ISO9001

On-Line High Prequency

UPS (1 - 3 KVA)

ENERGY POWER SAVE

On-Line High Prequency

UPS (1 - 3 KVA)

Since 19 9

ST Series

Product Certfication

CE:

Standard:

EN 62040-2:2006
(EN61000-4-2:2009,
EN61000-4-3:2006+A1:2008+A2:2010,
EN61000-4-4:2004+A1:2010,
EN61000-4-5:2006,
EN61000-4-6:2009,
EN61000-4-8:2010,
EN61000-4-11:2004,
EN61000-2-2:2002)

True On-Line UPS

Features

- DSP Technology:The advanced DSP digital control technology enables UPS more stable performance.
- Environment Friendly:This UPS is eco-designed and manufactured to meet the China local pollution control requirement of Electronic Products,which means it will cause no harm to environment and human beings in normal usage.
- Active input power factor correction(PFC):Digital control of the PFC enables the UPS to keep input power factor above 0.99 to prevent possible electric grid pollution and meanwhile mostly save the cost.
- Wide range of input voltage and frequency:We intentionally widen the range of input factors to make sure the UPS can apply to various environment,which will effectively sustain the battery charging even in unstable power environment so that the service life of the UPS could be obviously prolonged.
- Zero power switch delay:When the utility power fails,UPS will automatically switch from AC mode to battery mode with no delay,which ensure stable power supply of operating system.
- Adaptive Load Management:This technology allows the UPS to be set up at a fixed 50Hz or 60Hz output,while it alsocan intelligently monitor power usage and automatically shed and reconnect loads in order to prevent generator overload.
- Sufficient Expansion Slots:The pre-allocated smart slots enable flexibility in choice of USB cards,AS400 cards,CMC monitoring cards, SNMP cards,RS485 cards and EMD environment monitoring cards.
- The load PFC is 0.8:it adapts the features of most current electric equipment and elevates the load-bearing capacity of the machines.
- Support the generator:The wide range of input voltage and frequency can effectively separate the harmful electric wave produces by the generator and provide safe and reliable power supply.
- Large LCD display

Model	Rated capacity	Input			Output				Battery			Transfer time	Operating environment	Dimension (LxWxH) mm	Net weight (Kg)
		Voltage(Vac)	Power factor	Frequency(Hz)	Voltage(Vac)	Frequency(Hz)	Output factor	Overload rating	Type	Back up time	Rated voltage				
1K	1KVA	80–300	0.99	40-60 Adjustable	220/230 ±2%	Synchronize with AC power (AC mode); 50/60Hz±0.2Hz (batterymode)	0.8	105–150%, 30 seconds, then transter to bypass and alarm	Sealed lead acid maintenance free	More than 5 min (half load)	36V	0	Working humidity: 20% ~ 95% Working temperatures: 0 ~ 40°C	350×114×230	11.5
1KS	1KVA									External)				350×114×230	6
2K	2KVA									More than 5 min (half load)	72V			425×190×328	22.5
2KS	2KVA									External)				425×190×328	10
3K	3KVA									More than 5 min (half load)	96V			425×190×328	27.5
3KS	3KVA									External)				425×190×328	11

GT Series

VT Series

PT Series

OT Series

ENERGY POWER SAVE

ISO9001

On-Line High Prequency UPS (6 - 10 KVA)

single phase input/output

On-Line High Prequency UPS (6 - 10 KVA)

single phase input/output

Since 19 9

ST Series

OT Series

Product Certification

CE:

Standard:

EN 62040-2:2006
(EN61000-4-2:2009,
EN61000-4-3:2006+A1:2008+A2:2010,
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EN61000-4-8:2010,
EN61000-4-11:2004,
EN61000-2-2:2002)

PT Series

GT Series

VT Series

The protector of large scale critical use

On-line UPS has a similar working principle as the ups except for a larger load capacity to deploy in large scale electrified places having high requirements on quality of power supply.

As a user-friendly policy,the ups supports various operating systems,also support the TCP/IP local network and remote monitoring.

True On-Line UPS

Features

- DSP Technology:The advanced DSP digital control technology enables UPS more stable performance.
- Environment Friendly:This UPS is eco-designed and manufactured to meet the China local pollution control requirement of Electronic Products,which means it will cause no harm to environment and human beings in normal usage.
- Active input power factor correction(PFC):Digital control of the PFC enables the UPS to keep input power factor above 0.99 to prevent possible electric grid pollution and meanwhile mostly save the cost.
- Wide range of input voltage and frequency:We intentionally widen the range of input factors to make sure the UPS can apply to various environment,which will effectively sustain the battery charging even in unstable power environment so that the service life of the UPS could be obviously prolonged.
- Zero power switch delay:When the utility power fails,UPS will automatically switch from AC mode to battery mode with no delay,which ensure stable power supply of operating system.
- Adaptive Load Management:This technology allows the UPS to be set up at a fixed 50Hz or 60Hz output,while it alsocan intelligently monitor power usage and automatically shed and reconnect loads in order to prevent generator overload.
- Sufficient Expansion Slots:The pre-allocated smart slots enable flexibility in choice of USB cards,AS400 cards,CMC monitoring cards, SNMP cards,RS485 cards and EMD environment monitoring cards.
- The load PFC is 0.8:it adapts the features of most current electric equipment and elevates the load-bearing capacity of the machines.
- Support the generator:The wide range of input voltage and frequency can effectively separate the harmful electric wave produces by the generator and provide safe and reliable power supply.
- Large LCD display

Features

- Pure on-line double conversion design
- Wide input range
- Flexible intelligent monitoring program and strong communications function
- Compact design
- Precise utility power synchronizing system
- Cold start function
- Perfect protection
- Power conservationUPS
- LCD man-machine conversation platform design

Specification:

Model		6K	6KS	10K	10KS
Type of equipment		On–line high frequency			
Rated capacity		6KVA/4800W		10KVA/8800W	
Input	Range of voltage	160-274VAC(full load)		1P2W+G)	
	Current	32A(max)		50A(max)	
	Frequency	40–60Hz(50Hz)/50~70Hz(60Hz)			
	Power factor	⩾0.99			
Output	Range of voltage	220Vac/230Vac ±1% 1P2W+G			
	Frequency	Line mode:(1)synchronized 46 ~ 54Hz; (2) 50Hz(line 40~ 46 or 54~ 60Hz); Bat mode:50Hz.			
	Current	27.3A		45A	
	Power factor				
	Waveform	Sine wave			
	Waveform distortion	Linear ⩽ 7% when RCD 100% loading(Non-line) Linear ⩽ 3% when R 100% loading(line)			
Overload protection		100%–125%,1 minutes to transfer to bypass >150%,300ms to transfer to bypass			
Transfer time		0ms			
Battery	Type	Sealed lead acid maintenance free			
	Voltage	192Vdc/240Vdc			
Weight(Kg)		68	17.5	70	19.5
Width(mm)		260	260	260	260
Depth(mm)		560	533	560	533
Height(mm)		717	501	717	501
Operating Temperatures(˚C)		0˚C ~ 40˚C			
Humidity(%)		0 ~ 90%			
Altitude(m)		<1500m			
Communication		9Pin D Type Connector(RS232) or USB port(New)			
Color of machine case		Black			

ISO9001

On-Line High Prequency

UPS (10 - 20 KVA)

3 phase input / 1 phase output

ENERGY POWER SAVE

On-Line High Prequency

UPS (10 - 20 KVA)

3 phase input / 1 phase output

Since 19 9

True On-Line UPS

Functions&features:

DSP system
Wide AVR range
True on-line UPS
IGBT technology
Double Conversion
Overload and short circuit protection
LCD display
N+X parallel connection(6-20KVA)
Cold start
Intelligent slot for SNMP adaptor(optional)
On-line maintenance service
Isolation transformer(optional)

Product Certification

CE:

Standard:

