

东莞市华文新能源有限公司

Dongguan Huawen New Power Co.,Ltd.



Focus On Solving Lithium Battery Pack Management
Technology, A Industry Leader Since 2015- Huawen

www.huawennewpower.com

Company Introduction

Huawen New Power Co., Ltd, established in 2015, with around 1500 square meters, is a professional developer and manufacturer of innovative battery solutions. We devote to producing and supplying high quality rechargeable batteries for today's market.

Our R&D team is well experienced in products design, development and electronic circuits (PCM/BMS) design. Our partners include major OEM/ODM in the consumer electronics, energy storage, home & garden tool, E-Bike, safety/security, medical, personal transportation and data storage etc.

Huawen believes that quality is the cornerstone of corporation development, and our company is strictly following ISO9001:2015 standard in establishing and improving our quality control system. From raw material procurement & inspection, production process control and product shipment, we have a consummate, scientific and systematic operation standard to guarantee the quality and stability of our products. Products by Huawen qualified by UL, CB, KC, PSE, GB31241, 2013/56/EU, 2006/66/EC, UN38.3, MSDS, safety reports by air and by sea.

Fine quality, timely delivery, consummate service and competitive prices enable Huawen to keep attaining praises from our domestic and foreign clients. We, Huawen people with the greatest passion and faithfulness, are willing to strive together with our customers in making common progress and creating a bright future!

公司简介

东莞市华文新能源有限公司成立于2015年，占地面积1500平方，是一家具有创新精神、专业从事提供电池解决方案的开发商和生产厂家。我们致力于高性能高品质充电电池的研发和生产以满足全球迅速发展的市场需求。我们不仅拥有丰富的经验与专业的生产设备、测试设备，而且我们的技术团队同样具有专业的产品设计开发以及PCM/BMS的设计能力。我司的电池产品广泛应用于消费类电子消费、能源储存、家用及园艺工具、电动自行车、安防设备、医用器械、个人交通工具和数据储存等领域。

华文坚信质量是企业发展的根本,公司严格按照ISO9001:2015体系的要求建立和完善自己的品质保证系统,从原材料采购、原材料检验、制程控制到成品出货等都有完善、系统、科学的操作规范,确保产品的质量稳定可靠。产品通过了UL, CB, KC, PSE, GB31241, 2013/56/EU, 2006/66/EC, UN38.3, MSDS, 空运&海运安全运输报告。

良好的品质,准时的交期,完善的服务以及有竞争力的价格,使华文新能源得到了国内外客户的一致好评,我们华文人愿以最大的热情和努力,与客户一起发展,携手共创美好未来!




huawen

Our company culture & team spirit

- We uphold the business philosophy of "people-oriented, customer-oriented, technology-oriented, and integrity-based".
- We adhere to the business philosophy of "reputation first, quality first, and service first".
- We guide our daily business activities with the concepts of honesty, integrity, and openness, respect human rights, and safeguard the legitimate rights and interests of employees, customers, and third parties.
- We are committed to creating and maintaining a safe and healthy working environment for employees, customers, and society.
- We are committed to establishing a health and safety system to ensure employee safety.
- We continuously monitor the production environment and set improvement goals.
- We are committed to preventing pollution and reducing the impact on the environment.
- We provide environmental awareness training courses for employees.

公司文化和企业社会责任

- 我们秉持“以人为本，以客为尊，科技为导，诚信为基”的经营哲学。
 - 我们坚持“信誉第一、质量第一、服务至上”的经营理念。
 - 我们以诚信、正直、开放的理念引导日常经营活动，尊重人权，维护员工、客户及第三方的合法权益。
 - 我们承诺为员工、客户及社会创建并维持安全、健康的工作环境。
 - 我们承诺建立健康与安全制度，确保员工安全。
 - 我们持续监控生产环境并设定改进目标。
 - 我们承诺防止污染，减少对环境的影响。
 - 我们为员工提供环保意识培训课程。
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CATALOGUE



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FUNCTIONS 功能

- Intelligent CPU control 智能微处理器控制
- Auto restart while AC is recovering 市电恢复 UPS 自动启动
- Boost and buck AVR for voltage stabilization
自动调节市电升压、降压、稳定电压输出
- Cold start function 冷启动功能
- Off-mode charging 关机充电
- Optional USB or RS-232 communication port, RJ-45.
可选择 USB 或者 RS-232 通信接口, RJ-45
- Offering LED and LCD panels for selection, multi-color panel.
可选择 LED 或者 LCD 面板, 多种颜色的面板
- The UPS has mute function when the UPS in battery mode.
当 UPS 处于电池模式时, UPS 具有静音功能
- The LCD display can be off when the UPS in AC/Battery mode.
当 UPS 处于交流/电池模式时, LCD 显示屏可以关闭

APPLICATIONS 应用范围

- POS(Point of sales)Terminals POS 机
- Personal Computer 个人电脑
- Security System 安保系统
- Fax Machine 传真机
- Printer 打印机
- Modem 交换器
- Router 路由器

