

U-EQ33 Series

True On-Line Double Conversion Isolated Frequency Converter

■ Power range

10kVA-400kVA

■ Way of working

3 Phase in, 3 Phase out

■ Application field

Medical equipment, Data center, Precision instrument,
Banks, ETC, Industrial Production Lines& Controlling
System

■ Performance characteristics

Safe and Reliable

- Allowing Installation against the wall
- N+1 Redundant fan variable speed cooling system
- Maintenance bypass switch
- Output Isolation transformer
- Maximum parallel 8 units.

Comprehensive protection function

- Self-diagnosis function to avoid fault when power on
- Surge/overload/short circuit/over temperature /battery load voltage protection

Intelligent Management

- 7 inch touch screen
- Settable battery voltage: 30-34 units
- RS232/RS485 communication port, SNMP optional
- Cold start function



10kVA--200VA

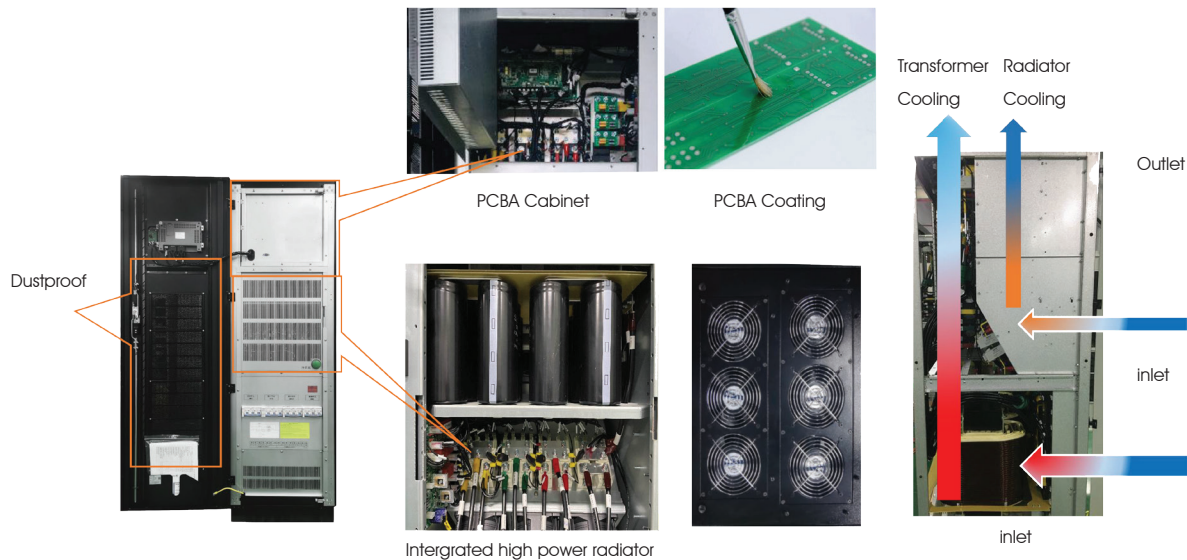


300kVA--400kVA

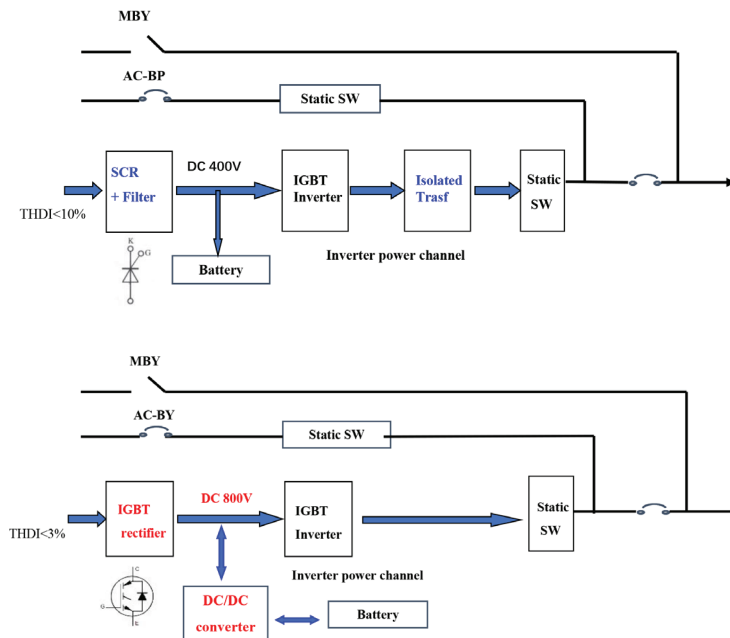
U-EQ 33 Series

Feature and Advantages

Conformal Coating, Thermal Insulation Design,
Strong Environmental Adaptability



"LF&LV" Structure Design, Higher Reliability



LF UPS - Low Frequency & Low Voltage

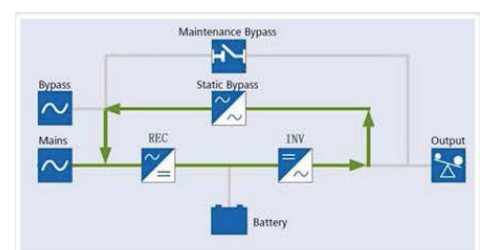
- Built-in output isolation transformer (with isolation boost function)
- Frequency rectifier SCR (50Hz)
- The battery is directly connected to the UPS bus without DC/DC
