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catalogue

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company profile

AUPEX TECH PTY LTD is a professional power supply solutions provider and distributor based in Melbourne, Australia.

AUPEX TECH PTY LTD holds numerous patents and leverages its expertise to offer comprehensive solutions for a wide range of power supply scenarios. These solutions fully consider system product specifications, advanced performance, energy conservation, environmental protection, and economical and technical performance. Our power supply products include thyristor rectifier power supplies, high-frequency switching rectifier power supplies, AC test power supplies, DC test power supplies, various custom power supplies for special applications, new energy power supplies, and control equipment.

AUPEX TECH PTY LTD also has a professional technical team specializing in nonferrous metallurgy and mining, providing comprehensive solutions for various survey and design applications in these sectors.



■ corporate vision

Technology improves the world

■ operation philosophy

Achieve outstanding brand, continue to create value for customers

■ corporate culture

Integrity, win-win and collaborative innovation

High frequency switching DC power supply

HDS (F) 2 series surface treatment HF Switching DC Power Supply

HHS (F) 2 series electrolytic electrochemical HF Switching DC Power Supply

ZPHC3 series multi-function bidirectional DC power supply

ZHHC3 series high precision programmable DC power supply



HDS (F) 2 Series surface treatment HF switching DC power supply

Product overview

The HDS (F) 2 series DC power supply for electroplating, electrophoretic and other surface treatment processes utilizes PWM technology in a high-frequency switching design. Featuring modular architecture and advanced DSP digital control technology, it ensures high-precision output with low ripple, rapid voltage-current response, and up to 95% efficiency. Compared to traditional thyristor-based power supplies, this high-frequency switching DC power supply offers advantages including compact size, lightweight design, minimal ripple, high power factor, and excellent stability—particularly notable in high-voltage output stability. Primarily used in electroplating, battery manufacturing, electroforming, anodizing, electrophoretic coating, and electrolytic cleaning applications requiring high-precision DC power, it serves as a replacement for imported medium-to-high power DC power products.

Product features

- Power: 600W-800kW power optional;
- Output voltage: 8-200V optional specification customization;
- Output current: 200-16000A optional specification customization;
- Output voltage, current and power can be set from zero to full range;
- Constant voltage, constant current and constant power can be automatically cross-transformed to maintain the characteristics of control and protection; LED display, 4-digit voltage and current display;
- Parallel function: The external M&S master-slave parallel port can be switched between master and slave by any single machine through system Settings, and supports up to 20 products of the same model in parallel;
- Communication interface: RS485, RS485, GPIB and other communication interfaces can be selected, MODBUS-RTU standard communication protocol, standard 4-20mA analog signal interface;
- High voltage regulation accuracy and low ripple voltage;
- Overvoltage, overcurrent, overtemperature and short circuit protection functions;
- Cooling mode: air cooling, water cooling optional.

Product applications

- Electroforming (electroforming): used for manufacturing precision molds and micro/nano structural parts.
- Anodizing (Anodizing): Surface treatment of aluminum and aluminum alloy, requiring stable DC power supply.
- Electrolytic polishing: surface finish treatment of stainless steel, titanium alloy and other materials.
- Electrophoretic coating (E-coating): widely used in automobile and home appliance industry.

HDS (F) 2 series surface treatment HF switching DC power supply selection

unit type	HDS(F)2 -31012	HDS(F)2 -31024	HDS(F)2 -31036	HDS(F)2 - -31048	HDS(F)2 -31060	HDS(F)2 -31072	HDS(F)2 -31096	HDS(F)2 -31120	HDS(F)2 -31240
power rating	12KVA	24KVA	36kVA	48kVA	60kVA	72KVA	96KVA	120kVA	240KVA
Input exchange indicators									
Power supply type and voltage	Three phase four wire +PE 380V (±15%)								
frequency range	50/60Hz(±10%)								
power factor	≥=0.93								
current harmonics	THDi≤3%								
Output DC characteristics									
Power supply type	Positive and negative (changeable)								
voltage range	0~12V- (optional)/0~24V- (standard)/0~60M-n (optional)								
Current (0~12V)	1000A	2000A	3000A	4000A	5000A	6000A	8000A	10000A	20000A
Current (0~24V)	500A	1000A	1500A	2000A	2500A	3000A	4000A	5000A	10000A
Current (0~60V)	200A	400A	600A	800A	1000A	1200A	1600A	2000A	4000A
Source effect	≤0.16FS								
Load effect	≤0.1%FS								
voltage accuracy	≤0.1%FS								
Voltage harmonics	≤3W								
response time	≤2ms (10%~90% sudden loading)								
device efficiency	≥94%								
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output								
system function									
harmonic wave	≤3								
True reverse conversion	optional								
Stable operating range	10-100%UE								
Steady flow operating range	10-100ME								
job-program mode	Single or continuous voltage and working time can be set								
operate mode	Voltage stabilization/current stabilization selection								
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc								
Display and communications									
Local operation	LCD display/touchscreen								
display resolution	Voltage: 0.1V, current: 0.1A, power: 0.1KW								
Display accuracy	Voltage: 0.1%F.S, current: 0.2WFS, power: 0.3MFS								
Remote communications and protocols	RS 485/LAN standard ModbusRTU/Modbus TCP/IP								
Safety performance									
compression strength	2000Vdc/60s/ no breakdown								
insulation resistance	≥=20MΩ@500Vdc								
earthing resistance	≤100mΩ								
noise	≤65dB(A)								
service environment									

work environment	Environment temperature-20C~45°C, altitude =5000m@>2000m reduced use in the case of relative humidity 0~95% can work 24 hours								
cooling-down method	Water cooling/fan forced air cooling								
levels of protection	IP21								
current : size : Voltage (0-12V)	1000A 510-420- 220	2000A 500*470- 780	3000A 530+560-730	4000A 510-580-1300	5000A 530*560- 1300	6000A 530+560- 1300	8000A 1700+700 · 830	0000A 1700-700 1070	20000A 700*700 790
Channel: size : Voltage (0-24V)	500A 510*420+2 20	000A 500-470- 780	1500A 530+560*730	2000A 510-580-1300	2500A 530*560~130 0	3000A 530+560- 1300	4000A 1700*70 0 830	5000A 1700-700 1070	0000A 700*700 1790
current : size : Voltage (0-60V)	200A 510*420- 220	400A 500*470- 780	600A 530-560-730	800A 510-580-1300	000A 530*560 1300	1200A 530-560 *1300	1600A 1700*70 0 830	2000A 1700-700 1070	4000A 700*700 790

The maximum customization is 800KVA

HHS (F) 2 series electrolytic electrochemical HF switching DC power supply

Product overview

The HHS (F) 2 series DC power supply for electroplating, electrophoresis, and surface treatment employs PWM technology in high-frequency switching DC systems. Featuring a modular design and advanced DSP digital control technology, it ensures high-precision output with low ripple, rapid voltage-current dynamic response, and up to 95% efficiency. Compared to traditional thyristor-based power supplies, this high-frequency switching DC system offers advantages including compact size, lightweight design, minimal ripple, high power factor, and excellent stability—particularly notable in high-voltage output stability. Primarily used in electrolysis, electrochemistry, electrolytic refining, electrodeposition, precious metal extraction/purification, electrolytic hydrogen production, chlor-alkali manufacturing, and experimental research applications requiring high-precision DC power, it serves as an alternative to imported medium-high power DC power supply products.

Product features

- Power: 600W-2300kW power optional;
- Output voltage: 8-600V optional specifications customization;
- Output current: 200-32000A optional specification customization;
- Output voltage, current and power can be set from zero to full range;
- Constant voltage, constant current and constant power can be used automatically cross-transform to maintain the characteristics of control and protection;
- LED display, 4-digit voltage and current display;
- Parallel function: The external M&S master-slave parallel port can be switched between master and slave by the system at will. It supports up to 20 units of the same model
Product parallel machine;
- Communication interface: RS485, RS485, GPIB multiple communication interfaces are available, MODBUS-RTU standard communication protocol, standard 4-20mA
Analog signal interface;
- ● high voltage regulation accuracy, low ripple voltage;
- Over voltage, over current, over temperature and short circuit protection functions;
- Cooling mode: air cooling, water cooling optional.

Product applications

- Electrolytic refining: copper, aluminum, lead, zinc, nickel, cobalt, etc. (common rectifier power supply of hundreds of A to hundreds of KA in metal smelting plants).
- Electrodeposition: Direct deposition of metal from solution, such as electrodeposition of copper, zinc, manganese and indium.
- Precious metal purification: electrolytic refining of gold, silver and platinum group metals.

- Rare metal electrolysis: such as titanium, tantalum, niobium, rare earth and other special electrolytic processes.
- Electrolytic hydrogen and chlor-alkali production: The chlor-alkali industry ($\text{NaCl} \rightarrow \text{Cl}_2, \text{NaOH}, \text{H}_2$) consumes super large current DC power supply.
- Electrodialysis and electrolytic water treatment: deionized water, wastewater treatment, heavy metal removal.
- Electrochemical synthesis: such as hydrogen peroxide, organic electro-synthesis.
- Electrolytic anticorrosion (cathodic protection): oil pipelines, hulls and other things need stable direct current.
- Electrolytic etching/microprocessing: semiconductor, PCB, optical device processing.
- Experimental research: small adjustable DC power supply is commonly used in chemical and electrochemical experiments.

HHS (F) 2 series electrolytic electrochemical HF switching DC power supply selection

unit type	HHS(F) 2 - 32050	HHS(F) 2 - 32075	HHS(F) 2 - 32100	HHS(F) 2 - 32160	HHS(F) 2 - 32200	HHS(F) 2 - 32300	HHS(F) 2 - 32400	HHS(F) 2 - 32600	HHS(F) 2 - 32800
power rating	50kVA	75KVA	100KVA	160KVA	200KVA	300KVA	400KVA	600KVA	800KVA
Input exchange indicators									
Power supply type and voltage	Three phase four wire +PE 380V (±15%)								
frequency range	50/60Hz(±10%)								
power factor	≥0.93								
current harmonics	THDi≤3%								
Output DC characteristics									
Power supply type	Positive and negative (changeable)								
voltage range	0~30M- (optional)/0~60M-x (standard)/0~100M-n						(apolegamy)		
Current (0~30V)	1660A	2500A	3333A	5333A	6667A	10000A	13333A	20000A	26666A
Current (0~60V)	830A	1250A	1667A	2667A	3333A	5000A	6667A	10000A	13333A
Current (0~100V)	500A	750A	1000A	1600A	2000A	3000A	4000A	6000A	8000A
Source effect	≤0.1%FS								
Load effect	≤0.1%FS								
voltage accuracy	≤0.1%FS								
Voltage harmonics	≤3%								
response time	≤2ms (10%~90% sudden loading)								
device efficiency	≥=94%								
overload capacity	120%~150%,1min; 150W~200%,2s; ≥200%, immediately shut off output								
system function									
harmonic wave	≤3%								
True reverse conversion	optional								
Stable operating range	10-100MUE								
Steady flow operating range	10-100WiE								
job-program mode	Single or continuous voltage and working time can be set								
operate mode	Voltage stabilization/current stabilization selection								
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc								
Display and communications									
Local operation	LCD display/touch screen								
display resolution	Voltage: 0.1V, current: 0.1A, power: 01kW								
Display accuracy	Voltage: 0.1%F.S, current: 0.2%F.S, power: 0.3%FS								
Remote communications and protocols	RS 485/LAN standard Modbus RTU/Modbus TCP/IP								
Safety performance									
compression strength	2000Vdc/60s/ no breakdown								
insulation resistance	≥=20MΩ@500Vdc								
earthing resistance	≤100mΩ								
noise	≤75dB(A)								
service environment									
work environment	The environmental temperature is-20℃~45C, the altitude is less than 5000m@>2000m, and the relative humidity								

	is 0~95% under reduced use, so it can work 24 hours continuously								
cooling-down method	Water cooling/forced air cooling in the wind room								
levels of protection	IP 21								
current size Voltage: 0~30V	1660A 510*580*1300	2500A 30+560*1300	3333A 1700*700*830	5333A 1700*700*830	6667A 1700*700*1070	10000A 1600+800*1650	13333A 2100*800*2100	20000A 1600*800+1650*2	26666A 2100*800*2200*2
current size Voltage: 0~60V	830A 510+580*1300	1250A 530*560+1300	1667A 1700*700*830	2667A 700+700*830	3333A 1700*700*1070	5000A 1600-800*1650	6667A 2100*800*2200	10000A 600*800650*2	13333A 2100*800+2200*2
current size Voltage: 0~100V	500A 510+580*1300	750A 530*560+1300	1000A 1700*700*830	1600A 700+700*830	2000A 1700*700*1070	3000A 1600*800*1650	4000A 2100*800*2200	6000A 1600*800*650*2	8000A 2100*800*2200*2

