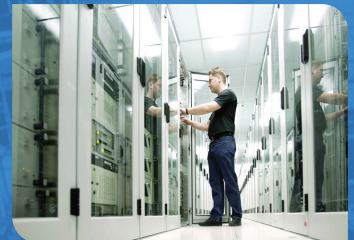CHUPHOTIC
ชูโฟทิค ยูพีเอส

CHUPHOTIC
JUPITER *TDX-i*

Performance Power Solutions

JUPITER TDX–i From 10 kVA to 200 kVA

3Phase True Online Double Conversion UPS
DSP Low Frequency with Isolated Transformer
IGBT Rectifier

TDX33-i series UPS is online high frequency UPS with output isolation transformer, featuring high performance, which is ideal for data center, medical facilities, industry, commercial facility and so on. TDX33-i series UPS provides high quality power protection, reliable power guarantee for your loads. Customization are available for special requirement.

Features and Advantages

High Reliability

- Wide input voltage range -50% ~ +25% allows the UPS to work in harsh electrical environments
- DC cold startup
- UPSs programmable sequential start-up reduces the impact on the generator
- Manual bypass maintenance design
- Allow 100% three phase unbalance load
- EPO function
- N+1 redundancy or hot-standby configuration increases system reliability
- Intelligent fan speed control and redundant fan design prevent UPS from overheating and increase system reliability
- PCB boards feature with anti-corrosion paint coating
- Roof radiation and front maintenance save installation space
- Self aging test function

High Performance

- Online double conversion, high AC/AC efficiency up to 95% reduces energy loss and saves operating costs
- Low THDi: < 5% avoid pollution to the grid
- High input power factor up to 0.99 eliminate the need to oversize the genset to save capital investment
- High output power factor: 0.9(1.0 option)
- DSP and Full digital control technology
- Efficiency up to 98% in ECO mode, could transfer to inverter mode when the Grid is unstable.

Advanced Communications

- RS232/485 & SNMP communication interface
- Configurable communication interface module
- Flexible Network Management
- Point-to-Point monitoring
- Alerts users of a power event or pre-specified condition
- Automatically shut down your servers
- Remotely supervise and control UPS solutions

Output Isolation Transformer

- Electricity isolation make sure better safety
- High impact resistance capacity
- Strengthen short circuit protection
- High output power quality
- Reduce the neutral-earth voltage

Application

- Industrial And Commercial tax affair
- Financial And Securities
- Industrial Equipment
- Medical & Health Equipment
- Postal & Telecommunications
- Energy & Electricity
- Hospital, Medical Lab
- Data Canter & Server Room

Advance Battery Management (ABM)

- Automatic boosting and floating charge control, adapt for lead-acid battery
- 10-100A charging current optional, reduce battery recharge time
- Provide battery self-test function and regular battery maintenance, prolong battery's lifetime
- Battery temperature monitoring & compensation
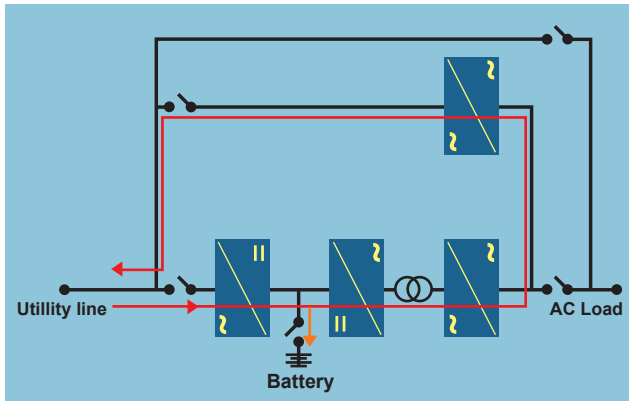
Perfect Display : HMI

- LCD touch display is on the front door, easy operation
- Manual switch, to ensure turn on or turn off once touch screen is failed
- Output voltage 380/400/415Vac, 50/60Hz, ECO mode all can be settable on the display panel.
- More than 320 historical records.