- The internal DC voltage is 400V DC low voltage

HF UPS - High Frequency & High Voltage

- No output isolation transformer
- High frequency rectifier IGBT (20000Hz)
- The battery needs to be connected to the UPS bus through the DC/DC circuit
- The internal DC voltage is 800V DC

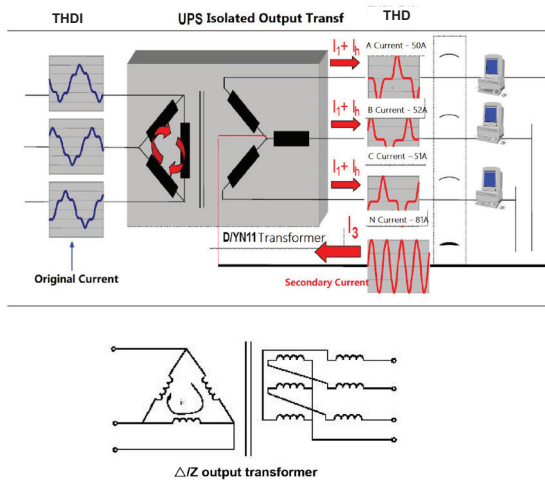
Self-aging function

Intelligent and convenient self-aging function is to save energy by more than 95% (not necessary to rent fake load), saving operation and installation costs



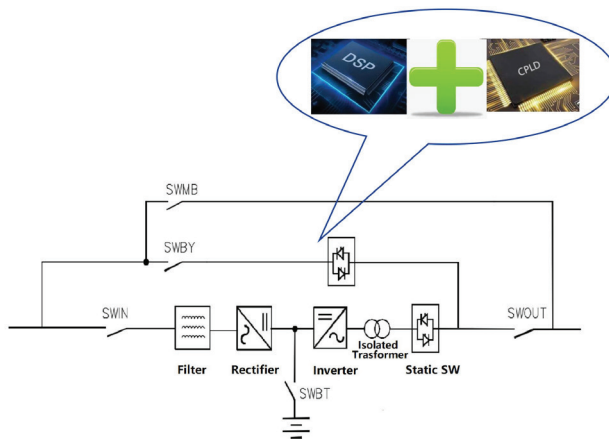
Feature and Advantages

Output Isolated Transformer, Handle Load Surge and Interference



- Boost the inverter output voltage to 380V
- Reduce the peak value of non-linear load current
- Isolate the harmonic of the load current
- In case of output short-circuit, the output transformer can effectively reduce the peak value of the short-circuit current and protect the UPS.
- Δ / Y-type output isolation transformer to reduce load current unbalance

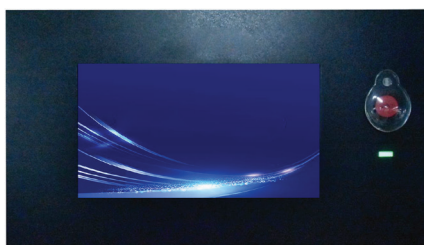
"1 + 1" Composite With DSP + CPLD Microprocessor Control, Strong Load Adaptability



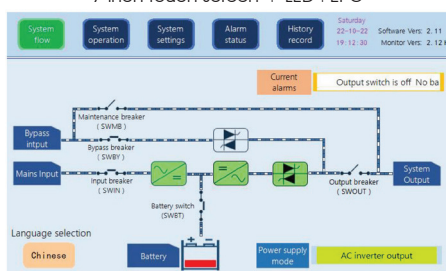
Hardware: DSP+CPLD, fast speed, high precision

Software: double-loop control + harmonic compensation control, dynamic and stable

HMI-Graphic LCD 7-inch Large Screen: Visually Partitioned, Comprehensive and Intuitive