LINE INTERACTIVE UPS

TECHNICAL SPECIFICATION 技术规格

Model 型号	HK-500	HK-650	HK-800	HK-1000	HK-1500	HK-2000	HK-2000B	HK-3000
Capacity 容量	500VA	650VA	800VA	1000VA	1500VA	2000VA	2000VA	3000VA
Power 功率	300W	390W	480W	600W	900W	1200W	1200W	1800W
INPUT 输入								
Voltage 电压	110V/120VAC or 220V/230V/240VAC							
Voltage range 电压范围	81-145VAC or 145-275VAC							
Frequency 频率	60/50 Hz(Auto sensing 自动识别)							
OUTPUT 输出								
Voltage 电压	110V/120VAC or 220V/230V/240VAC							
Voltage range 电压范围	±10%							
Frequency range 频率范围	60/50±1Hz							
Transfer time 转换时间	4-6ms							
Waveform(bat.mode) 波形(电池模式)	Simulated sine wave 模拟正弦波							
BATTERY 电池								
Battery model & Quantity 电池的型号和数量	12V 4.5AH×1	12V 7AH×1	12V 9AH×1	12V 7AH×2	12V 9AH×2	12V 9AH×2	12V 7AH×4	12V 9AH×4
Charge time 充电时间	8 hours recover to 90% capacity 8小时恢复到90%容量							
Full protection 全面保护	Discharge, Short circuit and overload protection 深度放电, 短路及过载保护							
INDICATORS 指示								
LCD display LCD 显示	AC mode, Battery mode, Load level, Battery level, Input voltage, Output voltage, Overload and low battery 市电模式, 电池模式, 负载大小, 电池容量, 输入电压, 输出电压, 过载及低电量							
Line mode 市电模式	Green lighting 绿灯亮							
Battery mode 电池模式	Red lighting 红灯亮							
Battery charge mode 电池充电模式	Yellow lighting 黄灯亮							
ALARM 警告								
Battery mode 电池模式	Sounding every 4 seconds 每4秒响一声							
Low battery 低电量	Sounding every second 每秒响一声							
Overload 过载	Sounding every second 每秒响一声							
Fault 故障	Continuously sounding 连续鸣响/LCD有故障代码							
INTERFACE 控制管理								
USB/R232 Port (optional) USB/RS232 接口(可选择)	Support windows XP/Vista, Windows 7/8, Linux, Unix, and MAC							
ENVIRONMENT 使用环境								
Humidity 湿度与温度	0-90% RH @ 0-40 °C (Non-condensing) 0-90% 湿度且 0-40 °C 温度							
Noise Level 噪音	Less than 40dB 小于 40dB							
Dimension(mm) 尺寸(mm)	280x90x140	320x90x140	330x100x150	365x140x165	365x140x165	365x140x165	395x145x210	395x145x210
N.W.(kg) 净重	4.0	5.2	5.7	10	11.9	12.6	17	21



FUNCTIONS 功能

- Compact size 紧凑机型
- Intelligent CPU control 卓越的 CPU 控制确保可靠运行
- Boost and buck AVR for voltage stabilization
自动调节市电升压、降压、稳定电压输出
- Off-mode charging 关机充电功能
- Cold start function 冷启动功能
- Auto restart while AC is recovering 市电恢复后机器自动重启
- Optional USB or RS232 communication port.
可选择 USB 或者 RS232 通信接口
- Offering LED and LCD panels for selection 可选择LED或者LCD面板
- The UPS has mute function when the UPS in battery mode.
当UPS处于电池模式时，UPS具有静音功能
- The LCD display can be off when the UPS in AC/ Battery mode.
当UPS处于市电/电池模式时，LCD显示屏可以关闭

APPLICATIONS 应用范围

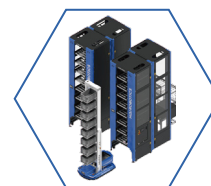
- POS(Point of sales)Terminals POS 机
- Personal Computer 个人电脑
- Security System 安保系统
- Fax Machine 传真机
- Printer 打印机
- Modem 交换器
- Router 路由器



LINE INTERACTIVE UPS LONG-RUN TIME

TECHNICAL SPECIFICATION 技术规格

Model 型号	HL-500	HL-1000	HL-2000
Capacity 容量	500VA/300W	1000VA/600W	2000VA/1200W
INPUT 输入			
Voltage 电压	110V/120VAC or 220V/230VAC		
Voltage range 电压范围	81-145VAC or 145-275VAC		
Frequency range 频率范围	60 or 50 Hz(Auto sensing 自动识别)		
OUTPUT 输出			
Output voltage 输出电压	110V/120VAC or 220V/230VAC		
AC voltage regulation 稳压精度	±10%		
Frequency range(bat. mode) 频率范围(电池模式)	50 HZ or 60 Hz ± 10%		
Transfer time 转换时间	Typical 6-10 ms		
Waveform(bat.mode) 波形	Simulated sine wave 模拟正弦波		
BATTERY 电池			
Battery voltage 电池电压	12V DC	24V DC	24V DC
Float voltage 浮充电压	13.7VDC ± 0.2 VDC	27.4VDC ± 0.2VDC	27.4VDC ± 0.2VDC
Charge current(Max)最大充电电流	5A	8A	8A
PROTECTION 保护			
Full protection 全面保护	Short circuit, Over load, Battery low voltage protection 短路, 过载, 深度放电保护		
Optional USB or RS232 communication port or SNMP 可选择 USB 或者 RS232 通信接口或 SNMP	Optional 可选择		
RJ11/RJ45 port RJ11/RJ45 接口	Optional 可选择		
INDICATORS 指示			
Line mode 市电模式	Green lighting 绿灯亮		
Battery mode 电池模式	Red lighting 红灯亮		
Battery charge mode 电池充电模式	Yellow lighting 黄灯亮		
ALARM 警告			
LCD display LCD 显示	AC mode, Battery mode, Load level, Battery level, Input voltage, Output voltage, Overload and low battery 市电模式, 电池模式, 负载大小, 电池容量, 输入电压, 输出电压, 过载及低电量		
Battery mode 电池模式	Sounding every 10 seconds 每10秒响一声		
Low battery 低电量	Sounding every second 每秒响一声		
Overload 过载	Sounding every 0.5 second 每0.5秒响一声		
Fault 故障	Continuously sounding 连续鸣响/LCD有故障代码		
ENVIRONMENT 使用环境			
Humidity 湿度与温度	0-90% RH @ 0-40 °C (Non-condensing) 0-90% 湿度且 0-40 °C 温度		
Noise Level 噪音	Less than 45dB 小于 45dB		
Dimension(mm) 尺寸(mm)	330x100x150	365x140x165	395x145x210
N.W.(kg) 净重	3.5	7	8.5



