



Enervell Power Pte. Ltd.

Direct Current, Born for Computing Power.



ZHONHEN ENERVELL, Empowering Smarter Energy

In 1752, Franklin conducted his famous kite experiment in Philadelphia, successfully drawing down "Atmospheric electricity" using a kite. He risked his life to unveil the mystery of lightning, ushering in an era of human control and utilization of electricity. Since then, electricity has played a brilliant role in accelerating the progress of human civilization.

1996

Establishment

002364

Stock Code

Global AI Infrastructure
Key Energy and Solutions Provider

DCMax Series



Product Feature and Value

- Streamlined and efficient
- Reliable modular design
- Completed energy management
- Scalable design, easy maintenance
- 100% Battery Usage
- Renewable energy access
- Reduce IT equipment malfunction rate

Product Parameter

Item	Rated Ouput DC Voltage				Rated Ouput DC Voltage		
	240V				336V		
Typical Type	ZHDCS240600	ZHDCS240800	ZHDCS2401200	ZHDCS2401600	ZHDCS336450	ZHDCS3361200	ZHDCS3361500
Capacity	600A(180KW)	800A(240KW)	1200A(360KW)	1600A(480KW)	180KW	480KW600KW	
Power Module	50A/15KW 100A/30KW	50A/15KW 100A/30KW	50A/15KW 100A/30KW	50A/15KW 100A/30KW	15KW 30KW	15KW 30KW	15KW 30KW
Input Voltage	400Vac				400Vac		
Input Voltage Range	323Vac~480Vac				323Vac~480Vac		
Input Frequency	50/60Hz±10%				50/60Hz±10%		
Input Power Factor	>0.99				>0.99		
THD	≤5%				≤5%		
Output Voltage Range	204Vdc~288Vdc				300Vdc~400Vdc		
Working Temperature	-5°C~+40°C				-5°C~+40°C		
Storage Temperature	-40°C~+70°C				-40°C~+70°C		
Working Humidity	≤90%(40±2°C)RH				≤90%(40±2°C)		
Storage Humidity	≤95%(40±2°C)				≤95%(40±2°C)		
Altitude	≤2000m				≤2000m		

PowerVault Series



Product Introduction

PowerVault Series is customized according to customer requirements, it is between battery and UPS, plays the role of power distribution. It has the characteristics of high breaking capacity, good dynamic thermal stability, flexible electrical layout and strong practicality. Scenario: Data Center, Government, Finance, Communication, Education and so on.

Product Parameter

PowerVault Series			
Item	ZHB-1250A/3P(500K UPS)(Typical 1)	ZHB-1600A/3P(600K UPS)(Typical2)	Remark
Size	1800H*800W*600D MM	2000H*800W*600D MM	Customizable Cabinet Size
Weight	≈190kg	≈200kg	
Rated Input Voltage	750/500Vdc	750/500Vdc	
Phase	L+ /Neutral Line(Optional)/L-		
Rated Input Current	1250A	1600A	Customizable Input cable capacity, quantity.
Rated Output Current	800/630/500/400/250A		Customizable Output cable capacity, quantity.
Screen	Smart Meter(Optional)		
Input Output Cable	Top/Bottom		
Maintenance	Front		
Cabinet Color	RAL9005		Customizable Cabinet Color
Cooling	Natural air cooling		
Ambient Temperature	-10° C~50° C		
Ambient Humidity	≤95%(40±2°C)RH		
Altitude	≤2000M		
Vibration	Withstand 150m/s vibration which lasts for 11ms		
IP	IP20		

Optional Types: ZHB-630A/3P(200K UPS), ZHB-800A/3P(300K UPS), ZHB-1000A/3P(400K UPS), Customizable service is available.

PowerHub Series

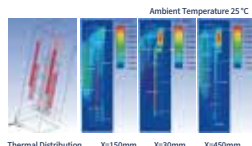


Product Feature and Value

Make your data center intelligent power distribution
more useful, flexible, safe, reliable.

AI
AC, DC power data collection and display
Perfect intelligent O&M management

Customized R&D
Simulation, EMC, thermal management
Customized R&D capabilities



Different cabinet colors, styles for optional



H, H-Plus, H-Smart, H-Mix Cabinets

**Common Choice of
China Top 3 cloud computing companies**

First-class supply chain.
Superior quality, excellent after-sales service.
Comprehensive electrical and thermal stress testing system.

