

Sandi SANDI Electric



Yueqing Sandi Electric Co.,Ltd.



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Module

High Frequency Switching Power Supply



230D10NZ、
230D05NZ、
110D20NZ



230D20NZ-3



230D30NZ-3、
230D40NZ-3

The electricity power supply covers 2 series of 220 VDC and 110 VDC with forced fan cooling and natural cooling types. 220 VDC power models consist of 5A, 10A, 20A, 30A, 40A current grade, and 110 VDC power models consist of 10A, 20A, 40A current grade.

The 220V/40A, 220V/30A, 110V/30A models is high power rectifiers especially designed for the power plant, substation and hydropower station.

The compatible monitor and detector include monitoring system, complex information detector, battery detector, insulation detector, switch status detector.

The integrated power system is applicable to the electricity power industry, and steel works, chemical plant, coal industries and petroleum industry etc.

High Frequency Switching Power Supply



230D05ZZ-3、
220D07ZZ、
110D10ZZ-3



230D10ZZ-3、
110D20ZZ-3



230D20ZZ-3、
110D40ZZ-3

Substation 110/220V DC Power Module

Type and Model		380V AC input, 220V DC output power module								380V AC input, 110V DC output power module				220V AC input 220V DC output power module		220V AC input 110V DC output power module																							
Parameter		230D05ZZ-3	230D10ZZ-3	220D07ZZ	230D20ZZ-3	230D10NZ	230D07NZ	230D05NZ	230D20NZ-3	230D30NZ-3	230D40N-Z-3	110D10NZ	110D20NZ	110D10ZZ-3	110D20ZZ-3	110D40ZZ-3	230D05ZZ-220AC	230D10ZZ-220AC	110D10ZZ-220AC	110D20ZZ-220AC																			
Input	Input voltage	380V AC ± 15%, 3 phase								380V AC ± 15%, 3 phase								220V AC ± 15%, single phase		220V AC ± 25%, single phase																			
	AC input frequency	45Hz~65Hz								45Hz~65Hz								45Hz~65Hz		45Hz~65Hz																			
	Efficiency	≥95%								≥95%								≥95%		≥95%																			
	Power factor	≥0.93								≥0.93								≥0.99		≥0.99																			
Output	Output voltage	190-300V	190-260V	176-300V	176-300V	190-300V	190-300V	190-300V	190-300V	88-150V	95-150V	190-300V	190-300V	190-300V	190-300V	190-300V	190-300V	190-300V	190-300V	190-300V																			
	Output current power (W)	0.5-5A 1500	1-10A 3000	0.7-7A 1800	2-20A 6000	1-10A 3000	0.7-7A 2100	0.5-5A 1500	2-20A 6000	3-30A 9000	4-40A 12000	1-10A 1500	2-20A 3000	4-40A 6000	0.5-5A 1500	1-10A 3000	2-20A 6000	0.5-5A 1500	1-10A 3000	1-10A 1500	2-20A 3000																		
	Soft start time	3~8s								3~8s								3~8s		3~8s																			
	Current stabilization accuracy	≤0.5%								≤0.5%								≤0.5%		≤0.5%																			
	Ripple	≤0.2%								≤0.2%								≤0.2%		≤0.2%																			
	Voltage stabilization accuracy	≤0.5%								≤0.5%								≤0.5%		≤0.5%																			
Protection	Current sharing imbalance for Rectifiers Parallel	≤3%								≤3%								≤3%		≤3%																			
	Cooling method	Natural cooling with radiator				Forced cooling with fan				Forced cooling with fan				Natural cooling with radiator				Natural cooling with radiator		Natural cooling with radiator																			
	Protocol	RS485 or RS232								RS485 or RS232								RS485 or RS232		RS485 or RS232																			
	Acoustic noise	<50dB								<50dB								<50dB		<50dB																			
	Multi-protection	Multi-protection and Warning, including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure and short circuit protection. The rectifier will shut down without output, self-recoverable.																																					
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set-point, set-point adjustable.																																					
Intelligent function with microprocessor control	(1) Output DC voltage and current adjustable, output over or under-voltage set-point adjustable, output over current set-point adjustable. (2) Intelligent battery management, including automatic switch between boost charge and float charge, time and point setting for boost charge and float charge. (3) Detecting AC input, detecting battery voltage & current and temperature, automatic adjusting the charging voltage according to the battery temperature (need Complex Information Detector and Battery Detector). (4) Detecting the bus and branch insulation status (need Insulation Status Detector), detecting the switch status (need Switch Status Detector) (5) Battery discharging management (need Battery Detector)																																						
	Operation ambient temperature	-20°C~50°C								-20°C~50°C																													
	Storage temperature	-40°C~60°C								-40°C~60°C																													
	Relative humidity	≤ 90%								≤ 90%																													
	Air pressure	70~106kPa								70~106kPa																													
	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)								I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)																													
Safety	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover																																					
	Mechanical	Size (HxWxD) mm	218x116x260	263x139x325	218x116x260	355x154x400	195x91x303	195x91x303	218x116x260	303x136x410	303x136x410	195x91x303	195x91x303	218x116x260	263x139x325	355x154x400	218x116x260	263x139x325	218x116x260	263x139x325	218x116x260	263x139x325																	
	Weight	5.2kg	9kg	5.2kg	16kg	5kg	5kg	5kg	10.5kg	19kg	19kg	5kg	5kg	5.2kg	9kg	16kg	5.2kg	9kg	5.2kg	9kg	5.2kg	9kg																	

Monitor

Monitoring System



JK007G-3S Small-sized Integrated Power System



JK001G-3S



JK002G-3S



JK004G-3S

Small-sized Integrated Power System

JK007G-3S is the compact size integrated power system, which is designed for less than 100AH capacity battery.