The maximum customization is 2000kVA

ZPHC3 series multi-functional bidirectional DC power supply

Product overview

The ZPHC3 series multifunctional bidirectional DC power supply employs a three-phase PFC feed-back design and pure digital PWM rectification technology. Its AC-DC bidirectional conversion utilizes four-quadrant SVPWM technology, enabling bidirectional energy flow with a power factor exceeding 0.99. Featuring 100% energy feedback and minimal grid current pollution, it delivers an input power factor >0.99 while maintaining rated operational harmonics <3%. Meeting China's GB/T14549-93 standard requirements for power quality harmonics in public grids, this high-performance device ensures precise output accuracy, rapid dynamic response, and complete grid energy feedback. Widely applicable to R&D, type testing, reliability evaluation, and production line testing for new energy vehicle motors, electronic control systems, battery pack charge/discharge testing, and other power electronics applications. It fulfills GB/T18488.1-2015, GB/T18488.2-2015, GB/T29307-2012 test requirements for the use of power supply.

- Battery simulation function can simulate the characteristics of charging and discharging of various batteries. Users can choose to simulate different battery types, series number of batteries, parallel number of batteries and SOC indicators, so as to comprehensively simulate the output characteristics of batteries, including the process of internal resistance characteristic change during battery discharge;

- Programmable DC power function has constant voltage, constant current and constant power mode output, can be automatically cross-transformed, maintain the characteristics of control and protection, ensure high precision, low ripple, fast dynamic response speed of voltage and current of DC power output;

- DC load function has constant resistance, constant voltage, constant current, constant power and other functions; Note: multiple output channels can be customized, and the channels can be used in parallel.

Product features

- Three-phase P.F.C feedback design. The system adopts two-level AC-DC and DC-DC bidirectional transformation architecture, which can effectively stabilize the fluctuation of bus voltage during sudden addition, thus improving the dynamic response time of the whole machine output and complete electrical isolation;

- The AC-DC bidirectional conversion adopts four-quadrant SVPWM technology, with bidirectional energy flow and power factor up to 0.99 or more. The network harmonic pollution is small, the feed grid current pollution is small, the input power factor is high: >0.99, and the rated working harmonic is less than 3%;

- Intelligent monitoring function, friendly man-machine interface, can be controlled remotely through CAN bus or PC;

- Features constant voltage, constant current, and constant power functions with adjustable voltage/current ranges from 0-100%, supporting dual-mode operation for both power supply and load. Unlike traditional power supplies that match their rated output voltage, our system delivers significantly higher maximum output voltages. The power supply maintains constant power output even when exceeding rated voltage levels, thereby maximizing its operational capacity.

Product applications

New energy vehicles (EV/HEV/FCV)

- Power battery charge and discharge cycle, chemical/capacity
- Fast charging and energy feedback test
- -On-board OBC and DC/DC converter test
- Motor + inverter system bench test
- Recommended specification range for V2G (vehicle-to-grid interaction) and V2H (vehicle-to-home) applications:
Voltage: 48V,200V,400V,800V
Current: 100 A-2000A
Power: 10kW-500kW energy storage system

PV and wind energy

- Photovoltaic array simulation (IV curve)
- Grid-connected verification of inverter
- DC bus bidirectional energy flow test
- Recommended specification range:
Voltage: 600V,1000V,1500V
Current: 50A-1500A
Power: 10kW-500kW

DC microgrid/power electronics

- -DC-DC/DC-AC converter development and testing
- UPS DC bus regulation
- DC power distribution system energy management
- Recommended specification range:
Voltage: 380V,750V,1000V
Current: 50 A-1000A
Power: 5kW-200kW

Aerospace/ military

- Satellite power system simulation
- -Aircraft DC grid test (270V/540V standard)
- Weapon power load simulation
- Recommended size range:
Voltage: 28V,270V,540V
Current: 10A-1000A
Power: 1kW-200kW

Scientific experiments/electrochemistry

- -Fuel cell stack test
- Electrochemical reactor experiments
- Verification of power semiconductor devices
- -Hardware in the Ring simulation (HIL/SiL)
- Recommended size range:
Voltage: 5V-1000V (flexible adjustable)
Current: 1A-1000A
Power: 0.5kW-200kW

ZPHC3 series multi-functional bidirectional DC power supply selection

model		ZPHC3005DF	ZPHC3010D	ZPHC3010D	ZPHC30300	ZPHC3060D	ZPHC30100D	ZPHC302000	ZPHC30300D	ZPHC305000
capacity		5kW	10kW	20kw	30kW	60kW	100kW	200kw	300kW	500kW
Method of production		Switching switches PWM								
running mode		Power mode: constant voltage, constant current, constant power; load mode: constant power, constant current, constant resistance								
exchange characteristic	number of phases	uniphase		Three phase four wire + ground wire						
	voltage	220V±15%		380V±15%						
	frequency	47Hz-63Hz								
	power factor	≥0.99 (rated power)								
	current harmonics	Less than 3% (rated power); 100% feedback to the grid, high efficiency and energy saving, no pollution to the grid								
direct-current characteristic	voltage range	10-100VDC		10-800V (voltage 50-2000 VDC, channel number can be customized, channels can be used in parallel)						
	rated voltage	50V	50V	300V	300V	300V	300V	300V	300V	300V
	rated current	±100A	±200A	±67A	±100A	±200A	±334A	±668A	±1000A	±1667A
	peak point current	±120A	±240A	±80A	±120A	±240A	±400A	±800A	±1200A	±2000A
	power rating	5kW	10kW	20kW	30kW	60kW	100KW	200kW	300kW	500kW
	peak power	6kW	12kW	24kW	36kW	72kW	120KW	240kW	360kW	600kW
	peak time	Lasts 60S								
	response time	≤5ms (10% ~ 90% sudden loading)								
	switching period	≤±0.5MFS								
	Voltage ripple (rms)	≤0.2MF.S								
	current ripple	≤0.1%4FS								
	voltage accuracy	≤0.1%FS								
	Current accuracy	≤0.1%F.S								
	Power accuracy	≤0.1%4FS								
load characteristic	Constant power accuracy	≤0.3MF.S								
	Constant current precision	≤0.2MFS								
	Constant resistance accuracy	≤0.2MFS								
cell imitate	function	The characteristics of charging and discharging of various batteries can be simulated. Users can choose to simulate different battery types, number of series batteries, number of parallel batteries and SOC indicators, so as to comprehensively simulate the output characteristics of batteries, including the process of internal resistance characteristic change during battery discharge;								
Charging pile test	function	BMS simulation function, charging pile interoperation, protocol consistency, fault simulation, etc								
feedback characteristic	Voltage/frequency	45Hz-55Hz								
	Current harmonic distortion	≤3%								
	power factor	≥0.99								
charac teristic	Feedback power	Support full range power feedback								
	switching period	≤10ms(+90%--90%)								

overall efficiency	≥936								
show	7 inch LCD touch screen								
communication interface	RS485 standard port/ Ethernet port (optional) / CAN (optional)								
insulation resistance	Input to the 20M Q 500 V DC output to the 20M Q 500 V DC								
Pressure tolerance characteristics	Input pair 1500VAC for 1 minute, output pair 1500VAC for 1 minute								
Noise (1m)	<70dB								
protect	Overvoltage, undervoltage, overcurrent, overheating, overload, short circuit, phase loss, phase sequence, etc								
cooling-down method	Fan forced cooling								
weight (kg)	30	50	200	400	800	1200	1800	2500	3000

ZHHC3 series high precision programmable DC power supply

Product overview

The ZHHC3 series features a wide-range, high-precision programmable DC power supply with active PFC technology, achieving up to 0.99 power factor. This PWM-based high-frequency switching DC power supply employs a modular design and advanced DSP digital control technology, offering constant voltage, constant current, and constant power output modes. It supports automatic cross-mode conversion while maintaining both control and protection characteristics, ensuring high precision, low ripple, rapid transient response, and efficiency up to 93%. Primarily designed for applications in electronic power production, battery manufacturing, PCB board fabrication, communication systems, PLC power supply, electromechanical aging testing, DC motor testing, automated test system integration, medical devices, industrial use, battery charging, as well as simulation, hybrid electric vehicle, and photovoltaic inverter testing research laboratories requiring high-precision DC power solutions.

Product features

- Active PFC, power factor up to 0.99;
- Constant power wide range voltage and current output;
- High-speed DSP is used for PID operation, direct PWM output, modular design, high power density, small size, greatly reduce the failure rate;
- 18bit high-speed ADC is adopted to measure voltage and current values quickly and accurately; the control circuit adopts high-speed CPU to achieve high voltage precision and small ripple;
- It has constant voltage, constant current and constant power mode output, and can be automatically cross-transformed to maintain the characteristics of both control and protection;
- It has overvoltage, overcurrent, overtemperature and short circuit protection functions.
Overvoltage (OVP) and overcurrent (OCP) can be set in the system, and the value can be adjusted;
- It has 9 memory groups, which can set the commonly used parameters (voltage and current) for easy use. It can execute 100 sets of different voltage, current, power, rise time and operation time settings at one time, and can make continuous 999,999 cycles of test. The operation time can be set as short as 1ms, and various output waveforms can be edited in this mode;
- Provide embedded intelligent PC monitoring system, with RS232, RS485, LAN, CAN, USB and other communication interfaces, MODBUS-RTU standard communication protocol;
- Standard 0-5V analog signal interface;
- Multi-level linkage function: external M&S master-slave parallel port, a single machine can switch master and slave at will through system Settings, up to 200 units of the same model can be supported;
- Voltage slope and current slope can be set to control the speed of voltage and current change, which is used to test the stable working range, protection point and stability of the load;
- Color LCD display, Chinese/English interface, convenient and fast key operation;
- Has line voltage drop compensation function;
- Input/output isolation;

· Constant Voltage/Current Switching Specifications: Under rated power, voltage, and current output conditions, users can freely configure required settings. The output modes are Constant Voltage (CV) and Constant Current (CC), which depend on the power supply's output voltage, current parameters, and load resistance values. As illustrated in the diagram: Curves 1 and 2 represent two loads with different resistance values. When Curve 1 intersects with I_{set} , the power supply operates in CC mode; when Curve 2 intersects with V_{set} , it switches to CV mode.

