

**KSTAR**



HPM3300E 100kVA  
Modular Series

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## Modular design

- All units adopt modular design, including power module, bypass module, monitoring module, can be easily integrated in MDC or customized cabinet
- Power module, Bypass module, Monitoring module, ECU control module, all these modules are hot-swappable

## High reliability

- Wide input voltage range, line voltage range is 138-485V, UPS will derate to 40% when input voltage is below 323V
- UPS adopts multiple digital bus and redundancy parallel control system, making sure the whole system keep online if any single circuit fail
- The UPS will keep on single or parallel working, if any module fail
- Thickened conformal coating, applicable for harsh environment such as high heat, high humidity, dust, salt spray

## Green and power saving

- High input power factor, it is up to 0.99
- 3-level topology design, online efficiency up to 97.1%
- THDi<3% (100% linear load)
- The UPS will work in sleeping mode when the load is very small

## HECO mode

- High performance mode, system efficiency up to 99%
- Inverter is in working state and has reactive power compensation and active power filter functions, improving input power factor and quality
- Automatic adjustment of inverter control mode to power the load when bypass is abnormal

## VRLA&Lithium battery supportable

- VRLA battery number of each group can be selected from 30pcs to 50pcs (Continuously adjustable)
- Match with Kstar KLi series lithium battery rack, providing higher power density, lower footprint and longer cycle life
- Configuration of VRLA or Lithium can be chose from LCD
- Two wire connection, simplify the construction on site and save the cost of battery neutral cable

## Parallel redundancy function

- Support parallel expanded operation: maximum is 8 units
- Support sharing batteries for the UPS in parallel

## Strong load capability

- Output power factor is 1.0, UPS can supply power to 100% unbalanced load
- High adaptability for load, it can connect full inductive load or capacitive load

## Intelligent management

- With 7 inches (Standard) and 10 inches (Optional) colorful touch LCD screen
- Support recording and exporting history logs and fault logs
- Support SNMP, RS232, RS485, BMS, Dry contact interface
- Support upgrading FW&SW on line
- EPO & REPO function
- Support wave recording when any fault occurs
- Support key components lifecycle management

## Compatible with generator

- Power Walk In function, it can reduce the start current impact to system, and it can reduce the capacity of generator

## LBS function

- LBS function can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system

# HPM3300E Modular Series

## Technical Specifications:

Module Model		HPM3300E-RM-100		
Cabinet Model		HPM3300E-400	HPM3300E-500	HPM3300E-600
Cabinet capacity		400kVA	500kVA	600kVA
Module capacity			100kVA	
Max. number		4	5	6
<b>INPUT</b>				
Nominal voltage		380/400/415Vac, (3Ph+N+PE)		
Operating voltage range		138~322Vac for 40% Load; 323~485Vac for 100% Load;		
Operating frequency range		40Hz~70Hz		
Power factor		≥0.99		
Harmonic distortion (THDi)		≤3% (100% linear load)		
Bypass voltage range		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		Frequency protection range: ±10%		
Generator input		Support		
<b>OUTPUT</b>				
Rated voltage		380/400/415Vac, (3Ph+N+PE)		
Power factor		1.0		
Voltage regulation		±1%		
Output frequency	Line mode	Synchronize with input, when the input frequency > ±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz)		
	Bat. mode			
Crest factor		3:1		
Harmonic distortion (THDv)		≤1% with linear load; ≤3% with nonlinear load		
Efficiency		up to 97.1%		
<b>BATTERY</b>				
Battery voltage	VRLA battery	360Vdc~600Vdc (30~50pcs continuously adjustable, 40~50pcs no power derating, 36~39pcs output power factor 0.9, 32~35pcs output power factor 0.8, 30/31pcs output power factor 0.7)		
	Lithium battery			
Power module charge current		100A (Max.)		
<b>SYSTEM FEATURES</b>				
Transfer time		Utility to Battery: 0ms; Utility to bypass: 0ms		
Overload	Inverter mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter		
	Bypass mode			
Overheat		30°C: 135% overload for long term; 40°C: 125% overload for long term; >1000% overload for 100 ms		
Low battery voltage		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately		
Self-diagnostics		Alarm and Switch off		
Backfeed		Upon Power On and Software Control		
EPO (Optional)		Support		
Battery		Shut down UPS immediately (Turn to bypass optional)		
Noise suppression		Advanced Battery Management		
Audible & visual alarms		Complies with EN62040-3		
Status LED & LCD display		Line Failure, Battery Low, Overload, System Fault		
Reading on the LCD display		Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault		
Communication interface		Input, Output, Battery, Command, Setting, Maintenance		
		RS232, RS485, Parallel, LBS, BMS, Dry contact port, Relay card(Optional), SNMP card(Optional), Battery temperature sensor(Optional)		
<b>ENVIRONMENTAL</b>				
Operating temperature		0°C ~ 40°C		
Storage temperature		-25°C ~ 55°C		
Humidity range		0 ~ 95% (Non condensing)		
Altitude		< 1500m, derating required when > 1500m		
Noise level		< 70dB		
<b>PHYSICAL</b>				
Dimension	UPS cabinet (S)	800 × 1000 × 2000mm		
	UPS cabinet (F)			
W × D × H	Power module	440 × 755 × 130mm (3U)		
Net weight	UPS cabinet (S)	340kg	380kg	430kg
	UPS cabinet (F)	360kg	400kg	450kg
	Power module		56kg	
<b>STANDARDS</b>				
Safety		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)		

Specifications are subject to change without prior notice.

S: Without or only with one maintenance bypass breaker

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

**KSTAR**

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Add: CATL-KSTAR, XiaPu Economic Development Zone, FuJian, P.R. China

Add: Kstar Industrial Park, Yifeng County Industrial Park, Yichun, Jiangxi, P.R. China

Add: Kstar (Vietnam) Co., Ltd, in Anyang County, Haiphong City, Vietnam