Added-Value Service

- UPS management software
- SNMP & MODBUS communication
- Customized design
- IP grade upgrade& temperature sensor
- Lightning protection device C/D level
- Charging temperature compensation
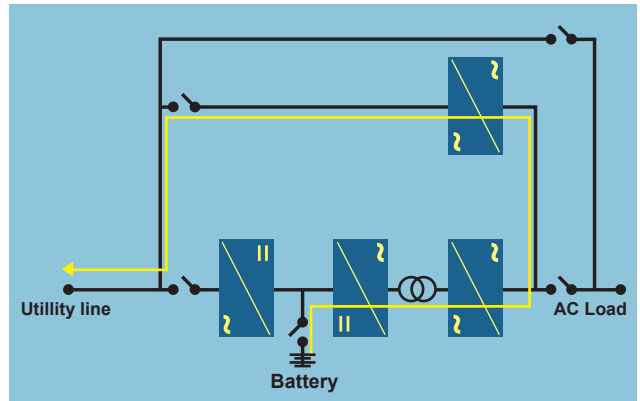- Input/bypass isolation transformer (option)

Smart UPS test function

- Utility test normal mode in saving function;
  Utility supply to UPS and teed to output then recovery energy pass through static bypass to utility line for the recycle energy as **picture 1**
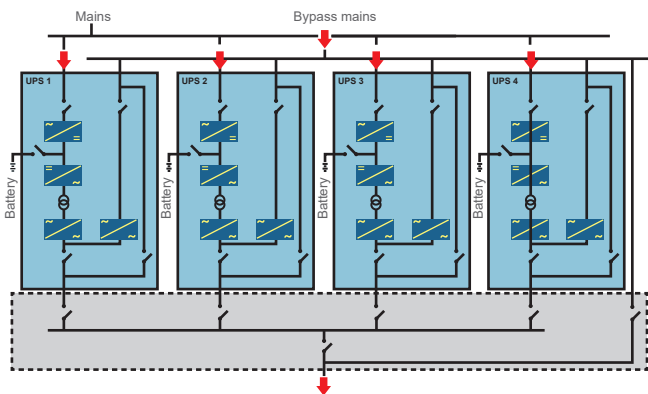
- Battery test backup mode in saving function;
  Battery energy storage teed to inverter and pass through to static bypass to utility line for saving energy as **picture 2**

Picture 1: Utility test normal mode in saving function

Picture 2: Battery test backup mode in saving function
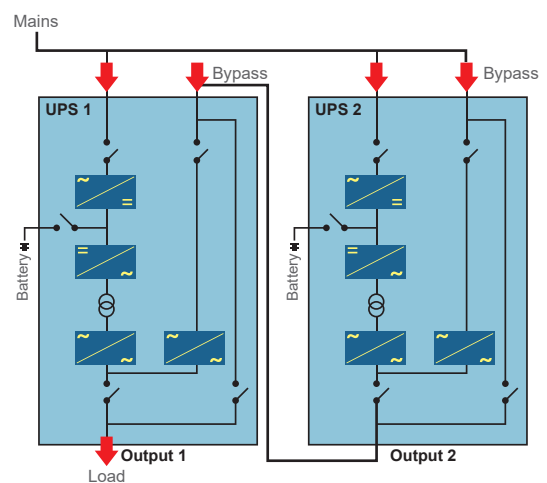
Intelligent Parallel Redundancy N+X System

N+X with high parallel ability, can be freely parallel up to 8 pcs. Geminately improve the output power each parallel until independence, no host and subordinate requirement, each unit can be the main unit to make sure the parallel easily achieve

Hot Standby Parallel N+1 System

The When UPS-2 is fault or battery deep discharge, it will transfer to bypass, so the load will be powered by UPS-1 without interruption. Two UPS works independently. So the reliability for system will greatly improved.

