

# USER MANUAL

**ONLINE UPS**



**20 YEARS MANUFACTURE EXPERIENCE**

**High Frequency UPS 1~10K(S)**

**1.0 POWER FACTOR  
LEADING TECHNOLOGY!**

**MAX 12 A BIG CHARGE CURRENT**



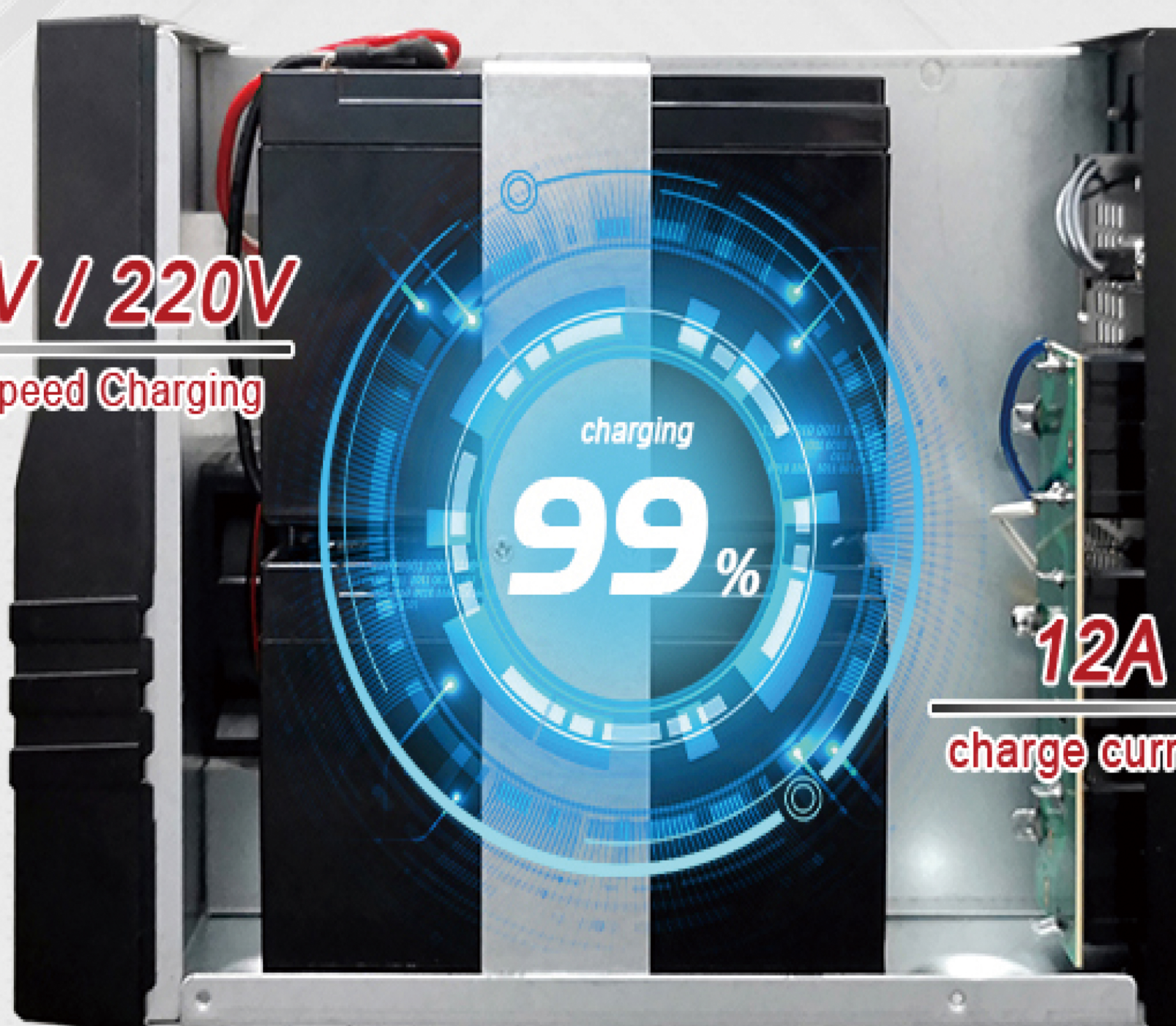
# Up to 12A!

## Bigger Charge Current

## Adjustable Between 1-12A

**110V / 220V**

Fast Speed Charging



**12A**

charge current

# NOISE, SURGE AND LIGHTENING FULL TIME PROTECTING

Output Short Circuit And Over Load Protections



Over voltage protection



Over discharge protection



Over charge protection



Over load protection



High current protection



Low current protection



Over temperature protection

# VARIOUS VOLTAGE 110V AND 220V OPTIONAL

Voltage suitable for all countries and areas

**220V / 230V**  
50Hz / 60Hz



**110V / 120V**  
50Hz / 60Hz



## Standard Model And Long Run Model Are Replaceable

Standard Model And Long Run Model Can Be Use Instead Of Each  
Other, Convenient For Your Order And Stock Plan

Leading PF=1

Features:

- Bigger charge current Maximum **12A** , **charge faster** & Adjustable between 1-12A
- The output **power factor** can reach **1.0**
- **The new topology , high power density circuit** is better for noise and surge protection
- **Shipping cost saving** with it's perfect structure by smaller dimension
- **Efficiency upto 95.5%**, Higher efficiency same power with less electric bill ,

higher efficiency , same power , same backuptime with smaller battery .

