

SANTAK® CASTLE SERIES ON-LINE UPS

# CASTLE UPS

3C10-20KS

Power Management Expert



 **SANTAK**

# Crucial moment, Powering your business

Santak UPS provide reliable protection for critical equipment and data

- Higher power density, more power output
- Wider input range, higher efficiency
- Ultra low noise, multiple configurable options
- High quality LCD with wide view

## Product Introduction

3C10KS~20KS is the leading double conversion topology on-line UPS from Santak. It inherits the high quality standard of the previous Castle series generations, and provides much stronger performance.

It offers ideal solution for the major power quality problems such as grid power failure, under voltage, over voltage, sag, surge, line noise, frequency variation, switching transient, harmonic distortion efficiently, and provides a reliable power protection to the customer equipment.

Castle 3C 10KS-20KS product provides high adaptability and flexible configuration, and it is applied with leading DSP control technology and offer multiple and extendable options to meet the increasing customized application demand.

### Castle series 3C10-20KS UPS

Nominal power rating: 10/15/20kVA

Nominal frequency : 50/60HZ

Topology: Double conversion on-line UPS

### Typical application

- Small data center of SMB, branch of big enterprise, branch of Bank etc.
- Storage, network equipment, VoIP, communication equipment, automatic equipment, office terminals
- Precision instrument and equipment

## Higher performance

#### High output factor 0.9

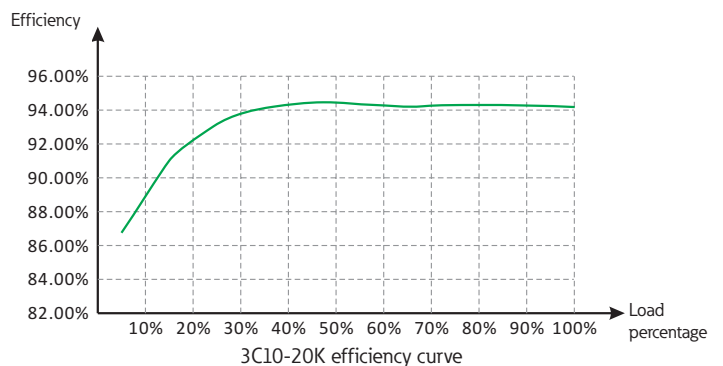
- Power more load, or provide higher reliability with same load

#### Input power factor is higher than 0.99

- 3:1 15/20KVA support 3 phase PFC, and input THDI < 5%
- 1% output voltage tolerance, 0.1% output frequency tolerance, 1% tolerance in parallel current sharing

#### High efficiency 94%

- Starting from 35% load, UPS efficiency will reach 94%



# High Flexibility, High Extendability.

## Battery quantity adjustable

- 16/18/20 pcs battery adjustable
- Convenient to meet the longer backup time need with lower system cost

## Recharger current adjustable

- Standard recharge current is 4A
- Extendable up to 8A recharger, support longer backup time, fit for larger capacity battery.(Need to enquire plant before ordering)

## Input topology adjustable

- Support both 3 phase input or single phase input

# Functionalities

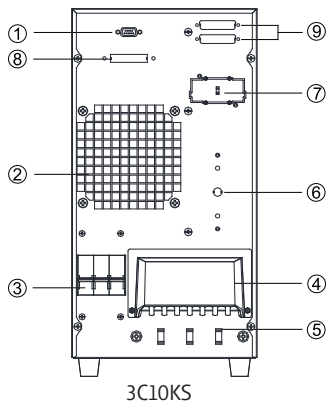
## Leading parallel technology

- Mature and stable parallel control technology offer best current sharing tolerance: 1%
- Select trip technology separates single fault failure and improve the system availability
- Flexible expansion and redundancy management, meet all kinds of extension requirement after system installation
- Parallel up to 3 units

## Flexible utility usage mode

- Provide higher system availability in ONLINE mode
- Provide higher efficiency in ECO mode
- Provide stable output in CONVERTER mode

