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.
### Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>FC100L33</th>
<th>FC150L33</th>
<th>FC200L33</th>
<th>FC300L33</th>
<th>FC400L33</th>
<th>FC600L33</th>
<th>FC800L33</th>
<th>FC1000L33</th>
<th>FC1200L33</th>
<th>FC1600L33</th>
<th>FC2000L33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>10KVA</td>
<td>15KVA</td>
<td>20KVA</td>
<td>30KVA</td>
<td>40KVA</td>
<td>60KVA</td>
<td>80KVA</td>
<td>100KVA</td>
<td>120KVA</td>
<td>160KVA</td>
<td>200KVA</td>
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<tr>
<td></td>
<td>8KW</td>
<td>12.5KW</td>
<td>18KW</td>
<td>27KW</td>
<td>32KW</td>
<td>54KW</td>
<td>72KW</td>
<td>90KW</td>
<td>108KW</td>
<td>144KW</td>
<td>180KW</td>
</tr>
</tbody>
</table>

#### Host Machine Specification
- Online Double Conversion
- Low Frequency with Output Isolated Transformer
- Overall Efficiency (AC-AC): 90%
- Noise (In 2 Meters): <50-60dB
- Working Temp.: -10-40°C
- Storage Temp.: -25 - 60°C (Without Batteries)
- Humidity: <95%, Non-Condensing
- National Standard: EN60091-1/IEC950
- International Standard: EN60091-1/2, EN62040-1, EN62040-2
- Parallel Redundancy: Available up to 8 units
- Protection: Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low
- 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)
- THD: <5% (with optional accessories)
- Dual Input Availability: Available (Optional accessories)
- Input MisPhase Protection: Misphase Alarm, UPS will not be started
- Input Phase lost Protection: Phase Lost Alarm, UPS work on Bypass mode
- Input Abnormal: 20 Seconds

#### Output Specification
- Line Voltage: 380±1% (1±1%): AC or Phase Voltage: 220±1% AC
- Output Voltage Regulation: 380Vac1% (Static Load): 380Vac±2% (50-0% Sudden Change): 380Vac±3% (100-0% Sudden Change)
- Output Freq: ±1% 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)
- Output Voltage Unbalanced: Allow 3 Phase 100% Unbalanced
- Output Waveform: Pure Sine Wave
- Input/Output Phase Swift: <1° (Balanced Load), ≤2° (50% Balanced Load)
- Frequency Tracking Range: 45-65Hz
- 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

#### Charging 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: 438Vdc
- Charging Current: Can be set from the front Screen
- Abnormal Protections: BAT over-charged, Emergency charger shutdown protection or UPS shutdown protection
- 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 (W*H*D): 475 x 630 x 700
- Net Weight Kg: 210, 223, 230, 280, 330, 450, 550, 630, 750, 810, 855

Note: Specifications are subject to change without further notice.