- **Standard & long backup are common with same PSDR&Control pcb helps to reduce stock & easy management**

- Output voltage 208V 220V 230V 240V are adjustable
- Pure sine wave output, online zero conversion time
- Wide input frequency range, adjustable from 40-70HZ
- With output short-circuit protection and overload protection
- Using LCD display screen, status parameters are clear at a glance
- RS232 communication interface is applied
- Double-sided circuit board design for higher safety and reliability
- The screen can set various of common technical parameters
- It can be equipped with power monitoring software to enable UPS network and remote monitoring



CQ series 1-10K(S) online UPS selection guide (technical parameters)

| Models   |                       | CQ1K (S)   | CQ2K (S)                 | CQ3K (S)                 | CQ6K (S)   | CQ10K (S)          |
|--|-----------------------|--|--------------------------|--------------------------|--|--------------------|
| Phase  |                       | Single-phase grounding   |                          |                          |  |                    |
| Capacity   |                       | 1000 VA / 1000 W   | 2000 VA / 2000 W         | 3000 VA / 3000 W         | 6000 VA / 6000 W                                       | 10000 VA / 10000 W |
| <b>Input</b>                                       |                       |  |                          |                          |  |                    |
| Voltage range                                      |                       | 110 - 300VAC at 60% load<br>160 - 300 VAC at 100% load                               |                          |                          | 110 - 300VAC at 50% load<br>176 - 300 VAC at 100% load |                    |
| Frequency range                                    |                       | 40Hz ~ 70 Hz   |                          |                          |  |                    |
| Power factor                                       |                       | At 100% load $\geq 0.95$   | At 100% load $\geq 0.97$ | At 100% load $\geq 0.97$ | At 100% load $\geq 0.99$                               |                    |
| <b>Output</b>                                      |                       |  |                          |                          |  |                    |
| Output voltage                                     |                       | 220VAC $\pm 1\%$ (208, 220, 230, 240 adjustable on LCD screen)                       |                          |                          |  |                    |
| Voltage range (battery mode)                       |                       | $\pm 1\%$  |                          |                          |  |                    |
| Frequency range (Synchronization correction range) |                       | 47~ 53 Hz or 57 ~ 63 Hz  |                          |                          |  |                    |
| Frequency range (battery mode)                     |                       | 50 Hz (60HZ selectable) $\pm 0.25$ Hz  |                          |                          |  |                    |
| Surge ratio  |                       | 3:1  |                          |                          |  |                    |
| THD  |                       | $\leq 3\%$ THD (linear load)<br>$\leq 6\%$ THD (non-linear load)                     |                          |                          |  |                    |
| Transfer time                                      | AC to DC              | 0ms  |                          |                          |  |                    |
|  | INV to bypass         | 4 ms (standard)  |                          |                          |  |                    |
| Wave form  |                       | Pure sine wave   |                          |                          |  |                    |
| <b>Battery</b>                                     |                       |  |                          |                          |  |                    |
| Standard   | Battery model         | 12V / 7AH optional 9AH   |                          |                          |  |                    |
|  | Quantity              | 2  | 4                        | 6                        | 12 optional 16   | 16                 |
|  | Max. charging current | 1.0A (Maximum)   |                          |                          | 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A adjustable     |                    |
|  | Charging voltage      | 27.5VDC $\pm 1\%$  | 55VDC $\pm 1\%$          | 82.1 (110) VDC $\pm 1\%$ | 165 (192.5) VDC $\pm 1\%$<br>optional 220VDC $\pm 1\%$ | 220VDC $\pm 1\%$   |
| Long-run   | Battery model         | Depends on the users   |                          |                          |  |                    |
|  | Quantity              | 3  | 6                        | 8                        | 16   | 16                 |
|  | Max. charging current | 1A, 2A ,3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A adjustable                         |                          |                          |  |                    |
|  | Charging voltage      | 41.0VDC $\pm 1\%$  | 82.1VDC $\pm 1\%$        | 110VDC $\pm 1\%$         | 220VDC $\pm 1\%$                                       | 220VDC $\pm 1\%$   |
| <b>Appearance</b>                                  |                       |  |                          |                          |  |                    |
| LCD or LED display                                 |                       | Load size, battery capacity, mains mode, battery mode, bypass mode, fault indication |                          |                          |  |                    |
| <b>Alarm</b>                                       |                       |  |                          |                          |  |                    |
| Battery mode                                       |                       | beeping every 4 seconds  |                          |                          |  |                    |
| Low battery  |                       | beeping every 1 second   |                          |                          |  |                    |
| Overload   |                       | beeping every 1 second   |                          |                          |  |                    |
| Malfunction / Fault                                |                       | continuous beeping   |                          |                          |  |                    |
| <b>Dimensions</b>                                  |                       |  |                          |                          |  |                    |
| Standard   | Dimension (L*W*H)m    | 352x145x213  | 395x145x213              | 450x192x335              | 450x192x670  |                    |
|  | N.W (KG) for standard | 8.8(10.9)  | 12.1                     | 23.7                     | 29.5(26.7)   | 33.7(31)           |
| Long-run   | Dimension (L*W*H)m    | 352x145x213  | 395x145x213              | 380x145x213              | 450x192x335  |                    |
|  | N.W (KG)              | 5.8  | 6.2                      | 6.8                      | 14.6   | 15                 |
| <b>Working environment</b>                         |                       |  |                          |                          |  |                    |
| Temperature and humidity                           |                       | 20-90% relative humidity and temperature 0-40°C (non-condensing)                     |                          |                          |  |                    |
| Noise  |                       | less than 50dBA at 1 meter   |                          |                          |  |                    |
| <b>Control management</b>                          |                       |  |                          |                          |  |                    |
| Smart RS-232                                       |                       | Support Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix                  |                          |                          |  |                    |
| SNMP optional                                      |                       | Power management supports SNMP management and network management                     |                          |                          |  |                    |