The two UPS can be different and rated power. Simple connection, no additional communication line is needed. No additional parallel card is needed.
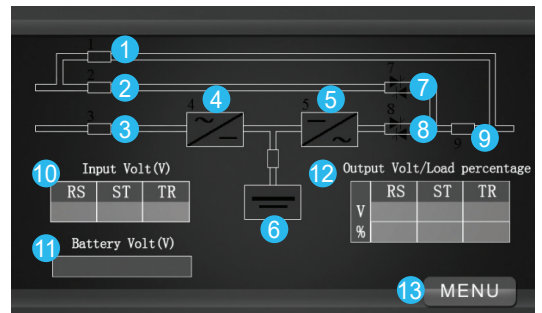
HMI Touch Screen Display

Touch screen provides a hommization operation interface for UPS. By touch screen, indicator light and user-friendly operation system, user can easily browse the input, output, load, and battery parameters of UPS to get the current status and warning information of UPS in time and to see functions and control UPS. Touch screen can also provide historical alarm log for user, provide a reliable basis for fault diagnosis.

Panel introduction

1. Maintenance bypass breaker instructions
2. Bypass breaker instructions
3. Main circuit breaker instructions
4. Rectifier work instructions
5. Inverter work instructions
6. Battery indication
7. Bypass Static Switch
8. Inverter static switch
9. Output breaker instructions
10. Main input voltage display
11. Battery voltage display
12. Output voltage/load percentage
13. Menu

JUPITER *TDX-i* Three phase in-Three phase out

Model	without battery	TDX3310i	TDX3315i	TDX3320i	TDX3330i	TDX3340i	TDX3350i	TDX3360i
	with battery	TDX3310is	TDX3315is	TDX3320is	TDX3330is			
Power (VA/W)		10kVA / 9kW	15kVA / 13.5kW	20kVA / 18kW	30kVA / 27kW	40kVA / 36kW	50kVA / 45kW	60kVA / 54kW
Technology		DSD True Online Double Conversion with Isolation Transformer						
Input Power Factor		High Power Factor Corrector PFC >0.99						
Rectifier Type		3Level IGBT Rectifier THDi<5%						
INPUT SYSYTEM								
Voltage System		3phase 4wire+PE (3phase 3wire+PE option)						
Voltage		L-N/L-L:220/380VAC -50%/+25% (115/200, 120/208, 230/400, 240/415 option)						
Frequency		50/60 Hz +/-10%						
Soft Start		0-100% in 5sec						
BYPASS SYSTEM								
Phase		3phase 4wire+PE (3phase 3wire+PE option)						
Voltage		L-N/L-L : 220/380VAC (115/200, 120/208, 230/400, 240/415 option)						
Transfer Time		0ms : Zero Transfer						
CHARGER SYSTEM								
Charger Mode		384VDC : Tri-State Charger (Buck, Boost, Float)						
Float Voltage		384VDC : 432-411.6VDC						
Boost Voltage		384VDC : 454.4-464VDC						
Battery Charge Current		10-25A setting				10-40A setting		
OUTPUT SYSTEM								
Phase		3phase 4wire+PE (3phase 3wire+PE option)						
Voltage		L-N/L-L : 220/380VAC +/-1% (115/200, 120/208, 230/400, 240/415 option)						
Frequency		50Hz/60Hz +/-0.1%						
Wave Form		Pure Sine Wave						
Unbalance load Voltage		2% compatible 100% Load Unbalance						
Total Harmonic Distrotion		THDv < % at Full Load (Linear Load), <5% at Full Load (Non Linear Load)						
Smart ECO Efficiency		up to 98%						
Transfer Time		0ms : Zero Transfer						
Power Factor		PF0.9 (PF1.0 Option)						
Over Load		105% Load for Continuity, 106%-125% Load for 10 mins, 126%-150% Load for 1 min >150 Load for 500 ms						
BATTERY								
Battery Type		AGM / SLA : Sealed Lead Acid (Maintenance Free) Battery (Option : UL94-V0)						
Battery Capacity		32x12V7.5Ah	64x12V7.5Ah	64x12V7.5Ah	64x12V9.4Ah	External Battery Unit		
Battery Voltage		384Vdc/32Pcs (360/372/384Vdc : 30/31/32Pcs)						
Backup Time		5min at Full Load						
Extend Backup Time		6-120 min						
Battery Self-Testing		Automatically Alarm and Estimate Battery in battery abnormal status						
PROTECTION SYSTEM								
Input Protection		Input Voltage / Frequency Over limited, Wrong phase, Lack phase						
Output Protection		Over Current, Short Circuit, Output Over / Under Voltage						
Battery Protection		Over Charge, Over-Discharge Protection						
Temperature Protection		Ambient over-temperature protection, inverter over-temperature protection						
Maintenance Bypass		MCB Bypass						
Alarm		Overload, Abnormal AC input, low battery, UPS Failure						
INDICATOR								
LCD Display & ICON(HMI)		Main input, Rectifier, Inverter, Bypass, Maintenance bypass, Battery, Bypass static, Inverter static,Output, Main input voltage display, Battery voltage display, Output voltage display/Load percentage, Menu						
COMMUNICATION								
Intelligent Port		RS232/RS485, Parallel card interface, Dry Contact, (MODBUS and SNMP adapter are optional)						
ENVIRONMENT								
Audible Noise		< dB						
Temperature		0°C - 40°C						
Humidity		0%-95% (Condensing)						
STANDARD								
Safety / EMC / Performance		TIS.1291 : Part1-2553, Part2-2553, Part3-2555 C3 / **CE** : IEC62040-1, -2, -3, IEC55022, IEC61000						
Manufacturer QMS		ISO9001 : 2015 / ISO14001 : 2015						
Dimension (W x D x H) mm.		480x900x1200				800x800x1600		
Weight with out Batt / with Batt (Kg.)		323/403	353/513	373/533	393/553	450	470	490

