



# ZS110 Online UPS

1, 2, 3, 6, 10 kVA single/single phase



- + SERVERS
- + DATA CENTERS
- + EMERGENCY DEVICES (LIGHTS/ALARMS)
- + INDUSTRIAL PLC
- + TELECOMMUNICATIONS DEVICES
- + INDUSTRIAL APPLICATION



# Product Overview

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**ZS110** is the ideal on-line double conversion UPS for protecting small and medium sized mission critical & IT loads so as to safeguard your valuable equipment and critical data from any abnormal power disturbances, such as surges, blackouts and lightning strikes.

**ZS110 Power capacity is available in 1-2-3-6-10 kVA**

## DESIGN FEATURES

- User friendly mimic panel, with large screen LCD, LED and control push button
- Designed with maximum efficiency at output power factor 0.8
- Full DSP controlled, precision control and high reliability
- Wide input voltage range from 110V to 300V can accommodate the worst voltage fluctuation
- Generator compatible, excellent PFC performance with input power factor close to unity (0.99)
- Optional battery extended socket, for long battery backup time
- Optional communication slot for optional SNMP card; AS400 Dry Contact Card, SMART RS232 for configuration
- Cold start function
- Automatic self test function during start up
- Software for multi OS for remote monitoring and progressive shutdown software

## 6kVA & 10kVA Additional Features

- + Wide input voltage range from 120V to 274V can accommodate the worst voltage fluctuation
- + Parallel up to 3 UPS for 6kVA & 10kVA

**ZS110 6kVA & 10kVA** adopt a DSP micro-processor and further provide optional cards for parallel operation.

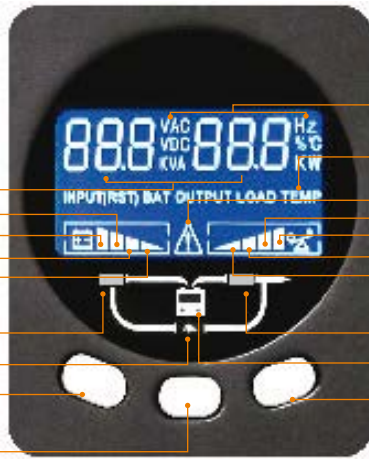
The main advantage of parallel configuration is to increase overall UPS power availability and system redundancy against power failure and emergency.

The topology is to connect two or three identical UPS in parallel to expand UPS capability.





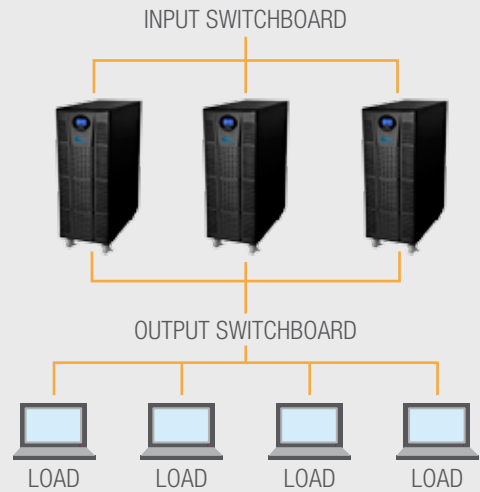
**ZS110** is fully digital signalling processor (DSP) controlled to provide quality supply, reduces the number of components and hence increases reliability and improve performance.



- Unit display area
- Current status display
- Data information area
- Battery level indicator 100%
- Battery level indicator 75%
- Battery level indicator 50%
- Battery level indicator 25%
- 8# Utility power indicator
- 7# Bypass indicator
- POWER ON
- POWER OFF
- Alarm/Fault indicator
- Load level indicator 100%
- Load level indicator 75%
- Load level indicator 50%
- Load level indicator 25%
- 9# Inverter indicator
- 10# Inverter indicator
- Function

**User friendly large LCD screen**

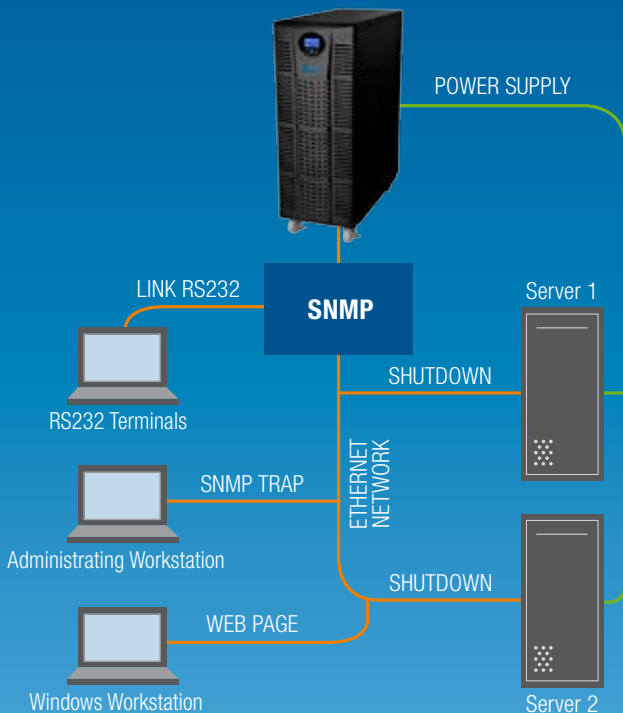
## PARALLEL REDUNDANCY



ZS110 6kVA to 10kVA UPS in parallel configuration to meet most demanding power requirement in order to increase power availability and flexibility. Parallel Redundancy feature provides economic power solution for system integration. Furthermore, parallel redundancy feature equally share the load to maximise UPS performance, and more secure UPS continuous operation.

