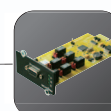# Crystal Series
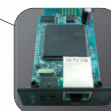## CL6000-CL10000
### 6~10kVA, 1:1 phase PF 0.9

Control Panel

The CL Double Conversion true online Series, featured with DSP-cor[...]gy, superior input Voltage window for energy ECO mode, parallel capability (for 6KVA, 10KVA), smart fan speed control[...]ful charger, is an ideal solution to your computer center, network center, communication system, automatic control sys[...]tical system.
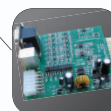
## Features

- N+X parallel redundancy
- Online double conversion with DSP control
- Input current harmonic: <3%
- Optimization battery group, the qu[...] battery: 16/18/20 [...]
- High output power factor at 0.9PF
- Wide input voltage range: 120~276Vac
- Wide input frequency range (50Hz: 45~55Hz / 60Hz: 54~66Hz)
- Support generator input
- Support economic (ECO) operation mode
- Self-testing when UPS startup
- Options: SNMP card/Relay card/ Parallel card
- Cold start

Relay card

SNMP

Parallel module

Rear Panel

External Battery (Optional)

Technical Specifications:

| MODEL | CL6000 | CL10000 |
|---|---|---|
| Capacity (VA/Watts) | 6KVA/5.4KW | 10KVA/9KW |
| **INPUT** | | |
| Nominal voltage | 220/230/240Vac | |
| Operating voltage range | 120~276Vac | |
| Operating frequency range | 50Hz:45~55Hz;60Hz:54~66Hz (Auto sensing) | |
| Power factor | ≥0.99 | |
| Bypass voltage range | Max. voltage: 220V: +25%(optional +10%,+15%,+20% ) <br> 230V: +20% (optional +10%,+15%) <br> 240V: +15% (optional +10%) <br> Min. voltage: -45% (optional -20%,-30%) | |
| ECO range | Same as the bypass | |
| Harmonic distortion (THDi) | <3% (100% linear load) | |
| Generator input | Support | |
| **OUTPUT** | | |
| Rated voltage | 220/230/240Vac | |
| Power factor | 0.9 | |
| Voltage regulation | ±1% | |

| Frequency | Line mode | ±1%/±2%/±4%/±5%/±10% of the rated frequency(optional) | |
|---|---|---|---|
| | Bat. mode | 50/60(±0.1) Hz | |

| Crest factor | 3:1 | |
|---|---|---|
| Harmonic distortion (THDv) | ≤2% with linear load <br> ≤5% with non-linear load | |
| Efficiency | >93.5% | |
| **BATTERY** | | |
| Battery voltage | ±96/108/120Vdc  (optional) | |
| Capacity (Standard unit) | 12V/7Ah/9Ah | |
| Typical recharging time | 6~8 hours (to 90% of full capacity) | |
| Charging current | 1A(Standard unit); Long run unit Max.current10A(charging current can be set according to battery capacity installed) | |
| **SYSTEM FEATURES** | | |
| Transfer time | Mains to battery:0ms; Mains to bypass:0ms | |

| Overload | Line mode | Load≤110%: last 60min, ≤125%: last 10min, ≤150%: last 1min, >150% turn to bypass mode immediately | |
|---|---|---|---|
| | Bypass mode | 40A(Breaker) | 63A(Breaker) |

| Short circuit | Hold whole system | |
|---|---|---|
| Overheat | Line mode: Turn to bypass; Backup mode: shut down UPS immediately | |
| Battery low | Alarm and switch off | |
| Self-diagnostics | Upon power on and software control | |
| Battery | Advanced battery management | |
| Audible & Visual alarms | Line failure, Battery under voltage, Overload, System fault | |
| LED & LCD display | Line mode, Bat. mode, Eco mode, Bypass mode, Battery under voltage, Overload & UPS Fault | |
| LCD display | Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage, Inner temperature & Remaining battery backup time | |
| Communication interface | RS232, USB, SNMP card(optional), Parallel card(optional), Relay card (optional) | |
| **ENVIRONMENT** | | |
| Operating temperature | 0~40℃ | |
| Storage temperature | -25~55℃ | |
| Humidity range | 0~95% (Non-condensing) | |
| Altitude | <1500m | |
| Noise level | <55dB | |
| **PHYSICAL** | | |
| Dimension D×W×H (mm) | 502*250*616（S）/481*220*438（H) | |
| Net weight (kg) | 62 | 64 |
| **STANDARDS** | | |
| Safety | IEC/EN62040-1 , IEC/EN60950-1 | |
| EMC | IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, <br> IEC61000-4-5, IEC61000-4-6, IEC61000-4-8 | |
| **BATTERY BANK** | | |
| Model | MP-BT Series | |
| Battery type & Max. quantity | 2×20pcs/7Ah/(9Ah) | |
| **PHYSICAL OF BATTERY BANK** | | |
| Dimensions D×W×H (mm) | 597×250×616 | |
| Net weight (kg) | 122/134 | |