7 inch touch screen + LED+EPO



4 SW" graphical dynamic presentation

System flow	System operation	System settings	Alarm status	History record	Saturday 22-10-22 19:19:32	Software Vers: 2.11	Monitor Vers: 2.12
System maintenance parameter setting							
Battery maintenance life(day)	30000	First login permission reset					
Capacitor maintenance life(day)	30000	Reset battery maintenance information					
Fan maintenance life(day)	30000	Reset capacitor maintenance information					
Battery service days	0	Reset fan maintenance information					
Capacitor service days	0						
Fan service days	0						
Page up							
Sign out							

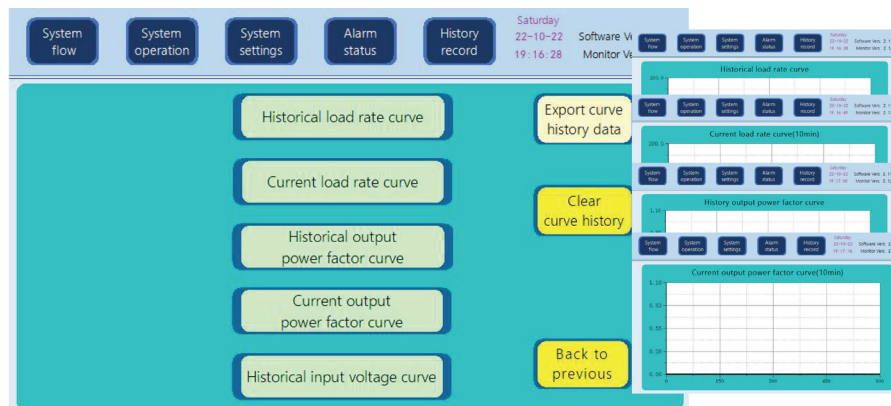
Consumable parts replacement reminder

System flow	System operation	System settings	Alarm status	History record	Saturday 22-10-22 19:15:01	Software Vers: 2.11	Monitor Vers: 2.12
System alarm							
Load alarm	Status	Alarm item	Status	Alarm item			
		A phase output overload error		Output load shock error			
		B phase output overload error		Frequent load shock error			
		C phase output overload error		Frequent load shock locked			
		IGBT_A overtemperature error		Output load short circuit error			
		IGBT_B overtemperature error					
		IGBT_C overtemperature error					
		Main transformer overtemperature					
		A phase output overload locked					
		B phase output overload locked					
		C phase output overload locked					
System status							

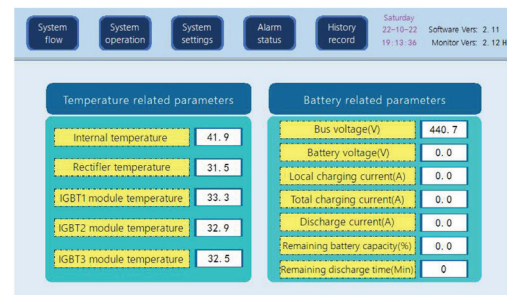
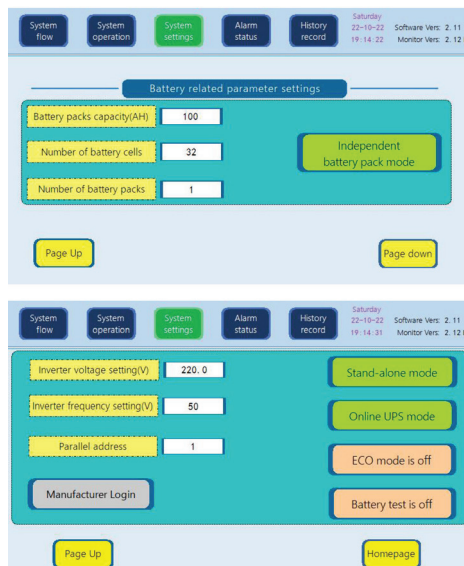
Alarm and fault tabular management

■ Feature and Advantages

Real-time Monitoring and Recording of Electrical Environment Data, and Working Conditions



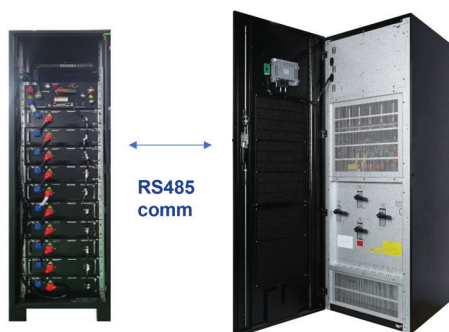
E-BAT Smart Battery Management, Professional and Flexible