EN 62040-2:2006
(EN61000-4-2:2009,
EN61000-4-3:2006+A1:2008+A2:2010,
EN61000-4-4:2004+A1:2010,
EN61000-4-5:2006,
EN61000-4-6:2009,
EN61000-4-8:2010,
EN61000-4-11:2004,
EN61000-2-2:2002)

Specification:

Model		3110K	3110KS	3115K	3115KS	3120K	3120KS
Rated power		10Kva/8kw		15Kva/12kw		20Kva/16kw	
Input	Voltage	274~474VAC(full load)					
	Frequency	40-60Hz(50Hz)/50~70Hz(60Hz)					
	Power factor	0.99					
Output	Voltage	220Vac/230Vac ±2%					
	Frequency	Line mode:(1)synchronized 46~ 54Hz; (2) 50Hz(line 40~ 46 or 54~ 60Hz); Bat mode:50Hz.					
	Power factor	0.8 (lag)					
	Waveform	Sine wave					
	Waveform distortion	Linear ⩽ 7% when RCD 100% loading(Non-line) Linear ⩽ 3% on R 100% loading(line)					
Rated battery voltage		20pcs 12V/9AH	240Vdc	20pcs 12V/9AH	240Vdc	20pcs 12V/9AH	240Vdc
Overload protection		100%-125%,1 minutes to transfer to bypass; > 150%,300ms to transfer to bypass					
Transfer time		0ms					
Type of battery		Sealed lead acid maintenance free					
Ambient	Temperatures	0℃~40℃					
	Humidity	0-90%					
Communication		9Pin D Type Connector(RS232) or intelligent slot(Optional) or USB port					
Dimension(LxWxH)mm		560×260×717					
N.W. (Kg)		80	24	90	39.5	90	39.5

*(S)—Long backup model.

ST Series

OT Series

PT Series

GT Series

VT Series

ENERGY POWER SAVE

ST Series

OT Series

PT Series

GT Series

VT Series

ENERGY POWER SAVE

On-Line High Prequency
UPS (10 - 40 KVA)
3 phase input / output

Since 19 9

True On-Line UPS

Functions&features:

DSP system
Wide AVR range
True on-line UPS
IGBT technology
Double Conversion
Overload and short circuit protection
LCD display
N+X parallel connection(10-40KVA)
Cold start
Intelligent slot for SNMP adaptor(optional)
On-line maintenance service
Isolation transformer(optional)

Product Certification

CE:

Standard:

EN 62040-2:2006
(EN61000-4-2:2009,
EN61000-4-3:2006+A1:2008+A2:2010,
EN61000-4-4:2004+A1:2010,
EN61000-4-5:2006,
EN61000-4-6:2009,
EN61000-4-8:2010,
EN61000-4-11:2004,
EN61000-2-2:2002)

Specification:

Model		3310K	3310KS	3320K	3320KS	3330KS	3340KS
Rated power		10KVA/8KW		20KVA/16KW		30KVA/24KW	40KVA/32KW
Input	Voltage range	(274 – 478) VAC (full load)					
	Current	32A		50A		60A	80A
	Frequency	40 ~ 60Hz(50Hz) /50 ~70Hz (60Hz)					
	Factor	>0.99					
Output	Voltage	220V (1 ± 1%)					
	Current	15A		30A		45A	61A
	Factor	0.8					
	Frequency	Line mode:(1) synchronized 46 ~ 54Hz; (2) 50Hz (line 40 ~ 46 or 54 ~ 60Hz); Bat mode: 50Hz.					
	Distortion	RCD ⩽5% R ⩽3%					
	Overload capacity	105%–125% transfers to bypass mode after 1 minuters; 125% ±5 %<load⩽150%± 5% transfers to bypass mode after 30second					
	Current crest ratio	3:1					
Efficiency		Line : ⩾93%, Bat : ⩾90%					
Rated battery voltage		192VDC		240VDC		2×192VDC/2×240VDC	
Charge current		1A/7.5A		1A/6A		5.5A	
ECO/EPO		Optional					
Short circuit protection		yes					
Noise (dB)		⩽60dB					
dimension (L*W*H)		717×260×717mm					
Weight (kg)		83.5	45	98	50	58.5	62

*(S)—Long backup model.

ISO9001

RST Series On-Line High Frequency UPS(Rack Mount)

RST 1KS/2–3KS(2U)–LCD display

RST 2–3KVA(3U)–LCD display

RST 6–10KVA(3U)–LCD display

Specification:

MODEL		RST1K	RST1KS	RST2K	RST2KS	RST3K	RST3KS	RST6KS	RST10KS
Input	Rated capacity	1KVA/800W		2KVA/1600W		3KVA/2400W		6KVA/4800W	10KVA/800W
	Voltage	90 ± 5 ~ 300 ± 5Vac						120~274Vac	
	Current	6A(max)		12A(max)		16A(max)		32A(max)	50A(max)
	Frequency	40 ~ 60 Hz							
	Power factor	Conformity EN60555-2(≥0.99)							
Output	Voltage	220 Vac (1 ± 2%)						220 Vac (1 ± 1%)	
	Current	4.55A		9.1A		13.6A		27.3A	45A(max)
	Frequency	(50 ± 2)Hz						(50 ± 1)Hz	
	Power factor	0.8 lag							
	Waveform	Sine wave							
	Waveform distortion	Linear ≤7% when RCD 100% loading (Non–line) Linear ≤3% when R 100% loading(line)							
Overload protection		>105% < 125% →50s >125% < 150% →25s >150% → 300ms							
Transfer time		0ms							
Type of battery		Sealed lead acid maintenance-free							
External battery voltage		3×7Ah	36Vdc	6×7Ah	72Vdc	8×7Ah	96Vdc	192Vdc/240Vd	
Working environment	Operating temperatures(℃)	0 ~ 40℃							
	Relative temperatures(℃)	0 ~ 90(%)							
	Altitude	< 1500 m							
Communication		9pin D trpe comector (RS232)							
Size(WXDXH)mm		482×476×88		Standard type(3U):482×650×132 Long backup type(2U):482×476×88				482×650×132	
Weight (kg)		16	10	33	10	37	10	20	21

Features

- It adopts standard frame structure design. The structure is compact.
- Sine wave output no matter in AC mode or battery mode can provide sine wave power source with low distortion. It provides the best power source guarantee for the load equipments of users.
- Zero-delay:when the utility power is cout off or recover, there is absolutely no time between the transfer of AC mode and battery mode. It effectively ensures the reliability of load operation.
- Input null line and fire wire detecting function:it can detect if the null line and fire wire are wrongly connected. It avoids wrong connection of null line and fire wire of UPS AC power input.
- It has voltage breakthrough protection and strong anti-interference function.
- Input power factor correction:UPS can correct the input power factor. Under full load, the input power factor can reach over 0.95so that the electric environment of the users will not be polluted;

ENERGY POWER SAVE

ISO9001

Battery Case(19" Rack mount)

RM–BAT 2–3Kva(2U)

RM–BAT 6–10Kva(3U)

RMT1–3KVA(rack mount–tower convertible)

RMT6–10KVA(rack mount–tower convertible)

Specification:

MODEL		RMT1K	RMT1KS	RMT2K	RST2KS	RMT3K	RMT3KS	RMT6KS	RMT10KS
Input	Rated capacity	1KVA/800W		2KVA/1600W		3KVA/2400W		6KVA/4800W	10KVA/800W
	Voltage	90 ± 5 ~ 300 ± 5Vac						120 ~ 274Vac	
	Current	6A(max)		12A(max)		16A(max)		32A(max)	50A(max)
	Frequency	40 ~ 60 Hz							
	Power factor	Conformity EN60555–2(≥0.99)							
Output	Voltage	220 Vac (1 ± 2%)						220 Vac (1 ± 1%)	
	Current	4.55A		9.1A		13.6A		27.3A	45A(max)
	Frequency	(50 ± 2)Hz						(50 ± 1)Hz	
	Power factor	0.8 lag							
	Waveform	Sine wave							
	Waveform distortion	Linear ≤7% when RCD 100% loading (Non-line) Linear ≤3% when R 100% loading(line)							
Overload protection		>105% < 125% →50s >125% < 150% →25s >150% → 300ms						100%–125%,1 minutes to transfer to bypass; >150%,300ms to transfer to bypass	
Transfer time		0ms							
Type of battery		Sealed lead acid maintenance–free							
External battery voltage		3×7Ah	36Vdc	6×7Ah	72Vdc	8×7Ah	96Vdc	192Vdc/240Vd	
Working environment	Operating temperatures(℃)	0 ~ 40℃							
	Relative temperatures(℃)	0 ~ 90(%)							
	Altitude	< 1500 m							
Communication		9pin D trpe comector (RS232)							
Size(WXDXH)mm		482×476×88		Standard type(3U):482×650×132 Long backup type(2U):482×476×88				482×650×132	
Weight (kg)		16	10	23	10	37	10	20	21

Features

- It adopts standard frame structure design. The structure is compact.
- Sine wave output no matter in AC mode or battery mode can provide sine wave power source with low distortion. It provides the best power source guarantee for the load equipments of users.
- Zero-delay:when the utility power is cout off or recover, there is absolutely no time between the transfer of AC mode and battery mode. It effectively ensures the reliability of load operation.
- Input null line and fire wire detecting function:it can detect if the null line and fire wire are wrongly connected. It avoids wrong connection of null line and fire wire of UPS AC power input.
- It has voltage breakthrough protection and strong anti-interference function.
- Input power factor correction:UPS can correct the input power factor. Under full load, the input power factor can reach over 0.95so that the electric environment of the users will not be polluted;

XK Series

Elementary for data protection

The off-line UPS is in standby status with batteries being charged in normal AC time. When the power supply unexpectedly shuts down, the built-in inverter will in no time convert the battery output into AC to keep stable power supply. The UPS is generally considered high rate, low noise while running and cost-effective, mostly used in comparably stable environment with a small fluctuation of utility power and lower requirement of power supply quality.

The UPS now is widely used in protection of PC in govemment offices, education institutes and SMEs.

Functions&features:

Micro controller(CPU)
Waveform:square wave(battery mode)
Wide AVR range
Overload and short circuit protection
Low battery alarm
UPS Auto on when AC recovery
Off mode charging
Humidity:less than 90%

Specification:

MODEL	500	650	800	1200
Rated capacity	500VA	650VA	800VA	1200VA
Power factor	0.6			
Load type	Personal computer and other PC peripheral devices			
AC voltage range	(140~290) ± 5Vac			
AC frequency	Sync with AC			
Output range(Line)	220Vac/230Vac ± 10%(Sine wave)			
Output frequency(line)	Sync with AC			
Output voltage(Battery)	220Vac/230Vac ± 5%(Square wave)			
Output frequency(Battery)	(50/60) ± 1Hz(Frequency self-adapt system)			
Transfer time	≤10ms			
Battery backup	10–60 Min (1 PC load)			
Battery protection	Auto protection. The UPS auto shutdown when battery voltage is low or high.			
Battery charging	8 hrs to fully charged			
Short circuit	Auto protection. Output shots off and the buzzer beeps continuously.			
Overload	110% < load percentage ≤ 120%, buzzer beeps; load percentage > 120%, output shuts off, buzzer beeps continuously.			
Operating temperatures	0℃~ 40℃			
Storage temperatures	–15℃~ 45℃			
Relative humidity	0% ~ 90%(No condensation water)			
Noise	≤35dB(1m from front panel)			
Communication interface	Intelligent RS–232/USB(Optional)			
Network protection	RJ45/11 surge protector(Optional)			

Off-Line UPS

Since 1979

XK Series

Elementary for data protection

The off-line UPS is in standby status with batteries being charged in normal AC time. When the power supply unexpectedly shuts down, the built-in inverter will in no time convert the battery output into AC to keep stable power supply. The UPS is generally considered high rate, low noise while running and cost-effective, mostly used in comparably stable environment with a small fluctuation of utility power and lower requirement of power supply quality.

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Micro controller(CPU)
Waveform:square wave(battery mode)
Wide AVR range
Overload and short circuit protection
Low battery alarm
UPS Auto on when AC recovery
Off mode charging
Humidity:less than 90%

Specification:

MODEL	500	650	800	1200
Rated capacity	500VA	650VA	800VA	1200VA
Power factor	0.6			
Load type	Personal computer and other PC peripheral devices			
AC voltage range	(140~290) ± 5Vac			
AC frequency	Sync with AC			
Output range(Line)	220Vac/230Vac ± 10%(Sine wave)			
Output frequency(line)	Sync with AC			
Output voltage(Battery)	220Vac/230Vac ± 5%(Square wave)			
Output frequency(Battery)	(50/60) ± 1Hz(Frequency self–adapt system)			
Transfer time	≤10ms			
Battery backup	1060 Min (1 PC load)			
Battery protection	Auto protection. The UPS auto shutdown when battery voltage is low or high.			
Battery charging	8 hrs to fully charged			
Short circuit	Auto protection. Output shots off and the buzzer beeps continuously.			
Overload	110% < load percentage ≤ 120%, buzzer beeps; load percentage > 120%, output shuts off, buzzer beeps continuously.			
Operating temperatures	0℃~ 40℃			
Storage temperatures	–15℃~ 45℃			
Relative humidity	0% ~ 90%(No condensation water)			
Noise	≤35dB(1m from front panel)			
Communication interface	Intelligent RS–232/USB(Optional)			
Network protection	RJ45/11 surge protector(Optional)			

YK Series

Elementary for data protection

The off-line UPS is in standby status with batteries being charged in normal AC time. When the power supply unexpectedly shuts down, the built-in inverter will in no time convert the battery output into AC to keep stable power supply. The UPS is generally considered high rate, low noise while running and cost-effective, mostly used in comparably stable environment with a small fluctuation of utility power and lower requirement of power supply quality.

The UPS now is widely used in protection of PC in govemment offices, education institutes and SMEs.

Functions&features:

Micro controller(CPU)
Waveform:square wave(battery mode)
Wide AVR range
Overload and short circuit protection
Low battery alarm
UPS Auto on when AC recovery
Off mode charging
Humidity:less than 90%

Specification:

MODEL	500	650	800	1200
Rated capacity	500VA	650VA	800VA	1200VA
Power factor	0.6			
Load type	Personal computer and other PC peripheral devices			
AC voltage range	(140~290) ± 5Vac			
AC frequency	Sync with AC			
Output range(Line)	220Vac/230Vac ± 10%(Sine wave)			
Output frequency(line)	Sync with AC			
Output voltage(Battery)	220Vac/230Vac ± 5%(Square wave)			
Output frequency(Battery)	(50/60) ± 1Hz(Frequency self-adapt system)			
Transfer time	≤10ms			
Battery backup	10–60 Min (1 PC load)			
Battery protection	Auto protection. The UPS auto shutdown when battery voltage is low or high.			
Battery charging	8 hrs to fully charged			
Short circuit	Auto protection. Output shots off and the buzzer beeps continuously.			
Overload	110% < load percentage ≤ 120%, buzzer beeps; load percentage > 120%, output shuts off, buzzer beeps continuously.			
Operating temperatures	0℃~40℃			
Storage temperatures	–15℃~45℃			
Relative humidity	0% ~ 90%(No condensation water)			
Noise	≤35dB(1m from front panel)			
Communication interface	Intelligent RS–232/USB(Optional)			
Network protection	RJ45/11 surge protector(Optional)			

Off-Line UPS

Since 1979

YK Series

Elementary for data protection

The off-line UPS is in standby status with batteries being charged in normal AC time. When the power supply unexpectedly shuts down, the built-in inverter will in no time convert the battery output into AC to keep stable power supply. The UPS is generally considered high rate, low noise while running and cost-effective, mostly used in comparably stable environment with a small fluctuation of utility power and lower requirement of power supply quality.