FUNCTIONS 功能

- Pure sine wave output 纯正弦波输出
- DSP digital control DSP数字控制
- Boost and buck AVR for voltage stabilization
自动调节升压、降压、稳定电压输出
- Cold start function 冷启动功能
- Intelligent battery management 智能化电池管理
- Short circuit and overload protection 短路和过载保护
- Off-mode charging 关机自动充电
- Offering LED and LCD panels for selection
可选择LED或者LCD面板
- Optional USB/RS232/RJ45 communication port.
可选择 USB/RS232/RJ45通讯接口

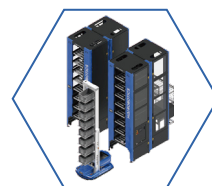
APPLICATIONS 应用范围

- TV/FAN/Microwave oven
电视机/电风扇/微波炉
- Washing machine 洗衣机
- Air condition 空调
- Refrigerator/freezer 电冰箱
- Electric tool 电动工具
- Servers and Workstations 服务器及工作站

LINE INTERACTIVE UPS SINE WAVE

TECHNICAL SPECIFICATION 技术规格

Model 型号	HP-500VA(S)	HP-800VA(S)	HP-1000VA(S)	HP-2000VA(S)	HP-3000VA(S)	
Capacity 容量	500VA/400W	800VA/640W	1000VA/800W	2000VA/1.6KW	500VA/2.4KW	
INPUT 输入						
Voltage range 电压范围	145~275VAC±5V					
Frequency range 频率范围	50Hz-60Hz					
OUTPUT 输出						
Output voltage 输出电压	220VAC					
AC voltage range 稳压范围	±10%					
Frequency range(Batt.Mode) 频率范围	50Hz ± 0.25Hz or 60Hz ± 0.3Hz					
Overload 过载	105%-110%:UPS beep alarm, do not shut down. UPS 报警鸣叫					
	110%-130%:autoshut down after 30 seconds 30 秒后自动关机					
	>130%:auto shut down immediately 马上自动关机					
Transfer time 转换时间	<typical 6ms <6 毫秒					
Waveform(bat.mode) 波形	Pure sine wave 纯正弦波					
BATTERY 电池						
Standard model 标准机	Battery type 电池型号	12V7Ah				
	Numbers 数量	/	/	2	4	6
	Charge current(Max) 最大充电电流	Assume: 1A±10% Max: 1A or 2A for option				
	Charging voltage 充电电压	/	/	27.3VDC±1%	54.7VDC±1%	82.0VDC±1%
Long-run model 长延时机	Battery type 电池型号	12V,AH depending on applicant				
	Numbers 数量	1	1	3	6	8
	Charge current(Max) 最大充电电流	> 5A				
	Charging voltage 充电电压	13.8VDC±1%	13.8VDC±1%	41.0VDC±1%	82.1VDC+1%	109.4VDC±1%
Standard model 标准机	Dimension(mm) 尺寸	/	/	360x145x225	445x192x325	445x192x325
	N.W.(kg) 净重	/	/	11.9	22	27.9
Long-run model 长延时机	Dimension(mm) 尺寸	385x140x166	385x140x166	360x145x225	445x192x325	445x192x325
	N.W.(kgs) 净重	5.70	6.70	8.50	16	18.2
ENVIRONMENT 操作环境	Humidity 湿度与温度	20-90%RH@0-40 °C (non-condensing) 不结露				
	Noise Level 噪音	Less than 55dBA@1 Meter 1 米内少于55dB				
MANAGEMENT 控制管理						
Smart RS-232 智能RS-232	Support windows 2000/2003/XP/Vista/2008, Windows7/8, Linux, Unix, and MAC					



FUNCTIONS 功能

- Pure sine wave output 纯正弦波输出
- DSP digital control DSP数字控制
- Boost and buck AVR for voltage stabilization
自动调节升压、降压、稳定电压输出
- Cold start function 冷启动功能
- Intelligent battery management 智能化电池管理
- Short circuit and overload protection 短路和过载保护
- Off-mode charging 关机自动充电
- Offering LED and LCD panels for selection
可选择LED或者LCD面板
- Optional USB/RS232/RJ45 communication port.
可选择 USB/RS232/RJ45通讯接口