Consist of rectifier module, monitoring system, diode chain. LCD screen display, monitoring function and battery management function with RS485 interface.

module name	model	specification and function	note
monitor	JK001G-3S	128*64 pixels LCD screen	necessary
small rack	2+1 small rack	1 monitor, 2 rectifiers	necessary, choose one
	3+1 small rack	1 monitor, 3 rectifiers	
rectifier	230D05ZZ-3	input 380 VAC, output 220 VDC/5A	necessary, choose one
	220D07-ZZ	input 380 VAC, output 220 VDC/7A	
	110D10ZZ-3	input 380 VAC, output 110 VDC/10A	
	230D05ZZ-220AC	input 220 VAC, output 220 VDC/5A	
	110D10ZZ-220AC	input 220 VAC, output 110 VDC/10 A	
battery detector	DCXJ-19	detect 19 cells battery voltage, 1 route temperature	optional
insulation detector	JYJC-32	detect bus insulation, and 23 branch insulation	optional

Monitoring System

THJK001G-3S	THJK002G-3S	THJK004G-3S
128*64 pixels LCD	240*64 pixels LCD	320*240 pixels LCD, touch screen
Size: 194*137*62 mm	Size: 210*137*62 mm	Size: 210*137*62 mm
Can monitor only one group of rectifiers less than 15 sets. Can monitor only one section of output bus.	Can monitor 2 groups of rectifiers, each group less than 15 sets. Can monitor 2 sections of output bus.	Can monitor 2 groups of rectifiers, each group less than 15 sets. Can monitor 2 sections of output bus.
<ol style="list-style-type: none">1. Menu display, keypad operating, parameter setting and information display.2. Up to 30 faults alarm display.3. With storage of 200 history faults message and 48 working records. These information will not get lost after power off.4. Automatic fault display, with audible and visual alarm.5. Clock display, and the clock will display correctly after power off.6. Battery management7. Communication interface RS485/ RS232, with protocol of CDT/ Modbus		

Monitoring System

Monitor

Monitoring System

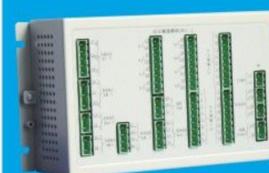
JK008G-3S	JK009G-3S
7" or 10" color LCD, touch screen	
directly display the system diagram, pre-set system parameter, display system working parameter and system failure	
touch screen, easy to pre-set parameter and inquire data	
subsidiary monitor to collect DC data.	history failure and operation records not limited, only related to the memory capacity
provide 2 route AC input data collecting and alarming, AC input is 3 phase	support max 16 Switch Status Detectors
could monitor max 15 rectifiers TH230D10ZZ-3	could monitor max 32 rectifiers
with subsidiary monitor, could detect single battery cell voltage, operation status, alarm, and battery managements.	battery managements, could manage max 2 groups of battery
with subsidiary monitor, could detect the bus and branch insulation status, could detect AC input, DC output, UPS/INV data, and DC/DC data.	support Insulation Detection Monitor to detect more branch
with Switch Detector, could detect the switch status and alarm. Could pre-set the switch status information	with compatible detector to detect AC input, rectifier, battery, switch status, insulation status, and alarm.
provide RS485, RS45 interface, provide MODBUS and IEC61850 protocol,	



JK008G-3S



JK009G-3S



ZHCL-2

Complex Information Detector

ZHCL-2

1. Detect 1 route voltage of 3 phase AC input
2. Detect 3 route DC voltage, 2 route current, 1 route battery ambient temperature.
3. Detect 24 route switch input, provide 8 route switch output.
4. Control 5/7 type diode chain.
5. Detect 1 section bus insulation status.
6. Applicable to one group of battery, one group of rectifiers.

Detector

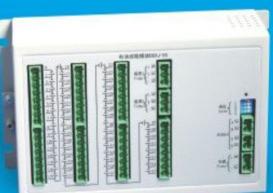
System General Component



ZHCL-3



DCXJ-19



DCXJ-55



KGL-64

ZHCL-3

1. Detect 2 route voltage of 3 phase AC input, automatic switch to the other route AC input once one route input failure.
2. Detect 6 route DC voltage, 4 route current, 2 route battery ambient temperature.
3. Detect 32 route switch input, provide 8 route switch output.
4. Control 5/7 type diode chain.
5. Detect 2 section of bus insulation status.
6. Applicable to 2 group of battery, 2 group of rectifiers.