# Communication and Power Management Solutions

## DIRECT CONNECTION WITH ETHERNET NETWORK



UPSilon 2000 CD is packed with UPS. it has the function of remote monitor and control UPS through LAN.



Software support most OS for remote monitor and control UPS through LAN, warning notifications through broadcast and mobile phone, multi-shutdown PCs, and schedule UPS self-test.



This unique software provides complete power protection for computer system during power failure.

# Technical Specifications

Rev. 22/2/2016

MODEL	ZS110-1K	ZS110-2K	ZS110-3K	ZS110-6K	ZS110-10K
Power Rating	1kVA/ 0.8kW	2kVA/ 1.6kW	3kVA/ 2.4kW	6kVA/ 4.8kW	10kVA/ 8kW
<b>INPUT</b>					
Voltage	220V / 230V / 240V				
Input low/ high voltage threshold (Dependent on output load rate)	Load	>90% - Battery starts backup at AC 185V $\pm$ 5V 71% to 90% - Battery starts backup at AC 160V $\pm$ 5 66% to 70% - Battery starts backup at AC 150V $\pm$ 5V 56% to 65% - Battery starts backup at AC 130V $\pm$ 5V Load $\leq$ 55% - Battery starts backup at AC 110V $\pm$ 5V		>90% - Battery starts backup at AC 175V $\pm$ 5V 71% to 90% - Battery starts backup at AC 165V $\pm$ 5V 50% to 70% - Battery starts backup at AC 150V $\pm$ 5V $\leq$ 50% - Battery starts backup at AC 120V $\pm$ 5V	
	Nominal load	Nominal load - Battery starts backup at AC 300V $\pm$ 5V		Battery starts backup at AC 274V $\pm$ 5V	
Rated frequency	46Hz – 54Hz (adjustable)				
Input power factor	0.99				
<b>BATTERY / CHARGER</b>					
Battery type	Sealed lead acid maintenance free type				
Backup time @ typical load*	8mins to 12mins depending on load				
Optional EX charger current	7A dc				
<b>OUTPUT</b>					
Voltage	220V / 230V / 240V				
Voltage stability	$\pm$ 2%		$\pm$ 1%		
Voltage distortion	$\leq$ 3% at linear load		$\leq$ 2% at linear load		
Frequency	50Hz (synchronizing up to $\pm$ 8%)				
Frequency at free running	50Hz $\pm$ 0.2Hz		50Hz $\pm$ 0.1Hz		
Output waveform	Sinusoidal				
Overload @ 0.8pf load	105% - 125% for 50sec; 150% for 25sec; >150% for 300msec. (Transfer to Bypass eventually)			105% - 125% for 60sec; 125% - 135% for 30sec; >135% for 100msec. (Transfer to Bypass eventually)	
Efficiency	85%			>90%	
<b>DISPLAY / INTERFACE</b>					
LCD Display	AC/ DC voltages; kVA/ kW; Frequency; Temperature; Battery & load level				
LED Status Indicator	Utility power; Battery discharge; Inverter On				
External Communication	RS232 / RJ11 / Optional Intelligent Slot				
Control	3 control push button for POWER ON / POWER OFF / FUNCTION KEY				
Communication software	Windows XP/ 2003 and later version; Linux; Unix				
Optional	SNMP Card/ USB Card/ Dry Contact AS400 Card/ CMC Card/ RS485 Card/ EMD Monitoring Device				
<b>PHYSICAL DATA</b>					
Dimensions WxHxD (mm)	144 x 350 x 229	190 x 328 x 424		260 x 560 x 717 (Standard) 260 x 533 x 501 (Ex version)	
Weight with battery (kg)	11.5	22.2	26.3	68	80
Weight w/o battery, EX version	5.7	10	10	17.5	19.5
Operating temperature	0°C to 40°C				
Relative humidity	Up to 90% non condensing			Up to 95% non condensing	
Audible noise @ 1m (dBA)	$\leq$ 45			$\leq$ 50	$\leq$ 58
<b>STANDARD</b>					
EMC	IEC 61000-4-2 Level 4/ IEC6100-4-3 Level3 / IEC61000-4-4 Level 4 / IEC 61000-4-5 Level 4 / EN55022 Class B				
Safety	IEC62040-1				

\* Typical load: approximately 50% nominal load

Note: product specifications are subject to change without further notice.



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