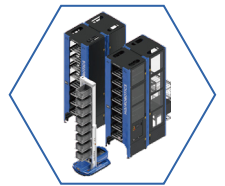
APPLICATIONS 应用范围

- TV/FAN/Microwave oven
电视机/电风扇/微波炉
- Washing machine 洗衣机
- Air condition 空调
- Refrigerator/freezer 电冰箱
- Electric tool 电动工具
- Servers and Workstations 服务器及工作站

LINE INTERACTIVE UPS SINE WAVE

TECHNICAL SPECIFICATION 技术规格

Model 型号	HT-500S	HT-800S	HT-1000S	HT-1500S	
Capacity 容量	500VA/400W	800VA/640W	1000VA/800W	1500VA/1.2KW	
INPUT 输入					
Voltage range 电压范围	145~275VAC±5V				
Frequency range 频率范围	50Hz-60Hz				
OUTPUT 输出					
Output voltage 输出电压	220VAC				
AC voltage range 稳压范围	±10%				
Frequency range(bat.mode) 频率范围	50Hz± 0.25Hz or 60Hz± 0.3Hz				
Overload 过载	105%-110%:UPS beep alarm, do not shut down. UPS 报警鸣叫				
	110%-130%:autoshut down after 30 seconds 30 秒后自动关机				
	>130%:auto shut down immediately 马上自动关机				
Transfer time 转换时间	<typical 6ms <6 毫秒				
Waveform(bat.mode)波形	Pure sine wave 纯正弦波				
BATTERY 电池					
Long-run model 长延时机	Battery type 电池型号	12V,AH depending on applicant			
	Numbers 数量	1	1	2	2
	Charge current(Max) 最大充电电流	> 5A			
	Charging voltage 充电电压	13.8VDC±1%	13.8VDC±1%	27.3VDC±1%	27.3VDC±1%
PHYSICAL 物理					
Long-run model 长延时机	Dimension(mm) 尺寸	325x240x125	325x240x125	325x240x125	325x240x125
	N.W.(kg) 净重	5.7	6.7	7.2	8.0
ENVIRONMENT 操作环境					
Humidity 湿度与温度	20-90%RH@0-40 °C (non-condensing)不结露				
Noise Level 噪音	Less than 55dBA@1 Meter 1米内少于55dB				
MANAGEMENT 控制管理					
Smart RS-232 智能RS-232	Support windows 2000/2003/XP/Vista/2008, Windows7/8, Linux, Unix, and MAC				



FUNCTIONS 功能

- Pure on-line double conversion design 真正在线双转换
- Wide input range 超宽市电输入范围
- Flexible intelligent monitoring program and strong communications function.
灵活的智能监控程序和超强的通讯功能
- Compact design 紧凑式的外观设计
- Precise utility power synchronizing system.
精确的市电同步系统
- Cold start function 冷启动功能
- Power conservation UPS 节能UPS
- LCD display 液晶显示屏

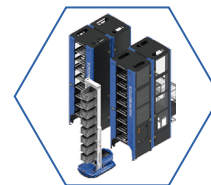
APPLICATIONS 应用范围

- Personal Computer 个人电脑
- Multi-medial 多媒体
- Electronic & Telecom 电子与电信
- Medical Equipment 医疗设备
- Securities System 安防系统
- Servers and Workstations 服务器及工作站