Battery Detector

DCXJ-19

1. Detect 19 single battery voltage, the battery rated voltage is 12V.
2. Detect 1 route battery ambient temperature.
3. Applicable to 9/18 cells battery group, the battery rated voltage is 12V.

DCXJ-55

1. Detect 55 single battery voltage, the battery rated voltage is 2V.
2. Detect 2 route battery ambient temperature.
3. Applicable to 54/108 cells battery group, the battery rated voltage is 2V.

Switch Status Detector

KGL-64

1. Detect 64 route switch signal.
2. Provide 8 route switch singal output.
3. Applicable to big amounts of switch routes.

System General Component

Detector

Insulation Status Detector

JYJC-32

1. Detect 2 section of bus insulation status
2. Detect 32 section of branches insulation status



JYJC-32

JYJC-64

1. Detect 2 section of bus insulation status
2. Detect 64 section of branches insulation status



JYJC-64

Insulation Status Monitor

JY001-3S

Composed of insulation detector host and a number of insulation parameter acquisition modules, which could be expanded easily.

The main functions are as follows:

- ◆ 128*68 LCD display screen; blue backlight
- ◆ Optional English menu, easy push-button operation;
- ◆ Faults display, up to 30 current faults
- ◆ Memory function with at most 200 history fault messages,
- ◆ 48 working records; not lose in case blackout
- ◆ Auto error display, the LCD lighted up and give an alarm
- ◆ Clock display, even power off;
- ◆ Communication CDT, MODBUS optional;



JY001-3S

Telecom Power Supply



24V20A-220、 48V10A-220、
48V20A-220



48V30A-220、 48V30A-110

Substation Telecom 48/24 DC power Supply

Substation Telecom DC power Supply covers 48V and 24V series. 48V Series have 10A, 20A, 25A, 30A, 50A, 100A models, 24V Series have 20A, 25A, 50A models, applicable to postal telecommunication, electricity telecommunication, military, railway, financial industry.

Type and Model		48V DC output power module								24V DC output power module									
Parameter		48T50Z Z-3	48T50Z Z-220	48T100 NZ	48V10A -220	48V20A -220	48V30A -220	48V30A -110	48T25Z Z-3	24T30Z Z-3	24V20A -220	24V50Z Z							
Input	Input voltage	380V AC ± 15%, 3 phase	DC220V ± 10%	380V AC ± 20%, 3 phase	DC220V (-10% ~ +30%), or 220V AC ± 15%			DC110V ± 15%	380V AC ± 15%, 3 phase	380V AC ± 20%, 3 phase	DC220V (-10% ~ +30%), or 220V AC ± 15%	380V AC ± 15%, 3 phase							
	AC input frequency	45Hz~65Hz									45Hz~65Hz								
	Efficiency	≥91%									≥91%								
Output	Output voltage	40-58V									21-29V								
	Output current power (W)	5-50 A	5-50 A	10-100A	1-10A	2-20A	3-30A	3-30A	2.5-25A	3-30A	2-20A	5-50 A							
	Soft start time	3~8s									3~8s								
	Ripple	≤ 200mV									≤ 200mV								
	Current stabilization	≤ 0.5%									≤ 0.5%								
	Voltage stabilization	≤ 0.5%									≤ 0.5%								
	Current sharing imbalance for Rectifiers Parallel	≤ 3%									≤ 3%								
Cooling method		Natural cooling with radiator	Forced cooling with fan	Natural cooling with radiator					Natural cooling with radiator										
Protocol		RS485 or RS232									RS485 or RS232								
Acoustic noise		<50dB																	
Protection	Multi-protection	Multi-protection and Warning, including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, and will return to normal operating after fault is cleared.																	
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set-point, set-point adjustable.																	
Intelligent function-microprocessor control		(1) Output DC voltage and current adjustable, output over or under-voltage set-point adjustable, output over-current set-point adjustable (2) Intelligent battery management, including automatic switch between boost charge and float charge, time and point setting for boost charge and float charge. (3) Detecting AC input, detecting battery voltage & current and temperature, automatically adjusting the charging voltage according to the battery temperature (need Complex Information Detector and Battery Detector). (4) Detecting the bus and branch insulation status (need Insulation Status Detector), detecting the switch status (need Switch Status Detector)																	
Environment	Operation ambient temperature	-20°C~50°C																	
	Storage temperature	-40°C~60°C																	
	Relative humidity	≤ 90%																	
	Air pressure	70~106kPa																	
Safety	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)																	
	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover																	
Mechanical	Size (H x W x D) mm	179x109 x260	179x109 x260	179x109 x260	179x109 x260	179x109 x260	230x130 x325	230x130 x325	230x130 x325	179x109 x260	179x109 x260	179x109 x260							
	Weight	4.5kg	4.5kg	4.5kg	4.5kg	4.5kg	7.5kg	7.5kg	7.5kg	4.5kg	4.5kg	4.5kg							

Marine DC Power Supply

Module

Marine DC Power Supply covers: 24V 10A/20A/30A/60A/80A/100A series, applicable to the marine ship Electrical Distribution Room with CCS Approval.