• All specification subject to change without notice
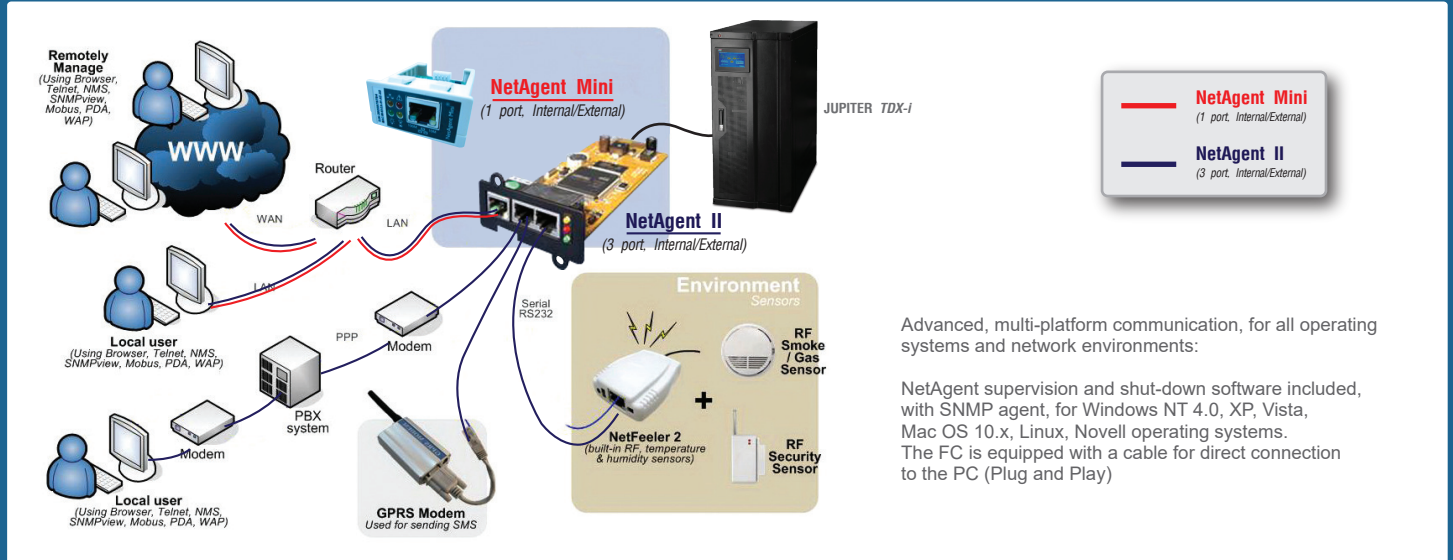• Customer –made specifications are acceptable

