

# On Line UPS (Single Phase 3KVA~20KVA)

## NS series



## Specially for precision instrument and high end computer

100% made in Taiwan, the On Line UPS system is suitable for load of SMT, OA equipment, automatic testing system, computer and related products. In IGBT/PWM advance and module design, the equipment is highly reliable, excellent quality and exceptional long MTBF.

## Feature:

- **In low frequency isolated transformer design, safe and reliable**  
Inverter adopts low frequency isolation transformer design where inverter and output are totally isolated and can attain excellent protecting effect over the lightning strike, surge, interference from input end
- **Inverter adopts full bridge structure and is suitable for all kinds of load**  
Full bridge structure is more costly but has wide application and reliability is the highest, too
- **Rectifier and IGBT are module packed**  
IGBT is module sealed and is capable of sustaining large current transiently and is fast in heat radiation. It is sturdy and durable
- **Battery capacity can be expanded for long time discharge**  
In additional standard unit equipped battery, the product can be connected to large capacity battery for long time discharge and can fit with large current charging board to short battery recharging time
- **Output voltage can be adjusted for 10%**  
Output voltage of standard unit can be adjusted 10% and custom ordered special voltage can be entertained
- **Can be used as frequency converter with also UPS function**  
UPS output can be set to be frequency converter and still maintain the UPS function
- **RS232 contact may be fitted with USB or SNMP card**  
If fitted with monitoring software, it can monitor all kinds of situation of UPS
- **LED and LCD dual display, giving full picture of the conditions**  
LED can display system status, battery level and failure indicating. LCD can display input voltage, output voltage, frequency, battery voltage, output load level, output battery level, internal temperature that give you full information of UPS status
- **Multiple audio warning functions**  
When UPS is with problem, other than light Indicator and LCD display, there are different buzzers giving different audio warning
- **Low distortion sine wave output**  
With perfect sine wave and harmonic wave distortion at 0 – 100% linear load less than 3%
- **Can be started with battery and auto-restart when mains resumed**  
When UPS off and power is supplied by internal battery, UPS will be off automatically when battery energy is exhausted. And when mains is resumed, UPS will re-start automatically
- **Highly stable output voltage**  
Within allowable input voltage range, the serial product maintain less than 1% change in output
- **Over heating protection**  
At failure of cooling fan and internal temperatures is too high, the unit will turn off automatically

## ※ Application:



Office IT Equipment



Internet Data Center



Data Back Up System



Data Processing Center



Control Room



Automatic Testing Equipment

Low Frequency Isolated Transformer



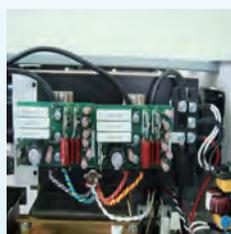
Adopt low frequency isolated transformer, reliable and safe

RS-232 Communication Interface



RS-232 communication port and SNMP slot allows software controlled automatic shut-down

Module Packing of IGBT



Main element rectifier and IGBT are packed in module, exceptionally reliable

Dual Display of LED and LCD



LED and LCD dual display giving full picture of situations of UPS

Extendable Discharging Time



Battery capacity can be expanded to extend discharging time and recharging

Model & Specification:

Model No.	LED Display	NS-302	NS-352	NS-502	NS-602	NS-802	NS-103	NS-123	NS-153	NS-203
	LED+LCD Display	NS-302S	NS-352S	NS-502S	NS-602S	NS-802S	NS-103S	NS-123S	NS-153S	NS-203S
Capacity		3KVA 2.4KW	3.5KVA 2.8KW	5KVA 4KW	6KVA 4.8KW	8KVA 6.4KW	10KVA 8KW	12KVA 9.6KW	15KVA 12KW	20KVA 16KW
Input	Voltage	100V,110V,115V,120V,220V,230V,240V±20%				190V,200V,208V,220V,230V,240V,380V±20%				
	Frequency	50或60Hz±5%								
	Phase	1 φ 2ω+G				1 φ 2ω+G or 3 φ 3ω+G or 3 φ 4ω+G				
Output	Voltage	100V,110V,115V,120V or 200V,220V,230V,240V								
	Frequency Stability	±0.5% (free oscillate)								
	Voltage Regulation	±1%		±1% (±3% with ISO Transformer)						
	Transient Response	<±5% ( 100% load change)								
	THD	<3% (0~100% linear load)								
	Waveform	True sine wave								
	Overload Capability	105% ~150% for 30 seconds, >150% for 10 cycle								
	Short Protection	Can select auto cut-off output and not trip to bypass mode to supply								
	Crest Factor	3 : 1								
	Transfer Time	Zero-cross transfer or <2 ms. while UPS transfer to bypass								
	Efficiency	≥ 85%								
Battery	Battery Type	Lead acid maintenance-free battery								
	Battery Voltage	192V								
	Back up Time (PF=0.7)	8mins	6mins	8mins	6mins	5mins	4mins	6mins	9mins	5mins
	Recharging Time	5 hours to 90%			8 hours to 90%					
Interface	RS232 (LED+LCD display) or dry contact (LED display) or AS-400 (option)									
Indicator	LED	Line(green), inverter(green), bypass(orange), battery(green), fault(red), overload(orange), over charge(orange), battery level(5 LED indicators)								
	LCD	System operating status display, input/output voltage, frequency, output loading %, battery voltage, temperature °C								
Audible Alarm	Black Out	Beeping every 4 seconds and auto stopped in about 2 minutes								
	Battery Low	Rapid beeping every second until battery approaches final discharging								
	Fault, Over Charging	Beeping continuously								
	Overload	Beeping 2 seconds on every other second until overload disappeared								
Appearance	Dimension WxHxD(cm)	24x62x59			27x74x63			29x40x67	35x102x93	
	Weight(KGS) / WITH ISO.	75/96	76/99	111/141	115/150	124/165	148/200	233/291	297/371	305/390
Environment	Audible Noise	<50db					<60db			
	Temperature, Humidity	Temperature: 0°C ~40°C Humidity: 0%~90% RH (Non-Condensing)								