Marine 24V DC Power Supply

Parameter		24C60NZ-CY-2	24C40NZ-CY-2
Input	Input voltage	220V AC ± 10%, 3 phase	
	AC input frequency	45Hz~65Hz	
	Efficiency	≥90%	
Output	Output voltage	17-33V	17-33V
	Output current	6-62A	4-42A
	power (W)	2100	1400
	Soft start time	3~8s	
	Current stabilization	≤0.5%	
	Ripple	≤1%	
	Voltage stabilization	≤0.5%	
	Current sharing imbalance for Rectifiers Parallel	≤5%	
Cooling method		Forced cooling with fan	
Protocal		RS485 or RS232	
Accoustic noise		<50dB	
Protection	Multi-protection	Multi-protection and Warning, including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, self-recoverable.	
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set-point, set-point adjustable.	
Environment	Operation ambient temperature	-20°C~50°C	
	Storage temperature	-40°C~60°C	
	Relative humidity	≤90%	
	Air pressure	70~106kPa	
Safety	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)	
	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover	
Mechanical	Size (H x W x D) mm	85x325x265	85x325x265
	Weight	6.6kg	6kg



24C60NZ-2, 24C40NZ-2

Module

EPS Power Supply

EPS power supply covers:600V, 400V, 220 VDC series, applicable to railway, subway projects ect.



220X03N-220AC



400X03ZZ、600X03ZZ



400X05ZZ、400X07ZZ、
600X05ZZ



400X10ZZ、400X15ZZ、
600X10ZZ

EPS 600/400/220V DC Power Module

Parameter	Type and Model	380V AC input								220V AC input					
		600X03 ZZ	600X05 ZZ	600X10 ZZ	400X03 ZZ	400X10 ZZ	400X15 ZZ	400X07 ZZ	400X05 ZZ	220X03 ZZ-220AC	400X05 ZZ-220AC	220X03 NZ-220AC			
Input	Input voltage	380V AC ± 15%, 3 phase								220V AC ± 20%, single phase					
	AC input frequency	45Hz~65Hz								45Hz~65Hz					
	Efficiency	≥95%								≥95%					
	Power factor	≥0.93								≥0.93					
Output	Output voltage	450-600V	450-600V	450-600V	300-450V	350-400V	260-400V	300-450V	300-450V	198-260V	300-450V	198-260V			
	Output current	0.3-3A	0.5-5A	1-10A	0.3-3A	1-10A	1.5-15A	0.7-7A	0.5-5A	0.3-3A	0.5-5A	0.3-3A			
	power (W)	1800	3000	6000	1300	4000	6000	3100	2200	800	2200	800			
	Soft start time	3 ~ 8s								3 ~ 8s					
	Current stabilization	≤ 0.5%								≤ 0.5%					
	Ripple	≤ 0.2%								≤ 0.2%					
	Voltage stabilization	≤ 0.5%								≤ 0.5%					
Protection	Current sharing imbalance for Rectifiers Parallel	≤ 3%								≤ 3%					
	Cooling method	Natural cooling with radiator								Natural cooling with radiator					
	Protocol	RS485 or RS232								RS485 or RS232					
Accoustic noise		<50dB								<50dB					
Environment	Multi-protection	Multi-protection and Warning, including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, self-recoverable.													
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set-point, set-point adjustable.													
Safety	Operation ambient temperature	-20°C~50°C													
	Storage temperature	-40°C~60°C													
	Relative humidity	≤90%													
	Air pressure	70~106kPa													
Mechanical	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)													
	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover													
	Size (HxWxD)mm	218x116 x260	263x139 x325	365x154 x400	218x116 x260	365x154 x400	365x154 x400	263x139 x325	263x139 x325	58x118 x187	58x118 x187	58x118 x187			
	Weight	5.2kg	9kg	19kg	5kg	19kg	19kg	9kg	9kg	1.2kg	3kg	1kg			

Broadcast Power Supply

Module

Broadcast Transmitter DC Power Supply covers 1.7KW, 2KW, 2.3KW, 2.5KW, 3KW series, and get the Broadcast Equipment Approval of SARFT.