JUPITER TDX-i
Three phase in-Three phase out

Model	TDX3380i	TDX33100i	TDX33120i	TDX33160i	TDX33200i
Power (VA/W)	**80KVA/72kW**	**100kVA/90kW**	**120kVA/108kW**	**160kVA/144kW**	**200kVA/180kW**
Technology	DSP True Online Double Conversion with Isolation Transformer				
Input Power Factor	High Power Factor Corrector>0.99				
Rectifier Type	3Level IGBT Rectifier THDi< 5%				
INPUT SYSYTEM					
Voltage System	3phase 4wire+PE (3phase 3wire+PE option)				
Voltage	L-N / L-L : 220 / 380VAC -50% / +25% (115 / 200, 120 / 208, 230 / 400, 240 / 415 option)				
Frequency	50 / 60 Hz +/-10%				
Soft Start	0-100% in 5sec				
BYPASS SYSTEM					
Phase	3phase 4wire+PE (3phase 3wire+PE option)				
Voltage	L-N / L-L : 220 / 380VAC (115 / 200, 120 / 208, 230 / 400, 240 / 415 option)				
Transfer Time	0ms : Zero Transfer				
CHARGER SYSTEM					
Charger Mode	384VDC : Tri-State Charger (Buck, Boost, Float)				
Float Voltage	384VDC : 432-411.6VDC				
Boost Voltage	384VDC : 454.4-464VDC				
Charge Current	10-100A setting				
OUTPUT SYSTEM					
Phase	3phase 4wire+PE (3phase 3wire+PE option)				
Voltage	L-N / L-L : 220 / 380VAC +/-1% (115 / 200, 120 / 208, 230 / 400, 240 / 415 option)				
Frequency	50Hz / 60Hz +/-0.1%				
Wave Form	Pure Sine Wave				
Unbalance load Voltage	2% compatible 100% load unbalance				
Total Harmonic Distrotion	THDv : <2% at Full Load (Linear Load), <5% at Full Load (Non Linear Load)				
Smart ECO Efficiency	up to 98%				
Transfer Time	0ms : Zero Transfer				
Power Factor	PF0.9 (PF1.0 Option)				
Over Load Capacity	105% Load for Continuity, 106%-125% Load for 10 mins, 126%-150% Load for 1 min >150 Load for 500 ms				
BATTERY					
Battery Type	AGM / SLA : Sealed Lead Acid (Maintenance Free)Battery (Option : UL94-V0)				
Battery Capacity	External Battery Unit				
Battery voltage	384Vdc / 32Pcs (360 / 372 / 384Vdc : 30 / 31 / 32Pcs				
Battery Self-testing	Automatically Alarm and Estimate Battery in battery abnormal status				
PROTECTION SYSTEM					
Input Protection	Input Voltage / Frequency Over limited, Wrong phase, Lack phase				
Output Protection	Over Current, Short Circuit, Output Over / Under Voltage				
Battery Protection	Over Charge, Over-Discharge Protection				
Temperature Protection	Ambient over-temperature protection, inverter over-temperature protection				
Maintenance Bypass	MCB Bypass				
Alarm	Overload, Abnormal AC input, low battery, UPS Failure				
INDICATOR					
LCD Display & ICON (HMI)	Main input, Rectifier, Inverter, Bypass, Maintenance bypass, Battery, Bypass static, Inverter static, Output, Main input voltage display, Battery voltage display, Output voltage display/Load percentage, Menu				
COMMUNICATION					
Intelligent Port	RS232/RS485, Parallel card interface, Dry Contact, (MODBUS and SNMP adapter are optional)				
ENVIRONMENT					
Audible Noise	<65dB				
Temperature	0°C - 40°C				
Humidity	0%-95% (Condensing)				
STANDARD					
Safety / EMC / Performance	TIS1291 : Part1-2553, Part2-2553, Part3-2555, C3 / **CE** : IEC62040-1, -2, -3, IEC55022, IEC61000				
Manufacturer QMS	ISO9001 : 2015 / ISO14001 : 2015				
Dimension (W x D x H) mm.	1000x800x1800				
Weight(Kg.)	690	725	775	905	1190

