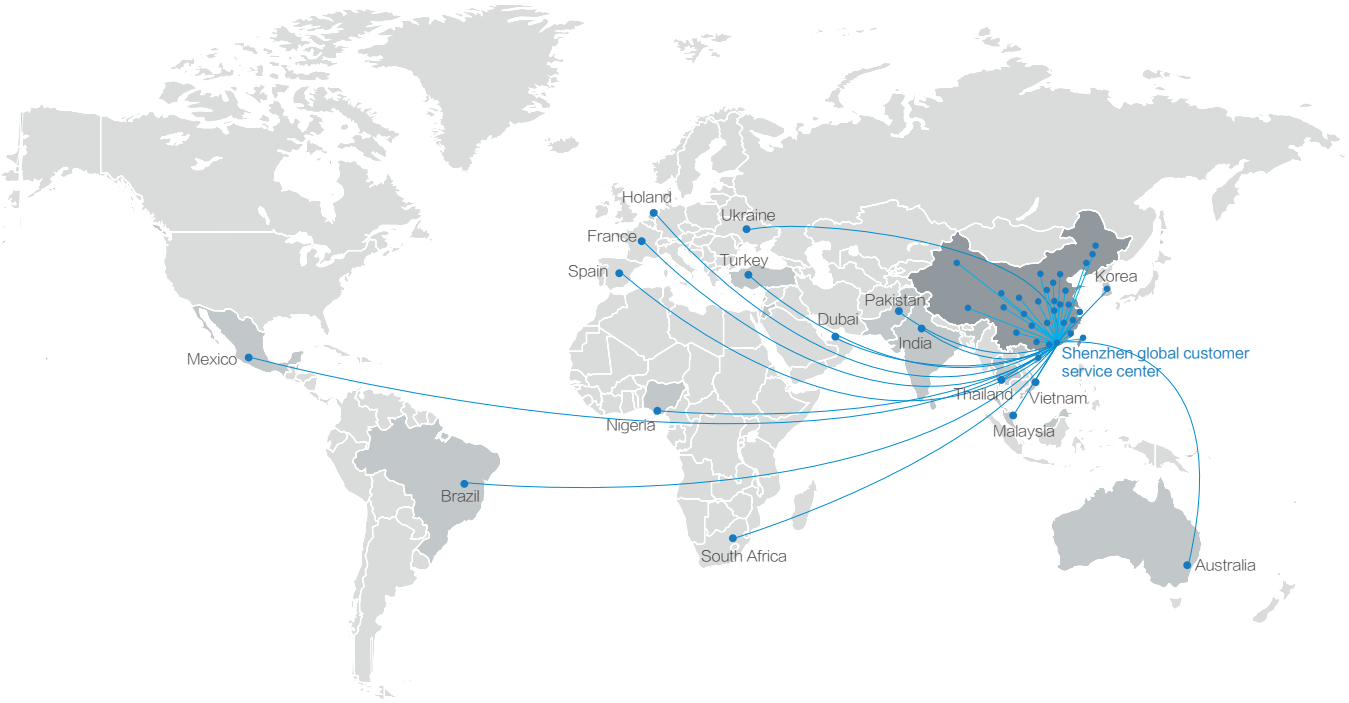
KSTAR

HPM3300E Modular Series
(40 ~ 60kVA)

KSTAR Industrial Park at Guangming Hi-Tech Zone, Shenzhen, China



COMPANY PROFILE

Founded in 1993, Shenzhen KSTAR Science & Technology Co., Ltd (Stock Code: 002518) is a National Torch Plan Key High-tech Enterprise, and also a pioneer of UPS industry and a total solution provider for Data Center Critical Infrastructure & Photovoltaic Inverter Systems in Mainland China. KSTAR is fully committed to the R&D and has been providing high-quality products with full service to over 150 countries and regions worldwide, leading the industrial development with innovation.

ISO9001

ISO14001

OHSAS18001

IECQ QC080000

Glonal Service Network

7 × 24 Response and Support

31 Domestic Service Centers
172 Domestic Service Stations

National Customer Service Hotline:
400-700-9662

17 Overseas Technical Service Centers
40 Overseas Service Engineers

KSTAR Industrial Park at Guangming industrial Zone,Shenzhen,China

KSTAR Industrial Park at Zhongkai Hi-Tech Zone,Huizhou,China

KSTAR Industrial Park at Guanlan Fuyuan industrial Zone,Shenzhen,China

KSTAR headquarters Software Park,Keji C.Rd.2nd,Hi-Tech industrial Zone,Shenzhen,China

CATL-KSTAR SCIENCE & & TECHNOLOGY CO., LTD.

Jiangxi Changxin Golden Sunshine Power Supply Co. LTD.