The UPS now is widely used in protection of PC in govemment offices, education institutes and SMEs.

Functions&features:

Micro controller(CPU)
Waveform:square wave(battery mode)
Wide AVR range
Overload and short circuit protection
Low battery alarm
UPS Auto on when AC recovery
Off mode charging
Humidity:less than 90%

Specification:

MODEL	500	650	800	1200
Rated capacity	500VA	650VA	800VA	1200VA
Power factor	0.6			
Load type	Personal computer and other PC peripheral devices			
AC voltage range	(140~290) ± 5Vac			
AC frequency	Sync with AC			
Output range(Line)	220Vac/230Vac ± 10%(Sine wave)			
Output frequency(line)	Sync with AC			
Output voltage(Battery)	220Vac/230Vac ± 5%(Square wave)			
Output frequency(Battery)	(50/60) ± 1Hz(Frequency self–adapt system)			
Transfer time	≤10ms			
Battery backup	10-60 Min (1 PC load)			
Battery protection	Auto protection. The UPS auto shutdown when battery voltage is low or high.			
Battery charging	8 hrs to fully charged			
Short circuit	Auto protection. Output shots off and the buzzer beeps continuously.			
Overload	110% < load percentage ≤ 120%, buzzer beeps; load percentage > 120%, output shuts off, buzzer beeps continuously.			
Operating temperatures	0℃~40℃			
Storage temperatures	–15℃~45℃			
Relative humidity	0% ~ 90%(No condensation water)			
Noise	≤35dB(1m from front panel)			
Communication interface	Intelligent RS–232/USB(Optional)			
Network protection	RJ45/11 surge protector(Optional)			

DK Series

Elementary for data protection

The off-line UPS is in standby status with batteries being charged in normal AC time. When the power supply unexpectedly shuts down, the built-in inverter will in no time convert the battery output into AC to keep stable power supply. The UPS is generally considered high rate, low noise while running and cost-effective, mostly used in comparably stable environment with a small fluctuation of utility power and lower requirement of power supply quality.

The UPS now is widely used in protection of PC in govemment offices, education institutes and SMEs.

Functions&features:

Micro controller(CPU)
Waveform:square wave(battery mode)
Wide AVR range
Overload and short circuit protection
Low battery alarm
UPS Auto on when AC recovery
Off mode charging
Humidity:less than 90%

Specification:

MODEL	400	500	800	1000
Rated capacity	400VA	500VA	800VA	1000VA
Power factor	0.6			
Load type	Personal computer and other PC peripheral devices			
AC voltage range	(140~290) ± 5Vac			
AC frequency	Sync with AC			
Output range(Line)	220Vac/230Vac ± 10%(Sine wave)			
Output frequency(line)	Sync with AC			
Output voltage(Battery)	220Vac/230Vac ± 5%(Square wave)			
Output frequency(Battery)	(50/60) ± 1Hz(Frequency self–adapt system)			
Transfer time	≤10ms			
Battery backup	10–60 Min (1 PC load)			
Battery protection	Auto protection. The UPS auto shutdown when battery voltage is low or high.			
Battery charging	8 hrs to fully charged			
Short circuit	Auto protection. Output shots off and the buzzer beeps continuously..			
Overload	110% < load percentage ≤ 120%, buzzer beeps; load percentage > 120%, output shuts off, buzzer beeps continuously.			
Operating temperatures	0℃~40℃			
Storage temperatures	–15℃~45℃			
Relative humidity	0% ~ 90%(No condensation water)			
Noise	≤35dB(1m from front panel)			
Communication interface	Intelligent RS–232/USB(Optional)			
Network protection	RJ45/11 surge protector(Optional)			

Off-Line UPS
Since 1979

LV Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20GP
LV500	2	459×294×209	11	12.5	1800
LV800	2	459×294×209	11.5	13	1800
LV1000	2	480×350×249	18	20	1200

AK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20GP
AK500	2	459×294×209	11	12.5	1800
AK800	2	459×294×209	11.5	13	1800
AK1000	2	480×350×249	18	20	1200

UK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20GP
UK500	2	459×294×209	11	12.5	1800

NK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20GP
NK500	2	459×294×209	11	12.5	1800
NK800	2	459×294×209	11.5	13	1800
NK1000	2	480×350×249	18	20	1200

CK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
CK400	2	390×264×192	8.5	9.5	2600
CK500	2	412×264×192	10	11.2	2100
CK800	2	451×270×198	11.5	13	1800
CK1000	2	488×350×249	18	20	1200

PK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
PK400	2	390×264×192	8.5	9.5	2600
PK500	2	412×264×192	10	11.2	2100
PK800	2	451×270×198	11.5	13	1800
PK1000	2	488×350×249	18	20	1200

Off-Line UPS
Since 1979

DA Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
DA400	2	390×264×192	8.5	9.5	2600
DA500	2	412×264×192	10	11.2	2100
DA800	2	451×270×198	11.5	13	1800
DA1000	2	488×350×249	18	20	1200

HK Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
HK400	2	390×264×192	8.5	9.5	2600
HK500	2	412×264×192	10	11.2	2100
HK800	2	451×270×198	11.5	13	1800
HK1000	2	488×350×249	18	20	1200

LC Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
LC400	2	390×264×192	8.5	9.5	2600
LC500	2	412×264×192	10	11.2	2100
LC800	2	451×270×198	11.5	13	1800
LC1000	2	488×350×249	18	20	1200

LG Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
LG400	2	390×264×192	8.5	9.5	2600
LG500	2	412×264×192	10	11.2	2100
LG800	2	451×270×198	11.5	13	1800
LG1000	2	488×350×249	18	20	1200

Off-Line UPS

Since 1979

TK Series

Packing Details:

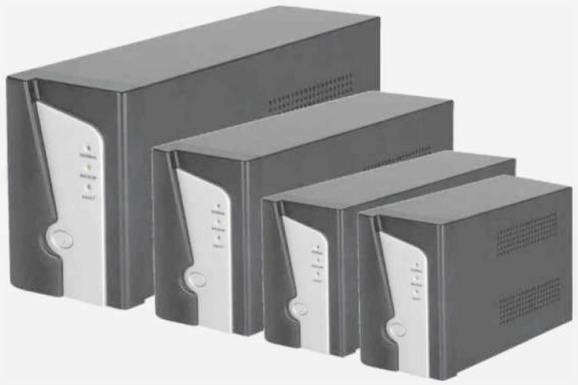
MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
TK400	2	390×264×192	8.5	9.5	2600
TK500	2	412×264×192	10	11.2	2100
TK800	2	451×270×198	11.5	13	1800
TK1000	2	488×350×249	18	20	1200

KT Series

Packing Details:

MODEL	QTY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
kT400	2	390×264×192	8.5	9.5	2600
KT500	2	412×264×192	10	11.2	2100
KT800	2	451×270×198	11.5	13	1800
KT1000	2	488×350×249	18	20	1200

LP Series



Packing Details:

MODEL	Q'TY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
LP400	2	390×264×192	8.5	9.5	2600
LP500	2	412×264×192	10	11.2	2100
LP800	2	451×270×198	11.5	13	1800
LP1000	2	488×350×249	18	20	1200

LT Series

Packing Details:

MODEL	Q'TY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
LT400	2	390×264×192	8.5	9.5	2600
LT500	2	412×264×192	10	11.2	2100
LT800	2	451×270×198	11.5	13	1800
LT1000	2	488×350×249	18	20	1200

Since 1979
Off-Line UPS

MT Series

Packing Details:

MODEL	Q'TY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
MT1500	1	515×243×345	16	18	580
MT2000	1	515×243×345	18	20	580
MT3000	1	515×243×345	20	22	580

OKT Series

Packing Details:

MODEL	Q'TY/CTN	MEAS(mm)	N.W.(kg)	G.W.(kg)	PCS/20'GP
OKT1500	1	515×243×345	16	18	580
OKT2000	1	515×243×345	18	20	580
OKT3000	1	515×243×345	20	22	580

ISO9001

A Series Digital AC Valtage tabilizer(500~3000KVA)

Features:

Wide Input Voltage Range
This series of stablilizers can work properly under a very wide range of input voltage(140-270Vac).