ONLINE HIGH FREQUENCY UPS

TECHNICAL SPECIFICATION 技术规格

Model 型号	HF1K	HF1KL	HF2K	HF2KL	HF3K	HF3KL	HF6K	HF6KL	HF10K	HF10KL
Capacity 容量	1KVA/900 W		2KVA/1.8KW		3KVA/2.7KW		6KVA/5.4KW		10KVA/9KN	
Battery voltage 电池电压	12V7AH*2	36VDC	12V7AH*4	72VDC	12V7AH*6	96VDC	12V7AH*16	192VDC	12V7AH*16	192VDC
Dimension(mm) 尺寸	280 x144x230		400 x144x230		425 x190x328	400 x144x230	533x260x560	425 x190x328	533x260x560	
N.W.(kgs) 净重	7.8	4.2	14.2	6.4	23.4	6.5	55	12.2	62	21
INPUT 输入										
Input voltage 输入电压范围	90V-285VAC						120-275VAC			
Frequency range 频率范围	40Hz~70Hz						46-54Hz or 56-64Hz			
Phase 相位	Single phase with ground 单相接地									
Power factor 功率因数	≧ 0.99 @ 100% Load									
OUTPUT 输出										
Output voltage 输出电压	100/110/115/120/127 VAC or 200/208/220/230/240 VAC						208/220/230/240 VAC			
AC voltage regulation 稳压精度	±1%									
Frequency range(synchronize range) 频率范围(同步校正范围)	40~46Hz or 54-60Hz						46-54Hz or 56-64Hz			
Frequency range (bat. mode) 频率范围(电池模式)	50Hz ± 0.25Hz or 60Hz ±0.3Hz						50Hz or 60Hz ± 0.1Hz			
Current crest ratio 峰值系数	3:1									
Output current 额定电流	4.5A		9.1A		13.6A		27A		45A	
Harmonic distortion 谐波失真	≤3%THD(Linear load 线性负载) ≤6% THD(Non-linear load 非线性负载)						≤3%THD(Linear load 线性负载) ≤5%THD(Non-linear load 非线性负载)			
Overload 过载	105%±5%<负载≤125%±5%: 50秒后转旁路输出并警告; 125%±5%<负载≤150%±5%: 25 秒后转旁路输出并警告; 负载>150%±5%: 300毫秒后转旁路输出并警告 105%±5%<Load <125%±5%: after 50secs turn to bypass and alarm ; 125%±5%<Load <150%±5%: after 25secs turn to bypass and alarm; load>150%±5%: after 300ms turn to bypass and alarm.						105%±5%<负载≤125%±5%: 1分钟后转旁路输出并警告; 125%±5%<负载≤135%±5%: 30秒后转旁路输出并警告 负载>135%±5%: 300 毫秒后转旁路输出并警告 105%±5%<Load≤125%±5%: After 1mins turn to bypass and alarm; 125%±5%<Load≤135%±5%: after 30secs turn to bypass and alarm; load>135%±5%: after 300ms turn to bypass and alarm.			
Transfer time AC mode to batt. mode 转换时间 市电至电池	Zero 零									
Waveform 波形(电池模式)	Pure Sine wave 纯正弦波									
EFFICENCY 效率										
Battery mode 电池模式	85%						92%		92%	
BATTERY 电池										
Battery type 电池型号	12V/7Ah	Depending on applications	12V/7Ah	Depending on applications	12V/7Ah	Depending on applications	12V/7Ah	Depending on applications	12V/7Ah	Depending on applications
Battery numbers 电池数量	2		4		6		16		16	
Recharge time 标准充电时间	8 hours recover to 90% capacity 8小时充至90%						9 hours recover to 90% capacity 9小时充至90%			
Charging current 最大充电电流	1A	6.5A	1A	5.5A	1A	5.5A	1A	5.5A	1A	5.5A
ENVIRONMENT 使用环境										
Operation humidity 湿度	20-90%RH @ 0-40 C Non-condensing 不结露						0-95% RH @ 0-50 C Non-condensing 不结露		0-95% RH @ 0-40 C Non-condensing 不结露	
Noise level 噪音	Less than 50dBA @ 1 Meter 少于 50dBA @ 1米						Less than 55dBA @ 1 Meter 少于 50dBA @1米		Less than 58dBA @ 1Meter 少于 50dBA @1米	
MANAGEMENT 智能控制										
Smart RS-232 智能 RS232	Support windows®2000/2003XP/Vista/2008,Windows® 7/8, Linux, Unix and MAC									
Optional SNMP 可选SNMP	Power management from SNMP management and web browser 电源管理支持 SNMP 管理与网络管理									



FUNCTIONS 功能

- Pure on-line double conversion design 真正在线双转换
- DSP technology guarantees high performance
DSP 技术确保高效能
- 50/60Hz Frequency Converter Mode
50/60Hz 变频转换模式
- Output power factor 1 (33P series) 输出功率因数可达 1
- ECO mode operation for energy saving
ECO 模式可有效节能
- Generator compatible 兼容发电机输入
- Smart SNMP works well with either USB or RS-232 together(Optional)
可选择智能 SNMP 接口与 USB 接口和 RS-232 接口
- Emergency power off function(EPO) 紧急电源关闭(EPO)
- Optional maintenance bypass switch 内置维护旁路开关便于维护

APPLICATIONS 应用范围

- Personal Computer 个人电脑
- Multi-medial 多媒体
- Electronic & Telecom 电子与电信
- Medical Equipment 医疗设备
- Securities System 安防系统
- Servers and Workstations 服务器和 workstation