Modular design

· All units adopt modular design, including power module, bypass module, monitoring module, can be easily integrated

· 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 305V

· 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

Green and power saving

· High input power factor, it is up to 0.99

· 3-level topology design, efficiency is up to 96%

· THDi < 3% (100% linear load)

· The UPS will work in sleeping mode when the load is very small

LBS function

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

VRLA&Lithium battery supportable

· Compatible with VRLA or lithium battery

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

Compatible with generator

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

HPM3300E Subrack Modular Series

Technical Specifications:

Module Model	HPM3300E-RM-10		
Cabinet Model	HPM3300E-20	HPM3300E-40	HPM3300E-60
Cabinet capacity	10kVA~20kVA	10kVA~40kVA	10kVA~60kVA
Module capacity	10kVA		
Max. number	2	4	6
Module Model	**HPM3300E-RM-15**		
Cabinet Model	HPM3300E-30	HPM3300E-60	HPM3300E-90
Cabinet capacity	15kVA~30kVA	15kVA~60kVA	15kVA~90kVA
Module capacity	15kVA		
Max. number	2	4	6
Module Model	**HPM3300E-RM-20**		
Cabinet Model	HPM3300E-40	HPM3300E-80	HPM3300E-120
Cabinet capacity	20kVA~40kVA	20kVA~80kVA	20kVA~120kVA
Module capacity	20kVA		
Max. number	2	4	6
Module Model	**HPM3300E-RM-25**		
Cabinet Model	HPM3300E-50	HPM3300E-100	HPM3300E-150
Cabinet capacity	25kVA~50kVA	25kVA~100kVA	25kVA~150kVA
Module capacity	25kVA		
Max. number	2	4	6
Module Model	**HPM3300E-RM-30**		
Cabinet Model	HPM3300E-60	HPM3300E-120	HPM3300E-150
Cabinet capacity	30kVA~60kVA	30kVA~120kVA	30kVA~150kVA
Module capacity	30kVA		
Max. number	2	4	5+1
INPUT			
Nominal voltage	380/400/415Vac, (3Ph+N+PE)		
Operating voltage range	138~305Vac for 40% load; 305~485Vac 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%		
Power walk in	Support		
Generator input	Support		
OUTPUT			
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)		
Output frequency — Bat. mode	(50/60±0.1%)Hz		
Crest factor	3:1		
Harmonic distortion (THDv)	≤1% with linear load; ≤3% with nonlinear load		
Efficiency	up to 95.8%		
BATTERY			
Battery voltage	±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	18A (Max.)		
SYSTEM FEATURES			
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		
Overload — Bypass mode	30℃: 135% for long term; 40℃: 125% for long term; >1000%, 100ms		
Overheat	Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately		
Low battery voltage	Alarm and Switch off		
Self-diagnostics	Upon Power On and Software Control		
Backfeed protection	Support		
EPO (Optional)	Shut down UPS immediately (Turn to bypass optional)		
Battery	Advanced Battery Management		
Noise suppression	Complies with EN62040-3		
Audible & visual alarms	Line Failure, Battery Low, Overload, System Fault		
Status LED & LCD display	Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault		
Reading on the LCD display	Input, Output, Battery, Command, Setting, Maintenance		
Communication interface	RS232, RS485, Parallel, LBS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)		
ENVIRONMENTAL			
Operating temperature	0℃~40℃		
Storage temperature	-25℃~55℃		
Humidity range	0~95% (Non condensing)		
Altitude	<1500m, derating required when >1500m		
Noise level	<58dB	<60dB	<62dB
PHYSICAL			
Dimension W×D×H — UPS cabinet	485×850×353mm (8U)	485×850×575mm (13U)	485×850×752mm (17U)
Dimension W×D×H — Power module	440×620×86mm (2U)		
Net weight — UPS cabinet	69kg	79kg	98kg
Net weight — Power module	10kVA: 19kg; 15~30kVA: 21kg		
STANDARDS			
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)		

1. Specifications are subject to change without prior notice
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HPM3300E Subrack Modular Series

Technical Specifications:

Module Model		HPM3300E-RM-40		HPM3300E-RM-50	
Cabinet Model		HPM3300E-80	HPM3300E-120	HPM3300E-100	HPM3300E-150
Cabinet capacity		40kVA~80kVA	40kVA~120kVA	50kVA~100kVA	50kVA~150kVA
Module capacity		40kVA		50kVA	
Max. number		2+1	3	2+1	3
INPUT					
Nominal voltage		380/400/415Vac, (3Ph+N+PE)			
Operating voltage range		138~305Vac for 40% load; 305~485Vac 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%			
Power walk in		Support			
Generator input		Support			
OUTPUT					
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	(50/60±0.1%)Hz			
Crest factor		3:1			
Harmonic distortion (THDv)		≤1% with linear load; ≤3% with nonlinear load			
Efficiency		up to 96%			
BATTERY					
Battery voltage		±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		20A (Max.)			
SYSTEM FEATURES					
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	30℃: 135% for long term; 40℃: 125% for long term; >1000%, 100ms			
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately			
Low battery voltage		Alarm and Switch off			
Self-diagnostics		Upon Power On and Software Control			
Backfeed protection		Support			
EPO (Optional)		Shut down UPS immediately (Turn to bypass optional)			
Battery		Advanced Battery Management			
Noise suppression		Complies with EN62040-3			
Audible & visual alarms		Line Failure, Battery Low, Overload, System Fault			
Status LED & LCD display		Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault			
Reading on the LCD display		Input, Output, Battery, Command, Setting, Maintenance			
Communication interface		RS232, RS485, Parallel, LBS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)			
ENVIRONMENTAL					
Operating temperature		0℃~40℃			
Storage temperature		-25℃~55℃			
Humidity range		0~95% (Non condensing)			
Altitude		<1500m, derating required when >1500m			
Noise level		<56dB	<58dB	<60dB	<62dB
PHYSICAL					
Dimension W×D×H	UPS cabinet	485×850×620mm (14U)			
	Power module	440×620×130mm (3U)			
Net weight	UPS cabinet	103kg		113kg	
	Power module	32kg		34kg	
STANDARDS					
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)			

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Technical Specifications:

Module Model	HPM3300E-RM-40	HPM3300E-RM-50	HPM3300E-RM-60
Cabinet Model	HPM3300E-80/120/200/320	HPM3300E-200/250/300/400/500/600/800/1000	HPM3300E-300/600/840/1080/1200
Cabinet capacity	80kVA~320kVA	200kVA~1000kVA	300kVA~1200kVA
Module capacity	40kVA	50kVA	60kVA
Max. number	2/3/5/8	4/5/6/8/10/12/16/20	5/10/14/18/20
INPUT			
Nominal voltage	380/400/415Vac, (3Ph+N+PE)		
Operating voltage range	138~305Vac for 40% Load; 305~485Vac 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 tracking range	±10%		
Power walk in	Support		
Generator input	Support		
OUTPUT			
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)		
Output frequency — Bat. mode	(50/60±0.1%)Hz		
Crest factor	3:1		
Harmonic distortion (THDv)	≤2% with linear load; ≤4% with nonlinear load		
Efficiency	Up to 96%		
BATTERY			
Battery voltage	360Vdc~600Vdc		
Battery type	VRLA / Li		
Power module charge current	20A (Max.)		
SYSTEM FEATURES			
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		
Overload — Bypass mode	30℃: 135% for long term; 40℃: 125% for long term; >1000%, 100ms		
Overheat	Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately		
Low battery voltage	Alarm and Switch off		
Self-diagnostics	Upon Power On and Software Control		
Backfeed protection	Support		
EPO (Optional)	Shut down UPS immediately (Turn to bypass optional)		
Battery	Advanced Battery Management		
Noise suppression	Complies with EN62040-3		
Audible & visual alarms	Line Failure, Battery Low, Overload, System Fault		
Status LED & LCD display	Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault		
Reading on the LCD display	Input, Output, Battery, Command, Setting, Maintenance		
Communication interface	RS232, RS485, Parallel, LBS, BMS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)		
ENVIRONMENTAL			
Operating temperature	0℃~40℃		
Storage temperature	-25℃~55℃		
Humidity range	0~95% (Non condensing)		
Altitude	<1000m, derating required when >1000m		
Noise level	<66dB	<73dB	
PHYSICAL			
Dimension W×D×H — UPS cabinet (S/F)	80/120kVA: 600×850×1200mm 200/320kVA: 600×850×2000mm	200/250/300/400kVA: 600×850×2000mm 500/600kVA: 1200×850×2000mm 800/1000kVA: 2000×850×2000mm	300kVA: 600×850×2000mm 600kVA: 1200×850×2000mm 840/1080kVA: 2000×850×2000mm 1200kVA: 2200×850×2000mm
Dimension W×D×H — Power module	440×620×130mm		
Net weight — UPS cabinet	80kVA: 155kg; 120kVA: 165kg; 200kVA: 270kg; 320kVA: 290kg	200kVA: 270kg; 250kVA: 280kg; 300kVA: 290kg; 400kVA: 310kg; 500kVA: 650kg; 600kVA: 720kg; 800kVA: 980kg; 1000kVA: 1080kg	300kVA: 290kg; 600kVA: 720kg; 800kVA: 980kg; 1080kVA: 1080kg; 1200kVA: 1200kg
Net weight — Power module	33kg	34kg	35kg
STANDARDS			
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)		

S: Without or only with one maintenance bypass breaker
F: With mains, bypass, maintenance bypass and output breakers
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