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• Customer –made specifications are acceptable
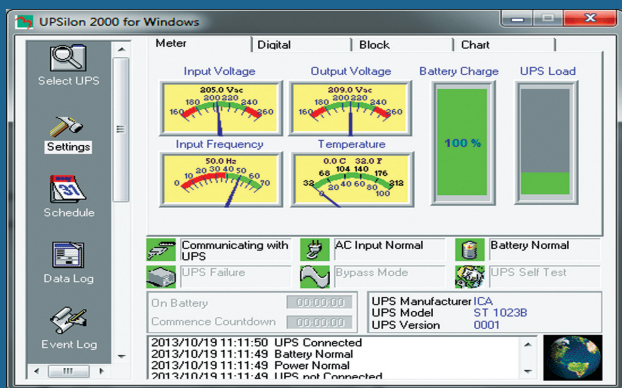
Communication and Power Management Solutions

Advanced, multi-platform communication, for all operating systems and network environments:

NetAgent supervision and shut-down software included, with SNMP agent, for Windows NT 4.0, XP, Vista, Mac OS 10.x, Linux, Novell operating systems. The FC is equipped with a cable for direct connection to the PC (Plug and Play)

ADVANCED COMMUNICATION

- Comprehensive UPS management with flexible configuration via Web Browser, NMS, Telnet or SNMP.
- Support advance encryption: HTTPS, SSL, SSH, SNMPv3
- Centralized authentication by Radius
- Event notification via E-mail, SMS or Trap
- Support NetFeeler II (environment monitoring) with temperature, humidity, water presence, smoke and door / window sensors
- Support USB Wifi 802.11b/g, USB flash disk / external USB HDD, compatible USB camera & more
- Support UPS MIB, RFC1628, PPC MIB
- Support GPRS modem
- Multi-language user interface
- Real-time UPS monitoring
- Schedule periodic UPS self-test
- Record event / data log
- Can also provide shut-down software for: IBM AIX; Free BSD; BSDI UNIX; BSD/OS; SCO Unixware; SCO Openserver; Sun Solaris; Compaq True64; HP UNIX; HP OpenVMS; HP Openview; SGI Irix MIPS; NCR UNIX
- Battery test log

UPSilon 2000 UPS Monitoring software

For Microsoft Windows 95 / Microsoft Windows 98 / Microsoft Windows NT / Microsoft Windows 2000 / Microsoft Windows Me / Microsoft Windows XP / Novell NetWare, Linux, FreeBSD

- Auto sending warning messages by e-mail.
- Auto sending warning messages by pager.
- Auto detecting AC power failure and UPS battery low.
- Providing the UPS expected time setting of power supply.
- History data recording.
- Auto shutting down the system and turning off the UPS when AC power failed.
- Broadcasting the warning messages to all the workstations.
- Display the system shutdown countdown.
- Able to operate on server and workstation.
- Schedule on/off in a week
- Programmable UPS auto-testing period.
- UPS status reporting on server screen, including the input/output voltage, load, line frequency, temperature and so on.
- Local Network UPS monitoring through an Net Agent or SNMP Agent.

SNMP UDP

This is to configure the UDP port of the NetAgent and trap receiver. SNMP default port is 161; and Trap MIB is UDP162

AS-400 Card

The AS400 communication card provides contact closures for remote monitoring your UPS. To meet different application requirement, the AS400 card is capable of selection the status of the dry-contact signal (active close or active open) by setting jumper. This suitable applications are listed below:

- IBM Server, Personal PC & Workstations equipments
- Auto-controlled industrial equipment & communication applications