KSTAR

YDC3300 Series
10kVA ~ 200kVA

Company Profile

Comprehensive Introduction

Shenzhen Kstar Science and Technology Co., Ltd., listed under the stock code 002518, traces its roots back to 1993 and made its public debut on the Shenzhen Stock Exchange in 2010. Distinguished as a national enterprise technology center and honored as a national technological innovation demonstration enterprise, it has attained the prestigious status of a national high-tech enterprise. This Company shines as a standout player in the dynamic landscape of intelligent network energy supply services, particularly within the spheres of Internet Data Centers (IDC) and new energy. Shenzhen Kstar specializes in the complete spectrum of activities, from research and development to production and sales, focusing on critical infrastructure products for data centers, photovoltaic power generation systems , energy storage systems, and electric vehicle charging solutions. The product portfolio is extensive, featuring uninterruptible power supplies (UPS), precision air conditioners, batteries, lithium-ion UPS systems, network server cabinets, power and environment monitoring systems, photovoltaic grid-connected inverters, household energy storage systems, energy storage converters, lithium battery storage system, EV charger modules, new energy vehicle charging equipment, and more. The unwavering commitment of Shenzhen Kstar lies in delivering comprehensive life cycle solutions for intelligent network energy.

Industrial Distribution

Kstar Group boasts a workforce of over 4200+ employees, with a notable contingent of 630+ dedicated to research and development. The group, headquartered in Nanshan, Shenzhen, China, operates two significant research and development centers and seven production bases. Kstar Group is dedicated to delivering high-quality products and comprehensive services, reaching users in more than 180 countries and regions across the globe.

Data Center Critical Infrastructure Products

As one of the pioneering domestic companies in the data center product sector, our company has emerged as a leader with the most comprehensive range of data center infrastructure products after years of dedicated development. Our independently developed data center products have evolved into a diversified and integrated portfolio, encompassing uninterruptible power supplies (UPS), high-voltage DC power supplies, precision air conditioners, power supply system for communications, precision power distribution, batteries, network server cabinets, and power and environment monitoring equipment and systems. These cutting-edge products find widespread application across various industries such as finance, communications, IDC, Internet, government agencies, rail transit, industrial manufacturing, electric power, medical care, education, and more. Our primary goal is to ensure the security of data center information and uphold its stable, reliable, and continuous operation. Responding to the nuanced requirements of specific scenarios, our company has introduced industrial UPS models tailored for industrial environment applications, garnering success in related industries. In addressing the unique demands of industry data center construction, we leverage standardized and modular data center products. By integrating cabinet systems, sealed cold aisle containment systems, power supply and distribution systems, cooling systems, and monitoring systems, we offer highly integrated data center solutions. This approach provides users with comprehensive, one-stop data center solutions, including micro data center solutions (IDU), small and micro data center solutions (IDM), large and medium-sized data center solutions (IDR), integrated outdoor cabinets (IOU), and prefabricated containerized data centers (IDB). Our data center products and integrated construction solutions effectively address users' needs for energy efficiency, rapid deployment, and improved operation and maintenance efficiency.

2 R&D centers

Shenzhen and Fuzhou

Shenzhen R&D Center

Fuzhou R&D Center

1993
- Company Establishment
- Recognition as a National High-tech Enterprise

1998
- Completion and commencement of operations in Guanlan Industrial Park, Shenzhen

2009
- Completion and commencement of operations in Zhongkai Industrial Park, Huizhou
- Enter the Renewable Energy Market

2010
- Listing on the Shenzhen Stock Exchange (Stock Code: 002518)

7 Manufacturing Base

Shenzhen Guangming; Huizhou, Guangdong; Shenzhen Guanlan; Ningde in Fujian Province; Vietnam Kstar; Yichun in Jiangxi Province; Wuxi, Jiangsu

Kstar Industrial Park, Guangming High-tech Zone, Shenzhen

Kstar Industrial Park, Zhongkai High-tech Zone, Huizhou City, Guangdong

CATL-KSTAR Science and Technology Co., Ltd.

Kstar Industrial Park, Fuyuan Industrial Zone, Guanlan, Shenzhen

Kstar (Vietnam) Co., Ltd.

Jiangxi Changxin Golden Sun Power Co., Ltd.

Jiangsu Kstar New Energy Technology Co., Ltd.

