**SANTAK® CASTLE SERIES ON-LINE UPS** CASTLEUPS 3C10-20KS Power Management Expert





# **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

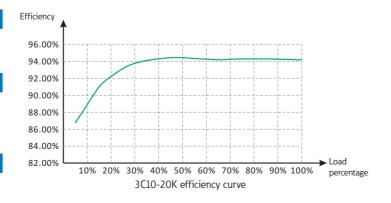
· Power more load, or provide higher reliability with same

# 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. STK CASTLE BATTERIES

#### Battery quantity adjustable

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

#### 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 seperates 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

-Maintenance-free Sealed Lead-acid UPS Batteries

#### **Product Introduction**

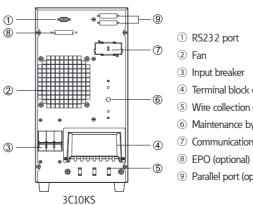
CASTLE C12V series batteries are being designed with more focusing on compatibility with SANTAK UPS and system. Compare to other batteries in the market, CASTLE C12V series batteries can provide longer float charging life time and more powerful discharging characteristics. It is an ideal product for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

#### **Product Features**

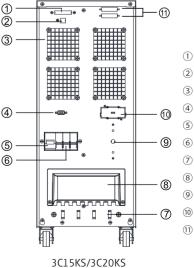
- · Long-life Design
- Excellent High Rate Discharge Performance
- Low Self-discharge Rate
- Best Compatibility With UPS
- High Security
- · High Consistency
- Convenient Installation and Maintenance



# Rear panel layout



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



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

# **Product Specification**

Model	10KS	15KS	20KS
Power rating	10KVA/9KW	15KVA/13.5KW	20KVA/18KW
Input and ouput connections	1:1 or 3:1		
Electrical performance			
Product topology	Double conversion topology on-line UPS		
Input voltage	380V/220V		
Input voltage range	120~275V (176~275V @ full load)		
Input power factor	>0.95(single phase input)	>0.99	
Input frequnecy range	40Hz-70Hz, 50/60HZ automatic adaptable		
Output voltage	220V/230V/240V ±1%		
Output THDV	< 2% @ linear load		
Efficiency	>93.5% (line mode), >98% (ECO mode)		
Overload capability	10min@ 105% $\sim$ 125% load, 30S@ 125% $\sim$ 150% load, 500mS@ >150% load		
Parallel	UP to 3 units		
Battery voltage	4A 4A(8A solution need to enquire plant before ordering)		
Recharge current			
Input	Terminal block		
Output	Terminal block		
Display and communication			
Display	LCD		
Communication port	RS232 stanard offer, USB optional		
Extendable communication card	Dry Contact Card, USB card, MODBUS card and NMC card are optional		
Software	Winpower		
Operating environment, regula	tion and standard		
Operating temperature	0-40°C		
Audible noise	<50dB @ 1 meters <sup>1</sup>		
Safety	IEC/EN62040-1		
EMC	IEC/EN62040-2, IEC 61000		
Regulations	CE		
Physical parameters			
Product dimension WxDxH (mm)	212*500*420	248*500*565	
Product weight (Kg)	16.9	31	31

#### Note:

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







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