**H-Plus Cabinet
Easily Maintenance**

Independent wiring compartment
Wall mounted
Front maintenance

Product Parameter

Item	Specification (Typical 1)	Specification (Typical 2)	Remark
Size	2500H*600W*600D MM	2000H*600W*1200D MM	Customizable Cabinet Size
Weight	< 250kg	< 350kg	
Rated Input Voltage	220/380/400/415Vac		
Phase	3P+N+PE, 3P+PE		
Rated Input Frequency	50/60Hz		
Rated Input Current	630/400/250/160A		Customizable Input cable capacity, quantity.
Rated Output Current	16/20/32/40/50/63A One/Three Phase output for option Max. output terminals One phase: 72; Three phase: 24	16/20/32/40/50/63A One/Three Phase output for option Max. output terminals One phase: 144; Three phase: 48	Customizable output cable capacity, quantity.

Product Parameter

Item	Specification (Typical 1)	Specification (Typical 2)	Remark
Lightning Protection Level	Grade C		
Screen	high resolution touch screen (7 inch)		
Input Output Cable	Top/Bottom		Customizable Input Cable Direction
Maintenance	Front/Front+Back/Front+Side		
Cabinet Color	RAL9005		Customizable Cabinet Color
Cooling	Natural air cooling		
EMC	EN55022 CLASS A		GB9254-2008 Grade A
Ambient Temperature	-10°C~50°C		Storage: -40°C~70°C
Ambient Humidity	≤95%(40±2°C)RH		Storage: 95%(40±2°C)RH
Altitude	≤2000M		Derating above 2000M
Vibration	Withstand 150m/s vibration which lasts for 11ms		Amplitude 0.35mm @10~55Hz Sine wave vibration
IP	IP20		
*The above technical specifications are for reference only, available for customization according to project requirements.			

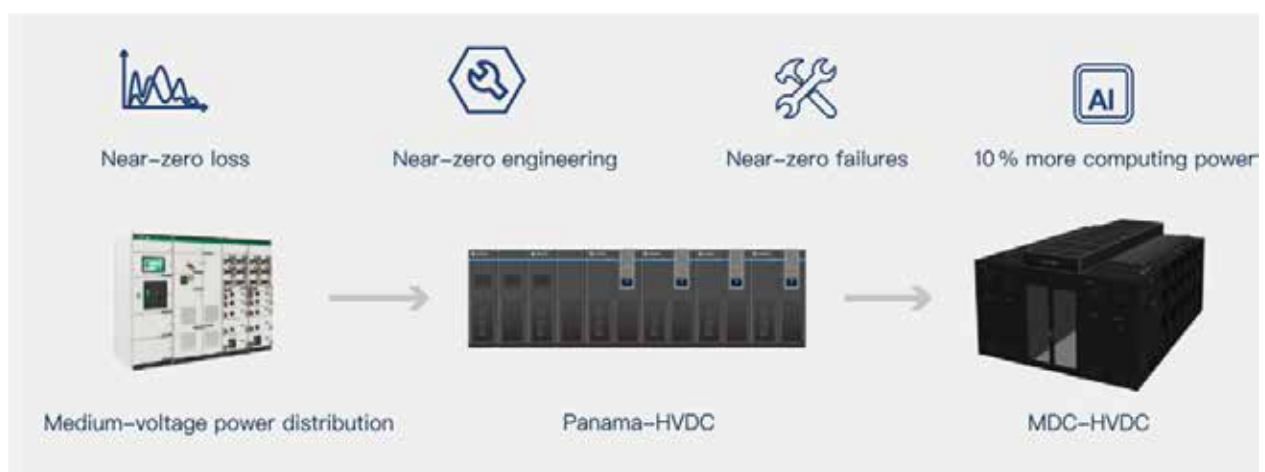
Panama Enerflex Titian 800



Product Introduction

Panama-HVDC is 10kV uninterruptible power supply with AC/DC output. Through innovated integration of electric circuit and magnetic circuit, it optimizes both the power supply side and power distribution side for data centers. It has the characteristics of ultra-high power density, ultra-high efficiency safety and reliability as well as prefabricated modular deployment, accurately matching the core construction concepts of simple, fast intelligent and efficient for future data centers.

Product Highlights



Application Industries and Scenarios



Hyperscale



Financial institution



Security sector



E-government service



Life field



Energy field



Agriculture



Manufacturing

Product Parameter

Panama-HVDC Specification	System Capacity	Maximum Output Power (Including Battery Charging)	Load Capacity	AC Cabinet	Estimated Dimensions
Model Number	kVA	kW	kW	kVA	mm(W*D*H)
ZHMPS 2402000	2000	500*4	450*4	Expandable Optional Configurations	8850*1400*2300
ZHMPS 2402500	2500	625*4	550*4	Expandable Optional Configurations	8850*1400*2300
ZHMPS 2403100	3100	700*4	630*4	Expandable Optional Configurations	10250*1400*2300
ZHMPS 8005000	5000	1250*4	1250*4	Expandable Optional Configurations	10820*1400*2300
ZHMPS 80010000	10000	2500*4	2500*4	Expandable Optional Configurations	9400*1400*2900

*Final dimensional data shall be in accordance with the physical product.