ONLINE HIGH FREQUENCY UPS

TECHNICAL SPECIFICATION 技术规格

Model 型号		33P 10KL	33P 15KL 33P 20KL	33P 30KL	33P 40KL	33P 60KL	33P 80KL
Capacity 容量		10KVA 10KW	15KVA/15KW 20KVA/20KW	30KVA 30KW	40KVA 40KW	60KVA 60KW	80KVA 80KW
INPUT 输入							
Voltage range 电压范围	Low line loss 低线耗	10VAC(Ph-N)±3% at 50% Load; 176 VAC(Ph-N)± 3% at 100% Load					
	Low line comeback 低线回调	Low Line Loss Voltage + 10V					
	High line loss 高线耗	300VAC(L-N)+3% at 50% Load; 276 VAC(L-N)+ 3% at 100% Load					
	High line comeback 高线回调	High Line Loss Voltage-10V 高线损电压-10V					
Frequency range 频率范围		46Hz ~ 54Hz @ 50Hz system 56Hz~64Hz @ 50Hz system					
Phase 相位		3 Phase with Neutral 3相带中性线					
Power factor 功率因素		≥0.99 at 100% Load 100% 负载时≥0.99					
OUTPUT 输出							
Phase 相位		3 Phase with Neutral 3相带中性线					
Output voltage 输出电压		360/380/400/415VAC(Ph-Ph)					
AC Voltage regulation 稳压精度		208*/220/230/240VAC(Ph-N)					
Frequency range 频率范围		46Hz ~ 54Hz @ 50Hz system 56Hz~64Hz @ 50Hz system					
Frequency range(bat. mode)频率范围(电池模式)		50Hz ± 0.1Hz Or 60Hz ± 0.1Hz					
Overload 过载	AC mode 市电模式	100%~110%:60min;110%~125%:10min;125%~150%:1min;>150%:immgdiatel					
	Battery mode 电池模式	100%~110%:60min;110%~125%:10min;125%~150%:1min;>150%:immediatel					
Current crest ratio 峰值系数		3:1 max					
Harmonic distortion 谐波失真		≤2%@100% Linear Load; ≤5%@100% Non-linear Load ≤2% @ 100% 线性负载; ≤5 % @ 100% 非线性负载					
Transfer Time 转换时间	Line battery 市电转电池	0 ms					
	Inverter bypass 逆变转旁路	0 ms(When phase lock fails, <4ms interruption occurs from inverter to bypass)					
	Inverter ECO 逆变转ECO	<10ms					
EFFICIENCY 效率							
AC mode 市电模式		95.50%					
Battery mode 电池模式		94.50%					
BATTERY 电池							
Long-run Model 长延时机	Type 型号	Depending on applications					
	Numbers 数量	20	32-40(adjustable)				
	Charging current(max)最大充电	1.0-12.0A(Adjustable) 1.0-12.0A(可调)				2.0-24.0A+10%(Adjustable)	
	Charging coltage 充电电压	+/-136.5 VDC±1%	+/-136.5 VDC*Nz+1%(N=16-20)				
	Dimension(mm) 尺寸	626 x 250 x 826		815 x 300x1000		790 x 360 x 1010	
	N.W.(kg) 净重	28/30	43/45	60/65	67/71	108/112	113/117
ENVIRONMENT 使用环境							
Operation temperature 操作温度		0~40°C (the battery life will down when>25°C)0~40°C(>25°C时电池寿命会下降)					
Operation humidity 湿度		<95 % and non-condensing <95 % 不结露					
Operation altitude** 海拔		<1000m**					
Acoustic noise level 噪音		Less than 55dB @1Meter 少于55dB@1米	Less than 58dB @1Meter 少于58dB@1米	Less than 65dB @1Meter 少于65dB@1米	Less than 70dB @1Meter 少于70dB@1米	Less than 70dB @1Meter 少于70dB@1米	Less than 75dB @1Meter 少于75dB@1米
MANAGEMENT 控制管理							
Smart Rs-232 or USB 智能 RS-232 或 USB		Supports Windows@ 2000/2003/XP/Vista/2008/7/8/10, Linux, Unix, and MAC 支持 Windows@ 2000/2003/XP/Vista/2008/7/8/10、Linux、 Unix和 MAC					
Optional SNMP 可选SNMP		Power management fom SNMP manager and web browser					



FUNCTIONS 功能

- Online double-conversion 在线双转换
- True galvanic isolation transformer design
内置输出隔离变压器
- Control designed to withstand all kinds of loads
适应各种负载条件
- Parallel operation with up to 4 units(option)
可最多并机四台运作
- Variety of communication options available
丰富的通讯接口
- Independent ventilation enhance durable operation
under harsh environment
工业级设计应用于各种恶劣条件

APPLICATIONS 应用范围

- Industrial Automatic Control
工业自动控制
- Production Equipment 生产设备
- Electronic & Telecom 电子与电信
- Medical Equipment 医疗设备
- Securities System 安防系统

ONLINE LOW FREQUENCY UPS

TECHNICAL SPECIFICATION 技术规格

Model 型号	HG10K	HG15K	HG20K	HG30K	HG40K	HG60K	HG80K	HG100K	HG120K	HG160K	HG200K	
Capacity 容量	10KVA 8KW	15KVA 12KW	20KVA 16KW	30KVA 24KW	40KVA 32KW	60KVA 48KW	80KVA 64KW	100KVA 80KW	120KVA 96KW	160KVA 128KW	200KVA 160KW	
Size(mm) 尺寸	656x405x817			656x405x941	821x432x1159		975x554x1286		975x554x1326	1051x705x 1376		
N.W.(kg) 净重	118	120	145	193	278	365	471	573	650	785	840	
INPUT 输入												
Nominal voltage 额定电压	3 x 380VAC/400VAC (3Ph + N)											
Voltage range 电压范围	285VAC~475VAC											
Frequency 频率	50/60 Hz ± 10 %											
OUTPUT 输出												
Nominal voltage 额定电压	3 x 380VAC/400VAC(3Ph + N)											
Precision 电压稳定性	Stationary 稳态: ±1% Transitory 瞬态: ±5%(load variations 负载变化 100-0-100%)											
Frequency 频率同步范围	50/60Hz synchronised 同步 ±1%With mains absent 市电丢失 ±0.1 Hz											
Max, synchronization speed 频率跟踪速率	±1Hz/s											
Waveform 输出波形	Pure Sinewave 正弦波											
Total harmonic distortion (THDv) 总谐波	<2% (Linear Load 线性负载) <5% (Non-linear load 非线性负载)											
Phase displacement 相位不平衡度	120° ± 1%(balanced load 平衡负载) 120° ± 2%(imbalances 50% of the load 50% 不平衡负载)											
Dynamic recovery time 动态调整时间	<60ms at 90% of the static value (<60 毫米恢复至额定值 90%)											
Admissible overload 过载能力	110%~150% 10min~1min; 150%>160% 1min~200ms; 200ms for >160%											
Admissible crest factor 峰值系数	3:1											
Admissible power factor 负载功率因素范围	0.6~1(Inductive or capacitive 容性或感性)											
Imbalance output voltage @ 100%unbalanced load @100% 不平衡输出 不平衡电压 @100% 不平衡负载	<1%											
Current limit 电流限制	High overload, short circuit, RMS voltage limit, High crest factor current, Peak voltage limit.极重过载, 短路, 电压有效值限制, 冲击电流, 峰值电压											
STATIC BYPASS 旁路												
Type 类型	Solid state 静态开关											
Voltage 电压	3 x 380VAC/400VAC(3Ph + N)											
Frequency 频率	50/60 Hz											
Activation criterion 控制方式	Microprocessor control 微处理器控制											
Transfer time 转换时间	zero 零											
Admissible overload 过载能力	150%~180% 1h~30s;180%>200% 30s~200ms; 200ms for >200%											
Transfer to bypass 切换到旁路	Immediate, for overload above 160% 过载 160%, 立即切换											
Retransfer 切回逆变	Automatic after alarm clear 报警清除后自动切换											
MAINTENANCE BYPASS 维护旁路												
Type 类型	Without interruption 不间断											
Voltage 电压	3 x 400V (3Ph + N)											
Frequency 频率	50/60 Hz											
BATTERY&CHARGER 电池 & 充电												
Battery type and numbers (12V) 电池节数(12V)和数量	29/30/31/32 (adjustable) 可调											
Rated voltage 额定电压	384VDC(基于 32 颗可调整)											
Charging method 充电方式	CC/CV											
Charging current 充电电流	Default 10A, Max, = Capacity/ battery voltage 预设 10A,最大=容量/电池电压			Default: 10A, Max.40A 预设 10A,最大 40A								

