



SANTAK® CASTLE SERIES ON-LINE UPS

CASTLE UPS

1-3kVA



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

Castle 1~3kVA 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 1~3kVA 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.

Comply with generator



Wide
Input voltage
range
115-300VAC

Adaptable
to
Harsh
environment

Compatible
with
Generator

Ultra-low
noise
<40 dB

Configurable
Backup time

Castle 1~3kVA MAINLY APPLIED IN

IT and network equipment

- Small server or workstation
- Switches and monitoring system

MOEM and automatic control system

- ATM, ticket machine
- Electricity and railway signal system, SCADA system

Office equipment

- computer, printer
- scanner, POS equipment

HIGH FLEXIBILITY, HIGH EXTENDABILITY

Safe And Reliable

- Best selling UPS and most widely installed on-line UPS, more than 30 years experience, perfectly match in mutiple utility environment

- Professional digital control design technology, strong power semiconductors, Triple protection from hardware and firmware design, safer and more reliable

Green Power Design, Energy Saving

- Output power factor up to 0.9, providing more power
- High efficiency design, save the operating cost, reduce the carbon emissions
- Green and environment protection design, meet all strict standards

Easy Use, Easy Extension

- Easy battery configuration and can meet different backup time requirement
- Intelligent and real time battery monitoring
- Multiple options, support different applications

Castle 1~3kVA is widely applied in different places

- Harsh environment in high altitudes area
- Remote area with poor grid power
- Coastal area with high humidity and high temperature
- Middle and big cities under power supply shortage pressure
- Castle 1~3kVA always provides safe and reliable protection to your equipment



Castle 1~3kVA UPS Product Specification

Model			Castle 1K	Castle 1KS	Castle 2K	Castle 2KS	Castle 3K	Castle 3KS
Rating	VA/W		1000VA/900W		2000VA/1800W		3000VA/2700W	
Input	Input Voltage Range		100 ~ 300 VAC					
	Frequency Range		40 Hz - 70 Hz					
	Input Wiring		Single phase with ground					
	input power factor		0.99					
	Output Power Factor		0.9					
Output	Nominal Output Voltage		220/230/240VAC					
	Voltage Regulation		1%					
	Frequency Range (Battery Mode)		50 / 60 ±0.05Hz					
	Outlet	IEC model	IEC C13 *4	IEC C13 *3	IEC C13 *4	IEC C13 *6	IEC C13*4+C19*1	IEC C13 *3+ terminal blocker
		Schuko model	Schuko*3	NA	Schuko*4	NA	Schuko*4	NA
		NEMA model	NEMA*4	NA	NEMA*4	NA	NEMA*4	NA
		Universal model	Universal*3	Universal*1	Universal*4	Universal*2+IEC C13*1	Universal*4	Universal*2+IEC C19*1
	Current Crest Ratio		3:1					
	Voltage Distortion (THDv)		< 1% @ linear load, < 5%@ non-linear load					
Output Waveform		Pure sine wave						
Efficiency	Inverter Mode		>89%		>91%		>91%	
	ECO Mode		>97%					
Battery	Battery Type		12V / 9Ah	External batteries required	12V / 9Ah	External batteries required	12V / 9Ah	External batteries required
	Number of Internal Battery		2		4		6	
	Rated Battery Voltage		24V		48V		72V	
	Backup Time (@ FullLoad)		> 3.5 mins	depends on customer configuration	> 3.5 mins	depends on customer configuration	>3.5min	depends on customer configuration
	Recharge Time (to 90%)		4 hours		4 hours		4 hours	
	Charging Current		1.5A	6A	1.5A	6A	1.5A	6A
Transfer Time	Battery Mode <-->InverterMode		0ms					
	Inverter Mode <-->BypassMode		4ms (typical)					
Display	LCD		load rating / battery capacity / input / output / operating mode					
Dimension	WxHxD (mm)		144x228x356	102x228x346	190x327x399	102x327x390	190x327x399	102x327x390
Net Weight			9.2 kg	3.9 kg	17.4 kg	6.4 kg	22.7 kg	6.4 kg
Environment	Operating Temperature		0~40℃					
	Noise Level ①		<40dB@1 meter					
Interface	RS232		IEC model and UNIVERSAL model: RS232; SCHUKO model and NEMA model: USB+EPO, no RS232					
	Communication Slot		Yes, comply optional cards NMC, CMC, AS400 card					

