

# ONLINE HIGH FREQUENCY UPS

PT Series



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## Product Introduction

The 1-10KVA PT series Online high frequency UPS takes the three-level technique and soft switch design, with the active power factor correction (APFC) to make the input PFC can be higher as 0.99. The new design make our PT series with high energy density ratio, reduce the UPS machine size very much, and also less occupy the space in the server room. The digital control make UPS with much more stable system, and also have the well ability of self-defensive and fault diagnosis.

This series UPS can provide better solution for the different power problems, such as transient voltage sag, damped oscillation, high voltage pulse, surge voltage, harmonic distortion, noise wave interference, frequency fluctuation and others. Providing more reliable protection for the application and UPS itself.



## PT1-10KVA Field of Application

### IT and Network equipment

- Small and Medium-sized data centers
- Computer Server room
- Production line control in factory

### Embedded and Automatic Control System

- Telecommunication base station Automatic control system
- Electrical and railway signaling systems
- Security system
- Television broadcast system

### Office and Business Equipment

- Office computer and Printer
- Scanner and MPOS

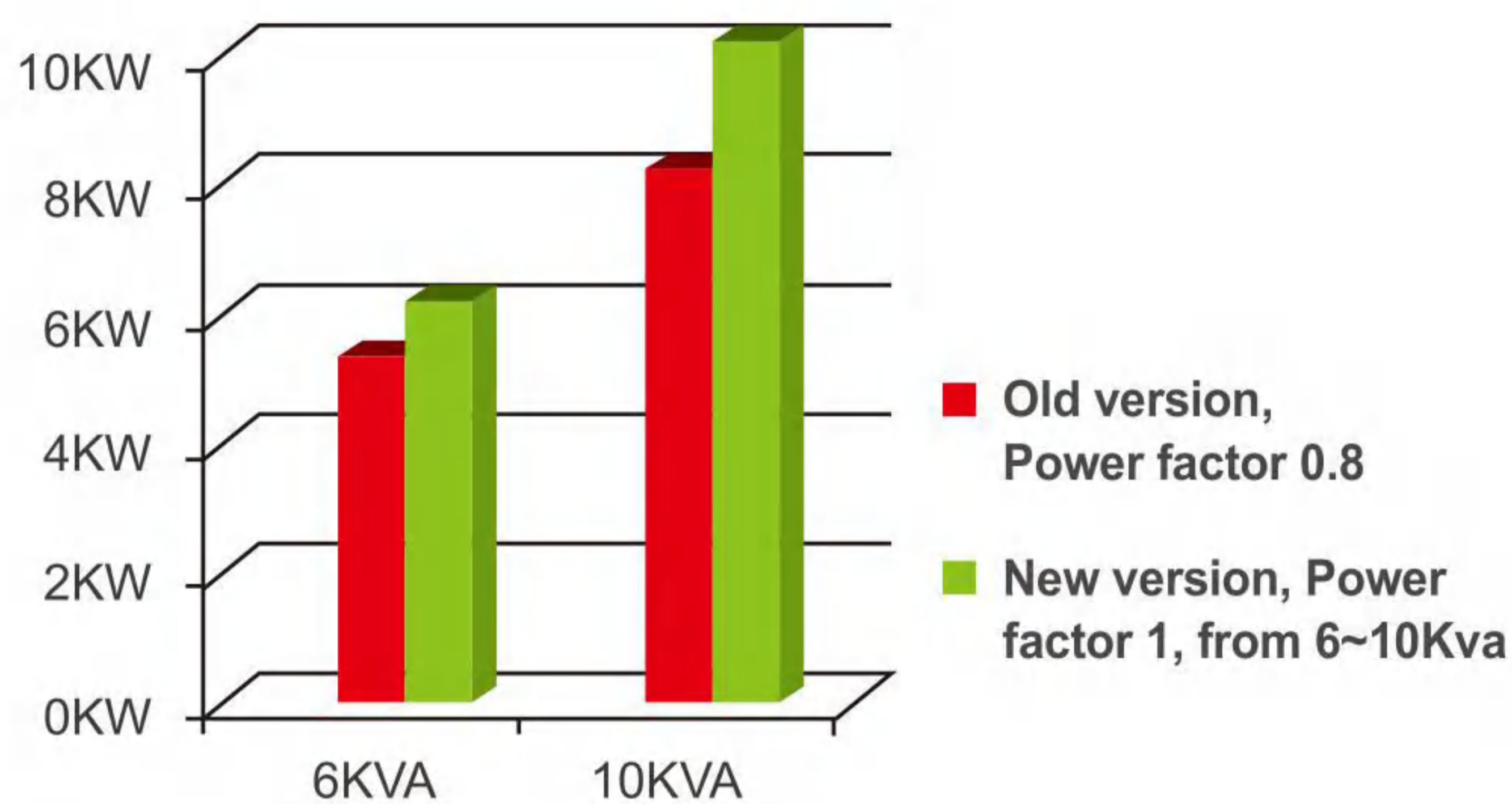




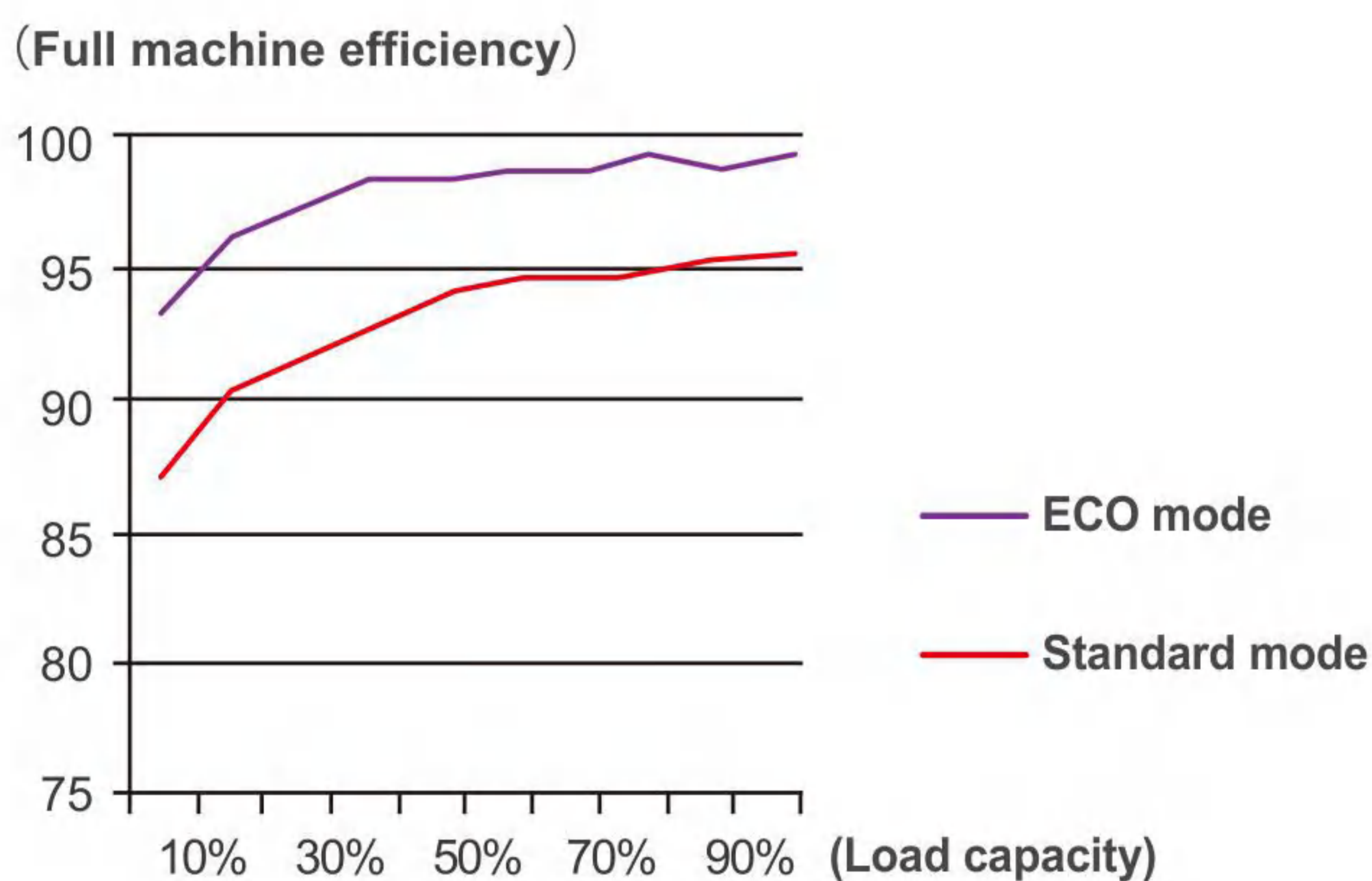
## ▼ Product Function and Features

### Green Power design for energy saving and environmental protection

- Different power configuration flexibility to achieve a multi – purpose machine, power customized available;
- Selectable digital charger from 1A ~12A, match for different appliance;
- Wide input voltage range: 208/220/230/240V for option;
- High efficiency up to 95.5%, lower power loss and save cost;
- Output power factor up to 1.0 ,as an industry leader, super high load efficiency;
- Green power ECO mode, power efficiency up to 98.5%
- Smart adjustable setting, support voltage compensation of output to transformer



The diagram of Loads capacity from 6~10Kva



The diagram of 1-10K efficiency under mains supply

### Novel Features Upgraded

With three-level technology and soft switching design, minimizes to reduce switching losses and creates a new generation of more reliable and efficient power products.

### Higher power factor

Input power factor  $\geq 0.99$ , output power factor up to 1.0, performance with super high load efficiency.

### Higher efficiency

1-10KVA, the maximum efficiency is up to 95.5%. In ECO mode, the efficiency is up to 98.5%, saving energy and electricity for you.

### Larger charging current

All models of this series can support 1A~12A charging current, and can flexibly configure battery combinations with different capacitances.

### Wider frequency adjustment

Frequency can be setup in 50hz/60hz $\pm$ 10Hz, with wider frequency adjustment range to match the input characteristics of the generator.