High Quality of Output Voltage
Providing continuous, uninterruptable output during voltage stabilizing. no transient power loss, high precision of output voltage(220/230Vac ± 8%)

Undervoltage & Overvoltage Protecion
Stabilizer automatically shuts off when AC inputs either undervoltage or overvoltage. Automacically restarts to work when AC input recovers to normal range.

Under Frequency & Over Frequency Protection
Stabilizer automatically cuts off against under frequency below 40Hz or over frequency above 70Hz.

Internet Protection(optional part)
RJ45 module is available to protect then end devices of ADSL broad band, such as MODEM, ADSL MODEM etc, from getting spike impact, ensuring non-stop data transmission.

Technical Specification:

MODEL	A600	A1200	A1600	A2200	A3000
Rated load capacity	500VA/300W	1000VA/600W	1500VA/800W	2000VA/1200W	3000VA/1800W
Rated voltage	220/230Vac				
Input voltage	140 ~ 270Vac				
Input frequency	40 ~ 70Hz				
Output voltage	220/230Vac ± 8%				
Output frequencyln	sync with AC(Sine Wave)				
Short circuit / overload protection	Circuit breaker				
Size/LxWxH(mm)	205×100×125		225×125×135		260×150×110
Net weight(Kg)	1.9	2.1	3.2	4.1	5.5

A Series Digital AC Valtage tabilizer(6~10KVA)

6KVA

10KVA

Output Overvoltage Protection
Stabilizer automatically shuts off when it trips giving output voltage over 250Vac. Automatically restarts to work when output recovers to normal range.

Output Delay (optional part)
Output delay is available as an optional part according to actual application requirement by adding one switch on front panel, switch it on output delay starts to function(3 minutes preset): switch it off, output delay stops functioning.

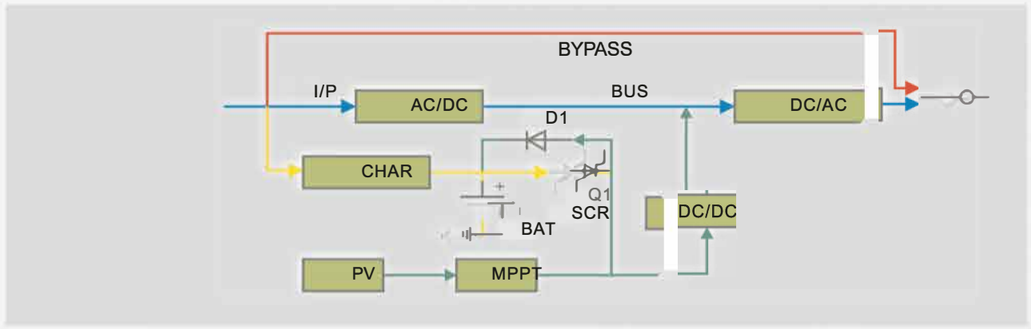
Overheat Protection
Stabilizer automatically shuts off against overheat coming up with the power transformer higher than the preset value.

Short Circuit & Overload Protection
Stabilizer's circuit breaker automatically works against overcurrent or overload. Reset the circuit breaker to make it work again after sort out failure.

Technical Specification:

MODEL	A6800	A12800
Rated load capacity	6KVA/3.6W	10KVA/6W
Rated voltage	220/230Vac	
Input voltage	140 ~ 270Vac	
Input frequency	40 ~ 70Hz	
Output voltage	220/230Vac ± 8%	
Output frequencyln	sync with AC(Sine Wave)	
Short circuit / overload protection	Circuit breaker	
Size/LxWxH(mm)	398×288×160	
Net weight(Kg)	13.6	15.2

Topology:



Working Principle:

- PV Charges DC CAP with its maximum power and DC-DC booster works with +/- 390VDC. If load power is bigger than PV power, then DC CAP voltage will drop and DC-DC booster output voltage will decrease too. AC-DC booster works with +/- 360V, thus it will share the load power automatically between PV and AC. So the DC CAP voltage will reach to a stable vaule. Battery SCR Q1 stops if line voltage is normal.
- If PV power is bigger than load power, MPPT charger automatically charges the battery. MPPT charger works in float voltage mode, not MPPT mode if battery voltage and DC CAP voltage are high.
- If AC losses , stop AC-DC booster, switch on battery SCR Q1, make batttery and PV works together to power for the load.
- If both PV and AC not therr, battery works to power the load as the last option.

Absolute advantages:

- Not affected by nation power regulartion policy.
- Output voltage is stable. Zer transfer time between line mode and battery mode.
- Battery works in normal situation, not frequently discharged and the life time is extended max long.
- UPS works even in load AC voltage when PV is also in picture together sharing the load.

PV Series Solar UPS
(1 ~ 3 KVA)

Since 1979

Specification:

MOD		PV UPS 1KVA	PV UPS 2KVA	PV UPS 3KVA
Rated capacity		1000VA/800W	2000VA/1600W	3000VA/2300W
Input	Rated Voltage	220Vac/230Vac		
	Phase	Single phase with ground		
	Frequency	50(Hz(60Hz)		
	Power Factor	0.99		
	Generator	Support generator input		
	Rated current	5A	10A	15A
	Input Thdi	⩽10%		
	Prtection	63A AC FUSEA	20AAC FUSE	20A AC FUSE
Output	Rated Voltage	220Vac		
	Voltage Range	200Vac/208Vac/220Vac/230Vac/240Vac		
	Voltage Regulation	± 2%		
	Frequency	50Hz(60Hz)		
Overload	Overload Warning Only	100% ± 5% < load		
	50s,then Transfer To Bypass And Alarm.	105% ± 5% < load ⩽ 125% ± 5%		
	25ms, then Transfer To Bypass And Alarm.	125% ± 5% < load ⩽ 150% ± 5%		
	25ms, then Transfer To Bypass And Alarm.	load > 150% ± 5%		
Battery	Rated Voltage	24VDC	48VDC	72VDC
PV Charger	Charging Method	2 stages;fast charge(MPPT), floating charge		
	Input Working Vltage Range	30–150V	60–150V	90–150V
	Max Input DC Voltage	160V		
		50s,then return to rated power(105% ± 5% <PV Power ⩽125% ± 5%)		
	Max PV Power	25s,then return to rated power(125% ± 5% <PV Power ⩽150% ± 5%)		
		1s, then return to rated power (PV Power >150% ± 5%)		
	Rated charging current	50A	50A	33A
	Rated charging power	1600W	2400W	2400W
	Overcharge protection	30V±1V	60V±2V	90V±2V
	Conversion Efficiency		>90%	
	PV Modules Utilization Rate		>98%	
	Floating voltage charging	27.5V	55V	82.5V
	Thermal method	Intelligent forced air cooling		
	Over temperature protection	85℃		
Automatic Retransfer		Yes		
Transfer Time		0ms		
Short Protection		Cut off output within 4 cycles		
Communication		RS232 interface		
Monitor Software		Appending with UPS		
Environment	Working temperatures	0℃ ~ 40℃		
	Altitude	<1000m		
	Audible noise	⩽45dB		
	Storage temperature	–15℃ ~ 45℃		
	Working humidity	20% ~ 95%		
Dimension(mm)		335×186×325	425×186×325	
Weight(Kg)		10	11	12
Standard				
Ems	ESD	IEC61000–4–2 Level Ⅳ		
	RS	IEC61000–4–3 Level Ⅲ		
	EFT	IEC61000–4–4 Level Ⅳ		
	Surge	IEC61000–4–5 Level Ⅳ		
Emi	Conducted	EN55022 Class A		
	Radiated	EN55022 Class A		
Safety		GB4943–2001/IEC62040–1		
Transportation	Drop test	GB–T4857–18		
	Vibration test	B–WR1–129(GB–T14715–93)		