Product Parameter

System Category		240V ~ 400V DC System	800V DC System
Parameter Analogy	Parameter Name	Description	Description
System Capacity		2.5MW,3.15MW	3.15MW,5MW,10MW
AC Input	Input Voltage Range	Three-Phase8.0~30kV	Three-Phase8.0~30kV
	Input Frequency	45~65Hz	45~65Hz
	iTHD	5%	≤5%
	System Power Factor	0.99	≥0.99
DC Output	Rated Output Voltage	270/380Vdc	800Vdc
	Voltage Regulation Accuracy	≤± 0.5%	≤± 0.5%
	Current Sharing Imbalance	≤± 3%	≤± 3%
	Power Supply Mode	Floating Power Supply	Floating Power Supply
	System Peak-to-Peak Noise	≤ 0.5%	≤0.5%
Operating	Environmental Requirements	Indoor/Containerized	Indoor/Containerized
	Storage Temperature Range	-40~70 C	-40~70°C
	Operating Temperature Range	-10~40°C	-10~40°C
	Atmospheric Pressure	70~106kPa	70~106kPa
System Protection	Protection Level	IP20	IP20
Cooling Method	Heat Dissipation Method	Fan Air Cooling	Fan Air Cooling
Wiring Method	Battery/Load Installation Method	Top-Inlet & Top-Outlet	Top-Inlet & Top-Outlet

Panama Enerflex Series E-10000A



Product Introduction

Panama-AC (10kV AC-DC integrated power supply module) consists of transformer cabinet, input power distribution cabinet, busbar switch cabinet, SVG (static var generate), APF (active power filter) cabinet, maintenance bypass switch cabinet, UPS input switch cabinet, UPS cabinet, UPS output switch cabinet and output power distribution cabinet. The system adopts prefabricated and modular design, which accurately matches the core construction concepts of data centers such as simplicity, speed, intelligence and efficiency.

Application

- Finance
- Security
- Energy
- Fabrication
- Agriculture
- Digital government affairs

Product Feature and Value



Product Parameter

Capacity	2000kVA	2500kVA
10kV MV Input	630A/3P	630A/3P
Transformer	2000kVA Primary energy efficiency	2500kVA Primary energy efficiency
Input Switch	4000A/3P	5000A/3P
Bus tie Switch	4000A/3P	4000A/3P
Compensation	On demand	
UPS maintenance Bypass	4000A/4P	4000A/4P
UPS	500kVA*4	600kVA*4
UPS Input Switch	1000A/3P*4	1250A/3P*4
UPS Output Switch	1000A/3P*4	1250A/3P*4
Power Distribution	On demand	
UPS Input&Output Cable Connection	Cabinet top cable compartment, customizable copper busbar	
Size	2950H*14560W*1600D MM	2950H*14560W*1600D MM
Management	Integrated monitor and management	
Installation	Segmented design, prefabricated production, on-site assembly	
*The above technical specifications are for reference only, available for customization according to project requirements.		

Panama Enerflex Series E-10000D



Product Introduction

Panama Module is 10kV uninterruptible power supply with DC/AC output. Through innovated integration of electric circuit and magnetic circuit, it optimizes both the power supply side and power distribution side for data centers. It has the characteristics of ultra-high power density, ultra-high efficiency, safety and reliability as well as prefabricated modular deployment, accurately matching the core construction concepts of simple, fast, intelligent and efficient for future data centers.

Application

- Large data center
- Security sector
- Life field
- Agriculture
- Financial institution
- Energy field
- Manufacturing
- E-government service

Product Feature and Value

Low carbon & High efficiency

The whole session efficiency is as high as **97%**, which greatly reduces carbon emissions.

High utilization rate

Decrease **50%** of working space for equipment and increase IT load factor by 10% with the same mains capacity.

Fast delivery

Prefabricated delivery improves deployment efficiency and the construction period has been shortened to **7 days**.

Simple operation logic

simple architecture, plug and play, modular design.

Innovative integration

innovative integration of 10KVac input transformer rectification and AC/DC output distribution..