Product applications

- Energy saving lamps and other lamps testing and aging
- Switching power supply, power adapter
- Capacitors, resistors, relays, transistors, sensors and other electronic components
- Photovoltaic and inverter test aging
- Electrolysis, electroplating, corrosion aluminum foil processing, etc
- Aerospace, defense and military industry
- Motor, controller and DC motor testing and aging of electric vehicles
- Automotive electronics, DC motors, motor controllers, cigarette burners, audio and video testing aging, etc
- LCD screen, touch screen and other displays

ZHHC3 series high precision programmable DC power supply selection

capacity		1000W-2000KW see the following table
Method of production		SPWM
import	number of phases	1p2W+PE single-phase two-wire + ground wire or 3 medium 4W+PE three-phase four-wire + ground wire
	voltage	220V $\pm$ 10% or 380V $\pm$ 15%
	power factor	>0.98
	frequency	47Hz-63Hz
output	voltage	0-100% full scale voltage adjustable
	current	0-100% full scale current adjustable
	power	0-100% full scale power adjustable
show		Voltage Vrms, current Arms, power, time
voltage ripple rms		0.1%FS (full scale)
current ripple rms		0.2%FS (full scale)
Stability accuracy		$\leq \pm 0.05\%$ FS
Stability and flow accuracy		$\leq \pm 0.1\%$ FS
Power supply regulation		$\pm 0.1\%$ FS
load regulation		$\pm \leq 0.3\%$
peak efficiency		$\geq 93\%$

Voltage resolution		$V_0 < 100V: 0.001V; V_0 < 1000V: 0.01V; V_0 \geq 1000V: 0.1V$
Current resolution		Output $I_o < 10A$: resolution 0001A; Output $100 > 0 \geq 10A$: resolution 0.01A; Output $1000A > I_o \geq 100A$: resolution 0.1A; Output $I_o \geq 1000A$: resolution 1A;
Setting Project	voltage adjustment CV	0-100% rated voltage can be set
	Current regulation CC	0-100% rated current can be set
	capacity control CP	0-100% rated power can be set
Measurement accuracy	voltage	$\pm 0.05\%FS - 0.1\%FS$
	current	$\pm 0.1\%FS$
	power	$\pm 0.1\%FS$
Number of storage units		There are 9 groups in total, each group can remember the voltage and current value, and can be quickly and conveniently called
Number of programs that can be programmed		A total of 100 groups, each group can run voltage, current, rise time, operation time
Hierarchical functions		The external M&S master-slave serial/parallel port can be switched between master and slave at will through system Settings. It supports up to multiple parallel machines
control voltage		0-5V corresponds to 0-100%FS
communication interface		Standard RS232, RS485, USB, LAN communication interface /GPIB communication interface optional
electromagnetic compatibility		Input EMI filter
Limits and Settings		0-Max Current (exceeding the current set value to protect the power supply and stop output)
Pressure limit setting		0-Max Current (over voltage set point power protection, stop output)
protect		Overvoltage, overcurrent, overtemperature, overload, short circuit
cooling-down method		Speed control fan forced cooling
Insulation withstand voltage		Input to the housing 20M Ω 500VDC, output to the housing 20M Ω 500VDC input to the housing 1500VAC for 1 minute, input to output 1500VAC for 1 minute
Java runtime environment Java		-10 to 45°C (customized for -20°C to 50°C) 0 to 90%RH

model	output		model	output		model	output	
capacity	voltage	current	capacity	voltage	current	capacity	voltage	current
ZHHC300X (300W)	30V	30A	ZHHC300L (600W)	30V	60A	ZHHC3001 (1.2kW)	30V	120A
	50V	18A		50V	36A		50V	72A
	100V	9A		100V	18A		100V	36A
	150V	6A		150V	12A		150V	24A
	200V	4.5A		200V	9A		200V	18A
	300V	3A		300V	6A		300V	12A
	600V	1.5A		600V	3A		600V	6A
	1000V	1A		1000V	2A		1000V	4A
				1500V	1.2A		1500V	2.4A
ZHHC3002 (2kW)	10V	600A	ZHHC3003 (3kW)	10V	900A	ZHHC3005 (5kW)	10V	1500A
	30V	200A		30V	300A		30V	500A
	60V	100A		60V	150A		60V	250A
	100V	60A		100V	90A		100V	150A
	150V	40A		150V	60A		150V	100A
	300V	20A		300V	30A		300V	50A
	600V	10A		600V	15A		600V	25A
	1000V	6A		1000V	9A		1000V	15A
	1500V	4A		1500V	6A		1500V	10A
ZHHC3010 (10kW)	10V	3000A	ZHHC3015 (15kW)	10V	4500A	ZHHC3020 (20kW)	10V	6000A
	30V	1000A		30V	1500A		30V	2000A
	60V	500A		60V	750A		60V	1000A
	100V	300A		100V	450A		100V	600A
	150V	200A		150V	300A		150V	400A
	300V	100A		300V	150A		300V	200A
	600V	50A		600V	75A		600V	100A
	1000V	30A		1000V	45A		1000V	60A
	1500V	20A		1500V	30A		1500V	40A

Communication test power supply

ZAC2000 series power grid simulator

ZAC80 series programmable AC

power supply ZAC60 series

frequency conversion power

supply

ZAC60 series shore power supply

ZACEL series feedback AC

electronic load ZAC50 series voltage

and frequency stabilized power

supply

ZAC400 series medium

frequency static power supply

HCT series AC constant

current source

WF series no-arc power supply

ZAC2000 series power grid simulator



Product overview

The ZAC2000 Series Power Grid Simulator is designed for the R&D, quality verification, and production phases of new energy generation equipment. Its four-quadrant operation mode, energy feedback capability, and voltage waveform editing functions comply with relevant regulations (UL 1741 SA/IEEE 1547/IEC 62116) and testing specifications. Users can adjust parameters such as voltage, frequency, phase variations, three-phase imbalance, and flicker to simulate grid conditions required by test products. The power supply features an energy feedback grid function, effectively conserving energy and reducing operational costs.

Product features:

- Single-phase or three-phase AC output can be selected;
- Suitable for PV inverter, Smart Grid and EV related product test application;
- Synchronous TL signal with output voltage variation;
- List, STEP, and PULSE modes for test power disturbance (PLD) simulation;
- The voltage waveform can be set to 0~360 degrees to switch on/off;
- Voltage transient simulation (in accordance with LVRT low voltage traversal test);
- Parameter measurement function includes the components of current harmonics at each order;
- Harmonic and interharmonic distortion waveform synthesis.

App industries

It is applied to the production, quality verification and research and development of renewable energy related products, factory inspection of new energy products, research and development and inspection of AC/DC charging piles, etc.

unit type	ZAC2000-33600	ZAC2000-331000	ZAC2000-331500	ZAC2000-333000	ZAC2000-335000	ZAC2000-338000	ZAC2000-3310000	ZAC2000-3315000	ZAC2000-3320000
power rating	60KVA	100KVA	150KVA	300kVA	500KVA	800KVA	1000KVA	1500kVA	2000kVA
Input exchange									
indicators power supply	Three phase four wire +PE								
Voltage range	380V/420V(±15%)								
Frequency range	50/60Hz(±10%)								
Power factor	≥0.99								
current harmonics	THDi≤3%								
OutputACcharacteristics									
Power supply mode	Three phase four wire								
voltage range	0~300Vw (standard)/0~400Vm (optional)/0~700V (optional)								
Current (0~300N)	91A	152A	227A	454A	757A	1136A	1515A	2272A	3038A
Current (0~400V)	68A	114A	170A	340A	567A	852A	1136A	1708A	2284A
Current (0~700N)	38A	65A	98A	197A	329A	493A	658A	987A	1320A
Frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz								
Source effects	≤0.1%F.S								
Load effect	≤0.1%FS								
voltage accuracy	≤0.1%FS								
Frequency accuracy	≤0.014FS								
Voltage harmonics	≤2%								
response time	≤2ms (10%~90% sudden loading)								
device efficiency	≥94%								
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output								
system function									
Harmonic/inter harmonic	The harmonics of 2~50 times of the basic frequency can be injected at the same time, and 20 kinds of harmonics can be injected at the same time. The total harmonic content can be set to 10% at the highest								
three-phase imbalance	phase angle 0.0°~359.9°, and 0.1° can be adjusted								
high-low voltage crossing	High voltage traversal/low voltage traversal capability								
step functions	The step voltage, step frequency and step time can be set to simulate variouspower supply step conditions.								
Slow up/down function	The gradual rise and fall of voltage and frequency can be set for a single time or a continuous time.								
Feedback function	It can receive load energy and feed it back to the grid								
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc								
Display and communication									
Local operation	LCD display screen								
Display resolution	Voltage: 0.01V, current: 0.01A, frequency: 0.01Hz, power: 0.01kW								
Display accuracy	Voltage: 0.1%F.S, current: 0.2XF.S, frequency: 0.01%, power: 0.3%F.S								
Remote communication	RS 485/LAN								
Communication protocol	Standard Modbus RTU/Modbus TCP/IP								
safety performance,									
Voltage withstand strength	2000Vdc/60s/ no breakdown								
insulation resistance,	≥20MQ@500Vdc								
ground resistance,	≤100mQ								
noise	≤65dB(A)								
Use environment									
working environment	The fan can work 24 hours continuously under the condition of ambient temperature-20°C~45°C and relative humidity 0~95%								
cooling method	forced air cooling								
protection class	IP 21								
altitude	No more than 5000m@>2000m reduced use								
Size (W-D+H) mm	800-1420*1470	800*1420*1470	1800+1000*1900	1800*1000*1900	4000*900-2200	4000*900+2200	4000*1240*2080	4000*1240*2080	5000-1240*2080

The maximum customization is 8000kVA

ZAC80 series programmable AC power supply

Product overview

ZAC80 series is a programmable AC power supply with high frequency power electronic switching and transformation technology, voltage and frequency can be continuously adjustable. It is suitable for laboratory or production line as debugging test power supply, or as centralized power supply for plant and laboratory.

This power supply delivers a single AC voltage and frequency. Through internal conversion processes including AC-to-DC rectification and DC-to-AC inversion, it generates a highly stable and pure sine wave output. The system features advanced automation, stable performance, comprehensive functionality, robust protection mechanisms, and simplified maintenance. Utilizing cutting-edge sinusoidal pulse width modulation (SPWM) technology, this series of inverter power supplies delivers exceptional reliability, complete protection functions, minimal waveform distortion, and high operational efficiency.

Product features:

- Step function: simulate various power supply step conditions, voltage or frequency step changes can be completed in a single cycle;
- Slow rise/down function: simulate various power supply slow rise or slow down conditions, can adjust the voltage or frequency climb speed, so as to effectively reduce the surge current generated by motors or compressors at startup;
- Multiple output modes: three-phase unified mode, three-phase divided mode, three-phase parallel mode;
- Equipped with wireless monitoring system: through serial port, network port and other interfaces to carry out data communication according to specific protocols, various terminals can monitor the equipment.

App industries

It is used in home appliance industry, motor and compressor testing, laboratory debugging, IT manufacturing electronics industry, power supply for import/export equipment and other fields.

unit type	ZAC80 -33100	ZAC80 -33300	ZAC80 -33600	ZAC80 -33900	ZAC80 -331200	ZAC80 -331500	ZAC80 -333000	ZAC80 -336000	ZAC80 -338000
power rating	10KVA	30KVA	60KVA	90KVA	120KVA	150KVA	300KVA	600KWVA	800KVA
Input exchange indicators									
Power supply type	Three phase four wire +PE								
voltage range	380V(±15%)								
frequency range	50V60Hz(±10%)								
Output fluid characteristics									
Power supply type	Three phase four wire								
voltage range	Low grade: 0-150V., high grade: 0-300V.								
Current range (low end)	30A	90A	181A	272A	363A	454A			
Current range (off 档)	15A	45A	90A	136A	181A	227A	454A	911A	1215A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45-65Hz								
Source effect	601%FS								
Load effect	50.1FS								
voltage accuracy	≤0.1%FS								
Frequency accuracy	=0.01FS								
Voltage harmonics	=2%								
response time	s5ms								
device efficiency	390%								
overload capacity	120%-150%,1min; 150%-200%,2s; ≥200%, immediately shut off output								
system function									
work pattern	Three-phase unified mode, three-phase divided mode, three-phase parallel mode (manual)								
Step functions	The step voltage, step frequency and step time can be set to simulate various power supply step conditions								
Slow up/down function	Single or continuous voltage and frequency slow rise and fall can be set								
Online adjustment function	The output voltage and frequency can be adjusted online								
Quick Settings feature	Multiple sets of output voltage and frequency can be customized								
memory function	After power failure recovery, the last output mode and parameters can be remembered								
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc								
Display and communications									
Local operation	LCD display screen								
display resolution	Voltage: 0.1V, current: 0.1A. Frequency: 0.1Hz, power: 0.1KW								
Display accuracy	Voltage: 0.1%F.S, Current: 0.2WFS, Frequency: 0.01%. Power: 03MFS								
telecommunication	RS 485/LAN								
protocol	Standard Modbus RTU/Modbus TCP/IP								
Safety performance									
compression strength	2000Vdc/60s/ no breakdown								
insulation resistance	≥20MQ@500Vdc								
earthing resistance	s100mQ								

noise	565cB(A)
service environment	
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0-95%, which can work for 24 hours continuously
cooling-down method	Wind forced air cooling
Fatigue rating	IP 21
above sea level	55,000m @ > 2000m reduced use
Size (W-D-H) mm	500*820+1100 520-1160*1355 650-1420-1470 650+1420+1470 650+1420-1470 650+1420*1470 (With wheels) (With wheels) (With wheels) (With wheels) "With wheels""With wheels" 1550850-19854000-900+20804000+900-2080

ZAC60 series frequency conversion power supply



Product overview

The ZAC60 series is a power supply that converts mains electricity into required voltage and frequency through power conversion circuits. Its key features include providing pure and reliable sine wave power output, low harmonic distortion, high-frequency stability, and voltage regulation. The system can simulate varying voltage and frequency characteristics from different regions worldwide, making it suitable for industrial production lines, quality verification, R&D applications, and other scenarios.

