



# ST5I Series

## 3 Phase Low frequency SCR Transformer Based UPS (10-200KVA)

### System Introduction

ST5I Series is a full digitized DSP controlled online double conversion 3 Phase Industrial UPS. LF transformer isolated all interferences such as Mains Input Surge or Load impact from the UPS, which also greatly reduce the risk of the UPS and load. ST5I Series has power parallel redundancy feature with real 0.9 output PF. It also contains friendly and intuitive user Interface. It provides reliable, stable, and constant AC power for IT equipment, telecommunication critical devices.



### System Features

#### High Performance Index

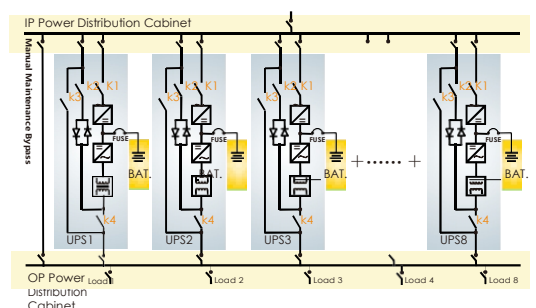
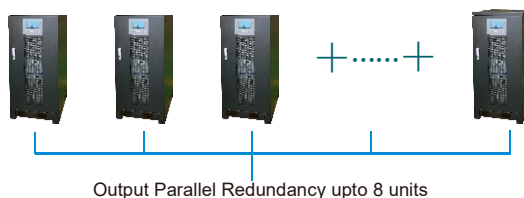
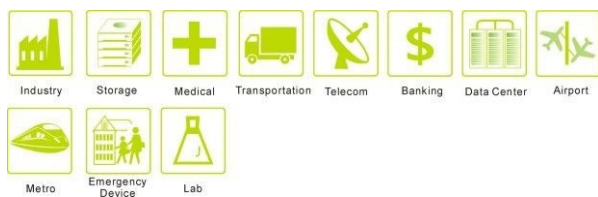
- ◆ Advanced SCR Rectifier Technology. With additional accessories, the input PF can be up to 0.99 and Input THDI <4.5%;
- ◆ 5th generation IGBT technology to adapt 380/400/415V, 50/60Hz Mains Grid Supply Systems;
- ◆ Output Power Factor 0.9 to carry 12.5% load capacities than traditional UPS;
- ◆ Wide Input Voltage Range 380Vac (-45% to +25%) with 50/60Hz ±5% Frequency Range; High adaptive capacity and Generator Capability
- ◆ Overall Efficiency up to 90%. Can reach to 98% on ECO Mode;
- ◆ Powerful overload ability with output short circuit protection technology: 110%-120% overloads for 10 minutes. 125%-150% for 1 minute;
- ◆ Flexible Battery Configuration. It can be set on the front panel with 28-32 Units of Batteries. Common Battery Bank on Parallel mode. Battery Charging Compensation Feature.
- ◆ Intelligent Fault Diagnosis system with large storage memory of fault histories;
- ◆ Friendly and Intuitive User Interface. Large Color Touch LCD Screen with multi-functional buttons.

#### Safe and Reliable

- ◆ DSP technology to control UPS power function processes (including Parallel function) in order to increase system reliability;
- ◆ Flexible Single or Dual Utility Power Input to comprehensively protect load devices;
- ◆ Mis-Phase Connection Diagnosis, Evaluation and Alarm;
- ◆ 100% 3 Phase Unbalanced Allowed;
- ◆ Front Maintenance Design. MTBF can be up to 300K Hours;
- ◆ 90% of system components are from international famous brands. All devices will be aged and tested for more than 24 hours

### Application Type

ST5I Series is designed for many different applications and compatible Loads, such as Data Center, Telecom, Network management center, financial center Security Trading Settlement Center, Banking. Large Theater, Stadium, traffic Administration Bureau, Road and Railroad Tunnel Lightning Control and Monitoring Center, Port Information Center. Semiconductor production line, automatic production line and related device.