ISO9001 CE Intertek SGS

TD 11,31,33 Series

ENERGY POWER SAVE

TD11 Series On-Line Low Frequency UPS

Since 1979

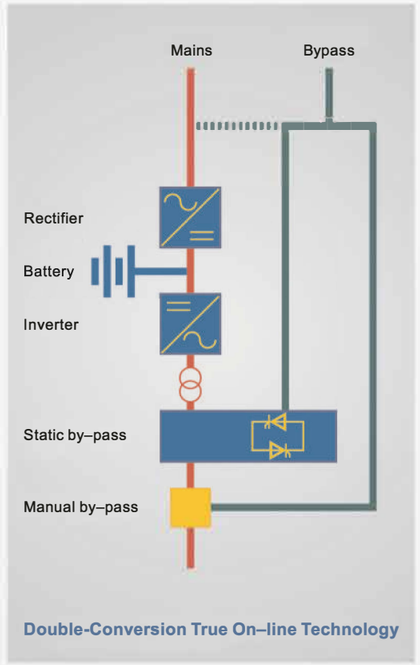
The TD series includes the 3–250KVA single/three–phase models and uses double conversion on–line technology (VFI) with and isolation transformer on the out put of the inverter.

The load is powered continuously by the inverter with a filtered,stabilised and regulated sinewave supply. The input and output EMI filters considerably increase the immunity of the load to mains disturbances and surges.

TD provides maximum protection for vital “mission–critical nerworks,security applications (electro medical) and industrial applications,thanks to its outstanding mechanical and electrica desgn.

- isolation trans former on the inverter
- extremely high short–circuit current
- sinusoidal absorption

(THDV up to 3% with CLEAN version)

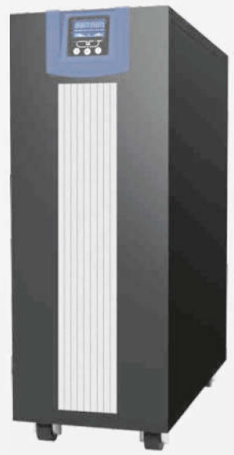


Double-Conversion True On–line Technology

LCD display

Functions&features:

On–line UPS
DSP system
IGBT technology
CPU control
LCD display
Double conversion



Main Features:

- Low harmonic pollution,with optional filter car attenuate input low THDV ⩽3%
- High level battery reliability:
  –Automatic battery test
  –Battery care,Battery life span can be increased approximately by 20% more
- Back feed protection:to avoid energy feeding back into the mains supply
- Bypass may be deactivated to allow operation as a frequency converter(at 50 or 60 Hz),or as stabiliser
- Easy to maintain(front access)
- Reliable,filtered,stabilised and regulated sinewave output(double on–line concersion teahnology VFI according to EN50091–3 specifications) with filters for atmospheric disturbance suppression
- High reliability:IGBT teahnology, full microprocessor control with no–break static and manual bypasses
- High level diagnostics:event log with 128 messages, states, measurements and alarms–available from the built–in LCD in several languages
- The UPS may be configured with the RS232 serial port(flash upgradable)

	MODEL	3K	6K	10K	20K	30K
Input Mains	Rated Voltage(V)	380Vac three – phase + N				
	Rated voltage & Range(V)	220V ± 25%				
	Frequency & Range(Hz)	50/60Hz ± 4Hz				
Bypass Input	Rated Voltage(V)	220V / 230V				
	Rated Voltage & Range(V)	220V / 230V ± 25%				
	Frequency & Range(Hz)	50/60Hz ± 4Hz				
Output	Rated Power	3KVA/2.4KW	6KVA/4.8KW	10KVA/8KW	20KVA/16KW	30KVA/24KW
	Rated Voltage(V)	220V / 230V				
	Rated Voltage & Stability	220V ± 2%				
	Linear Load	⩽3%				
	Non–linear Load	⩽8%				
	Output Power factor	0.8 (Lag)				
	Tracking Fruquency & Range(Hz)	50/60Hz ± 4Hz				
	Fruquency & Stability(Battery Inverter)	(50/60+0.1)Hz				
	Overload Capability	Less than 105% ± 5% for overload alarm; 105% ± 5%~125% ± 5% for 2 minutes; 125% ± 5%~150% ± 5% for 30 second; More than 150% ± 5% for 0.5 second;				
	Converting time (Normal Mode)	<1ms				
	Converting time (ECO Mode)	<25ms				
	System Efficiency (Linear Load)	⩾76	⩾82	⩾85	⩾87	
	System Efficiency (ECO Mode)	⩾96%				
System	Display	LCD / LED				
	EMS/EMI Transmission	IEC 62040–02				
	EMS/EMI Radiation	IEC 62040–02				
	EMS/EMI Resisting Interference	IEC 61000–4–2.4.5 Level Ⅳ,IEC 61000–4–3 Level Ⅲ				
	Safety Requirements	GB4943–2001/IEC62040–1				
	Noise Level(1M)	⩽55dB				
	Isolate Impedance (Ω)	>2M(500 VDC)				
	Surge Current Protection	IEC60664–1 Ⅳ				
Envir–onment	Operating Temperatures	0℃~40℃				
	Elevation	<1000m				
	Storing Temperatures	–15℃~45℃				
	Operation Humidity	20%~95%				
Battery		192VDC				

ENERGY POWER SAVE

TD31 Series On-Line Low Frequency UPS

LCD display

Functions&features:

- On–line UPS
- DSP system
- IGBT technology
- CPU control
- SPWM modulation
- LCD display
- Double conversion

	MODEL	10K	20K	30K	40K
Input Mains	Rated Voltage(V)	380Vac three – phase + N			
	Rated voltage & Range(V)	380V ± 25%			
	Frequency & Range(Hz)	50/60Hz ± 4Hz			
Bypass Input	Rated Voltage(V)	220V / 230V			
	Rated Voltage & Range(V)	380V ± 25%			
	Frequency & Range(Hz)	50/60Hz ± 4Hz			
Output	Rated Power	10KVA/8KW	20KVA/16KW	30KVA/24KW	40KVA/32KW
	Rated Voltage(V)	220V / 230V			
	Rated Voltage & Stability	220V/230V ± 2%			
	Linear Load	⩽3%			
	Non–linear Load	⩽8%			
	Output Power factor	0.8 (Lag)			
	Tracking Fruquency & Range(Hz)	50/60Hz ± 4Hz			
	Fruquency & Stability(Battery Inverter)	(50/60+0.1)Hz			
	Overload Capability	Less than 105% ± 5% for overload alarm; 105% ± 5%~125% ± 5% for 2 minutes; 125% ± 5%~150% ± 5% for 30 second; More than 150% ± 5% for 0.5 second;			
	Converting time (Normal Mode)	<1ms			
	Converting time (ECO Mode)	<25ms			
	System Efficiency (Linear Load)	⩾76	⩾82	⩾85	
	System Efficiency (ECO Mode)	⩾96%			
System	Display	LCD / LED			
	EMS/EMI: Transmission	IEC 62040–02			
	EMS/EMI: Radiation	IEC 62040–02			
	EMS/EMI: Resisting Interference	IEC 61000–4–2.4.5 Level Ⅳ ,IEC 61000–4–3 Level Ⅲ			
	Safety Requirements	GB4943–2001/IEC62040–1			
	Noise Level(1M)	⩽55dB			
	Isolate Impedance (Ω)	>2M(500 VDC)			
	Surge Current Protection	IEC60664–1 Ⅳ			
Envir–onment	Operating Temperatures	0℃~40℃			
	Elevation	<1000m			
	Storing Temperatures	– 15℃~45℃			
	Operation Humidity	20% ~ 95%			
Battery		192VDC	384VDC		