Product features:

- High overload capacity: power unit is modular, can withstand twice the rated current without voltage drop;
- Fast dynamic response: sudden load voltage transient change $<1\%$, recovery time $<20\text{ms}$;
- Good human-computer interaction: 7-inch touch operation display with resolution of $800*480$;
- Strong anti-interference: optical fiber drive control, with strong anti-electromagnetic interference and reliability;
- High protection level: the surface of the equipment cabinet is treated with electrostatic spraying, and the PCB is treated with anti-corrosion paint and resin injection.

App industries

It can be used in various automation systems, laboratories and measurement rooms for testing the effects of various alternating current sources, and can also be used as a centralized power supply for factories and laboratories.

unit type	ZAC60 -11005	ZAC60 -11010	ZAC60 -11030	ZAC60 -11050	ZAC60 -11100	ZAC60 -11150	ZAC60 -11200	ZAC60 -11300
power rating	0.5KVA	1KVA	3KVA	5KVA	10kVA	15KVA	20KVA	30kVA
Input exchange indicators								
Power supply type	Single phase two wire +PE							
voltage range	220V(±15%)							
frequency range	50/60Hz(±10H)							
Output AC characteristics								
Power supply type	Single phase two wire							
voltage range	Low grade: 0~150V, high grade: 0~300V.							
Current range (low end)	4A	9A	27A	45A	90A	136A	181A	272A
Current range (high)	2A	4A	13A	22A	45A	68A	90A	136A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz							
Source effect	≤0.1%FS							
Load effect	≤0.1%FS							
voltage accuracy	≤0.1%F.S							
Frequency accuracy	≤0.01%F,S							
Voltage harmonics	≤2W							
response time	≤5ms							
device efficiency	≥90%							
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output							
system function								
Online adjustment function	The output voltage and frequency can be adjusted online							
Quick Settings feature	Multiple sets of output voltage and frequency can be customized							
memory function	After power failure recovery, the last output mode and parameters can be remembered							
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc							
Display and communications								
Local operation	digital LED						LCD display screen	
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW							
Display accuracy	Voltage: 0.1%F.S, current! 0.2%F.S, frequency: 0.01%, power: 0.3%F.S							
telecommunication	No communication		RS 485/LAN					
protocol	No communication protocol		Standard Modbus RTU/Modbus TCP/IP					
Safety performance								
compression	2000Vdc/60s/ no breakdown							

strength								
insulation resistance	$\geq 20\text{MQ}@500\text{Vdc}$							
earthing resistance	$\leq 100\text{m}\Omega$							
noise	$\leq 65\text{dB(A)}$							
service environment								
work environment	The ambient temperature is $-20^{\circ}\text{C}\sim 45^{\circ}\text{C}$, and the relative humidity is 0~95%, which can work continuously for 24 hours							
cooling-down method	Fan forced air cooling							
levels of protection	IP 21							
above sea level	No more than 5000m@>2000m reduced use							
Size (W*D*H) mm	440-460*133 (including base)	440*460*133 (including base)	440*460*242 (including base)	350*560+675 (including mobile wheels)	400*560*B00 (including mobile wheels)	400*660*B00 (including mobile wheels)	500-820+1100 (including mobile wheels)	500*820-1100 (including mobile wheels)

unit type	ZAC60 -31100	ZAC60 -31150	ZAC60 -31200	ZAC60 -31300	ZAC60 -31450	ZAC60 -31600	ZAC60 -311000
power rating	10kVA	15KVA	20KVA	30kVA	45KVA	60KVA	100KVA
Input exchange indicators							
Power supply type	Three phase four wire +PE						
voltage range	380V(±15%)						
frequency range	50/60Hz(±10%)						
Output AC characteristics							
Power supply type	Single phase two wire						
voltage range	Low grade: 0~150V, high grade: 0~300V.						
Current range (low end)	90A	136A	181A	272A	409A	545A	909A
Current range (high)	45A	68A	90A	136A	204A	272A	454A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz						
Source effect	≤0.1%F.S						
Load effect	≤0.1%F.S						
voltage accuracy	≤0.1%FS						
Frequency accuracy	≤0.01%F.S						
Voltage harmonics	≤2%						
response time	≤5ms						
device efficiency	≥90%						
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output						
system function							
Online adjustment function	The output voltage and frequency can be adjusted online						
Quick Settings feature	Multiple sets of output voltage and frequency can be customized						
memory function	After power failure recovery, the last output mode and parameters can be remembered						
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc						
Display and communications							
Local operation	Digital LED LCD display			Digital LED LCD display			
display resolution	Voltage! 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW						
Display accuracy	Voltage: 0.1%F.S, current: 0.2F.S, frequency: 0.01%, power: 0.3%F.S						
telecommunication	RS 485/LAN						
protocol	Standard Modbus RTU/Modbus TCP/IP						
Safety performance							
compression strength	2000Vdc/60s/ no breakdown						
insulation resistance	≥20MQ@500Vdc						
earthing resistance	≤100mΩ						
noise	≤65dB(A)						

service environment							
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0~95%, which can work 24 hours continuously						
cooling-down method	Fan forced air cooling						
levels of protection	IP 21						
above sea level	No more than 5000m@>2000m reduced use						
Size (W+DH) mm	400*550*800 (including mobile wheels)	400*650*800 (including mobile wheels)	500*820+1105 (including mobile wheels)	500*820*1105 (including mobile wheels)	520*1160*1355 (including mobile wheels)	520*1160*1355 (including mobile wheels)	520*1160*1355 (including mobile wheels)

unit type	ZAC60 -33100	ZAC60 -33200	ZAC60 -33300	ZAC60 -33450	ZAC60 -33600	ZAC60 -33900	ZAC60 -331000	ZAC60 -331200	ZAC60 -331500
power rating	10KVA	20KVA	30kVA	45KVA	60kVA	90KVA	100KVA	120KVA	150KVA
Input exchange indicators									
Power supply type	Three phase four wire +PE								
voltage range	380V(±15%)								
frequency range	50V60Hz(±10%)								
Output AC characteristics									
Power supply type	Three phase four wire								
voltage range	Low grade: 0-150Va, high grade: 0-300V								
Current range (low end)	30A	60A	90A	136A	181A	272A	303A	363A	454A
Current range (high)	15A	30A	45A	68A	90A	136A	151A	181A	227A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45-65Hz								
Source effect	≤0.19FS								
Load effect	≤0.19FS								
voltage accuracy	≤0.19FS								
Frequency accuracy	≤0.01%FS								
Voltage harmonics	≤2%								
response time	≤5ms								
device efficiency	≥90%								
overload capacity	120%-150%,1min; 150%-200%,2s; ≥200%, immediately shut off output								
system function									
Online adjustment function	The output voltage and frequency can be adjusted online								
Quick Settings feature	Multiple sets of output voltage and frequency can be customized								
memory function	After power failure recovery, the last output mode and parameters can be remembered								
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overplanting, short circuit protection, internal overheating protection, etc								
Display & Communication									
Local operation	LCD display screen								
display resolution	Voltage: 01V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW								
Display accuracy	Voltage: 0.1%FS, current: 0.2MF5, frequency: 0.01%, power: 0.3%F.5								
Yunhe Communications	RS 485/LAN								
protocol	Standard Modbus RTU/Modbus TCP/IP								
Safety performance									
compression strength	2000Vdc/60s/ no breakdown								
insulation resistance	≥20MQ@500Vdc								
earthing resistance	≤100mQ								
noise	≤65dB(A)								
service environment									
work environment	The ambient temperature is-20°C-45°C, and the relative humidity is 0-95%, which can work continuously for 24 hours								
cooling-down method	Fan forced air cooling								

levels of protection	P21		
above sea level	No more than 5000m@>2000m reduced use		
Size (W-D*H) mm	500-820-1105 (including mobile wheels)	500-820-1105 (including mobile wheels)	520-1160-135520-1160-1355650-1420-1470650-1420-1470/650-1420-1470/650-1420-1470/650-1420-1470 (With wheels) (With wheels) (With wheels) (With wheels) (With wheels) (With wheels) (With wheels) (With wheels)

unit type	ZAC60 -332000	ZAC60 -333000	ZAC60 -334000	ZAC60 -336000	ZAC60 -338000	ZAC60 -3310000	ZAC60 -3312000	ZAC60 -3316000	ZAC60 -3320000
power rating	200KVA	300KVA	400KVA	600kVA	800KVA	1000KVA	1200KVA	1600KVA	2000kVA
Input exchange indicators									
Power supply type	Three phase four wire +PE								
voltage range	380V(±15W)								
frequency range	50/60Hz(±10%)								
Output transfer characteristics									
Power supply type	Three phase four wire								
voltage range	0~300V-								
current range	303A	454A	606A	911A	1215A	1519A	1823A	2431A	3038A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz								
Source effect	≤0.1%F.S								
Load effect	≤0.1%F.S								
voltage accuracy	≤0.1%F.S								
Frequency accuracy	≤0.01%F.S								
Voltage harmonics	≤2W								
response time	≤5ms								
device efficiency	≥90%								
overload capacity	120%~150W,1min; 150%~200W,2s; ≥200%, immediately shut off output								
system function									
Online adjustment function	The output voltage and frequency can be adjusted online								
Quick Settings feature	Multiple sets of output voltage and frequency can be customized								
memory function	After power failure recovery, the last output mode and parameters can be remembered								
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc								
Display and communications									
Local operation	LCD display screen								
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW								
Display accuracy	Voltage: 0.1%F.S, current: 0.2%F.S, frequency: 0.01%, power: 0.3MFS								
telecommunication	RS 485/LAN								
protocol	Standard Modbus RTU/Modbus TCP/IP								
Safety performance									
compression strength	2000Vdc/60s/ no breakdown								
insulation resistance	≥20MΩ@500Vdc								
earthing resistance	≤100mΩ								

noise	≤65dB(A)								
service environment									
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0~95, so it can work 24 hours continuously								
cooling-down method	Fan forced air cooling								
levels of protection	IP 21								
above sea level	No more than 5000m@>2000m reduced use								
Size (WDH) mm	1550*850*1985 (including mobile wheels)	1550*850*1985 (including mobile wheels)	1910*1160*1940	3100*900*2080	3100*900*2080	4900*1600*2080	4900*1600*2080	4900*1600*2080	4900*1600*2080

The maximum customization is 8000kVA

GYBP60 series shore power supply



Product overview

Shore power supply is a high-power variable frequency power supply equipment specially designed and manufactured for the load characteristics of ship electricity consumption, as well as harsh operating environments such as ships, shore terminals, and other areas with high temperature, high humidity, high corrosive contamination, and large current surges. It fully complies with the China Classification Society (CCS) maritime product certification standards (JTS-155-2019), as well as China's relevant standards for high/low-voltage complete power distribution equipment, power quality standards, and industry-related standards. It is widely used in scenarios requiring power supply, including ships, shipyards, repair facilities, offshore drilling platforms, and shore terminals.