## Specification

Model	ST5I100L	ST5I150L	ST5I200L	ST5I300L	ST5I400L	ST5I600L	ST5I800L	ST5I1000L	ST5I1200L	ST5I1600L	ST5I2000L	
Capacity	10KVA 9KW	15KVA 13.5KW	20KVA 18KW	30KVA 27KW	40KVA 36KW	60KVA 54KW	80KVA 72KW	100KVA 90KW	120KVA 108KW	160KVA 144KW	200KVA 180KW	
<b>Host Machine Specification</b>												
UPS Structure	Online Double Conversion											
Appearance	Low Frequency with Output Isolated Transformer											
Overall Efficiency (AC-AC)	90%											
Noise (In 2 Meters)	< 50-60dB											
Working Temp.	-10-40℃											
Storage Temp.	-25 ~ 60℃ ( Without Batteries )											
Humidity	< 95%, Non-Condensing											
National Standard	EN50091-1/IEC950											
International Standard	EN 50091-1/2; EN62040-1; EN62040-2											
Parallel Redundancy	Available upto 8 units											
Protection	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low											
ECO	Available											
EPO Function	Available											
DC Start	Available											
Generator Compatibility	Available											
Display	5-7 inch LCD color touch screen + LED working indicators including Input/Output Voltage, Frequency, Current, Power, Load Capacity, Serial Number, Operational Mode, Discharge Time, History Logs. All settings including can be done on the front panel, including battery voltage, input and output voltage, frequency, parallel setting and etc.											
Mute	Auto											
Cabinet Standard	IP20											
Cooling System	Intelligent Speed Control Cooling Fan											
Elevation	< 1500M, Without Derated											
<b>Rectifier Specification</b>												
Input Voltage	380Vac+N+W ( 3 phase + PE )											
Input Voltage Range	285-475Vac											
Input Frequency Range	45-65Hz											
Input PF	0.95 ( with input filter )											
THDI	< 5% (with optional accessories)											
Dual Input Availability	Available(Optional accessories)											
Input Mis Phase Protection	Misphase Alarm, UPS will not be started											
Input Phase lost Protection	Phase Lost Alarm, UPS work on Bypass mode											
Soft-Start	> 20 Seconds											
Input Current	23A	31A	39A	54A	70A	100A	125A	160A	192A	256A	320A	
<b>Output Specification</b>												
Output Voltage	Line Voltage: 380× (1±1%) AC or Phase Voltage: 220× (1±1%) AC											
Output PF	0.8/0.9 (No lag)											
Output Voltage Regulation	380Vac±1% (Static Load) ; 380Vac±2% (50-0% Sudden Change) ; 380Vac±3% (100-0% Sudden Change)											
Output Freq	±8% at 50Hz: Online Mode tracking input and bypass freq.; ±0.1%: when input or bypass frequency is more than ±8% or under BAT Mode											
THD	< 1% (Linear Full Load) , < 3% (Non-Linear Full Load)											
3 Phase Unbalanced	Allow 3 Phase 100% Unbalanced											
Output Volt. Unbalanced	≤1%(Balanced Load); ≤2%(50% Balanced Load)											
Input/Output Phase Shift	≤1%(Balanced Load); ≤2%(50% Balanced Load)											
Frequency Tracking Range	45-65Hz											
Output Waveform	Pure Sine Wave											
Overload	>125%: More than 10 mins ; > 150%: More than 60s transfer to bypass											
Crest Ratio	3 : 1											
Short-Circuit	Circuit Auto-Protection, Bypass Switch Tripping											
Output Abnormal	INV. Output Auto-Locked Protection											
<b>Bypass Specification</b>												
Static Bypass Transfer Time	0ms											
Static Bypass Input Range	380Vac (-15~+15%)											
Frequency Range	50/60Hz±1Hz, ±2Hz, ±3Hz Adjustable											
Bypass --> INV Transfer Time	2ms											
Frequency Tracking Speed	0.5-2hz/s											
Manual Maintenance Bypass	Available											
<b>Battery Specification</b>												
Charging Methods	DSP Controlled Charger: Equalized/Pulse Charge, Float Charge, Intelligent Battery Management											
Type	Sealed Lead Acid Maintenance Free											
Rated Volts/Units	12V/384Vdc, Std. for 32 Units . adjustable from 28-32 units											
Float Charge Voltage	438Vdc											
Charging Current	Can be set from the front Screen											
Abnormal Protections	BAT over-charged, Emergency charger shutdown protection or UPS shutdown protection											
<b>Communication Specification</b>												
Communication Port	RS232/SNMP/485/Dry Contact (Optional Accessory)											
Remote Software	Multi-functional Monitoring System, Online and BAT Mode Status, BAT Fault, Remote Control											
<b>Physical Parameters</b>												
Size mm(W×H×D)	475×990×700			550×1200×800			605×1350×800			800×1600×800		1100×1850×850
Net Weight Kg	210	223	230	280	330	450	550	630	750	810	855	

Note: Specifications are subject to change without further notice.

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