Broadcast Transmitter 36/42/48V DC Power Supply

Parameter		380V AC input							
		G2300-36G60NZ	G2100-42G50NZ	G1700-42G50NZ	G2000-48G40NZ	GZ2500-48G50NZ-SHMZ	GZ2500-LG	GZ5500-48G110NZ	GZ2500
Input	Input voltage	380V AC ± 15%, 3 phase							
	AC input frequency	45Hz~65Hz							
	Efficiency	≥92%							
	Power factor	≥0.92							
Output	Output voltage	34-37V	40-44V	40-44V	40-44V	40-44V	45-52V	40-50V	45-52V
	Output current	60A	50A	50A	50A	50A	50A	110A	50A
	power (W)	2300	2100	1700	2000	2500	2500	5500	2500
	Soft start time	3~8s							
	Current stabilization	≤0.5%							
	Ripple	≤0.2%							
	Voltage stabilization	≤0.5%							
Protocal	Inter-rectifier Current sharing imbalance	≤5%							
	Cooling method	Forced cooling with fan							
	Protocol	RS485 or RS232							
Acoustic noise		<45dB							
Protection	Multi-protection	Multi-protection including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, and will return to normal operating after fault is cleared.							
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set point.							
Environment	Operation ambient temperature	-20°C~50°C							
	Storage temperature	-40°C~60°C							
	Relative humidity	≤90%							
	Air pressure	70~106kPa							
Safety	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)							
	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover							
Mechanical	Size (H x W x D) mm	216x85 x365.5	216x68.5 x364.5	216x68.5 x364.5	216x68.5 x364.5	216x68.5 x364.5	215x72 x377	216x435 x440	88x482 x440



GZ2100-42G50NZ,
GZ1700-42G40NZ,
GZ2500-48G50NZ-SHMZ,
GZ2000-48G40NZ



GZ2500-48G50NZ



GZ5500-48G110NZ



2300-36G60N

Module

HVDC 240V DC power module

New Generation of UPS HVDC 240V DC power module



240T20NZ-A-ZT

Type and Model		HVDC 240V DC power module
		240T20NZ-A-ZT
Input	Input voltage	AC 260-530V
	AC input frequency	45Hz~65Hz
	Efficiency	≥94.3%
Output	Output voltage	200-292V DC
	Output current	20A
	power (W)	6000
	power factor	≥0.99
	harmonic current	≤5%
	Soft start time	3~8s
	Ripple	≤0.5%
	Current stabilization	≤1%
	Voltage stabilization	≤0.5%
Cooling method	Current sharing imbalance for	≤3%
	Cooling method	Forced cooling with fan
	Protocol	RS485 or RS232
Accoustic noise		<60dB
Protection	Multi-protection	Multi-protection and Warning, including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, and will return to normal operating after fault is cleared.
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set-point, set-point adjustable.
Environment	Operation ambient temperature	-10°C~40°C
	Storage temperature	-40°C~70°C
	Relative humidity	≤90%
	Air pressure	70~106kPa
Safety	Insulation resistance	I/O to chassis and input to output >10MΩ (Test voltage: 500Vdc)
	Dielectric strength	Impose 2000Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover
Mechanical	Size (HxWxD) mm	260x85x397
	Weight	9kg

HVDC 240V DC power system

Module

HVDC 240V DC power system

Type and Model		Integrated 240V DC power system
Parameter		
Input	Input voltage	AC 260-530V
	AC input frequency	45Hz~65Hz
	Efficiency	≥94.3%(singel rectifier module)
Output	Output voltage	200-292V DC
	Output current	400A/1200A (any range according to the rectifiers amounts)
	power factor	≥0.99
	Ripple	≤0.5%
	harmonic current	≤5%
	Soft start time	3~8s
	Current stabilization	≤1%
	Voltage stabilization	≤0.5%
	Inter-rectifier Current sharing imbalance	≤ 3%
Cooling method		forced cooling with fan
Protocal		Rs485, Rs232
Accoustic noise		<60dB
Protection	Multi-protection	Multi-protection including input over or under-voltage, output over or under-voltage, over-temperature, reverse connection, phase failure, and short circuit protection. The rectifier will shut down without output, and will return to normal operating after fault is cleared.
	Automatic current limiting	The output current will keep fixed without increase after it exceed the set point.
Environment	Operation ambient temperature	-10°C~40°C
	Storage temperature	-40°C~70°C
	Relative humidity	≤90%
Air pressure		70~106kPa
Safety	Insulation resistance	I/O to chassis and input to output >20MΩ (Test voltage: 500Vdc)
	Dielectric strength	Impose 2500Vdc between I/O and the chassis after shorting the input and output for one minutes. No breakdown or flashover
Mechanical	Cabinet Size (WxDxH)mm	800x600x2000, customized according to configuration

Main Features:

- (1) Modular design characteristic of switching power supply
- (2) Redundancy hot standby
- (3) Adjustable to various power networks with super-wide voltage input range
- (4) Rectifiers being hot-pluggable, convenient for online maintenance
- (6) With the patent switching technology, the rectifiers features high efficiency with low EMI
- (7) Low difference active load sharing of rectifiers ensures inter-rectifier imbalance rate of only 3%
- (8) CE safety and EMC certified rectifiers, ensuring reliability and safety
- (9) Open interface design with strong communication function, RS485, or RS232
- (10) Automatic battery management and protection, with real-time monitor function over battery operation state and parameters

Main Component:

- (1) AC input distribution: AC distribution cabinets.
- (2) Rectification: rectifiers and insulation diodes
- (3) Battery management, insulation status detection, surge suppressor (SPD)
- (4) Monitoring system: power control unit (PCU) and distribution monitoring box.
- (5) All the modules and components could be customized accordingly.