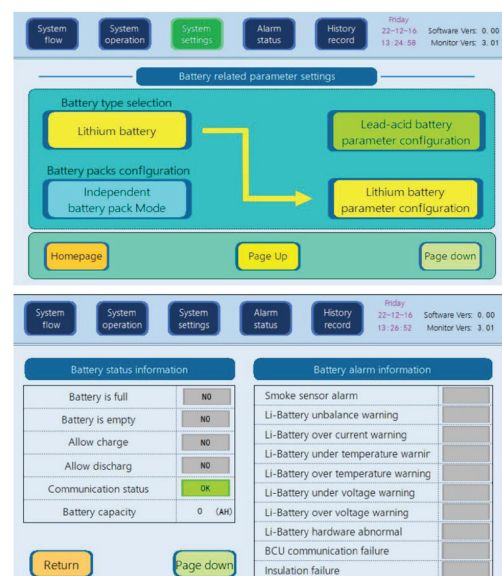
- Number of batteries: 29-34 odd numbers adjustable
- Charging current: 10-40A can be set
- Support battery cold start (10-80kVA)
- Supports parallel sharing of battery packs
- Support battery discharge test function
- Compatible with lithium batteries

LF UPS New Feature: Lithium Battery Optional

GGL data: the use of lithium batteries in UPS system is less than 5% in 2019, and it is expected to reach at least 40% in 2025



U-EQ33 UPS + lithium batt system



*SPECIFICATIONS : True On-line Double Conversion With Isolated Transformer

Model : U-EQ	U-EQ3310L	U-EQ3315L	U-EQ3320L	U-EQ3330L	U-EQ3340L	U-EQ3360L	U-EQ3380L	U-EQ33100L	U-EQ33120L	U-EQ33160L	U-EQ33200L	U-EQ33300L	U-EQ33400L
Capacity (kVA / kW)	10kVA 9kW	15kVA 13.5kW	20kVA 18kW	30kVA 27kW	40kVA 36kW	60kVA 54kW	80kVA 72kW	100kVA 90kW	120kVA 108kW	160kVA 144kW	200kVA 180kW	300kVA 270kW	400kVA 360kW
Input													
Rated Voltage	380/400/415Vac (3P4W+PE) (Optional : 440Vac)												
Voltage Range	± 25 % (± 30% Optional)												
Rated Frequency	50 / 60 Hz Auto-sensing												
Frequency Range	45Hz ~ 65Hz												
The bypass features													
Rated Voltage	380/400/415Vac (3P4W+PE)												
Rated Frequency Range	±15 % (± 10 %, ± 20% settable on display)											+40%,+20 settable	
Rated Frequency	50 / 60 Hz												
Frequency Range	±2 % (± 5 % settable on display)											±2,±5,±10,±20 settable	
Inverter/Bypass switch	<1ms												
Overload Capacity	150% last for 10 mins; 175% last for 1 mins; 200% for 18 seconds.												
Output													
Output PF	0.9 (1 Optional)												
Rated	380/400/415Vac, (3P4W+PE) (Settable on Display) ± 1 %												
Waveform / Transfer Time	Pure Sine Wave / 0ms												
Crest factor	3: 1												
Voltage Waveform Distortion	<2%@100% linear load; <4%@100% non-linear line												
Rated Frequency	50/60Hz (Settable on Display) ± 0.1 %												
Transient voltage response	± 5 %<10ms												
Overload	110%~125% last for 10mins; < 150% last for 1min.												
System Efficiency	≥92%@100%load												
Battery Input Type													
Seal lead acid maintenance free / Lithium (Optional)													
Number Charging	348VDC (348~408 Settable)												
Current	10-40A(settable)												
System													
Communication Port	RS232 / RS485 (MODBUS) / Dry contact / SNMP (Optional)												
Working	0 ~ 40 °C												
Humidity	0~95 % (no condensation)												
Altitude	<1000M no derating, > 1000M, derating 1% if every 100 meters increased												
Noise	≤65 dB@1M												
Protection System	Automatic Self - Diagnostics Test, Input Over & Under Voltage, Output Over & Low Voltage, Output Stabilizer, Overload, Low & End - Dischager Battery, MOV Surge & Short - Circuit, EMI & RFI Noise Filter, Over Temperature												
Size&Weight													
WxDxH (mm)	500 x 600 x 1250				500 x 800 x 1600			700 x 800 x 1800			1400X10 00X1800	1640X85 5X1900	2265X85 5X1900
Weight (Kgs)	230	250	260	300	400	450	520	600	650	825	1075	1630	2105

Spec. STD.20-03-24



Total Power Solutions