

IP33 Series Tower UPS

40KVA to 120 KVA(for 380V/400/415V Power System)

Product Introduction

IP33 serial three phase UPS offers advanced technology that increases performance and reliability : three high speed DSPs with completed digital control fully ensure high quality of power supply, high input power factor makes UPS energy saving power. It also offers humanization design :full front access of serviceability, user-friendly interface.

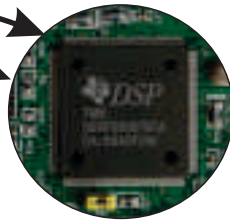
Applications: ISP(Internet Service Provider),IDC(Internet Data Center),computing center, banks, medical, security, data center, precision critical applications, sensitive equipment etc

Features

- Three phase in and out system, compatible with utility of 380/400/415V, 50/60Hz
- Parallel up to 6 units.
- Online double conversion, offering load with best power quality
- Support all kinds of load, high overload capability
- Fully digital control with three Digital Signal Processors (DSPs) including IGBT rectifier, inverter, charger
- Digital Circulating current control technology, increasing the parallel reliability
- Wide input voltage window, compatible with different utilities
- Green power technology, high input power factor, low current THD, high efficiency
- Intelligent battery management, extending battery lifetime
- Intelligent self-diagnose function, all kinds of fault protection, large capability of history record storage.
- Full front maintenance, saving space.
- Redundant design of power model fans, increasing the system reliability
- Modularised design of subsystem, convenient field maintenance scalability
- High MTBF(mean time between failure)>200,000h), low MTTR(mean time to repair)<0.5h)
- Large LCD display, friendly human machine interface
- Configured with top and bottom cable entry
- All kinds of option include main back feed protection, bypass back feed protection, battery leakage protection, battery start kit and output isolation transformer lighting protection kit.

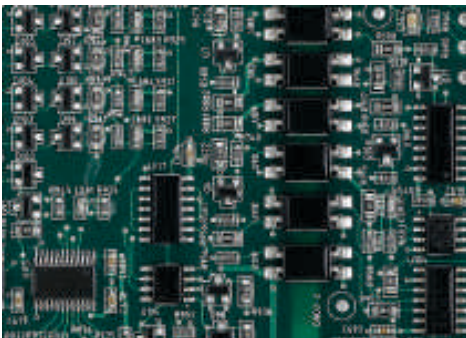


1. Totally digital control system



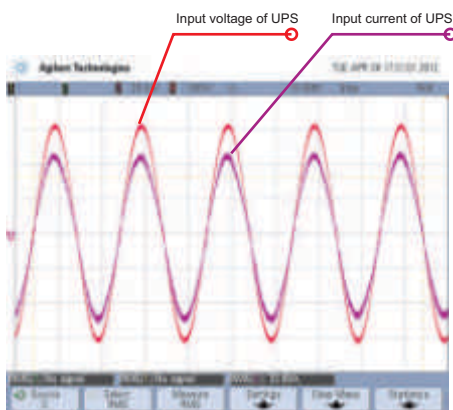
The double Digital Signal Processors (DSP) based control system realized the digital control for all the power conversions of the UPS. Excellent performance is realised together with high reliability of the system.

3. State of the art PCB design



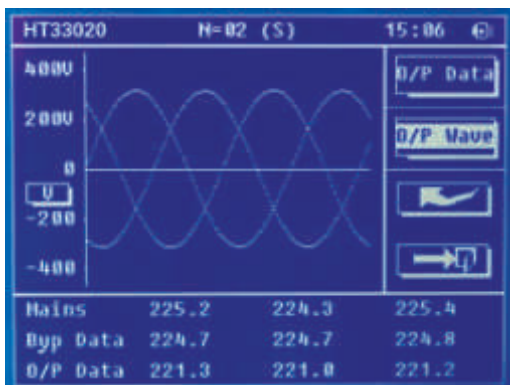
Most of the components are SMT type, combine with the conformal coating technology, the reliability is much higher than the traditional DIP components design.