### Higher design standards

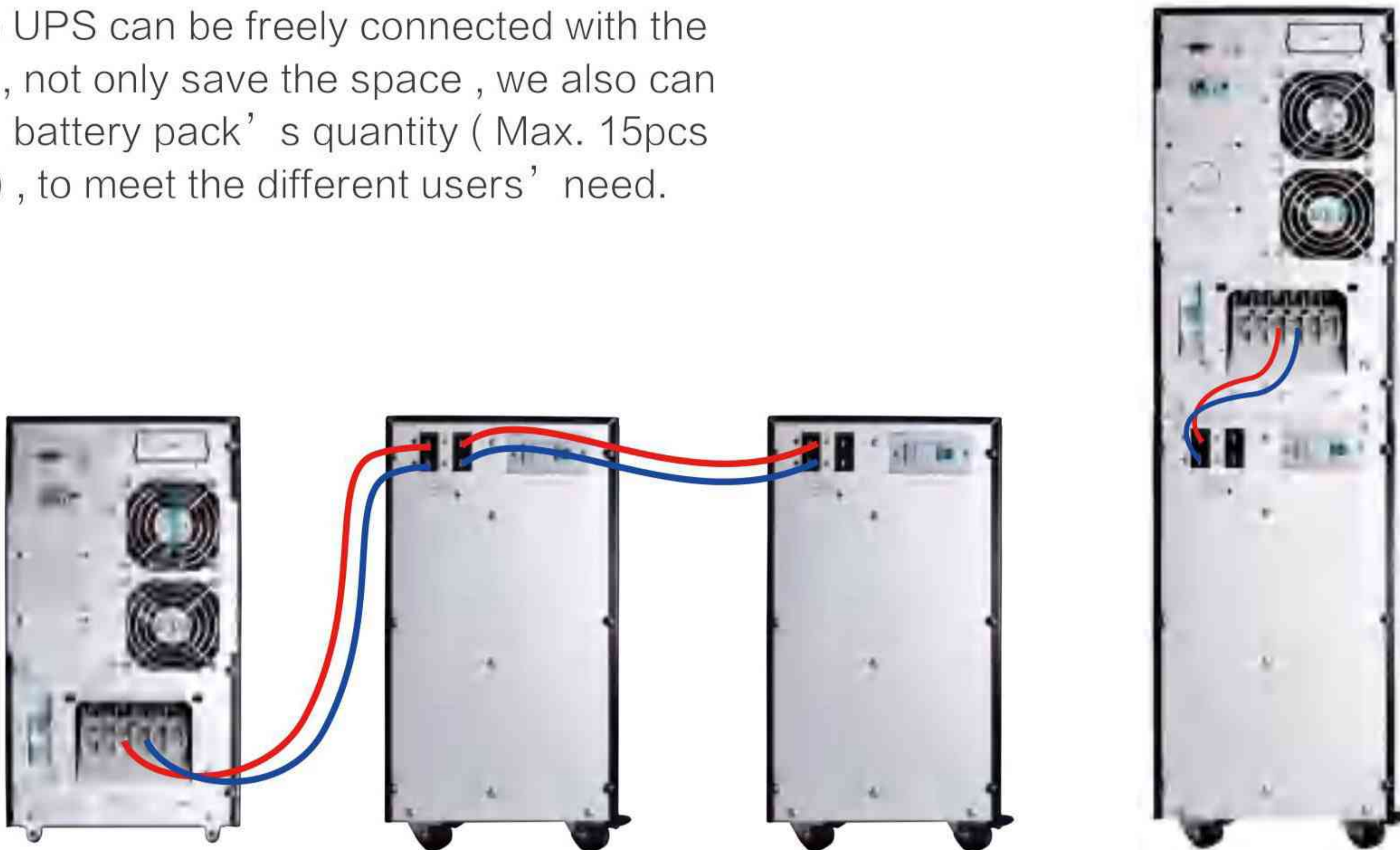
All models are designed to comply with standards EN/IEC 61000, EN/IEC 62040, GB/T7260, GB/T4943, YD/T1095, TLC, which greatly reduces the interference to the power grid and the equipment used, and protects the user's equipment well.



## ▼ UPS Performance and Features

Can connected with multiple battery pack in parallel.

Long back up UPS can be freely connected with the battery pack, not only save the space, we also can increase the battery pack's quantity (Max. 15pcs battery pack), to meet the different users' need.