HP33M Modular Series

Online Transformerless UPS series

Mode: 3 phase input and 3 phase output

Power range : 30 ~ 75kVA (3-Level PF: 1.0)

Module: 10/15/20/25/30kVA



Front view



Hot swappable battery module
24pcs maximum, each battery
module includes 10pcs 12V9Ah



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 将继续单机或并行工作。
- 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。

Build-in battery design 内置电池设计

- Integrated solution, no additional battery cabinet is required, saving construction costs. 一体化解决方案，无需额外电池柜，节省建设成本。
- Maximum 6 groups of internal batteries, selectable according to autonomy time requirement. 最多 6 组内置电池，可根据续航时间要求选择。

Intelligent management 智能管理

- With 7 inches (Standard) and 10 inches (Optional) colorful touch LCD screen. 配备 7 英寸（标准）和 10 英寸（可选）彩色触摸液晶屏。
- 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, Dry contact interface. 支持 SNMP、RS232、RS485、干接点接口。
- Support upgrading FW&SW on line. 支持在线升级 FW&SW。
- EPO & REPO function. EPO 和 REPO 功能。

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。

Cabinet Model 机柜模式	HP33M-30	HP33M-45	HP33M-50	HP33M-60	HP33M-75
Cabinet capacity 机柜容量	30kVA	45kVA	50kVA	60kVA	75kVA
Module Model 模块型号	HP33M-RM-10/15	HP33M-RM-15	HP33M-RM-10/25	HP33M-RM-20/30	HP33M-RM-15/25
Module capacity 模块容量	10kVA/15kVA	15kVA	10kVA/25kVA	20kVA/30kVA	15kVA/25kVA
Max. number 最大数量	3+2/2+3	3+2	5/2+3	3+2/2+3	5/3+2
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				
Hammonic 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%)				
Bypass frequency range 旁路频率范围	Min.voltage: -45%(Optional-10%,-15%-20%,-30%)				
	Frequency protection range: ±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	Line mode 线路模式	Synchronize with input, when the input frequency >±10%(±1%±2%±4%±5% optional) output 50/60 (±0.1Hz)			
	Bat. mode 电池模式	(50/60±0.1%)HZ			
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	Up to 95.8%				
BATTERY 电池					
Battery voltage 电池电压	±240Vdc (6 x 40pcs 9AN12V)				
Power module charge current 电池模块充电电流	18A (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; >100% : 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 反馈保护	Support				
EPO (Optional) EPO可选	Shut down UPS immediately (Turn to bypass optional)				
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, 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	<58dB		<61dB		
PHYSICAL 物理					
Dimension 尺寸	UPS cabinet UPS机柜	600x1000x2000mm			
	Power module 电源模块	440x620x86mm (2U)			
Net weight 净重	UPS cabinet UPS机柜 (without battery)	310kg (MAX.)			
	Power module 电源模块	10kVA: 19kg; 15-30kVA: 21kg			
STANDARDS 标准					
Safety 安全	IECEN 62040-1 IECEN 62477-1				
EMC	IECEN 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				

* 3+2 means 2 power modules are used as redundancy module.

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.

HP33SM Subrack Modular Series

Online Transformerless UPS series

Mode: 3 phase input and 3 phase output

Power range : 10 ~ 150kVA (3-Level PF: 1.0)

Module: 10/15/20/25/30kVA



Stand-alone installation with wheels as standard, for easy movement.



Rack-mounted installation compact design, saving valuable unit space.



