



SUNSHINE  
新光宏锐

### ST10KS series specification

NO.

SDC-010607-12

Department

R&D

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Revision	Description	Prepared by	Checked by	Approved by	Data
01					

佛山新光宏锐文档中心  
SUNSHINE&CELL POWER SYSTEM EQUIPMENT CO., LTD. FOSHAN'S DCS



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Index	ST10K	ST10KS	Comments
<b>Input</b>			
<b>Input voltage</b>			
Rated voltage	220VAC		
Phase	Single phase with ground		
Turn on voltage range	(120±5~274±5) VAC		
Bypass voltage range	(60±5~300±5) VAC		Could be adjusted by software.
Bypass low loss	60VAC~220VAC (default 60VAC)		
Bypass low comeback	Low loss +5VAC		
Bypass high loss	220VAC~300VAC (default 300VAC)		
Bypass high comeback	High loss -5VAC		
Line low loss/comeback	(120±5) VAC / (140±5) VAC		load ≤ 50%
	(150±5) VAC / (165±5) VAC		50% < load ≤ 80%
	(160±5) VAC / (175±5) VAC		80% < load
Line high loss/comeback	(274±5) VAC / (260±5) VAC		
<b>Input frequency</b>			
Rated frequency	50Hz		
Frequency low loss	(40~49) ±0.2Hz (default: 46Hz)		Could be adjusted by software.
Frequency low comeback	Frequency low loss +0.5Hz		
Frequency high loss	(51~60) ±0.2Hz (default: 54Hz)		
Frequency high comeback	Frequency high loss -0.5Hz		
<b>Input power factor</b>			
Input power factor	> 0.99		full R load
Generator	Support generator input		Generator rating ≥ 2*UPS rating
<b>Input current</b>			
Rated current	41A	43A	
Input THDI	10%		
<b>Output protection</b>			
Rating protection	50A Breaker		Behind the transformer
<b>Output power</b>			
VA/watt	10000/8000		
Rated voltage	220VAC		Sine wave
Voltage range	200/208/220/230/240VAC		
Voltage regulation	±1%		
Voltage distortion	≤6%		Full RCD load



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	$\leq 2\%$	Full R load
DC offset	$\leq 200\text{mV}$	
Transient response	$\leq 9\%$	R load 0%~100%~0%
	$\leq 6\%$	R load 20%~100%~20%
Transient recovery	$\leq 60\text{ms}$ voltage recovery to 90%	Full RCD load
Bypass output before turn-on	YES	
Crest ration	3: 1	
<b>Output frequency range</b>		
Normal mode	1, Same as input frequency (46Hz~54Hz)	
	2, 50Hz (Input frequency > 54Hz or Input frequency < 46Hz)	
Battery mode	(50 $\pm$ 0.1) Hz	
Slew rate	1 Hz/Sec	
<b>Efficiency</b>		
Normal mode	> 90%	
Battery mode	> 88%	
<b>Overload</b>		
Normal mode/battery mode	Overload warning only	105% $\pm$ 5% $\leq$ load
	1min, then transfer to bypass and alarm.	105% $\pm$ 5% < load $\leq$ 125% $\pm$ 5%
	30S, then transfer to bypass and alarm.	125% $\pm$ 5% < load $\leq$ 135% $\pm$ 5%
	100mS, then transfer to bypass and alarm.	load > 135% $\pm$ 5%
Automatically retransfer	YES	
<b>Short protection</b>		
Normal/battery mode	YES	
<b>Transfer time</b>		
Normal to battery mode	0mS	
Battery to normal mode	0mS	
Normal to bypass mode	0mS	
Bypass to normal mode	0mS	
<b>Battery and charger</b>		
<b>Battery</b>		
Rated voltage	192VDC	
Type/Rating	Sunshine 9AH/12V	
Battery quantity	16 PCS	



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Backup time	> 8min		Half load
<b>Protection</b>			
Low alarm voltage / comeback voltage	(180.8V ± 4V) / (188.8V ± 4V)		
Shutdown voltage / comeback voltage	(176V ± 4V) / (184V ± 4V)	(176V ± 4V) / (184V ± 4V)	Load < 1000W
	(152V ± 4V) / (160V ± 4V)	(160V ± 4V) / (168V ± 4V)	Load ≥ 1000W
<b>DC protection</b>			
Overcharge protection / comeback voltage	(249.6V ± 4V) (216V ± 4V)		
Leakage current	< 500uA		
Over discharge protection	14.5h	Could be set by software	
<b>Battery test</b>			
Battery weak	YES		
Battery fault	YES		
<b>Charger</b>			
Output voltage	(219.2 ± 3)VDC		
Charge time			
Charge current	1A	5.5A	
<b>Interface</b>			
Alarm silence	YES		
DC power turn-on	YES		
Automatically retransfer	YES		
<b>Audio alarm</b>			
Battery mode	Beep/4s		
Battery low/charger fault	Beep/1s		
UPS fault	Continue beep		
Overload	Beep/1s		
Bypass mode	Beep/2Min		
L/N inverse	Beep/2Min		
<b>Communication</b>			
RS232 interface	YES		
Intelligent slot	YES		
Monitor software	Appending with UPS		
<b>Cooling</b>			
Force air cooling			
<b>Display</b>			



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LCD/LED displays UPS  
status

### Environment

Work temperature	0°C ~ 40°C
Altitude	< 1000m
Audible noise	≤ 60dB
Storage temperature	-15°C ~ 45°C
Work humidity	20% ~ 95%

### Standard

#### EMS

ESD	IEC61000-4-2	Level4
RS	IEC61000-4-3	Level3
EFT	IEC61000-4-4	Level4
Surge	IEC61000-4-5	Level4

#### EMI

Conducted	EN55022	Class B
Radiated	EN55022	Class B

#### Safety

Safety	GB4943-2001/IEC62040-1
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#### Transportation

Drop test	GB-T4857-18
Vibration test	B-WR1-129(GB-T14715-93)

#### Machinery features

#### Size

#### Outline dimension and net weight

length * width * height (mm)	560*260*717	533*260*501
Net weight(Kg)	67.5	23

#### Optional functions

60Hz		Set by software
Converter mode		Set by software
ECO	Optional	Available and set by software
EPO	Optional	
LCD display	Optional	



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### Outline dimension and net weight

length * width * height (mm)	560*260*717	533*260*501
Net weight(Kg)	67.5	23



### Outline dimension and net weight

length * width * height (mm)	652.5*482.6*222	650*482.6*132.5
Net weight(Kg)	30	21.5