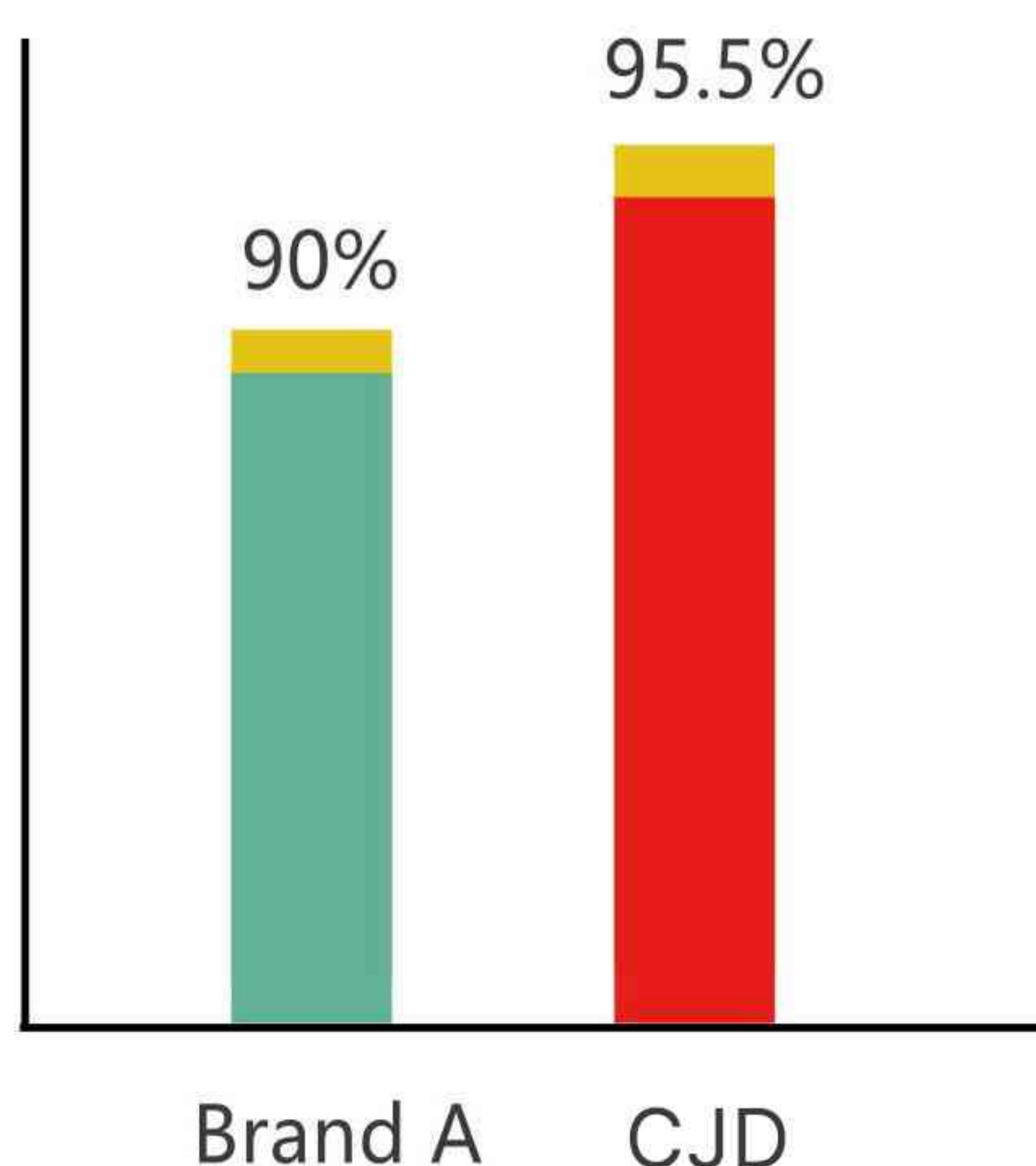


### Faster maintenance

The long back up model and the standard model use the same PCBA. It is very simple to connect and easy to maintain, so greatly improve the speed and reliability of maintenance, and users can adjust the required parameters through the LCD.

### Save power

At present, the efficiency of some brands in the market is generally between 80% ~ 93%. Take our SVC 3KVA and 6KVA as a sample, compared with the model which the efficiency is 90% in the market.



**Saving fee per year for 3KVA**  
 $(0.955-0.9) \times 3000W \times 24 \text{ hours} \times 365 \text{ day}$   
 $\approx 1445Kwh$

**Saving fee per year for 6KVA**  
 $(0.955-0.9) \times 6000W \times 24 \text{ hours} \times 365 \text{ day}$   
 $\approx 2900Kwh$



