load). THDi < 3% (100%线性负载)。
- The UPS will work in sleeping mode when the load is very small. 当负载很小的时候，UPS会进入休眠模式。

LBS function LBS功能

- LBS function can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system. LBS功能可实现2个独立UPS系统同步工作，增强了系统的可靠性。

Parallel redundancy function 并联冗余功能

- Support parallel expanded operation: maximum is 8 units. 支持并联扩展运行：最大8台。
- Support sharing batteries for the UPS in parallel. 支持并联UPS共享电池。

Strong load capacity 带载能力强

- Output power factor is 1.0, UPS can supply power to 100% unbalanced load. 输出功率因数1.0，UPS可给100%不平衡负载供电。
- High adaptability for load, it can connect full inductive load or capacitive load. 负载适应性强，可接全感性负载或容性负载。

VRLA&Lithium battery supportable 支持 VRLA 和锂电池

- Compatible with VRLA or lithium battery. 兼容 VRLA 或锂电池。

Intelligent management 智能管理

- Standard colorful touch screen. 标准彩色触摸屏。
- Support recording and exporting history logs and fault logs. 支持记录和导出历史日志和故障日志。
- Support SNMP, RS232, RS485, BMS, Dry contact interface. 支持 SNMP、RS232、RS485、BMS、干接点接口。
- Support upgrading FW&SW on line. 支持在线升级 FW&SW。

Compatible with generator 与发电机兼容

- Power Walk In function, it can reduce the start current impact to system, and it can reduce the capacity of generator. Power Walk In 功能，可减少启动电流对系统的冲击，并可降低发电机的容量。

Module Model 模块型号		HP33SM-RM-40			HP33SM-RM-50			HP33SM-RM-60
Cabinet Model 机柜模式		HP33SM-80	HP33SM-120	HP33SM-200	HP33SM-100	HP33SM-150	HP33SM-200	HP33SM-120
Cabinet capacity 机柜容量		40kVA~80kVA	40kVA~120kVA	40kVA~200kVA	50kVA~100kVA	50kVA~150kVA	50kVA~200kVA	60kVA~120kVA
Module capacity 模块容量		40kVA			50kVA			60kVA
Max. number 最大数量		2+1	3	5	2+1	3	4 or 4+1	2+1
INPUT 输入								
Nominal voltage 标称电压		380/400/415Vac, (3Ph+N+PE)						
Operating voltage range 工作电压范围		138~305Vac for 40% load; 305~485Vac for 100% load						
Operating frequency range 工作频率范围		40Hz~70Hz						
Power factor 功率因数		≥0.99						
Harmonic distortion (THDi) 谐波失真		≤3% (100% Linear load)						
Bypass voltage range 旁路电压范围		Max. voltage: 220V: +25% (Optional +10%, +15%, +20%)						
		230V: +20% (Optional +10%, +15%)						
		240V: +15% (Optional +10%)						
		Min. voltage: -45% (Optional -10%, -15%, -20%, -30%)						
Bypass frequency range 旁路频率范围		±10%						
Power walk in 电源输入		Support						
Generator input 发电机输入		Support						
OUTPUT 输出								
Rated voltage 额定电压		380/400/415Vac, (3Ph+N+PE)						
Power factor 功率因数		1.0						
Voltage regulation 电压调节		±1%						
Output frequency 输出频率		Synchronize with input, when the input frequency >±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)						
Crest factor 波峰因数		3:1						
Harmonic distortion (THDv) 谐波失真		≤2% with linear load; ≤4% with nonlinear load						
Efficiency 效率		96%						
BATTERY 电池								
Battery voltage 电池电压		360Vdc~600Vdc						
Battery type 电池类型		VRLA / Li						
Power module charge current 电池模块充电电流		20A (Max.)						
SYSTEM FEATURES 系统特性								
Transfer time 转换时间		Utility to Battery: 0ms; Utility to Bypass: 0ms						
Overload 过载		Inverter mode 逆变模式 ≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter						
		Bypass mode 旁路模式 30 C: 135% for long term; 40 C: 125% for long term; >1000%, 100ms						
Overheat 过热		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately						
Low battery voltage 电池电压低		Alarm and Switch off						
Self-diagnostics 自我诊断		Upon Power On and Software Control						
Backfeed protection 反接保护		Support						
Battery 电池		Advanced Battery Management						
Noise suppression 噪音抑制		Complies with EN62040-3						
Audible & visual alarms 声音和视觉警报		Line Failure, Battery Low, Overload, System Fault						
Status LED & LCD display 状态LED和LCD显示屏		Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault						
Reading on the LCD display LCD显示屏上的读数		Input, Output, Battery, Command, Setting, Maintenance						
Communication interface 通信接口		RS232, RS485, Parallel, LBS, BMS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)						
ENVIRONMENTAL 环境								
Operating temperature 工作温度		0 C ~ 40 C						
Storage temperature 存储温度		-25 C ~ 55 C						
Humidity range 湿度范围		0~95% (Non condensing)						
Altitude 海拔		<1000m, derating required when >1000m						
Noise level 噪音水平		<57dB	<58dB	<65dB	<58dB	<62dB	<65dB	<62dB
PHYSICAL 物理								
Dimension WxDxH 尺寸		UPS cabinet UPS机柜		485x850x620mm	485x965x887mm	485x850x620mm	485x965x887mm	485x850x620mm
		Power module 电源模块		440x620x130mm				
Net weight 净重		UPS cabinet UPS机柜		103kg	204kg	113kg	210kg	110kg
		Power module 电源模块		33kg		34kg		35kg
STANDARDS 标准								
Safety 安全		IEC/EN 62040-1, IEC/EN 62477-1						
EMC		IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)						

1. Specifications are subject to change without prior notice.
 2. Data above are typical values for reference only, not as a basis for engineering design.