HVDC 240V DC power system



HVDC 240V DC power system

Product List

Category	Model Name	Input voltage	Output voltage	Output current
Substation Power Module (natural cooling)	220D03ZZ-3	220VAC ± 15%	190~260V	0.3~2.5A
	110D05ZZ-3	220VAC ± 15%	95~130V	0.5~5A
	230D05ZZ-3	380VAC ± 15%	190~300V	0.5~5A
	110D10ZZ-3	380VAC ± 15%	95~150V	1~10A
	230D10ZZ-3	380VAC ± 15%	190~300V	1~10A
	110D20ZZ-3	380VAC ± 15%	95~150V	2~20A
	230D20ZZ-3	380VAC ± 15%	190~300V	2~20A
	110D40ZZ-3	380VAC ± 15%	95~150V	4~40A
	230D05ZZ-220VAC	220VAC ± 15%	190~300V	0.5~5A
	110D10ZZ-220VAC	220VAC ± 15%	95~150V	1~10A
	230D10ZZ-220VAC	220VAC ± 15%	190~300V	1~10A
	110D20ZZ-220VAC	220VAC (-25%~+20%)	95~150V	2~20A
Substation Power Module (natural cooling)	230D05NZ	380VAC ± 15%	176~300V	0.5~5A
	110D10NZ	380VAC ± 15%	88~150V	1~10A
	230D07NZ	380VAC ± 15%	176~300V	0.7~7A
	230D10NZ	380VAC ± 15%	176~300V	1~10A
	110D20NZ	380VAC ± 15%	88~150V	2~20A
	230D20NZ-3	380VAC ± 15%	190~300V	2~20A
	230D30NZ-3	380VAC ± 15%	190~300V	3~30A
	230D40NZ-3	380VAC ± 15%	190~300V	4~40A
Portable charger	110D20ZZ-BX	380VAC ± 15%	95~150V	2A~20A
	230D20NZ-BX	380VAC ± 15%	190~300V	2A~20A
Substation Telecom Power Module	48T50ZZ-220	DC220V ± 10%	48V	50A
	240T20NZ-A	380VDC	270V	20A
	48T50ZZ	380VAC ± 15%	40~58V	5A~50A
	48T50ZZ-220	DC220V ± 10%	40~58V	5A~50A
	48T100NZ	380VAC ± 15%	40~58V	10~100A
	24T30ZZ	380VAC ± 20%	21~29V	3A~30A
	48V10A-220	DC220V (-10%~+30%) / AC220V ± 15%	40~58V	1A~10A
	48V20A-220	DC220V (-10%~+30%) / AC220V ± 15%	40~58V	2A~20A
	48V30A-220	DC220V (-10%~+30%) / AC220V ± 15%	40~58V	3A~30A
	48V30A-110	DC110V ± 15%	40~58V	3A~30A
	24V20A-220	DC220V (-10%~+30%) / AC220V ± 15%	21~29V	2A~20A
	48V10A-220-NR	DC220V (-10%~+30%) / AC220V ± 15%	40~58V	1A~10A
	48V20A-220-NR	DC220V (-10%~+30%) / AC220V ± 15%	40~58V	2A~20A
	24T50ZZ	380VAC ± 15%	21~29V	5A~50A
	48T25ZZ	380VAC ± 15%	40~58V	2.5A~25A

Product List

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Category	Model Name	Input voltage	Output voltage	Output current
Railway Power Module	TSR1524A	380VAC ± 15%	21~29V	50A
	TSR1524B	460VAC ± 15%	21~29V	50A
	TSR2948A	380VAC ± 15%	47~58V	50A
	TSR1524B-380	380VAC ± 15%	21~29V	50A
	TSR1524A-QZ	380VAC ± 15%	21~29V	50A
	TSR2948A-QZ	380VAC ± 15%	47~58V	50A
	TSR1548A	380VAC ± 20%	47~58V	25A
	TSR110L20	400VAC ± 15%	107~130V	24A
	110L50	380VAC ± 20%	88~150V	50A
	110L50-XDM	380VAC ± 20%	68~130V	50A
	TSR1524A-JK	380VAC ± 15%	21~29V	50A
	R2948A-JK	380VAC ± 15%	47~58V	50A
	100L150N-110	110VDC(-30%~+10%)	100~120V	150A
	110L22NZ-220AC	154~275VAC	100~120V	22.5A
	24L12	380VAC ± 15%	21~29V	12A
	110L22N-220AC	154~275VAC	100~120V	22.5A
Railway Signal Power Module	24L30-110	110VDC ± 15%	22~26V	30A
	48L50ZZ	330VAC ± 25%	45~54V	50A
	24L50ZZ-220AC	220VAC ± 25%	23~27.5V	50A
	48L30ZZ	330VAC ± 25%	45~54V	30A
	24L60ZZ-220AC	220VAC ± 25%	23~27.5V	60A
Special Power Module	28J200	380VAC ± 10%	24~32V	100A
	DM28V/30A	AC220V ± 10%	25~32V	30A
	26J30	DC22V~30V	26V ± 1	30A
	27J30	27VDC	26.6~27.4V	30A
	28J190	380VAC ± 10%	24~32V	190A
	28J45	DC24V~31V	28V ± 0.5	35A
EPS Power Module	400X02N-220AC	220VAC ± 15%	400V	2A
	110X03N-220AC	220VAC ± 20%	110V	3A
	600X03ZZ-220AC	220VAC ± 15%	600V	3A
	600X05ZZ-220AC	220VAC ± 15%	600V	5A
	600X05ZZ	380VAC ± 15%	450~600V	0.5A~5A
	600X10ZZ	380VAC ± 15%	450~600V	1A~10A