Product features:

- High overload capacity: power unit is modular, can withstand the impact current of the motor, and does not cause voltage drop;
- Fast dynamic response: sudden load voltage transient change is small, fast recovery time;
- Intuitive display, easy to operate: LCD Chinese and English touch operation display;
- Excellent stability: high frequency stability, generated by quartz oscillator, has very stable and accurate frequency;
- Strong anti-interference: optical fiber drive control, with strong anti-electromagnetic interference and reliability;
- High protection level: the surface of the cabinet is electrostatic spraying, and the anti-corrosion level of the container is not lower than IP54.

App industries

It is used in ship, ship manufacturing and repair plants, offshore drilling platforms, shore terminals, ports and other fields.

unit type	GYBP60 -334000L	GYBP60 -336300L	GYBP60 -338000L	GYBP60 -3310000L	GYBP60 -3312500L	GYBP60 -3316000L	GYBP60 -3325000L	GYBP60 -3350000L
power rating	400KVA	630kVA	800KVA	1000KVA	1250KVA	1600KVA	2500KVA	5000KVA
Input exchange indicators								
Power supply type	Three phase four wire +PE							
voltage range	380V(±15M)							
frequency range	50/60Hz(±10%)							
Output AC characteristics								
Power supply type	Three phase four wire							
voltage range	0~460V.							
current range	524A	826A	1049A	1312A	1640A	2100A	3280A	6560A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz							
Source effect	≤0.1MFS							
Load effect	≤0.14FS							
voltage accuracy	≤0.1%F,S							
Frequency accuracy	≤0.01%FS							
Voltage harmonics	≤2W							
response time	≤5ms							
device efficiency	≥90M							
overload capacity	120W~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output							
system function								
Online adjustment function	The output voltage and frequency can be adjusted online							
memory function	After power failure recovery, the last output mode and parameters can be remembered							
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc							
Display and communications								
Local operation	LCD display screen							
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1KW							
Display accuracy	Voltage: 0.19%6F.S, current: 0.2KF.S, frequency: 0.01%, power: 0.3WF.S							
telecommunication	RS 485/LAN							
protocol	Standard Modbus RTU/Modbus TCP/IP							
Safety performance								
compression strength	2000Vdc/60s/ no breakdown							
insulation resistance	≥20MΩ@500Vdc							
earthing resistance	≤100mΩ							
noise	≤65dB(A)							
service environment								
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95%, which can work continuously for 24 hours							
cooling-down method	Fan forced air cooling, air conditioning auxiliary heat dissipation (optional)							

levels of protection	Power IP21, container IP54 (optional)							
above sea level	No more than 5000m@>2000m reduced use							
Power supply (W D H) m m	1910*1160 *1940	3100*900 +20B0	3100*900 *2080	3100*900 *2080	4900*1600 *20B0	4900*1600 *2080	4900*1600 *2080	7000*1600 *2080
Container (W=D+H) mm	3500*2400 *2900	4500*2400 *2900	4500*2400 *2900	4500*2400 *2900	7500*2400 +2900	7500*2400 *2900	7500*2400 *2900	12000*2400 *2900

unit type	GYBP60 -3312500	GYBP60 -3316000	GYBP60 -3320000	GYBP60 -3330000	GYBP60 -3350000	GYBP60 -3380000	GYBP60 -33100000
power rating	1250KVA	1600KVA	2000kVA	3000KVA	5000KVA	8000KVA	10000KVA
Input exchange indicators							
Power supply type	Three phase three wire +PE						
voltage range	3~10KV(±10W)						
frequency range	50/60Hz(±10%)						
Output AC characteristics							
Power supply type	Three phase four wire						
voltage range	0.4kV/0.44kV/6.0kV/6.6kV						
current range	120A	153A	192A	288A	480A	768A	960A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz						
Source effect	≤1%F.S						
Load effect	≤1%F.S						
voltage accuracy	≤0.1%F.S						
Frequency accuracy	≤0.1%F.S						
Voltage harmonics	≤3%						
response time	≤20ms						
device efficiency	≥90M						
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output						
system function							
Online adjustment function	The output voltage and frequency can be adjusted online						
memory function	After power failure recovery, the last output mode and parameters can be remembered						
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc						
Display and communications							
Local operation	LCD display screen						
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW						
Display accuracy	Voltage: 0.14F.S, current: 0.2%F.S, frequency: 0.01%, power: 0.3MF.S						
telecommunication	RS 485/LAN						
protocol	Standard Modbus RTU/Modbus TCP/IP						
Safety performance							
compression strength	2000Vdc/60s/ no breakdown						
insulation resistance	≥20MΩ@500Vdc						
earthing resistance	≤100mΩ						
noise	≤65dB(A)						

service environment	
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0~95%, which can work continuously for 24 hours
cooling-down method	Fan forced air cooling, air conditioning auxiliary heat dissipation (optional)
levels of protection	Power IP21, container IP54 (optional)
above sea level	No more than 5000m@>2000m reduced use

ZACEL series feedback AC electronic load



App industries

It is used in power supply, generator and motor, active power filter and reactive compensation equipment, AC charging pile, electronic components and other fields.

unit type	ZACEL -33600		ZACEL -331000		ZACEL -331500		ZACEL -333500		ZACEL -335000	
power rating	60kW		100KW		150kW		350kW		500KW	
Input exchange indicators										
Power supply type	Three phase four wire									
voltage range	380V(±15W)									
frequency range	50/60Hz(±10W)									
power factor	-0.99~0.99 (adaptive)									
Output AC characteristics										
Power supply type	Three phase three wire +PE									
Allowable voltage range	360~440V									
Acceptable current range	90A		150A 530A	225A 150A	530A 225A	150A 530A	225A		750A	
Allowable frequency range	45~65Hz									
power factor	≥0.99									
current harmonics	≤2W									
response time	≤5ms									
device efficiency	≥90%									
overload capacity	120%~150%,1min; 150W~200%,2s; ≥200%, immediately shut off output									
system function										
work pattern	Constant power									
memory function	After power failure recovery, the last output mode and parameters can be remembered									
defensive function	Input undervoltage and phase loss protection, output undervoltage and overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc									
Display and communications										
Local operation	LCD display screen									
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW									
Display accuracy	Voltage: 0.1%F, S, current: 0.2%F.S, frequency: 0.01%, power: 0.3MFS									
telecommunication	RS 485/LAN									
protocol	Standard Modbus RTU/Modbus TCP/IP									
Safety performance										
compression strength	2000Vdc/60s/ no breakdown									
insulation resistance	≥20MΩ@500Vdc									
earthing resistance	≤100mΩ									
noise	≤65dB(A)									
service environment										
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95%, which can work continuously for 24 hours									

cooling-down method	Fan forced air cooling				
levels of protection	IP 21				
above sea level	No more than 5000m@>2000m reduced use				
Size (W+D+H) mm	1000*1000*1860 (including mobile wheels)	1000*1000*1860 (including mobile wheels)	1000*1000*1860 (including mobile wheels)	1800+1000*1840	2000*1240*2080

ZAC50 series voltage and frequency stabilized power supply



Product overview

The ZAC50 series is a high-precision, fast-response power supply with stable frequency and voltage regulation. It delivers pure and stable voltage waveforms even under complex grid conditions including unstable voltage/frequency, severe distortion, flicker, and voltage sags. This solution protects high-precision equipment from grid disturbances while overcoming the frequency-stabilization limitations of conventional parameter regulators, making it an ideal replacement for traditional voltage stabilizers.

- Wide input voltage range: can adapt to the rated voltage range of $\pm 18\% \sim \pm 25\%$;
- High overload capacity: power unit is modular, can withstand more than twice the rated current without voltage drop;
- Fast dynamic response: sudden load voltage transient change $< 1\%$, recovery time $< 20\text{ms}$;
- Good man-machine interaction: 7-inch touch operation display with resolution of 800×480 ;
- Strong anti-interference: optical fiber drive control, with strong anti-electromagnetic interference and reliability;
- High protection level: the surface of the equipment cabinet is treated with electrostatic spraying, and the PCB is treated with anti-corrosion paint and resin injection.

App industries

It is used in communication, instrumentation, medical equipment, household appliances power supply, precision instrument production and other fields.

unit type	ZAC50 -11100	ZAC50 -31300	ZAC50 -33450	ZAC50 -331000	ZAC50 -332000	ZAC50 -334000	ZAC50 -338000
power rating	10KVA	30KVA	45KVA	100KVA	200KVA	400KVA	800KVA
Input exchange indicators							
Power supply type	Single phase two wire +PE	Three phase four wire +PE	Three phase four wire +PE				
voltage range	176~264V:-						
frequency range	30~100Hz						
Output AC characteristics							
Power supply type	Single phase two wire	Single phase two wire	Three phase four wire				
voltage range	220V-						
current range	45A	136A	68A	151A	303A	606A	1215A
frequency range	Fixed frequency: 50/60Hz						
Source effect	≤0.1%F.S						
Load effect	≤0.1%6F.S						
voltage accuracy	≤0.1%F,S						
Frequency accuracy	≤0.01%FS						
Voltage harmonics	≤2W						
response time	≤5ms						
device efficiency	≥90%						
overload capacity	120W~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output						
system function							
Online adjustment function	The output voltage and frequency can be adjusted online						
memory function	After power failure recovery, the last output mode and parameters can be remembered						
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc						
Display and communications							
Local operation	LCD display screen						
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW						
Display accuracy	Voltage: 0.1%F.S, current: 0.2%F.S, frequency: 0.01%, power: 0.3MF, S						
telecommunication	RS 485/LAN						
protocol	Standard Modbus RTU/Modbus TCP/IP						
Safety performance							
compression strength	2000Vdc/60s/ no breakdown						
insulation resistance	≥20MΩ@500Vdc						
earthing resistance	≤100mΩ						
noise	≤65dB(A)						
service environment							
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95M. It can work continuously for 24 hours						

cooling-down method	Fan forced air cooling						
levels of protection	IP 21						
above sea level	No more than 5000m@>2000m reduced use						
Size (W+D+H) mm	400-660-800 (including mobile wheels)	500*820+1105 (including mobile wheels)	520*1160*1355 (including mobile wheels)	650*1420*1470 (including mobile wheels)	1550*850*1985 (including mobile wheels)	1910*1160*1940	3100+90D+2080

ZAC400 series medium frequency static power supply

Product overview

The ZAC400 series is our company's latest-generation aviation ground medium-frequency power supply, specifically designed to provide 400Hz external power for civil aviation technology and military aircraft during production testing, maintenance, and servicing. Featuring multi-pulse rectification, high-performance DSP as the central processor, pure digital measurement control technology, LCD touchscreen display, sleek design, and rational structural configuration, it delivers high stability, reliability, low distortion sine wave output, fast dynamic response, and aircraft power interlock functions. The system fully meets outdoor IP55 protection rating, operates across an ultra-wide temperature range (-40°C~55°C), and exhibits excellent electromagnetic compatibility. This premium aviation ground power supply ensures safety, reliability, efficiency, and clean performance.

Product features:

- Output frequency range: fixed frequency 400Hz, frequency modulation 300Hz~500Hz continuously adjustable;
- Strong anti-interference: linear power supply technology, ultra-low distortion rate, ultra-low external interference;
- Product standardization: 19-inch standard rack size, or floor cabinet;
- Good heat dissipation: front/side air intake, rear air outlet, save heat dissipation space, intelligent speed adjustment design of fan, reduce noise.