TD33 Series On-Line Low Frequency UPS

LCD display

Functions&features:

- On–line UPS
- DSP system
- IGBT technology
- CPU control
- 20KHz SPWM modulation
- Larger LCD display
- Double conversion

	MODEL	10K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K
Input Mains	Rated Voltage(V)	380Vac three – phase + N										
	Rated voltage & Range(V)	380V ± 25%										
	Frequency & Range(Hz)	50/60Hz ± 4Hz										
Bypass Input	Rated Voltage(V)	380V(Line Voltage)										
	Rated Voltage & Range(V)	380V ± 25%										
	Frequency & Range(Hz)	50/60Hz ± 4Hz										
Output	Rated Power	10K/8KW	20K/16KW	30K/24KW	40K/32KW	60K/48KW	80K/64KW	100K/80KW	120K/96KW	160K/128KW	200K/160KW	250K/200KW
	Rated Voltage(V)	380V(Line Voltage)										
	Rated Voltage & Stability	380V ± 2%										
	Linear Load	⩽3%										
	Non–linear Load	⩽8%										
	Output Power factor	0.8 (Lag)										
	Tracking Fruquency & Range(Hz)	50/60Hz ± 4Hz										
	Fruquency & Stability(Battery Inverter)	(50/60+0.1)Hz										
	Overload Capability	Less than 105% ± 5% for overload alarm; 105% ± 5%~125% ± 5% for 2 minutes; 125% ± 5%~150% ± 5% for 30 second; More than 150% ± 5% for 0.5 second;										
	Converting time (Normal Mode)	<1ms										
	Converting time (ECO Mode)	<25ms				<10ms						
	System Efficiency (Linear Load)	⩾80	⩾85	⩾88	⩾89	⩾90					⩾92	
	System Efficiency (ECO Mode)	⩾96%										
System	Display	LCD / LED										
	EMS/EMI: Transmission	IEC 62040–02										
	EMS/EMI: Radiation	IEC 62040–02										
	EMS/EMI: Resisting Interference	IEC 61000–4–2.4.5 Level Ⅳ ,IEC 61000–4–3 Level Ⅲ										
	Safety Requirements	GB4943–2001/IEC62040–1										
	Noise Level(1M)	⩽55dB				⩽70dB						
	Isolate Impedance (Ω)	>2M(500 VDC)										
	Surge Current Protection	IEC60664–1 Ⅳ										
Envir–onment	Operating Temperatures	0℃~40℃										
	Elevation	<1000m										
	Storing Temperatures	– 15℃~45℃										
	Operation Humidity	20% ~ 95%										
Battery		192VDC	384VDC									

ISO9001 CE Intertek SGS

TD31N&TD31S Series

On-Line Low Frequency UPS

TD31N

TD31S

LCD display

Functions&features:

On–line UPS
DSP system
IGBT technology
CPU control
20KHz SPWM modulation
Larger LCD display
Double conversion

	MODEL	10K	20K	30K	40K
Input Mains	Rated Voltage(V)	380Vac three – phase + N			
	Rated voltage & Range(V)	380V ± 25%			
	Frequency & Range(Hz)	50/60Hz ± 4Hz			
Bypass Input	Rated Voltage(V)	220V / 230V			
	Rated Voltage & Range(V)	380V ± 25%			
	Frequency & Range(Hz)	50/60Hz ± 4Hz			
Output	Rated Power	10KVA/8KW	20KVA/16KW	30KVA/24KW	40KVA/32KW
	Rated Voltage(V)	220V / 230V			
	Rated Voltage & Stability	220V/230V ± 2%			
	Linear Load	⩽3%			
	Non–linear Load	⩽8%			
	Output Power factor	0.8 (Lag)			
	Tracking Fruquency & Range(Hz)	50/60Hz ± 4Hz			
	Fruquency & Stability(Battery Inverter)	(50/60+0.1)Hz			
	Overload Capability	Less than 105% ± 5% for overload alarm; 105% ± 5%~125% ± 5% for 2 minutes; 125% ± 5%~150% ± 5% for 30 second; More than 150% ± 5% for 0.5 second;			
	Converting time (Normal Mode)	<1ms			
	Converting time (ECO Mode)	<25ms			
	System Efficiency (Linear Load)	⩾76	⩾82	⩾85	
	System Efficiency (ECO Mode)	⩾96%			
System	Display	LCD / LED			
	EMS/EMI Transmission	IEC 62040–02			
	EMS/EMI Radiation	IEC 62040–02			
	EMS/EMI Resisting Interference	IEC 61000–4–2.4.5 Level Ⅳ ,IEC 61000–4–3 Level Ⅲ			
	Safety Requirements	GB4943–2001/IEC62040–1			
	Noise Level(1M)	⩽55dB			
	Isolate Impedance (Ω)	>2M(500 VDC)			
	Surge Current Protection	IEC60664–1 Ⅳ			
Envir–onment	Operating Temperatures	0℃~40℃			
	Elevation	<1000m			
	Storing Temperatures	– 15℃~45℃			
	Operation Humidity	20%~95%			
Battery		192VDC	384VDC		

ENERGY POWER SAVE

TD33N&TD33S Series

On-Line Low Frequency UPS

TD33N

TD33S

LCD display

Functions&features:

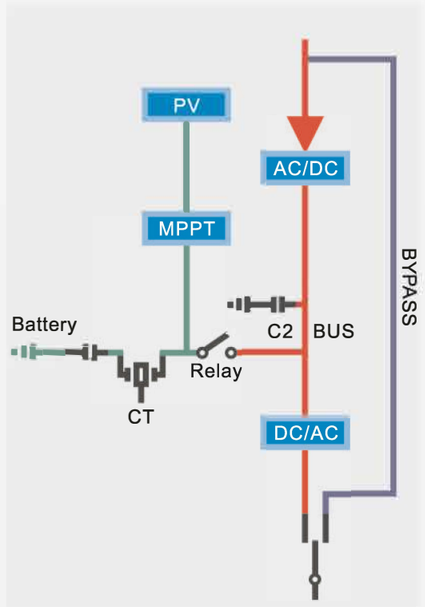
On–line UPS
DSP system
IGBT technology
CPU control
20KHz SPWM modulation
Larger LCD display
Double conversion

	MODEL	10K	20K	30K	40K	60K	80K	100K	120K	160K	200K	250K
Input Mains	Rated Voltage(V)	380Vac three – phase + N										
	Rated voltage & Range(V)	380V ± 25%										
	Frequency & Range(Hz)	50/60Hz ± 4Hz										
Bypass Input	Rated Voltage(V)	380V(Line Voltage)										
	Rated Voltage & Range(V)	380V ± 25%										
	Frequency & Range(Hz)	50/60Hz ± 4Hz										
Output	Rated Power	10K/8KW	20K/16KW	30K/24KW	40K/32KW	60K/48KW	80K/64KW	100K/80KW	120K/96KW	160K/128KW	200K/160KW	250K/200KW
	Rated Voltage(V)	380V(Line Voltage)										
	Rated Voltage & Stability	380V ± 2%										
	Linear Load	⩽3%										
	Non–linear Load	⩽8%										
	Output Power factor	0.8 (Lag)										
	Tracking Fruquency & Range(Hz)	50/60Hz ± 4Hz										
	Fruquency & Stability(Battery Inverter)	(50/60+0.1)Hz										
	Overload Capability	100% ± 5%~105% ± 5% alarming only; 105% ± 5%~125% ± 5% for 10 minutes; 125% ± 5%~150% ± 5% for 1 minutes; More than 150% ± 5% for 0.5 second;										
	Converting time (Normal Mode)	<1ms										
	Converting time (ECO Mode)	<25ms				<10ms						
	System Efficiency (Linear Load)	⩾80	⩾85	⩾88	⩾89	⩾90						⩾92
	System Efficiency (ECO Mode)	⩾96%										
System	Display	LCD / LED										
	EMS/EMI Transmission	IEC 62040–02										
	EMS/EMI Radiation	IEC 62040–02										
	EMS/EMI Resisting Interference	IEC 61000–4–2.4.5 Level Ⅳ ,IEC 61000–4–3 Level Ⅲ										
	Safety Requirements	GB4943–2001/IEC62040–1										
	Noise Level(1M)	⩽55dB				⩽70dB						
	Isolate Impedance (Ω)	>2M(500 VDC)										
	Surge Current Protection	IEC60664–1 Ⅳ										
Envir–onment	Operating Temperatures	0℃~40℃										
	Elevation	<1000m										
	Storing Temperatures	– 15℃~45℃										
	Operation Humidity	20%~95%										
Battery		192VDC	384VDC									