2013
- Completion and commencement of operations in Guangming Industrial Park, Shenzhen
- Enter the Electric Vehicle Market

2015
- Certified as National Enterprise Technology Center

2016
- Recognized as a National Technology Innovation Demonstration Enterprise

2018
- Passed CNAS laboratory certification

2019
- Establish Joint Venture Factory with CATL

2020
- Passed CNAS laboratory certification

2021
- Opened Jiangxi Changxin Gold Sunshine Power Supply Co., Ltd.

2023
- Vietnam Factory Planned to Put Into Production Soon
- National Green Factory
- Witness Test Lab Accreditation by TÜV Rheinland

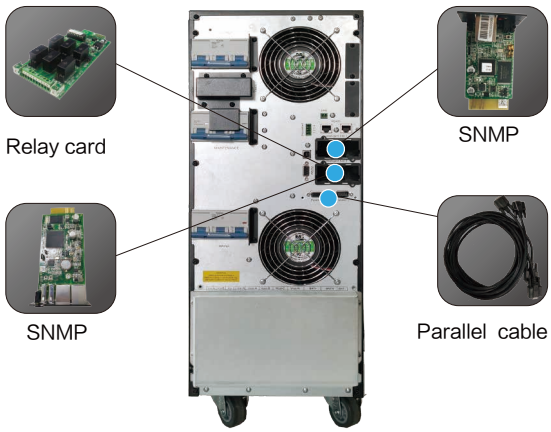
YDC3300-Ⅱ Series 3:3

3:3 phase PF 0.9 (PF 1.0 optional)

Power range: 10kVA~80kVA

Features

- High power density design
- N+X parallel redundancy,support maximum 4 units in parallel
- Online double conversion with DSP control
- Input current harmonic: <3%
- Wide input voltage range: 208~478Vac
- Wide input frequency range 40~70Hz
- Optimization battery group, the quantity of battery
  10~30kVA: 16/18/20pcs (30~50pcs supportable)
  40kVA: 30~50pcs
- Maximum charging current up to 20A (Settable)
- Dual input source (Optional for standard unit)
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display LCD are optional
- Versatile LCD human-computer interface
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Cold start
- The output can meet 100% unbalanced load
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (Optional), Relay card (Optional), Battery temperature sensor (Optional)



Technical Specifications:

MODEL		YDC3310S/H	YDC3315S/H	YDC3320S/H	YDC3330S/H	YDC3340S/H	YDC3380H
Capacity		10kVA / 9kW	15kVA / 13.5kW	20kVA / 18kW	30kVA / 27kW	40kVA / 36kW	80kVA / 72kW
		10kVA / 10kW	15kVA / 15kW	20kVA / 20kW	30kVA / 30kW	40kVA / 40kW	/
INPUT							
Nominal voltage		380/400/415Vac (3Ph+N+PE)					
Operating voltage range		305～478Vac (Full load); 208～478Vac (50% load)					
Operating frequency range		40～70Hz (50/60Hz Auto-Sensing)					
Power factor		≥0.99					
Bypass voltage range		Max.voltage: 220V: +25% (Optional +10%, +15%, +20%) 230V: +20% (Optional +10%, +15%) 240V: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%)					
Frequency protection range		50/60Hz±10%					
ECO range		Same as bypass					
Harmonic distortion (THDi)		≤3% Linear load					
OUTPUT							
Output voltage		380/400/415Vac (3Ph+N+PE)					
Voltage regulation		±1%					
Power factor		0.9					
Output frequency	Line mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)					
	Bat. mode	50/60 (±0.1%)Hz					
Transfer time	AC mode to Bat.mode	0ms					
	Inverter to Bypass	0ms					
Output waveform		Pure Sinewave					
Crest factor		3:1					
Harmonic distortion (THDv)		≤2% Linear load ≤5% Non linear load					
Overload	AC mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass					
	Bat.mode	≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down					
EFFICIENCY							
Efficiency		Up to 93.5%	Up to 94.5%				
BATTERY							
Battery voltage	Standard unit	Chassis 1: ±120Vdc (20pcs 9Ah)(20pcs 7Ah, 2×20pcs 7/9Ah, 3×20pcs 7/9Ah optional) Chassis 2: ±96Vdc (16pcs 9Ah)	±120Vdc (2×20pcs 9Ah) (2×20pcs 7Ah, 3×20pcs 7/9Ah optional)		±120Vdc(3×20pcs 9Ah)(3×20pcs 7Ah optional)	±180Vdc(2×30pcs 9Ah)(2×30pcs 7Ah optional)	/
	Long run unit	10~30kVA: ±96/108/120Vdc; battery quantity (16~20pcs, 16pcs default, Standard unit and 20pcs no power derating; 18pcs output power factor 0.8/0.9; 16pcs output power factor 0.7/0.8)				40kVA: ±180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs)	±192V/±204V/±216V/±228V/±240Vdc (32/34/36/38/40pcs optional)
		±180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs supportable)					
Charge Current	Standard unit	1.35A (2.7A Optional)	2.7A		4.05A	2.7A	/
	Long run unit	14A (Max.)	16A (Max.)	18A (Max.)	20A (Max.)	20A (Max.)	30A (Max.)
PHYSICAL							
Dimension W×D×H	Standard unit	Chassis 1: 250×900×868mm Chassis 2: 250×645×715mm	250×900×868mm				/
	Long run unit	250×580×655mm					360×828×868mm
Net weight	Standard unit	Chassis 1: 129kg (20pcs 9Ah) Chassis 2: 80kg (16pcs 9Ah)	186kg (2×20pcs 9Ah)	187kg (2×20pcs 9Ah)	236kg (3×20pcs 9Ah)	239kg (2×30pcs 9Ah)	/
	Long run unit	35kg	39kg	40kg	43kg	46kg	122kg
ENVIRONMENTAL							
Operating temperature		0～40℃					
Storage temperature		-25～55℃ (No battery)					
Humidity range		0～95% (Non condensing)					
Altitude		<1500m, derating required when>1500m					
Noise level		<55dB		<58dB	<61dB	<64dB	<63dB
STANDARDS							
Safety		IEC/EN 62040-1, IEC/EN 62477-1					
EMC		IEC/EN 62040-2 (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, IEC 61000-2-2)					