App industries

It is applied to aerospace, electronic science and technology, China Shipbuilding Industry Corporation, weapons industry and equipment research institutes, military production supporting units and other fields.

unit type	ZAC400 -11050	ZAC400 -11100	ZAC400 -31150	ZAC400 -31300	ZAC400 -33100	ZAC400 -33300	ZAC400 -33600
power rating	5KVA	10KVA	15KVA	30KVA	10KVA	30kVA	60KVA
Input exchange indicators							
Power supply type	Single phase two wire +PE		Three phase four wire +PE		Three phase four wire +PE		
voltage range	220V(±15%)		380V(±15M)		380V(±15%)		
frequency range	50/60Hz(±10%)						
Output AC characteristics							
Power supply type	Single phase two wire		Single phase two wire		Three phase four wire		
voltage range	0~130V.						
current range	43A	86A	130A	260A	28A	86A	173A
frequency range	Fixed frequency: 400Hz, frequency modulation: 300~500Hz						
Source effect	≤0.1%F.S						
Load effect	≤0.1%F.S						
voltage accuracy	≤0.1%F.S						
Frequency accuracy	≤0.01%F.S						
Voltage harmonics	≤2%						
response time	≤5ms						
device efficiency	≥90%						
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200M, immediately shut off output						
system function							
Online adjustment function	The output voltage and frequency can be adjusted online						
Quick Settings feature	Multiple sets of output voltage and frequency can be customized						
memory function	After power failure recovery, the last output mode and parameters can be remembered						
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc						
Display and communications							
Local operation	Digital LED LCD display			Digital LED LCD display			
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW						
Display accuracy	Voltage: 0.1%F.S, current: 0.2MF.S, frequency: 0.01%. Power: 0.3MF.S						
telecommunication	RS 485/LAN						
protocol	Standard Modbus RTU/Modbus TCP/IP						
Safety performance							
compression strength	2000Vdc/60s/ no breakdown						
insulation resistance	≥20MΩ@500Vdc						
earthing resistance	≤100mΩ						

noise	≤65dB(A)						
service environment							
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0~95%, which can work continuously for 24 hours						
cooling-down method	Fan forced air cooling						
levels of protection	IP 21 (standard) /IP54 (optional)						
above sea level	No more than 5000m@>2000m reduced use						
Size (W*D*H) mm	350*560*675 (including mobile wheels)	400*660*800 (including mobile wheels)	500*820*1105 (including mobile wheels)	500*820*1105 (including mobile wheels)	500*820*1105 (including mobile wheels)	520*1160*1355 (including mobile wheels)	650*1420*1470 (including mobile wheels)

HCT series AC constant current source



Product overview

The HCT series is a high-precision constant current source with stable current output and low harmonic distortion. This constant current source maintains stable output current even when external power grid fluctuations occur or electrical impedance characteristics change. It is primarily used in products and testing environments requiring specific current thermal effects.

Product features:

- When using constant current and constant voltage, it can be automatically cross-transformed to maintain the characteristics of both control and protection;
- The output current is constant, the output waveform is pure sine wave, can be used as an overcurrent detection instrument;
- Can be a resistive, inductive and capacitive load, to meet the requirements of low-voltage electrical appliances for test power supply;
- High stability and high precision to ensure constant output current;
- Automatic test can be performed at different current levels, and the operation can be tested repeatedly.

App industries

Applied in motor electronics industry, colleges and universities, laboratories and research testing, industrial and mining enterprises, electrolytic electroplating, charging equipment, aging electronic components and other fields.

unit type	HCT -31060	HCT -31090	HCT -31120	HCT -31150	HCT -31300	HCT -31450	HCT -311500
power rating	6kVA	9KVA	12KVA	15KVA	30KVA	45KVA	150KVA
Input exchange indicators							
Power supply type	Three phase four wire +PE						
voltage range	380V(±15%)						
frequency range	50/60Hz(±10%)						
Output AC characteristics							
Power supply type	Single phase two wire						
voltage range	Low grade: 0~15V.-, high grade: 0~30V:						
Current range (low end)	0-400A	0-600A	0-800A	0-1000A	0-2000A	0-3000A	0-10000A
Current range (high)	0-200A	0-300A	0-400A	0-500A	0-1000A	0-1500A	0-5000A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 45~65Hz						
Source effect	≤0.19%FS						
Load effect	≤0.196F.S						
Current accuracy	≤0.196F.S						
Frequency accuracy	≤0.01%F,S						
Voltage harmonics	≤2%						
response time	≤5ms						
device efficiency	≥90%						
overload capacity	120W~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output						
system function							
Online adjustment function	The output current and frequency can be adjusted online						
Quick Settings feature	Multiple sets of output current and frequency can be customized						
memory function	After power failure recovery, the last output mode and parameters can be remembered						
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc						
Display and communications							
Local operation	LCD display screen						
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW						
Display accuracy	Voltage: 0.1%F.S, current: 0.2WF.S, frequency: 0.01%, power: 0.3%F.S						
telecommunication	RS 485/LAN						
protocol	Standard Modbus RTU/Modbus TCP/IP						
Safety performance							
compression strength	2000Vdc/60s/ no breakdown						
insulation resistance	≥20MΩ@500Vdc						

earthing resistance	≤100mΩ						
noise	≤65dB(A)						
service environment							
work environment	The ambient temperature is-20°C~45°C, and the relative humidity is 0~95%, which can work continuously for 24 hours						
cooling-down method	Fan forced air cooling						
levels of protection	IP 21						
above sea level	No more than 5000m@>2000m reduced use						
Size (W+DH) mm	400*650*800 (including mobile wheels)	500*820*1100 (including mobile wheels)	500*820*1100 (including mobile wheels)	500*820*1100 (including mobile wheels)	520+1160*1355 (including mobile wheels)	520+1160*1355 (including mobile wheels)	1550*850*1985 (including mobile wheels)

WF series non-partial discharge power supply

App industries

It is used for AC withstand voltage and partial discharge test in fields such as transformers, circuit breakers, switches, GIS systems, cables, bushings, insulated terminals, etc.

unit type	WF60 -31100	WF60 -31150	WF60 -31200	WF60 -31300	WF60 -31450
power rating	10KVA	15KVA	20kVA	30KVA	45KVA
Input exchange indicators					
Power supply type	Three phase four wire +PE				
voltage range	380V(±15W)				
frequency range	50/60Hz(±10W)				
Output AC characteristics					
Power supply type	Single phase two wire				
voltage range	0~800V- (standard)/0~1000V- (optional)				
current range	12A	18A	25A	37A	60A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 30~300Hz				
Source effect	≤0.1MFS				
Load effect	≤0.1%F.S				
voltage accuracy	≤0.1%F.S				
Frequency accuracy	≤0.01%F,S				
Voltage harmonics	≤2W				
response time	≤5ms				
Volume increases	≤20pC (standard)/≤10pC (optional)/≤5pC (optional)				
device efficiency	≥90%				
overload capacity	120%~150%,1min; 150W~200%,2s; ≥200%. Immediately shut off output				
system function					
Online adjustment function	The output voltage and frequency can be adjusted online				
Quick Settings feature	Multiple sets of output voltage and frequency can be customized				
memory function	After power failure recovery, the last output mode and parameters can be remembered				
defensive function	Input undervoltage and phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc				
Display and communications					
Local operation	LCD display screen				
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW				
Display accuracy	Voltage: 0.1MFS, current: 0.2%F.S, frequency: 0.01%, power: 0.3F.S				
telecommunication	RS 485/LAN				
protocol	Standard Modbus RTU/Modbus TCP/IP				
Safety performance					
compression strength	2000Vdc/60s/ no breakdown				
insulation resistance	≥20MΩ@500Vdc				
earthing resistance	≤100mΩ				
noise	≤65dB(A)				

service environment					
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0~95%, which can work continuously for 24 hours				
cooling-down method	Fan forced air cooling				
levels of protection	IP 21				
above sea level	No more than 5000m@>2000m reduced use				
Power supply (W*D+H) mm	400*560*800 (including mobile wheels)	400*660*800 (including mobile wheels)	500*820*1100 (including mobile wheels)	500*820*1100 (including mobile wheels)	520*1160*1355 (including mobile wheels)
filter (W D+H) mm	600*400*162	600*400*162	600*400*162	600*400*162	1000*572*162

unit type	WF60 -31600	WF60 -311000	WF60 -312000	WF60 -313000	WF60 -314000
power rating	60KVA	100KVA	200kKVA	300kVA	400KVA
Input exchange indicators					
Power supply type	Three phase four wire +PE				
voltage range	380V(±15M)				
frequency range	50/60Hz(±10%)				
Output AC characteristics					
Power supply type	Single phase two wire				
voltage range	0~800V- (standard)/0~1000V- (optional)				
current range	75A	125A	250A	375A 500A	500A 375A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 30~300Hz				
Source effect	≤0.1%F.S				
Load effect	≤0.1%F.S				
voltage accuracy	≤0.1%F.S				
Frequency accuracy	≤0.01%F.S				
Voltage harmonics	≤2%				
response time	≤5ms				
Volume increases	≤20pC (standard)/≤10pC (optional)/≤5pC (optional)				
device efficiency	≥90%				
overload capacity	120%~150%,1min; 150W~200%,2s; ≥200%, immediately shut off output				
system function					
Online adjustment function	The output voltage and frequency can be adjusted online				
Quick Settings feature	Multiple sets of output voltage and frequency can be customized				
memory function	After power failure recovery, the last output mode and parameters can be remembered				
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc				
Display and communications					
Local operation	LCD display screen				
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW				
Display accuracy	Voltage: 0.1%F.S, current: 0.2MFS, frequency: 0.01%, power: 0.3%F.S				
telecommunication	RS 485/LAN				
protocol	Standard Modbus RTU/Modbus TCP/IP				
Safety performance					
compression strength	2000Vdc/60s/ no breakdown				
insulation resistance	≥20MΩ@500Vdc				
earthing resistance	≤100mΩ				
noise	≤65dB(A)				
service environment					
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95%, which can work continuously for 24 hours				
cooling-down method	Fan forced air cooling				
levels of protection	IP 21				
above sea level	No more than 5000m@>2000m reduced use				
Power supply	520*1160+1355 (including	650*1420*1470 (including	1910*1160*1940	1910*1160*1940	1910*1160*1940

(W*D+H) mm	mobile wheels)	mobile wheels)			
filter (WAD*H) mm	1000*572*162	1000*572*162	1300*700*260	1300*700*260	1300*700*260

unit type	WF60 -33100	WF60 -33200	WF60 -33300	WF60 -33450	WF60 -33600	WF60 -33900
power rating	10KVA	20KVA	30kVA	45KVA	60KVA	90kVA
Input exchange indicators						
Power supply type	Three phase four wire +PE					
voltage range	380V(±15%)					
frequency range	50/60Hz(±10W)					
Output AC characteristics						
Power supply type	Three phase four wire					
voltage range	0~800V- "standard") /0~1000V (optional)					
current range	7A	14A	21A	32A	42A	63A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 30~300Hz					
Source effect	≤0.1%F.S					
Load effect	≤0.1%F.S					
voltage accuracy	≤0.1%F.S					
Frequency accuracy	≤0.01%F.S					
Voltage harmonics	≤2W					
response time	≤5ms					
Volume increases	≤20pC (standard)/≤10pC (optional)/≤5pC (optional)					
device efficiency	≥90%					
overload capacity	120%~150%,1min; 150%~200%,2s; ≥200%, immediately shut off output					
system function						
Online adjustment function	The output voltage and frequency can be adjusted online					
Quick Settings feature	Multiple sets of output voltage and frequency can be customized					
memory function	After power failure recovery, the last output mode and parameters can be remembered					
defensive function	Input undervoltage, phase loss protection, output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc					
Display and communications						
Local operation	LCD display screen					
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW					
Display accuracy	Voltage: 0.1%F.S, current: 0.2%F.S, frequency: 0.01%, power: 0.3%F.S					
telecommunication	RS 485/LAN					
protocol	Standard Modbus RTU/Modbus TCP/IP					
Safety performance						
compression strength	2000Vdc/60s/ no breakdown					
insulation resistance	≥20MΩ@500Vdc					
earthing resistance	≤100mΩ					
noise	≤65dB(A)					
service environment						
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95%, which can work 24 hours continuously					
cooling-down method	Fan forced air cooling					
levels of protection	IP 21					
above sea level	No more than 5000m@>2000m reduced use					
Power supply (W*D*H) mm	500*820*1100 (including mobile wheels)	500*820*1100 (including mobile wheels)	520+1160*1355 (including mobile wheels)	520*1160*1355 (including mobile wheels)	650+1420*1470 (including mobile wheels)	650*1420+1470 (including mobile wheels)

