

SMART  
VOLTAGE  
CONTROL



## RT SERIES ONLINE HIGH FREQUENCY UPS

### RT Series Online High Frequency UPS

The 1-10KVA RT 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 RT 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.

### RT1-3KVA 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

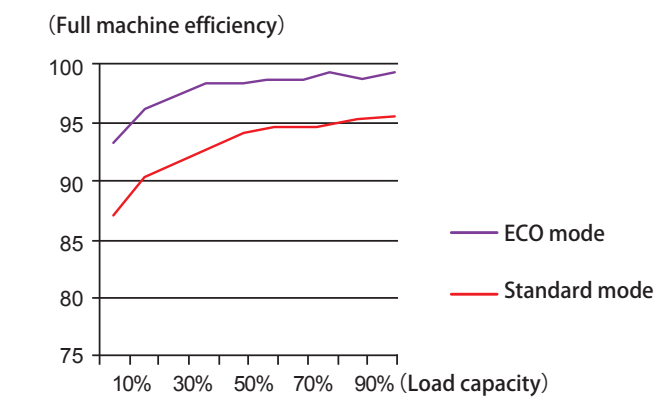


#### Novel Features Upgraded

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 efficiency

1-3KVA, the maximum efficiency is up to 95.5%. In ECO mode, the efficiency is up to 98.5%, saving energy and electricity for you.



The diagram of 1-10K efficiency under mains supply

#### Higher power factor

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

#### 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  $\pm 10$ Hz, with wider frequency adjustment range to match the input characteristics of the generator.

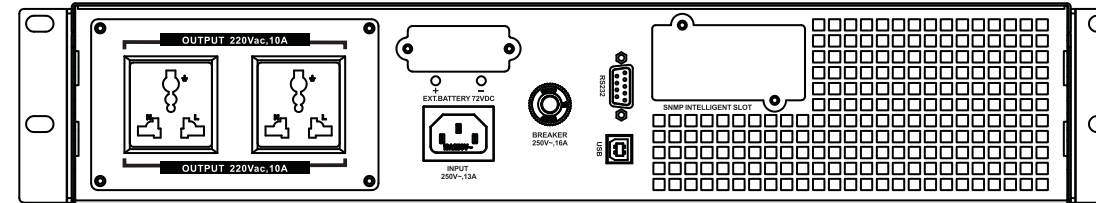
#### Higher design standards

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.

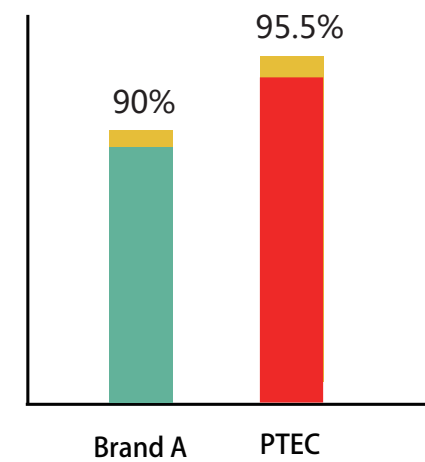


### Faster maintenance

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 PTEC 3KVA and 6KVA as a sample, compared with the model which the efficiency is 90% in the market.



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

## SPECIFICATION 1-3KVA

Model	RT-1K	RT-1KL	RT-2K	RT-2KL	RT-3K	RT-3KL
Rated Capacity	1 KVA /1000W		2 KVA /2000W		3 KVA /3000W(for72V) 3 KVA /2400W(for48V)	3 KVA /3000W
<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					
<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					
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			

### Machine Efficiency

AC Mode	Full load efficiency 94.5%@220VAC	Full load efficiency 95.5%@220VAC	Full load efficiency 95.5%@220VAC
Battery Mode	Full load efficiency 89.5%@36VDC	Full load efficiency 91.5%@72VDC	Full load efficiency 91.5%@ 96VDC
Battery Mode	Full load efficiency 89.5%@24VDC	Full load efficiency 91.5%@ 48VDC	Full load efficiency 91.5%@ 72VDC

### BATTERY

Battery Quantity	7Ah x 2/7Ah x 3	36V	7Ah x 4/ 7Ah x 6	72V	7Ah x 4/ 7Ah x 6	96V
Backup Time	Depend on user's requirement and configuration					
Charge Current	RT1K-3K : 1.0A(default) ,1-2A(adjustable) External battery back; RT1KL-3KL: 5.0A(default) ,1-12A(adjustable) .					

### WORKING ENVIRONMENT

Ambient Temperature	0~40°C
Ambient Humidity	20%~95% (No Condensation)
Storage Temperature	-15~60°C(Battery:0~40°C)
Altitude	<1000m,Derating at above 1000m,maximum 4000m,Refer to IEC62040

### DISPLAY

LCD	Working mode/load/battery power/input/output ect.
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### STANDARD & CERTIFICATION

Standard & Certification:	EN/IEC 61000,EN/IEC 62040,GB/T4943,YD/T 1095,TLC etc.
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### PHYSICAL

case size (L*W*H)	438*88*385	438*88*505	438*88*385	438*88*505	438*88*385
Weight(KG)	10.4/12.4 (1pcs)	5.8 (1pcs)	14.9/23.6 (1pcs)	7.0 (1pcs)	20.5/25.2 (1pcs) 7.4(1pcs)
Carton size(L*W*H)	533*507*178	533*507*178	533*617*178	533*617*178	533*507*178

### COMMUNICATION INTERFACE

INTERFACE	1*USB,1*RS232,1*EPO
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\*Product specifications are subject to change without notice.