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BT 10-40kVA battery pack specification

MODEL	MP31 BT40120N	YDC3320 BT80120N	YDC3330 BT80120N	YDC3340 BT60180N	YDC3340 BT80240N
BATTERY SYSTEM					
Battery type	VRLA (Lead acid maintenance free battery)				
Typical battery recharging time	6~8 hours (To 90% of full capacity)				
Typical battery life	3~5 years, depend on discharing cycle and ambient temperature				
System voltage	±120Vdc			±180Vdc	±240Vdc
Battery quantity	2×20 PCS	4×20 PCS		2×30 PCS	2×40 PCS
Capacity	7Ah/9Ah (12V)				
PHYSICAL					
Dimension W×D×H	250×619×616mm(With wheel)	250×900×868mm (With wheel)			
Net weight	122kg/134kg	244kg/265kg		200kg/215kg	244kg/265kg
ENVIRONMENT					
Safety	CE				
Operating environment	0℃~40℃				
Relative humidity	0~95% (Non condensing)				
Noise level	<40dB at 1 Meter				

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3. Remark: YDC3340 BT80240N "YDC3340" means series; "BT" means Battery Tower cabinet; "80" means battery number inside the cabinet; "240" means the battery system voltage; "N" means battery with neutral connection.

YDC3300S Series

Online Transformerless UPS series
Power range: 50~80kVA (3-Level PF: 1.0)

Mode: 3 phase input and 3 phase output

High reliability design

- Wide input voltage range 138-485Vac (Phase voltage 80-280Vac), no derating when input voltage ⩾ 305Vac

Power saving

- High input power factor, up to 0.99
- 3-level inverter topology, the efficiency can be up to 95.5%

Parallel redundancy function

- Support parallel expanded operation: maximum is 6 units
- Support sharing batteries for the UPS in parallel

Build-in battery design

- Integrated solution, no additional battery cabinet is required, saving construction costs
- Maximum 6 groups of internal batteries, selectable according to autonomy time's requirement

Strong load capacity

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

Compatible with generator

- Power Walk in function, reduces the start current impact to system, and reduce the capacity of generator

LBS function

- LBS function can realize 2 independent UPSs work in synchronization, and enhance the reliability of the system

Intelligent management

- Support USB, RS485, RS232, SNMP and dry contact card

Technical Specifications:

MODEL		YDC3350S	YDC3360S	YDC3380S
Capacity		50kVA	60kVA	80kVA
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		40~70Hz (50/60Hz Auto-Sensing)		
Power factor		≥0.99		
Harmonic distortion (THDi)		≤3% 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%)		
Frequency protection range		50/60Hz ± 10%		
Generator input		Support		
OUTPUT				
Output voltage		380/400/415Vac (3Ph + N + PE)		
Voltage regulation		± 1%		
Power factor		1.0		
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 ± 0.2%)Hz		
Crest factor		3:1		
Harmonic distortion (THDv)		≤2% with linear load ≤4% with non linear load		
Overload	Inverter mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately shut down inverter		
	Bypass mode	30℃: 135% for long term; 40℃: 125% for long term; >1000%, 100ms		
EFFICIENCY				
Efficiency		Up to 95.5%		
BATTERY				
Battery voltage		± 240Vdc (6 × 40pcs 9Ah/12V)		
Charge current		20A (Max.)	20A (Max.)	40A (Max.)
SYSTEM FEATURES				
Transfer time		Utility to Battery: 0ms; Utility to Bypass: 0ms		
Backfeed protection		Support		
Alarm		Overload, utility abnormal, UPS fault, battery low, etc		
Protection		Short circuit, overload, over temperature, battery low, fan fault alarm		
Remote LCD		Support		
Communication		USB, RS232, RS485, parallel port, dry contact, intelligent slot, LBS, SNMP card (Optional), relay card (Optional)		
ENVIRONMENTAL				
Operating temperature		0℃ ~ 40℃		
Storage temperature		-25℃ ~ 55℃ (No battery)		
Humidity range		0 ~ 95% (Non condensing)		
Altitude		<1000m, derating required when >1000m		
Noise level		<58dB	<60dB	<62dB
PHYSICAL				
Dimension W × D × H		600 × 1000 × 2000mm		
Net weight		740kg	950kg	1000kg
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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YDC3300H Series

Online Transformerless UPS series
Power range : 50～200kVA (3-Level PF: 1.0)

Mode: 3 phase input and 3 phase output

High reliability design

- Wide input voltage range 138-485Vac (Phase voltage 80-280Vac), no derating when input voltage ≥ 305Vac

Power saving

- High input power factor, it can be up to 0.99
- 3-level inverter topology, the efficiency can be up to 95.5%

Parallel redundancy function

- Support parallel expanded operation: maximum is 6 units
- Support sharing batteries for the UPS in parallel

Compatible with generator

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

Strong load capacity

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

VRLA&Lithium battery supportable

- Compatible with VRLA or lithium battery

LBS function

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

Intelligent management

- Support USB, RS485, RS232, BMS, SNMP, dry contact card

Technical Specifications:

MODEL		YDC3350H	YDC3360H	YDC3380H	YDC33100H	YDC33120H	YDC33150H	YDC33160H	YDC33180H	YDC33200H
Capacity		50kVA	60kVA	80kVA	100kVA	120kVA	150kVA	160kVA	180kVA	200kVA
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		40 ~ 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%)								
Frequency protection range		50/60Hz ± 10%								
Generator input		Support								
OUTPUT										
Output voltage		380/400/415Vac (3Ph + N + PE)								
Voltage regulation		± 1%								
Power factor		1.0								
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 ± 0.2%)Hz								
Crest factor		3:1								
Harmonic distortion (THDv)		≤2% with linear load; ≤4% with non linear load								
Overload	Inverter mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter								≤110% 60min, ≤125% 1min, >125% 1.2s shut down inverter
	Bypass mode	30℃: 135% for long term; 40℃: 125% for long term; >1000%, 100ms								
EFFICIENCY										
Efficiency		Up to 95.5%								
BATTERY										
Battery voltage		360Vdc ~ 600Vdc								
Battery type		VRLA / Li								
Charge Current		20A (Max.)		40A (Max.)			60A (Max.)			
SYSTEM FEATURES										
Transfer time		Utility to Battery: 0ms; Utility to Bypass: 0ms								
Backfeed protection		Support								
Alarm		Overload, utility abnormal, UPS fault, battery low, etc								
Protection		Short circuit, overload, over temperature, battery low, fan fault alarm								
Remote LCD		Support								
Communication		USB, RS232, RS485, BMS, parallel port, dry contact, intelligent slot, LBS, SNMP card (Optional), relay card (Optional)								
ENVIRONMENTAL										
Operating temperature		0℃ ~ 40℃								
Storage temperature		-25℃ ~ 55℃ (No battery)								
Humidity range		0 ~ 95% (Non condensing)								
Altitude		< 1000m, derating required when > 1000m								
Noise level		< 55dB	< 58dB	< 60dB	< 62dB		< 63dB		< 64dB	< 66dB
PHYSICAL										
Dimension W × D × H		250 × 828 × 868mm		442 × 850 × 1200mm						
Net weight		80kg	83kg	144kg	147kg	152kg	190kg	200kg	220kg	230kg
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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