filter (W+D+H) mm	800*500*162	800*500*162	800+500*162	800*500*162	1000*600*162	100D*600*162
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unit type	WF60 -331000	WF60 -331200	WF60 -331500	WF60 -332000	WF60 -333000	WF60 -334000
power rating	100KVA	120KVA	150KVA	200KVA	300KVA	400kVA
Input exchange indicators						
Power supply type	Three phase four wire +PE					
voltage range	380V(±15%)					
frequency range	50/60Hz(±10%)					
Output AC characteristics						
Power supply type	Three phase four wire					
voltage range	0~800V (standard) /0~1000V (optional)					
current range	72A	86A	108A	144A	216A	288A
frequency range	Fixed frequency: 50/60Hz, frequency modulation: 30~300Hz					
Source effect	≤0.1%F.S					
Load effect	≤0.19%F.S					
voltage accuracy	≤0.1%F.S					
Frequency accuracy	≤0.01%F,S					
Voltage harmonics	≤2%					
response time	≤5ms					
Volume increases	≤20pC (standard)/≤10pC (optional)/≤5pC (optional)					
device efficiency	≥90%					
overload capacity	120%~150%,1min; 150W~200%,2s; ≥200%, immediately shut off output					
system function						
Online adjustment function	The output voltage and frequency can be adjusted online					
Quick Settings feature	Multiple sets of output voltage and frequency can be customized					
memory function	After power failure recovery, the last output mode and parameters can be remembered					
defensive function	Input undervoltage, phase loss protection. Output overvoltage, overcurrent, overload, short circuit protection, internal overheating protection, etc					
Display and communications						
Local operation	LCD display screen					
display resolution	Voltage: 0.1V, current: 0.1A, frequency: 0.1Hz, power: 0.1kW					
Display accuracy	Voltage: 0.1%F.S, current: 0.2MFS, frequency: 0.01%. Power: 0.3%F.S					
telecommunication	RS 485/LAN					
protocol	Standard Modbus RTU/Modbus TCP/IP					
Safety performance						
compression strength	2000Vdc/60s/ no breakdown					
insulation resistance	≥20MΩ@500Vdc					
earthing resistance	≤100mQ					
noise	≤65dB(A)					
service environment						
work environment	The ambient temperature is-20℃~45℃, and the relative humidity is 0~95%, which can work continuously for 24 hours					
cooling-down method	Fan forced air cooling					
levels of protection	IP 21					
above sea level	No more than 5000m@>2000m reduced use					
Power supply (W-DH) mm	650*1420*1470 (including mobile wheels)	650*1420+1470 (including mobile wheels)	650*1420*1470 (including mobile wheels)	1550*8501985 (including mobile wheels)	1550*850*1985 (including mobile wheels)	1910*1160*1940
filter (W*DH) mm	1000*600*162	1000+600×162	1000*600×162	1300*770*260	1300*770*260	1300*770-260

DC test power supply

ZBD series high precision bidirectional DC power supply

ZBD-S series battery simulator

ZBDEL series feedback DC electronic load

ZBSP series rechargeable battery charge and discharge test power supply

ZBDW series unidirectional DC power supply

ZBD series high precision bidirectional DC power supply



Product overview

The ZBD Series High-Precision Bidirectional DC Power Supply is a bidirectional charging/discharging device featuring a two-stage converter architecture. This IGBT-based DC power supply delivers high precision, reliability, and programmable functionality with automatic operation. Its DC output demonstrates exceptional dynamic response characteristics while supporting bidirectional operation. Employing full digital control, it ensures precise regulation, rapid response times, and an extensive output adjustment range. The programmable output configuration enables versatile applications across diverse scenarios through customized control settings.

Product features:

- Built-in AC isolation transformer +LC AC/DC filter, input and output electrical isolation;
- Use Infineon high voltage IGBT module two-stage conversion, pure digital frequency isolation power supply;
- Energy can be fed back to the grid: it has both power supply and load characteristics;
- The three-level/carrier phase shift circuit is adopted on the DC/DC side to make the DC output side more accurate and the ripple smaller;
- It can achieve the characteristics of wide voltage range, high precision and fast dynamic response;
- Output has constant voltage, constant voltage current limiting, constant current, constant power, constant resistance mode.

App industries

It is used in electric vehicle controller and transmission system test, charging pile and charger test, UPS and EPS system test, battery pack charge and discharge test, DC screen system test and other fields.

unit type	ZBD40 -800/24-100-	ZBD60 -1000/24-200-	ZBD80 1-1000/24-300	ZBD150 -1-1000/24-500	ZBD300 -1-1000/24-800	ZBD400 -1-1000/24-900-	ZBD500 1-1000/24-1000-	ZBD600 -1000/24-1200-1
power rating	40KW	60kW	80kW	150kW	300KW	400kW	500kW	600kW
rated current	100A	200A	300A	500A	800A	900A	1000A	1200A
rated voltage	400V	300V	265V	300V	375V	445V	500V	500V
voltage range	24-800V	24-1000V (standard)/ 24-1200V (optional)/ 48-1500V (optional)/						
Input exchange indicators								
Power supply type	Three phase four wire +PE							
voltage range	400V(±15%)							
frequency range	50Hz(±10%)							
power factor	≥0.99							
current harmonics	THDi=3%							
Output DC characteristics								
number of channels	Single channel/bis channel (optional)							
peak power	1.2 Pe(60s)							
peak point current	12 Ie(60s)							
Source effect	≤0.1WF.S							
Load effect	50.1WF,S							
voltage accuracy	=0.1WF.S							
Current accuracy	≤0.1%F.S							
voltage ripple	≤0.2WFS							
response time	≤3ms (10%-90% sudden loading)							
switching period	≤6ms (switching-90% to +90%)							
device efficiency	≥94%							
Yangfeng characteristics								
Voltage range of the grid	360-440V							
Frequency range of power grid	47-53Hz							
power factor	≥0.99							
current harmonics	THDn≤3%							
Feedback power	Support full range power feedback							
system function								
work pattern	Constant voltage/constant current/constant power							
isolation method	Power frequency isolation transformer							
Carrier compensation	Adaptive compensation line voltage drop							
defensive function	Overvoltage, undervoltage, phase loss, overcurrent, short circuit, overload, overheating, emergency stop and other protection							
Display and communications								
Local operation	LCD display screen							
Yunhe Communications	RS 485/LAN/CAN							
protocol	Standard Modbus RTU/Modbus TCP/IP/CAN2.0							
Safety performance								
compression strength	2000vdc/60s/ no breakdown							
insulation resistance	≥20MQ(500Vdc)							
earthing resistance	≤100mQ							
noise	=65dB(A)							
service environment								

work environment	The ambient temperature is -20°C-45°C and the relative humidity is 0-95%. It can work continuously for 24 hours							
Cold as a Way	Fan forced air cooling							
levels of protection	IP21							
above sea level	No more than 5000m@>2000m reduced use							
Size (W-DH) mm	650-650*1600 With moving wheels)	1000-1000-1860 (including mobile wheels)	1000+1000-1860 (With wheels) +2080 +2080	1000-1000+1860 (With wheels) +1840 +1840 +2080 +2080	1800*1000 (With wheels) +1840 +1840 +2080 +2080	1800+1000 (With wheels) +1840 +1840 +2080 +2080	2000-1240 (With wheels) +1840 +1840 +2080 +2080	2000-1240 (With wheels) +1840 +1840 +2080 +2080

ZBD-S series battery simulator



Product overview

The ZBD-S series battery simulator features high-precision DC output characteristics with excellent dynamic response capabilities, along with bidirectional energy conversion functionality. Utilizing full digital control, it delivers high accuracy, rapid response, and a wide output adjustment range. This battery simulator can simulate charging/discharging characteristics of various battery types. It is primarily used for testing electric vehicle drive motors (controllers), PCS (Power Conversion Systems) (energy storage inverters), bidirectional EV chargers, and battery pack charge/discharge operations.

Product features:

- Built-in AC isolation transformer +LC AC/DC filter, input and output electrical isolation;
- Use Infineon high voltage IGBT module two-stage conversion, pure digital frequency isolation power supply;
- Energy can be fed back to the grid: it has both power supply and load characteristics;
- The three-level/carrier phase shift circuit is adopted on the DC/DC side to make the DC output side more accurate and the ripple smaller;
- It can achieve the characteristics of wide voltage range, high precision and fast dynamic response;
- Output has constant voltage, constant voltage current limiting, constant current, constant power, constant resistance mode;
- It has the power battery simulation function, and the simulated battery internal resistance can be freely determined according to the user's working conditions.

App industries

It is used in the test of electric vehicle drive motor (controller), PCS (bidirectional energy storage inverter), electric vehicle bidirectional charger, battery pack charge and discharge test and other fields.

unit type	ZBD-S40 -800/24-100-1	ZBD-S60 -1000/24-200-	ZBD-S80 -1000/24-300-	ZBD-S150 -1000/24-500-	ZBD-S300 -1000/24-800-	ZBD-S400 -1000/24-900-	ZBD-S500 -1000/24-1000-1	ZBD-S600 -1000/24-1200-1
power rating	40kW	60kW	80kW	150KW	300kW	400KkW	500kW	600kW
rated current	100A	200A	300A	500A	800A	900A	1000A	1200A
rated voltage	400V	300V	265V	300V	375V	445V	500V	500V
voltage range	24-800V	24-1000V (standard) /24-1200V (optional)/48-1500V optional						
Input exchange indicators								
Power supply type	Three phase four wire +PE							
voltage range	400V(±15%)							
frequency range	50Hz(±10%)							
power factor	20.99							
current harmonics	THDi≤3%							
Output DC characteristics								
number of channels	Single channel/bis channel (optional)							
peak power	1.2 Pe(60s)							
peak point current	12 Ie(60%)							
Source effect	s0.1%FS							
The negative side effect	E0.1%FS							
voltage accuracy	≤0.1S							
Current accuracy	50.16FS							
voltage ripple	≤0.2%FS							
response time	≤3ms (10W-90% sudden load)							
switching period	≤6ms (switching-90-+90%)							
device efficiency	≥94%							
Feedback characteristics								
Voltage range of the grid	360-440V							
Frequency range of power grid	47-53Hz							
power factor	≥099							
current harmonics	THDi63%							
Feedback power	Support full range power feedback							
system function								
work pattern	Constant voltage/constant current/constant power							
Battery simulation	The parameters such as single battery capacity, voltage, series number, parallel number, SOC, internal resistance and charging rate of various types of batteries can be set							
isolation method	Power frequency isolation transformer							
Remote compensation	Adaptive compensation line voltage drop							
defensive function	Overvoltage, undervoltage, phase loss, overcurrent, short circuit, overload, overheating, emergency stop and other protection							
Display and communications								
Local operation	LCD display screen							
Yunhe Communications	RS 485/LAN/CAN							
protocol	Standard Modbus RTU/Modbus TCP/IP/CAN2.0							
Safety performance								
compression strength	2000Vdc/60s/ no breakdown							
insulation resistance	≥20MQ(500Vdc)							
earthing resistance	5100m							
noise	≤65dB(A)							
service environment								
work environment	The ambient temperature is-20℃-45℃ and the relative humidity is 0-95%. It can work continuously for 24 hours							

cooling-down method	Fan forced air cooling						
levels of protection	IP21						
above sea level	5000m @ >2000m reduced use						
Size (W-D+H) mm	650-650-1600 (including mobile wheels)	1000-1000-1860 (including mobile wheels)	1000-1000-1860 (including mobile wheels)	1000-1000-1860 18001000 (With mobile wheels) -1840	1800-1000 *1840	2000-1240 -2080	2000-1240 *2080

ZBDEL series feedback DC electronic load



Product overview

The ZBDEL series power supply features a dual-stage architecture with a DC-DC three-level/carrier phase-shifting circuit, complemented by an SVPWM-based DC/AC inverter circuit in the downstream stage. Its specially designed power frequency transformer isolates the grid through unique filtering technology. The front-end employs a four-quadrant operating three-phase half-bridge circuit that optimizes power factor and current harmonic control while maintaining stable DC bus voltage. The bus system utilizes film capacitor support for superior high-frequency performance and extended service life.