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。

Flexible battery configuration 灵活的电池配置

- Output power factor is 1.0, UPS can supply power to 100% unbalanced load. 输出功率因数为 1.0, UPS 可向 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, 也可接容性负载。

Intelligent management 智能管理

- With 7 inches (Standard) and 10 inches (Optional) colorful touch LCD screen. 配备 7 英寸 (标准) 和 10 英寸 (可选) 彩色触摸液晶屏。
- 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, Dry contact interface. 支持 SNMP、RS232、RS485、干接点接口。
- Support upgrading FW&SW on line. 支持在线升级 FW&SW。
- EPO & REPO function. EPO 和 REPO 功能。

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-10		
Cabinet Model 机柜模式	HP33SM-20	HP33SM-40	HP33SM-60
Cabinet capacity 机柜容量	10kVA~20kVA	10kVA~40kVA	10kVA~60kVA
Module capacity 模块容量	10kVA		
Max. number 最大数量	2	4	6
Module Model 模块型号	HP33SM-RM-15		
Cabinet Model 机柜模式	HP33SM-30	HP33SM-60	HP33SM-90
Cabinet capacity 机柜容量	15kVA~30kVA	15kVA~60kVA	15kVA~90kVA
Module capacity 模块容量	15kVA		
Max. number 最大数量	2	4	6
Module Model 模块型号	HP33SM-RM-20		
Cabinet Model 机柜模式	HP33SM-40	HP33SM-80	HP33SM-120
Cabinet capacity 机柜容量	20kVA~40kVA	20kVA~80kVA	20kVA~120kVA
Module capacity 模块容量	20kVA		
Max. number 最大数量	2	4	6
Module Model 模块型号	HP33SM-RM-25		
Cabinet Model 机柜模式	HP33SM-50	HP33SM-100	HP33SM-150
Cabinet capacity 机柜容量	25kVA~50kVA	25kVA~100kVA	25kVA~150kVA
Module capacity 模块容量	25kVA		
Max. number 最大数量	2	4	6
Module Model 模块型号	HP33SM-RM-30		
Cabinet Model 机柜模式	HP33SM-60	HP33SM-120	HP33SM-150
Cabinet capacity 机柜容量	30kVA~60kVA	30kVA~120kVA	30kVA~150kVA
Module capacity 模块容量	30kVA		
Max. number 最大数量	2	4	5+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	Frequency protection range: ±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	Line mode 线路模式	Synchronize with input, when the input frequency >±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)	
	Bat. mode 电池模式	(50/60±0.1%)Hz	
Crest factor 波峰因数	3:1		
Harmonic distortion (THDv) 谐波失真	≤1% with linear load; ≤3% with nonlinear load		
Efficiency 效率	Up to 95.8%		
BATTERY 电池			
Battery voltage 电池电压	±180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs, 36pcs default, 36~50pcs output power factor 1.0, 32~34pcs output power factor 0.9, 30pcs output power factor 0.8)		
Power module charge current 电池模块充电电流	18A (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; >100%, 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 反馈保护	Support		
EPO (Optional) EPO选择	Shut down UPS immediately (Turn to bypass optional)		
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, 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	< 58dB		< 62dB
	< 60dB		< 62dB
PHYSICAL 物理			
Dimension WxDxH 尺寸	UPS cabinet UPS机柜	485x850x353mm (8U)	485x850x575mm (13U)
	Power module 电源模块	440x620x86mm (2U)	
Net weight 净重	UPS cabinet UPS机柜	69kg	98kg
	Power module 电源模块	10kVA: 19kg; 15~30kVA: 21kg	
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)		

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2. Data above are typical values for reference only, not as a basis for engineering design.

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)						

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HP33ETS SERIES

Online Transformerless UPS series

Mode: 3 phase input and 3 phase output

Power range : 200 ~ 1200kVA (3-Level PF: 1.0)

Module: 10/15/20/25/30kVA



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，线路电压范围为138-485V，当输入电压低于305V时，UPS将降额至40%。
- 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 96%. 三电平拓扑设计，效率可达96%。
- 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。

Intelligent management 智能管理

- With 7 inches (Standard) and 10 inches (Optional) colorful touch LCD screen.
配备7英寸（标配）和10英寸（选配）彩色触摸液晶屏。
- 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。

VRLA&Lithium battery supportable 支持 VRLA 和锂电池

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

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。

Model 型号	HP33ETS-200	HP33ETS-250	HP33ETS-300	HP33ETS-400
Capacity 容量	200kVA	250kVA	300kVA	200kVA
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	Line mode 线路模式	Synchronize with input, when the input frequency > ±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)		
	Bat. mode 电池模式	(50/60±0.1%)Hz		
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	Up to 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	80A (Max.)	100A (Max.)	140A (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; >100% 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 反馈保护	Support			
EPO (Optional) EPO选择	Shut down UPS immediately (Turn to bypass optional)			
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	< 63dB	< 65dB	< 70dB	
PHYSICAL 物理				
Dimension W×D×H(S/F) 尺寸	600×850×2000mm			
Net weight 净重	406kg	440kg	460kg	548kg
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)			

S : Without or only with one maintenance bypass breaker.

F : With mains, bypass, maintenance bypass and output breakers.

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Model 型号	HP33ETS-500	HP33ETS-600	HP33ETS-800	HP33ETS-1000	HP33ETS-1200
Capacity 容量	500VA	600VA	800kVA	1000kVA	1200kVA
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	Line mode 线路模式	Synchronize with input, when the input frequency > ±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)			
	Bat. mode 电池模式	(50/60±0.1%)Hz			
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	Up to 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	180A (Max.)	200A (Max.)	280A (Max.)	360A (Max.)	400A (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; >1000V, 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 反馈保护	Support				
EPO (Optional) EPO选择	Shut down UPS immediately (Turn to bypass optional)				
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	<70dB	<73dB	<74dB		
PHYSICAL 物理					
Dimension W×D×H(S/F) 尺寸	1200×850×2000mm		2000×850×2000mm		2200×850×2000mm
Net weight 净重	956kg	1060kg	1422kg	1658kg	1980kg
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)				

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