# Rear panel layout



- ① RS232 port
- ② Fan
- ③ Input breaker
- ④ Terminal block cover
- ⑤ Wire collection shelf
- ⑥ Maintenance bypass switch (optional)
- ⑦ Communication slot box
- ⑧ EPO (optional)
- ⑨ Parallel port (optional)

# STK CASTLE BATTERIES

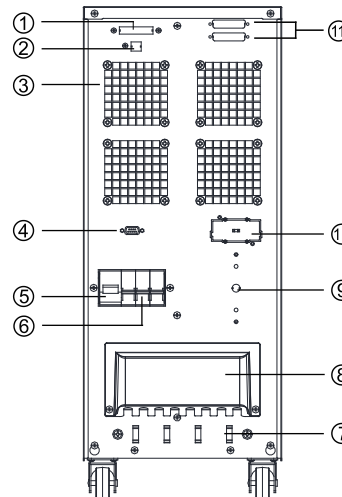
—Maintenance-free Sealed Lead-acid UPS Batteries

## Product Introduction

CASTLE C12V series batteries are being designed with more focusing on compatibility with SANTAK UPS and system. Compare to other batteries in the market, CASTLE C12V series batteries can provide longer float charging life time and more powerful discharging characteristics. It is an ideal product for SANTAK UPS backup application.

## Product Features

- Long-life Design
- Excellent High Rate Discharge Performance
- Low Self-discharge Rate
- Best Compatibility With UPS
- High Security
- High Consistency
- Convenient Installation and Maintenance



- ① EPO (optional)
- ② USB port (optional)
- ③ Fan
- ④ RS232 port
- ⑤ Maintenance bypass switch
- ⑥ Input breaker
- ⑦ Wire collection shelf
- ⑧ Terminal block cover
- ⑨ Maintenance bypass switch (optional)
- ⑩ Communication slot box
- ⑪ Parallel port (optional)



# Product Specification

Model		10KS	15KS	20KS
Power rating	VA/W	10KVA/9KW	15KVA/13.5KW	20KVA/18KW
Input	Input wiring	Three phase or Single phase with ground(3:1 or 1:1)		
	Input voltage range	208VAC-476VAC(three phase)/120VAC-275VAC (signal phase)		
	Input frequency range	40-70Hz		
	Input power factor	≥ 0.99		
Output	Output voltage	220/230/240VAC		
	Output voltage regulation	±1%		
	Output wiring	Single phase with ground		
	Output frequency range	50/60Hz+/-0.2Hz(battery mode)		
	Output THDV	<2%(linear load)		
		<4%(non-linear load)		
	Output waveform	Pure sinewave		
	Crest factor	3:1		
Overload capability	10min@105%~125% load;30s@125%~150% load;500ms@>150% load			
Efficiency	Line mode	>93.5%		
	ECO mode	>98%		
Battery and charger	Battery voltage	192VDC	192VDC/216VDC/240VDC optional	
	Battery quantity	16PCS(External)	default 16PCS(External),16/18/20PCS adjustment	
	Battery capacity and Backup time	Depends on customer configuration		
	Recharge current	4A		
Parallel	Parallel function	Up to 3		
Display	LCD+LED	load rating/battery capacity/input/output/operating mode/Fault code		
Communication and monitoring	Communication port	RS232 standard offer, USB optional		
	Extendable communication card	Dry contact card, USB card, MODBUS card, NMC card are optional		
	Software	Winpower		
Physical parameters	Product dimension(W*H*D)mm	212*500*420	248*500*565	
	Product weight(Kg)	16.9	31	
Environment	Operation temperature	0~40° C		
	Humidity	0~95%(non-condensing)		
	Audible noise	<50dB@1 meter <sup>1</sup>		
Certification and Standard		IEC61000,IEC62040,CE		

Note:

1. Noise level may vary with equipment, configuration, temperature, etc.



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