Product List

Category	Model Name	Input voltage	Output voltage	Output current
EPS Power Module	600X03ZZ	380VAC ± 15%	450~600V	0.3A~3A
	400X03ZZ	380VAC ± 15%	300~450V	0.3A~3A
	700X03ZZ	380VAC ± 15%	600~720V	0.3A~3A
	600X02ZZ-220AC	220VAC ± 15%	450~600V	0.15A~1.5A
	600X02N-220AC	220VAC ± 15%	450~600V	0.15A~1.5A
	400X10ZZ	380VAC ± 15%	350~400V	1A~10A
	220X03Z-220AC	220VAC ± 10%	198~260V	0.3A~3A
	220X03Z-400	500VDC ± 20%	198~260V	0.3A~3A
	400X15ZZ	380VAC ± 15%	260~400V	1.5A~15A
	400X07ZZ	380VAC ± 15%	300~450V	0.7A~7A
	400X05ZZ	380VAC ± 15%	300~450V	0.5A~5A
	350X03ZZ	380VAC ± 15%	260~450V	0.3A~3A
	220X03N-220AC	220VAC ± 20%	198~260V	0.3A~3A
	110X03N-220AC	220VAC ± 20%	95~130V	0.3A~3A
	400X02N-220AC	220VAC ± 15%	260~400V	0.2A~2A
Broadcasting Power Module	G2300-36G60N	380VAC ± 15%	34~37V	58A
	GZ2500-32G80NZ	380VAC ± 15%	25~33V	86A
	GZ2500-42G60NZ	380VAC ± 15%	40~44V	60A
	GZ2500-48G50NZ-3	380VAC ± 15%	45~52V	50A
	GZ5500-48G110NZ	380VAC ± 15%	45~50V	110A
	GZ2500-48G50NZ	380VAC ± 15%	45~52V	50A
Test Power Module	300D20ZZ-3	380VAC ± 20%	10 ~ 300V	20A
	250D10ZZ	380VAC ± 20%	10 ~ 250V	1A~10A
	250D10ZZ-LBD	380VAC ± 20%	5~300VDC	1A~10A
	250D20ZZ	380VAC ± 20%	10~250V	2A~20A
Marine Power Module	24C60NZ-CY-2	220 ± 10% 3 phase	17~33V	6~62A
	24C40NZ-CY-2	220 ± 10% 3 phase	17~33V	4~42A
	24C40NZ-220AC-2	220 ± 15% single phase	17~33V	4~42A
	24C60NZ-220AC-2	220 ± 15% single phase	17~33V	6~62A
	24C30N-220AC	220 ± 15% single phase	20~30V	30(20/10)A
	24C100NZ	380~10%~440+6% 3 phase	20~30V	10~105A

Product List

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Category	Model Name		Input voltage	Output voltage	Output current	Features
Wall-mounted Power System	220D09ZZ-BG	220D03ZZ-3	220VAC ± 15%	190~260V	2.5A	integrated DC Power System
		JK006G-3S				
		220D09ZZ-BG Sub-rack				
		220D09ZZ-BG Cabinet				
	110D15ZZ-BG	110D05ZZ-3	220VAC ± 15%	95~130V	5A	integrated DC Power System
		JK006G-3S				
		220D09ZZ-BG Sub-rack				
		220D09ZZ-BG Cabinet				
Monitoring System and Detector	JK002G-48V		Substation telecom Power Monitor			
	ADC		Data Collecting			
	KGL-64		Switch Status Detector			
	ZHCL-2		1. detect 1 route voltage of 3 phase AC input 2. detect 3 route DC voltage, 2 route current, 1 route battery ambient temperature. 3. detect 24 route switch input, provide 8 route switch output. 4. control 5/7 type diode chain. 5. detect 1 section bus insulation status. 6. applicable to one group of battery, one group of rectifiers.			
	ZHCL-3		1. detect 2 route voltage of 3 phase AC input, automatic switch to the other route AC input once one route input failure. 2. detect 6 route DC voltage, 4 route current, 2 route battery ambient temperature. 3. detect 32 route switch input, provide 8 route switch output. 4. control 5/7 type diode chain. 5. detect 2 section bus insulation status. 6. applicable to 2 group of battery, 2 group of rectifiers.			
	DCXJ-19		detect 19 single battery voltage, the battery rated voltage is 12V.			
	DCXJ-55		detect 55 single battery voltage, the battery rated voltage is 2V.			
	JYJC-32		1. detect 2 bus insulation status. 2. detect 32 branches insulation status.			
	JYJC-64		1. detect 2 bus insulation status. 2. detect 64 branches insulation status.			
	ZHCL-48V		48V System			
	DCXJ-48V		48V battery detecting			
	KGL-48V		48V Switch status detector			
	JK001G-3S		128*64 LCD display screen;			
	JK002G-3S		240*64 LCD display screen;			
	JK004G-3S		320*240 LCD display screen; touch screen			
	JY001-3S		240*64 LCD display screen;			