## ▼ SPECIFICATION 1-10KVA

MODEL	PT-1K	PT-1KL	PT-2K	PT-2KL	PT-3K	PT-3KL	PT-6K	PT-6KL	PT-10K	PT-10KL
Rated Capacity	1KVA /1000W		2 KVA /2000W		3 KVA /3000W		6 KVA /6000W		10 KVA /10000W	
<b>INPUT</b>										
Input Formats	L+N+PE									
Rated Input Voltage	208/220/230/240VAC									
Voltage Range	110~300VAC ( 110~176VAC,280~300VAC power limited )									
Frequency Range	50/60Hz±6Hz,± 10Hz (setable)									
Input Power Factor	≥0.99									
Input Harmonic Distortion	≤3% THD(linear load), ≤5% THD(non-linear load) PF=0.8					≤5% THD(linear load), ≤8% THD(non-linear load) PF=0.8				
<b>OUTPUT</b>										
Output Formats	L+N+PE									
Output Voltage	208/220/230/240VAC									
Output Accuracy	±1%									
Output Frequency	AC mode: same as AC ,Battery mode:50/60Hz±1%									
Output Harmonic Distortion	≤1% THD(linear load), ≤3% THD(non-linear load) PF=0.8					≤2% THD(linear load), ≤5% THD(non-linear load) PF=0.8				
Output Power Factor	1.0									
Transform Time	AC mode to Batt. Mode:0ms,Inverter mode to Bypass mode:4ms									
Load Capacity	AC Mode: 30min@102%~110% Load 10min@110%~130% Load 30s@130%~150% Load 200ms@>150% Load		Battery Mode: 1min@102%~110% Load 10s@110%~130% Load 3s@130%~150% Load 200ms@>150% Load			AC Mode: 30min@102%~110% Load 10min@110%~130% Load 30s@130%~150% Load 500ms@>150% Load		Battery Mode: 10min@102%~110% Load 1min@110%~130% Load 10s@130%~150% Load 500ms@>150% Load		
<b>MACHINE EFFICIENCY</b>										
AC Mode	Full load efficiency 94.5%@220VAC		Full load efficiency 95.5%@220VAC		Full load efficiency 95.5%@220VAC		Maximum efficiency 95.5%,Full load efficiency 95%			
Battery Mode	Full load efficiency 89.5%@36VDC		Full load efficiency 91.5%@72VDC		Full load efficiency 91.5%@96VDC		Maximum efficiency 95.3%,Full load efficiency 94.8%(20pcs battery)			
Battery Mode	Full load efficiency 89.5%@24VDC		Full load efficiency 91.5%@48VDC		Full load efficiency 91.5%@72VDC					
<b>BATTERY</b>										
Battery Quantity	7Ah x 2	36V	7Ah x 4/7Ah x 6	72V	7Ahx6/7Ahx8	96V	7Ahx16/7Ah x20	16~20PCS	7Ahx16/7Ah x20	16~20PCS
Backup Time	Depend on user's requirement and configuration									
Charge Current	PT1K-3K : 1.0A(default) ,1-2A(adjustable) External battery back; PT1KL-3KL: 5.0A(default) ,1-12A(adjustable) . PT6K-10K : 5.0A(default) ,1-12A(adjustable) External battery back; PT6KL-10KL : 5.0A(default) ,1-12A(adjustable)									
<b>WORKING ENVIRONMENT</b>										
Ambient Temperature	0~40℃									
Ambient Humidity	20%~95% ( No Condensation )									
Storage Temperature	-15~60℃ (Battery:0~40℃)									
Altitude	<1000m,Derating at above 1000m,maximum 4000m,Refer to IEC62040									
<b>DISPLAY</b>										
LCD	Working mode/load/battery power/input/output ect.									
<b>STANDARD &amp; CERTIFICATION</b>										
Standard & Certification:	EN/IEC 61000,EN/IEC 62040,GB/T4943,YD/T 1095,TLC etc.									
<b>PHYSICAL</b>										
case size(L*W*H)(mm)	276*145*225		392*145*225/395*190*325		395*190*225	392*145*225	460*190*615	395*190*325	460*190*615	395*190*325
Weight(KG)	18.8 (2pcs)	10.9 (2pcs)	30.6(48V, 2pcs)/ 22(72V,1pc)	15.4 (48V, 2pcs)	22.4(72V)/ 26.5(96V),1pc	16.5 (2pcs)	55.8(16pcs battery)/ 63.8(20pcs battery)	10.1	57(16pcs battery)/ 65(20pcs battery)	12.05
Carton size(L*W*H)(mm)	485*380*355		494*485*355(48V)/510*295*455(72V)		510*295*455	494*485*355	625*305*830	510*295*455	625*305*830	510*295*455
<b>COMUNICACION INTERFACE</b>										
INTERFACE	1*USB,1*RS232,1*EPO									