Product Parameter

System category		240V DC system	336V DC system
Parameter category	Parameter name	Describe	
AC input	Input voltage range	Three-phase 8.0 ~ 11.5 kV	
	Input frequency	45 ~ 65Hz	
	iTHD	$\leq 5\%$	
	System power factor	≥ 0.99	
DC output	Rated output voltage	270V DC	380V DC
	Output voltage range	200 ~ 288V DC	300 ~ 400V DC
	Accuracy of voltage stabilization	$\leq \pm 0.5\%$	
	Unbalance of current sharing	$\leq \pm 3\%$	
	Power supply mode	Suspension power supply	
	Peak noise	$\leq 0.5\%$	
AC output (optional)	Rated voltage	Three-phase 380V AC or 400V AC	
Use environment	Required environment	Indoor/container	
	Storage temperature range	-40 ~ 70°C	
	Operating temperature range	-10 ~ 40°C	
	Use ambient temperature	$\leq 90\%$	
	Air pressure	70 ~ 106kPa	
	Altitude	$\leq 1500\text{m}$	
Configurable battery type	Lead acid	Supported	
	Ordinary lithium battery	Supported	
	DCDC Intelligent Lithium Battery	Supported	

***The above technical specifications are for reference only, available for customization according to project requirements.**

FlexiDC Series



Product Introduction

FlexiDC Series is a highly integrated power distribution system for data centers collectively developed by Zhonhen and domestic internet giants. It is mainly composed of integrated distribution cabinet, high-voltage DC cabinet, 380VAC/240-VDC ultra-high-efficiency rectifier module, 240VDC/380VAC ultra-high-efficiency inverter module, cabinet-level AC and DC power distribution units and related system accessories.

Product Feature and Value

Integration, Flexibility

Integrated AC/DC power distribution, HVDC, and inverter
Flexible configuration, management and control

Easy O&M

Power Quality, Cabinet Environment,
Working Status Real-time Monitor
Large screen display for a concise and clear view



Ultra-high Efficiency

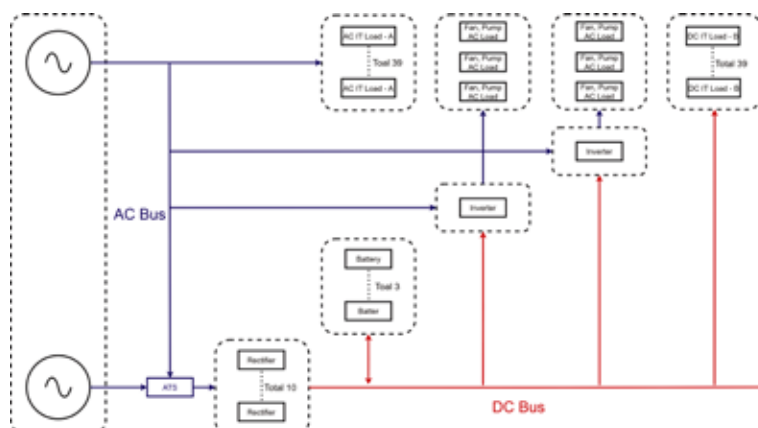
Integrated AC/DC power distribution, HVDC, and inverter
Flexible configuration, management and control

Ultra-high Power Density Scale-up Design

Integrated AC/DC power distribution, HVDC, and inverter
Flexible configuration, management and control

**High reliability, ultra-safety, all-rounder
Data center power supply solution**

Product View & Electrical Drawing



Product Parameter

FlexiDC Series		
Item	Specification	Remark
AC Input Frequency	50/60Hz $\pm$ 10%	
AC Input Voltage	323Vac~475Vac	
DC Output Voltage	200Vdc~290Vdc	
Charge & Discharge Voltage	End of Discharge Voltage 210Vdc, Floating Charge Voltage 270Vdc	
Rated Load Capacity	240kW	
AC/DC Max. Load Capacity	33kW	
Battery	3 Groups 180Ah 12V	
Efficiency	97%	
Power Factor	0.99	
AC Output	63A/1P*39 Output + 16A/1P*3 Output	Customizable Output cable capacity, quantity.
DC Output	63A/2P*39 Output + 20A/2P*11 Output	Customizable Output cable capacity, quantity.
Inverter Output	100A*6	Customizable Output cable capacity, quantity.
Screen	10.1 Inch 1280*800 Touch Screen	
Size	2500H*1300W*1400D MM	Customizable Cabinet Size
Cabinet Color	RAL9005	Customizable Cabinet Color
Working Temperature	-20°C~55°C	
Ambient Humidity	$\leq$ 95%(40 $\pm$ 2°C)	
Altitude	$\leq$ 1300M	

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PowerCore Series



Product Introduction

PowerCore Series, intelligent high frequency switching power supply products, adopt modular design with characteristics of high precision of voltage and current stabilization, low ripple factor, high reliability, easy maintenance. phase-controlled power supply with high-power thyristor redundant design has strong impact resistance. It is mainly used in various power plants and substations to provide uninterrupted Dc power supply for circuit breakers, relays, microcomputers and other loads such as fault inductors in the secondary circuit. Battery power supply mode has series and parallel connections, can use valve-regulated lead-acid (VRLA) batteries, lithium-ion (Li-ion) batteries and cadmium nickel (Cd-Ni) batteries.

Product Feature and Value

- High precision
- Low ripple factor
- Easy maintenance
- High reliability

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