FC Series

System Introduction

FC 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. FC 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.
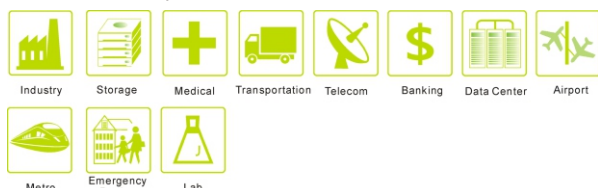
System Features

High Performance Index

◆ Advanced SCR Rectifier Technology.With additional accessories, the input PF can be upto 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 upto 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.
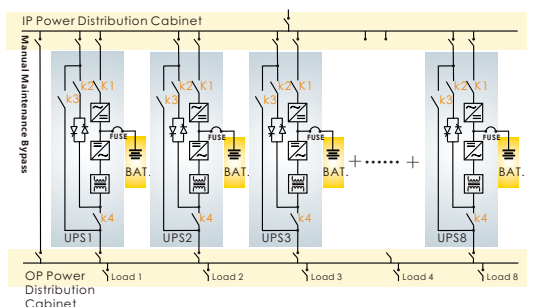
Safe and Reliable

◆ 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 upto 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

FC 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.

Industry | Storage | Medical | Transportation | Telecom | Banking | Data Center | Airport

Metro | Emergency Device | Lab

Output Parallel Redundancy upto 8 units

Specification

Model	FC100L33	FC150L33	FC200L33	FC300L33	FC400L33	FC600L33	FC800L33	FC1000L33	FC1200L33	FC1600L33	FC2000L33
Capacity	10KVA 9KW	15KVA 13.5KW	20KVA 18KW	30KVA 27KW	40KVA 32KW	60KVA 54KW	80KVA 72KW	100KVA 90KW	120KVA 108KW	160KVA 144KW	200KVA 180KW
Host Machine Specification											
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	EN50091-1/2; 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										
Rectifier Specification											
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
Output Specification											
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 Swift	≤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										
Bypass Specification											
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										
Battery Specification											
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										
Communication Specification											
Communication Port	RS232/SNMP/485/Dry Contact（Optional Accessory）										
Remote Software	Multi-functional Monitoring System, Online and BAT Mode Status, BAT Fault, Remote Control										
Physical Parameters											
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.