3. Excellent input performance



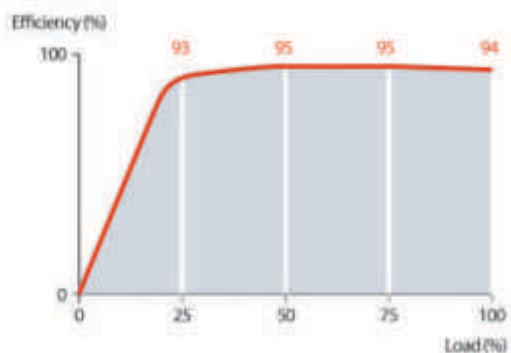
High input power factor, low input total harmonic distortion of current, IP33 is green power system and energy saving products.

4. Waveform display from the panel



The instantaneous output waveform of the UPS can be displayed on the panel.

5. State of the art efficiency curve

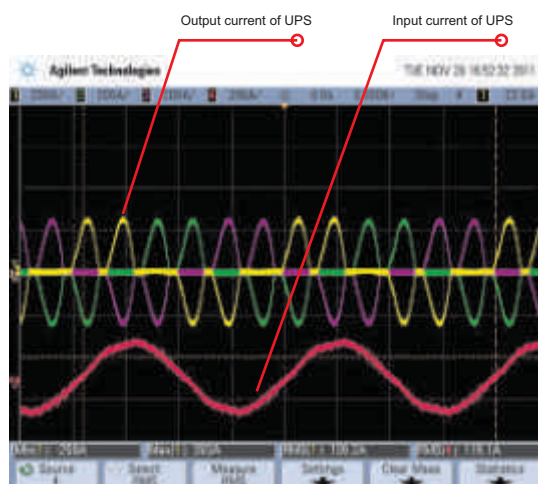
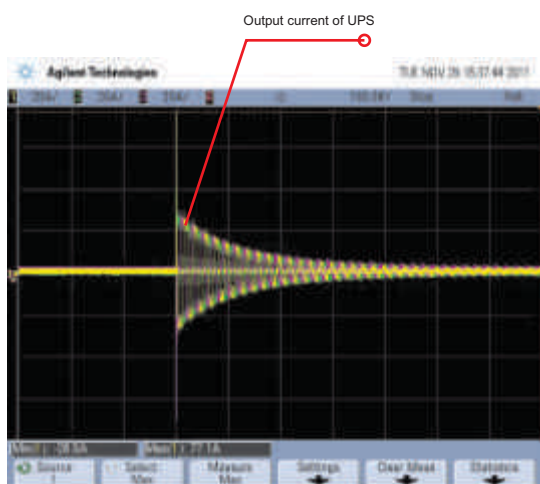


Due to the three level technology, the efficiency curve of IP33 reaches the maximum stage when the load is between 50% to 75%. Comparing to the efficiency curve of traditional products, IP33 ensures the highest operation efficiency on most of the applications.

6. Powerful load capability

IP33 achieves powerful load capability for all kinds of applications. 80kVA UPS is enough to handle 55kW motor through motor drive inverter. The waveform of putting 55kW motor and driver combined system to IP33 UPS:

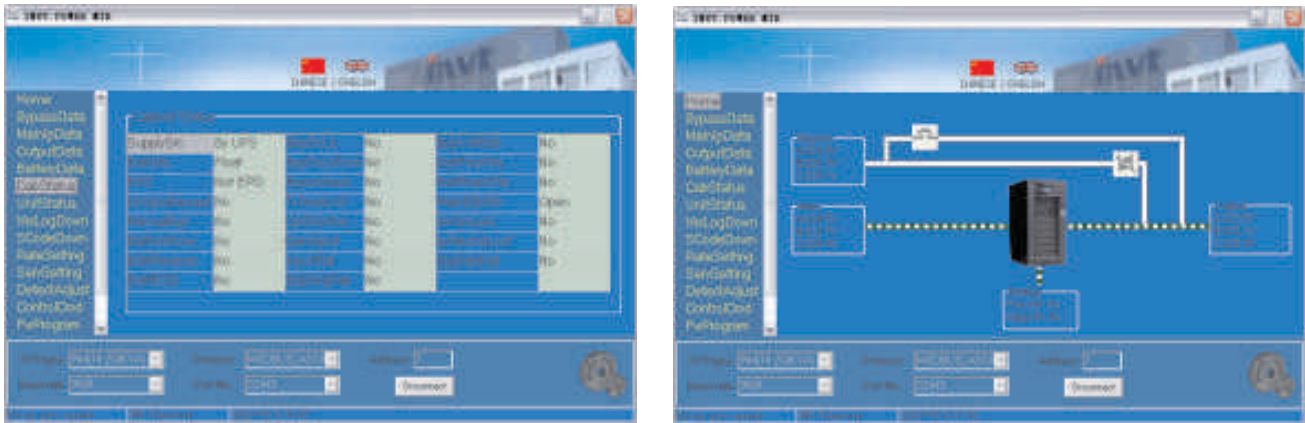
The input and output current of UPS:



7. Friendly control and monitoring system

Local RS232 or RS485 based control and monitoring software, realizes not only monitoring of the UPS status, but also calibration of all kinds of UPS parameters. SNMP based software offers remote monitoring to the system.

The interface of local control and monitoring software:



The interface of SNMP software:



Specifications

Model	IP33 SERIES TOWER							
CAPACITY	IP33040	IP33060	IP33080	IP33100	IP33120			
	40KVA	60KVA	80KVA	100KVA	120KVA			
Main Input	Input Voltage	380V/400V/415V (line to line), 50/60Hz						
	Input Connection	3 Ph+N+P						
	Power Factor	>0.99						
	Input Voltage Window	+25%~-20%, full load/-20%~-40%, power derating between 100% to 70%						
	Frequency Window	40~70Hz						
Bypass Input	Bypass Voltage	380V/400V/415V						
	Bypass Voltage Window	+15%~20%, full load						
	Frequency Window	± 5Hz, settable						
Battery	Battery Voltage	±240VDC						
	Charger Power	20%*Power						
	Charger Voltage Precision	1%						
Output	Voltage Precision	1%(balance load), 1.5%						
	Output Voltage Transient	5% (0~100% load step)						
	Voltage THD (Total Harmonic Distortion)	THD<1.5% (linear load), THD<5%(non linear load)						
	Power Factor	0.8						
	Frequency Tracking Range	50/60Hz±3Hz, adjustable						
	Frequency Precision (Free Running)	±0.02%						
	Phase Tolerance	120°±0.5° (balance and unbalance load)						
	Voltage Unbalance Degree	±1%						
	Frequency Tracking Speed	0.5Hz/s to 5Hz/s, adjustable						
	Crest Factor	3:1						
	Overload Capability	102% long time operation, 110% Transfer To Bypass After (TTBA) 1 hour 125%TTBA 10 mins, 150% TTBA 1 Minute, >150% TTBA 200ms						
	Bypass Overload Capability	125% long time operation, 125%<load<130% last for more than 1hour 130%<load<150%, last for more than 6 minutes, >1000%, last for more than 100ms						
	System	System Efficiency	Normal mode: 95%, ECO mode: 98%					
		Battery Mode Efficiency	95%					
Battery Configuration		12V, 40PCS (36~44pcs acceptable)						
Display		LCD and LED, Touch screen and Keyboard						
EMI		IEC62040-2						
EMS		IEC 61000-4-2 (ESD), IEC61000-4-3(RS), IEC6100-4-4(EFT), IEC 61000-4-5(Surge)						
Insulation Resistance		>2M (500VDC)						
Dialectic Strength		(input, output to PE) 2820VDC, leakage current<3.5mA, no flashover in 1 minute						
Surge Protection		Comply with IEC60664-1 class!V, endure surge of 1.2/50us+8/20us >6KV/3KA						
IP Class		IP20						
Interface (Communication Ports)		RS232, RS485, Dry contacts, SNMP Card, EPO, Generator Interface						
Installation/Connection		Top or Bottom cable connection						
Operating Temperature		0-40°C						
Relative Humidity		0-90% (non condensing)						
Noise (dB)		<55db						
Dimensions (W*D*H)		600*855*1350			600*855*1600			
Net Weight (KG)		164	186	208	256	278		