Note:

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

* All internal batteries are default as STK brand, any other battery brand might be applied without prior notice;

* NEMA model and UNIVERSAL model are not conformed with CE Standard;



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SANTAK® CASTLE SERIES ON-LINE UPS

CASTLE UPS

6-10kVA



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- 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

Castle 6-10K(S) 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 C6-10K(S) 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.

PRODUCT PERFORMANCE

Most Widely Installed, Safe And Reliable

- Brand new power electronic design and thermal design. Through applying strong power semiconductors and mature DSP control technology, it will provide the uninterrupted power with higher reliability.

High Power Factor

- Output power factor is increasing from 0.8 to 0.9 based on former generation. Comparing with traditional UPS, it offers 26% more power.
- Innovative thermal design, smaller volume with higher power density.

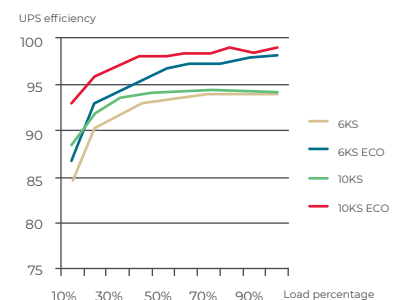


High Efficiency, Strong Adaptability

- Full load efficiency is up to 94%, and half load efficiency is up to 93.5%, and ECO mode efficiency is up to 98%, saving precious energy resource
- Wide input voltage and frequency (40Hz-70Hz) range, adaptable to different utility environment, compatible with generators perfectly, providing high quality power protection to your equipment

Humanized Design, Tailor-Made For You

- Super low audible noise, UPS noise can go as low as 47dB when working in normal environment, providing a silent working environment for you



Multiple options : Maintenance bypass switch, EPO, Parallel, communication cards. Support your UPS solution easily with optional configurations.



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



Castle 6~10kVA UPS Product Specification

Model		Castle 6K	Castle 6KS	Castle 10K	Castle 10KS
Power rating	VA/W	6000VA/5400W		10000VA/9000W	
Input	Input voltage range	120~275VAC			
	Input frequency range	40Hz-70Hz			
	Input wiring	Single phase with ground			
	Input power factor	≥0.99			
Output	Output voltage	220VAC			
	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			
	Overload capability	1min @ 105%~125% load 30S @ 125%~150% load 0.5S @ >150% load			
Efficiency	Line mode	Up to 94%		Up to 94%	
	ECO model	Up to 98%		Up to 98%	
Battery and charger	Battery quantity	15PCS (Internal)	16PCS (External)	16PCS (Internal)	16PCS (External)
	Battery capacity	12V/7AH	depends on customer configuration	12V/9AH	depends on customer configuration
	Backup time	>4min		>4min	
	Recharge current	Standard model 1.2A; Long backup time model 4A;			
Display	LCD+LED	load rating/battery capacity/input/output/operating mode			
Communication and monitoring	Communication port	RS232 stanard offer, USB optional			
	Extendable communication card	Dry Contact Card, USB card, MODBUS card and NMC card are optional			
	Software	Winpower			
Physical parameters	Product dimension (WxDxH) mm	248*500*565	212*500*420	248*500*565	212*500*420
	Product weight (Kg)	59	14	62	16
Environment	Operating temperature	0-40℃			
	Audible noise	<50dB @ 1 meters ¹			
Certifications and standard		IEC61000, IEC62040,CE			

Note:

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

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