Since 1979

Main features:

- Reliable,filtered,stabilized and regulated pure sine wave output with filters for atmospheric disturbance suppression.
- IGBT based converter and inverter control technology. True online, double conversion topology.
- Fully dingital controlled,armed with several DSP,MCU,CPLD,can parallel up to 8 units for redundancy or capacity.
- Low loss high efficiency up to 94% in on-line mode and up to 97% in Economy mode.
- Low harmonic pollution to power grid:input power PF > 0.99 and input THDI < 6%(Typical)
- Output power factor 0.9, brings 12.5% more power than traditional UPS.
- Generator is supported and 1.2 rated power is enough.
- Graphic and colourful touch-screen LCD.
- PV input is supported and battery stutus is well kept.
- Intelligent self diagnosis,mass memory to record operation log.
- It can be configured as a frequency converter(fiexed 50 or 60Hz)
- Build-in various communication connector (RS232,Rs485, AS400,EPO etc).
- Easy to maintain(Fornt access)
- Surge suppressor protection.
- Intelligent fan speed control.



TDX33 Series On-Line
Low Frequency UPS

LCD display

Functions&features:

On–line UPS
DSP system
IGBT technology
CPU control
20KHz SPWM modulation
Larger LCD display
Double conversion

MODEL (3 Phase Input / 3 Phase Output)						
Input Mains	Rated Voltage & Range	380Vac–50% ~ +25%				
	Phase	3 phase line + Neutral + Protective earth				
	Input power factor	⩾0.99				
	Rectifier type	IGBT Rectifier				
	Input THDI	⩽6% (Typical)				
Bypass Input	Rated Voltage & Range	380Vac ± 25%				
	Phase	3 phase line + Neutral				
	Frequency & Range	50/60Hz ± 5%				
Output	Rated Power	10KVA/9KW	20KVA/18KW	30KAV/27KW	10KVA/36KW	60KVA/54KW
	Rated Voltage	380Vac				
	Phase	3 phase line + Neutral + Protective earth				
	Voltage Regulation	± 2%				
	Transient Response	⩽9%				
	THDV	⩽2%(balanced Linear Load); ⩽3%(unbalanced Linear Load)				
	Output Power Factor	0.9				
	Tracking Frequency & Range	50/60Hz ± 5%				
	Frequency & Stability (Battery Inverter)	50Hz/60Hz(±0.1)				
	Overload Capability	100% ± 5%~105% ± 5% alarming only; 105% ± 5%~125% ± 5% for 10 minutes; 125% ± 5%~150% ± 5% for 1 minutes; More than 150% ± 5% for 0.5 second;				
	Crest ration	⩾3:1				
System	Redundant parallel	Support (8 units maximum)				
	Efficiency	⩾97% (ECO mode); ⩾90% (Inverter mode)				
	Display	Colourful Touch–screen LCD				
	EMS/EMI Conducted	IEC 62040–02				
	EMS/EMI Radiated	IEC 62040–02				
	EMS/EMI Anti–interference	IEC 61000–4–2.4.5 Level Ⅳ,IEC 61000–4–3 Level Ⅲ				
	Safety Requirements	GB4943–2001/IEC62040–1				
	Isolate Impedance (Ω)	>2M (500VDC)				
	Surge Current Protection	IEC60664–1 Ⅳ				
Environment	Working temperatures	0℃ ~ 40℃				
	Working Humidity	20% ~ 95%				
Battery Voltage		384Vdc(32pcs default, 30–34 pcs settable)				

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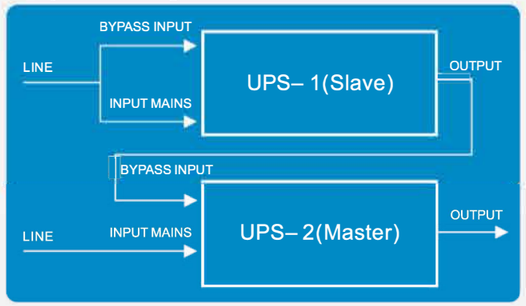
Master–Slave Hot Standby Parallel System

System configuration:



Diagram(For Y input and Y output)

Work principle:

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 of system will be greatly improved.

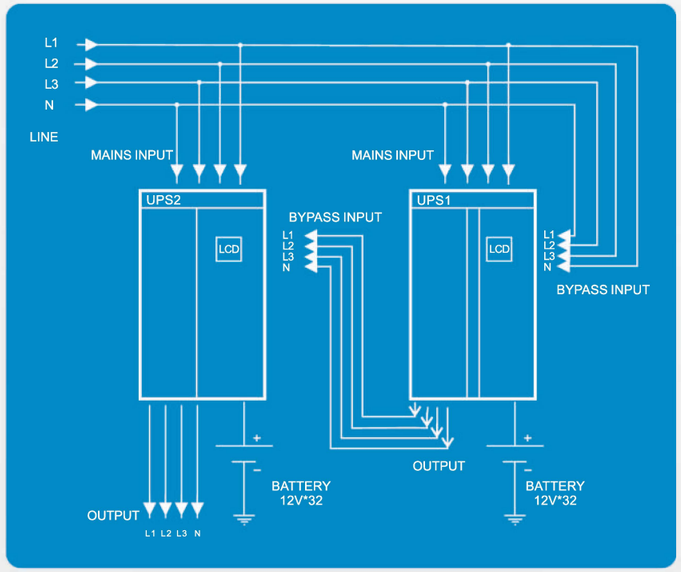
Advantage:

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

Note:Two UPS work in Master–Slave Hot backup parallel mode.
UPS–2 works as master, while its bypass is UPS–1' s output which is in hot backup status.

Master–Slave Host Standby Parallel System

Line connection



Line Connection for Y input and Y output

SNMP Card

It integrates multi–network communication protocols to enable a comprehensive, easy–to–understand and secure remote monitoring and management of the UPS via Internet.

AS–400 Card

- Capable of selection the status of the drycontact signal by setting jumper to meet different application requirements.
- Suitable applications: IBM Server, Personal PC& Workstations equipments,Autocantrolled industrial equipment & communication applications.

EXTERNAL RUPS SNMP ADAPTOR

Operating Systems Supported

- Windows 2000
- Windows Server 2003
- Windows Server 2008
- Windows Server 2012
- Windows XP
- Windows Vista
- Windows 7
- Windows 8
- Small Bussiness Server 2003
- Novell Netware
- FreeBSD
- Linux
- Mac

Features

- Real Time Monitoring
- Multiple Views Formats Offered
- TRAP Notification Supported
- Power Event Alert via Pop–on Alert and Warning Email
- Event Tracking Capability
- Scheduling System Shutdown/Restart Date and Time
- Scheduling UPS Self–test Date and Time
- Multi–Network Communication Protocols and TCP/IP Application supported such as SNMP,Web Server(HTTP)
- Wed Based access to facilitate easy monitoring and control of the UPS
- TEAP Notification Supported
- Multi–Monitoring functions enabled to monitor multiple UPS in one screen
- Windows Service/Broadcast Message Functions supported

Line Connection for Y input and Y output

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