Product features:

- Built-in AC isolation transformer +LC AC/DC filter, input and output electrical isolation;
- Use Infineon high voltage IGBT module two-stage conversion, pure digital frequency isolation power supply;
- Energy can be fed back to the grid: it has both power supply and load characteristics;
- The carrier phase shift circuit is adopted on the DC/DC side to make the DC output side more accurate and the ripple smaller;
- It can achieve the characteristics of wide voltage range, high precision and fast dynamic response;
- Output has constant voltage, constant voltage current limiting, constant current, constant power, constant resistance mode.

App industries

It is applied to photovoltaic inverter, PCS (bidirectional energy storage inverter) test, charging pile module test, motor controller test, new energy vehicle test and other fields.

unit type	ZBDEL40 -800/24-100-	ZBDEL60 -1000/24-200-1	ZBDEL80 -1000/24-300-	ZBDEL150 -1000/24-500-	ZBDEL300 -1000/24-800-	ZBDEL400 -1000/24-900-	ZBDEL500 -1000/24-1000-1	ZBDEL600 -1000/24-1200-
power rating	40kW	60kW	80kW	150kW	300kW	400kW	500kW	600kW
rated current	100A	200A	300A	500A	800A	900A	1000A	1200A
rated voltage	400V	300V	265V	300V	375V	445V	500V	500V
voltage range	24-800V	24-1000V (standard) /24-1200V (optional) /48-1500V (optional)						
Input DC characteristics								
number of channels	Single channel/bis channel (optional)							
Beesize power	1.2 Pe(60s)							
peak point current	12 Ie(60s)							
Source effect	50.1%FS							
The negative side effect	0.14FS							
voltage accuracy	s0.14FS							
Current accuracy	50.1%FS							
voltage ripple	30.2%FS							
response time	≤3ms (10W-90% sudden load)							
switching period	66ms(-90%~+90% switch)							
device efficiency	≥94%							
Output exchange indicators								
Power supply type	Three phase four wire +PE							
Voltage range of the grid	360-440V							
Frequency range of power grid	47-53Hz							
power factor	≥099							
current harmonics	THDi≤3%							
system function								
work pattern	Constant voltage/constant current/constant power							
isolation method	Power frequency isolation transformer							
Remote compensation	Adaptive compensation line voltage drop							
defensive function	Overvoltage, undervoltage, phase loss, overcurrent, short circuit, overload, overheating, emergency stop and other protection							
Display and communications								
Local operation	LCD display screen							
Select Communications	RS 485/LAN/CAN							
protocol	Standard Modbus RTU/Modbus TCP/IP/CAN2.0							
Safety performance								
compression strength	2000Vdc/60s/ no breakdown							
insulation resistance	=20MQ@500Vdc							
earthing resistance	s100mΩ							
noise	≤65dB(A)							
service environment								
work environment	The ambient temperature is -20°C~45°C, and the relative humidity is 0-95%, which can work continuously for 24 hours							
cooling-down method	Fan forced air cooling							
levels of protection	IP 21							

above sea level	No more than 5000m@>2000m reduced use							
Size (W-DH) mm	650-650+1600 (including mobile wheels)	1000-1000-1860 (including mobile wheels)	1000*1000-1860 (With moving wheels)	1000-1000-1860 (With moving wheels)	1800*1000- 1840	1800-1000 +1840	2000*1240 *2080	2000-1240 +2080

ZBSP series rechargeable battery charge and discharge test power supply



Product overview

The ZBSP series power battery performance testing system is a bidirectional single-channel, multi-channel high-precision DC power processing system controlled by a computer-based remote monitoring platform. Users can configure parameters to flexibly control the bidirectional energy flow between devices and loads. Specifically designed to meet users' needs for performance testing of power battery packs (PABs), this system delivers precise control capabilities through its advanced processing architecture.

Product features:

- Input and output electrical isolation, leakage current protection function, effectively prevent electrical safety accidents;
- Use Infineon high voltage IGBT module two-pole transformation, pure digital frequency isolation power supply;
- It has both power supply and load characteristics, and can realize automatic energy feedback to the grid in addition to high-power DC power supply performance
- Load function, with outstanding advantages of energy saving and consumption reduction, green environmental protection;
- The carrier phase shift circuit is adopted on the DCDC side to make the DC output side more accurate and the ripple smaller;
- Wide voltage range, high precision and fast dynamic response.

App industries

It is used in power battery PACK performance testing, battery pack charge and discharge aging and other fields.

unit type	ZBSP40 -800/24-100-1	ZBSP60 -1000/24-200-1	ZBSP80 -1000/24-300-1	ZBSP150 -1000/24-500-1	ZBSP300 -1000/24-800-	ZBSP400 -1000/24-900-	ZBSP500 -1000/24-1000-1	ZBSP600 -1000/24-1200-1
power rating	40kW	60kW	80kW	150kW	300kW	400kW	500kW	600kW
rated current	100A	200A	300A	500A	800A	900A	1000A	1200A
rated voltage	400V	300V	265V	300V	375V	445V	500V	500V
voltage range	24-800V	24-1000V (standard)/24-1200V (optional)/48-1500V (optional)						
Input exchange indicators								
Power supply type	Three phase four wire +PE							
voltage range	400V(±15%)							
frequency range	50Hz(±10%)							
power factor	≥0.99							
current harmonics	THDi≤3%							
Output DC characteristics								
number of channels	Single channel/double channel (optional)							
peak power	12 Pe(60s)							
peak point current	1.2 Ie(60s)							
Source effect	≤0.14FS							
The negative dispersion effect	≤0.1F.S							
voltage accuracy	=005MF.S							
Current accuracy	60.05MF,S							
voltage ripple	≤0.1%FS							
response time	≤2ms (10%-90% sudden loading)							
switching period	≤4ms (switching-90% to +90W)							
device efficiency	=94%							
Yangfei characteristics								
Voltage range of the grid	360-440V							
Frequency range of power grid	47-53Hz							
power factor	≥0.99							
current harmonics	THDi≤3%							
Feedback power	Support full range power feedback							
system function								
Work horizontals	Constant voltage/constant current/constant power							
isolation method	Power frequency isolation transformer							
Carrier compensation	Adaptive compensation line voltage drop							
defensive function	Overvoltage, undervoltage, phase loss, overcurrent, short circuit, overload, overheating, emergency stop and other protection							
Display and communications								
Local operation	LCD display screen							
Yunhe Communications	RS 485/LAN/CAN							
protocol	Standard Modbus RTU/Modbus TCP/IP/CAN2.0							
Safety performance								
compression strength	2000Vdc/60s/ no breakdown							

insulation resistance	$\geq 20\text{MQ}@500\text{Vdc}$							
earthing resistance	6100mQ							
noise	$\leq 65\text{dB(A)}$							
service environment								
work environment	The ambient temperature is -20°C - 45°C , and the relative humidity is 0-95%, which can work continuously for 24 hours							
cooling-down method	Fan forced air cooling							
levels of protection	P21							
above sea level	No more than 5000m@ $>2000\text{m}$ reduced use							
Size (W-D H) mm	650*650-1600 (including mobile wheels)	1000-1000-1860 (including mobile wheels)	1000-1000*1860 (including mobile wheels)	1000-1000*1860 (including mobile wheels)	1800*1000-1840	1800*1000-1840	2000*1240-2080	2000-1240*2080

ZBDW series unidirectional DC power supply



Product overview

The ZBDW series unidirectional DC power supply utilizes grid-side industrial frequency isolation 12/24 pulse rectification technology combined with a DCDC three-level carrier phase-shifting circuit, featuring DSP-controlled core components. This advanced digital control system delivers high precision, rapid response, and wide output voltage range, enabling full-scale operation across the entire measurable range. The BDW series is designed for applications in electrolysis industries, DC-powered home appliances, bus air conditioning control system testing, and similar power supply scenarios.

Product features:

- It has constant voltage, constant current and constant power output modes;
- Multi-pulse rectification technology is adopted, with high power factor and low input harmonic;
- High speed digital control technology is adopted, with high output accuracy;
- Output parameters and protection parameters can be programmed, which can be applied to different types of equipment testing;
- It has a variety of operation interfaces, which can realize remote operation, unattended operation and embedded test system;
- Modular design, equipment maintenance is simple;
- Independent heat dissipation channel design, small size, fast heat dissipation, low temperature rise, high reliability, long service life.

App industries

It is applied in automated testing system, production and quality inspection, laboratory R&D testing, electric vehicle testing, water electrolysis hydrogen production, comprehensive utilization of wastewater and other fields.

unit type	ZBDW40 -800/24-100-1	ZBDW60 -1000/24-200-	ZBDW80 -1000/24-300-	ZBDW150 -1000/24-500-	ZBDW300 -1000/24-800-	ZBDW400 -1000/24-900-	ZBDW500 -1000/24-1000-1	ZBDW600 -1000/24-1200-
power rating	40kW	60kW	80kW	150kW	300kW	400KW	500kW	600KW
rated current	100A	200A	300A	500A	800A	900A	1000A	1200A
rated voltage	400V	300V	265V	300V	375V	445V	500V	500V
voltage range	24-800V	24-1000V [standard] /24-1200V (optional) /48-1500V (optional)						
Input exchange indicators								
Power supply type	Three phase four wire +PE							
voltage range	400V(±15%)							
frequency range	50Hz(±10%)							
power factor	≥0.99							
Current spectrum wave	THDi≤5%							
Output DC characteristics								
number of channels	Single channel/double channel (optional)							
peak power	12 Pe(60s)							
peak point current	1.2 Ie(60S)							
Source effect	≤0.3%F,5							
Load effect	≤0.3%FS							
voltage accuracy	≤0.3%F.S							
Current accuracy	≤0.3MF.S							
voltage ripple	≤0.5%F.S							
response time	≤5ms (10%-90% sudden loading)							
device efficiency	≥90%							
system function								
work pattern	Constant voltage/constant current/constant power							
isolation method	Power frequency isolation transformer							
Remote compensation	Adaptive compensation line voltage drop							
defensive function	Overvoltage, undervoltage, phase loss, overcurrent, short circuit, overload, overheating, emergency stop and other protection							
Display and communications								
Local operation	LCD display screen							
telecommunication	RS 4B5/LAN/CAN							
protocol	Standard Modbus RTU/Modbus TCP/IP/CAN20							
Safety performance								
compression strength	2000Vdc/60s/ no breakdown							
insulation resistance	≥20MQ@500Vdc							
earthing resistance	≤100mQ							
noise	≤65dB(A)							
service								

environment							
work environment	The ambient temperature is -20°C-45°C, and the relative humidity is 0-95%, which can work continuously for 24 hours						
cooling-down method	Fan forced air cooling						
levels of protection	IP21						
above sea level	No more than 5000m@>2000m reduced use						
Size (W D H) m m	650-550*1600 (including mobile wheels)	1000*1000*1850 1000*1000+1850 (With mobile wheels) (With mobile wheels)	1000*1000*1850 1800*1000 (with mobile wheels) *1840	1800*1000 *1840	2000+1240 *2080	2000*1240 *2080	

AUPEX TECH PTY LTD

Address: D07 Building, Phase II, Oriental Gold Valley Industrial
City, High-tech Zone, Xiangtan City

Zip code: 411101

Tel: 0731-52331505

Fax: 0731-52331505



In case of any change in product size and parameters, the latest information shall prevail and no further notice will be given.