Integrated DC Power System

Overview

With the rapid development of power industry and investment on technical improvement, the requirements to DC switch power supply equipment and system get more and more. The old phase control power and magnetic saturation type power supply have the defects such as poor voltage and current stabilization, high ripple factor and serious harmonic pollution in power systems, which cannot catch up with the development of power engineering and industry. Our THGZDW series intelligent high frequency switch power system has advantages of high voltage and current stabilization, high speed responsibility, low noise, high efficiency and etc. Its N+1 redundancy design, remote monitoring and controlling, which makes the power system more safety and stability. THGZDW series intelligent DC power system is new generated with new advanced technology. It serves in power generation plants and substations, thermal power plant, hydropower station, transformer stations and other DC power supply applications as DC power supply for controlling, signal transmission, protection, telecommunications and lighting. It is widely applied in electric power industry, petroleum industry, chemical industry, metallurgy, machinery, papermaking, coal industry, building materials, textile, brewing industry and etc.

Functions and features

- ◆ Rectifier module is designed with soft switch technology which features high efficiency, excellent electrical performance and electromagnetic compatibility.
- ◆ Designed with automatic current-sharing control and N+1 redundancy. The system can be easily expanded.
- ◆ Double AC input and automatic switching to the other input if one AC input circuit failure.
- ◆ Perfect batteries management function, automatic boost and float charging, and also can be managed by host computer.
- ◆ Intelligent monitoring unit; use advanced Single-chip Microcomputer, inspect all parameters online and alarm.
- ◆ Optional English Man-Machine Interface, easy operation.
- ◆ Standard COM interface, easy to connect with the host to realize "four remotes"
- ◆ Equipped with C grade lightning arrester

Integrated DC Power System

GZDW
DC System

Operation Temperature

Altitude:<2000m
Ambient temperature: -10°C~40°C
Daily average relative humidity: ≤95%, Monthly: ≤90%
No strong vibration and impact at installation and working place, no strong electromagnetic interference, external field magnetic induction ≤0.5mT
Installation degree of vertical inclination should be no more than 5%
Not be used under conditions of fire, explosion, and chemical corrosion
AC input: three-phase five-wire system, voltage dissymmetry ≤5%
AC input voltage should be sine-wave, non sine-content be no more than 10%
For indoor use only, the working ambient temperature should be concerned.

Main parameters

AC input voltage: 380V ± 15%
Frequency: 50Hz ± 10%
Output current: 10A~320A
Battery capacity: 10AH~2000AH
Output voltage: 220V/110V
Output voltage: 198V~286V/99V~143V
Current limit: Rated current x (10%~105%)
dynamic response: Recovery time ≤200μS when from 20% load jumping to 80% load
Efficiency: ≥95%
Insulation resistance: ≥20MΩ
Insulation strength: output to ground, input to ground, input to output impose 2.5KVAC, no flashover in 1 minute
Related humidity: ≤90%
Altitude: ≤2000m
Earthquake intensity: ≤7
Ambient temperature: -10°C~40°C
Noise: natural cooling ≤40dB air cooling ≤55dB
Protection grade: ≥IP30
Dimension: 800x600x2260(mm)

Basic functions

◆ Intelligent battery management
◆ Parameters set
◆ DC parameter monitoring
◆ AC parameter monitoring
◆ Audible and Visual Alarm, 30 current faults display, 200 history fault record, 48 running record
◆ Bus insulation monitoring
◆ Automatic voltage regulation

Extended function

◆ Battery monitoring
◆ Branch insulation monitoring
◆ Feeder branch ON/OFF monitoring
◆ DC inverter, AC output
◆ DC / DC low voltage output convert
◆ AC distribution output

Integrated DC Power System



Wall-mounted power system

- ◆ Serves as power supply system lower than 38AH/220V or 65AH/110V.
- ◆ Configured with natural cooling rectifier module 220D03ZZ (or 110D05ZZ)(max. 3 pieces)
- ◆ Automatic diode-chain function, intelligent CPU control,max current 2.0A,surge current 30A/0.5S.The silicon diode chain output voltage is adjustable. (110V system max current 3.0A).
- ◆ LCD display monitor, optional English menu,keyboard button operation, which achieves the system parameter set, parameter display, system faults display and system correction.
- ◆ Automatic battery management, supervise the battery's voltage, control bus voltage,control bus current,battery's discharge and charge current and module's conditions.
- ◆ Could be configured with battery monitoring module(DCXJ-19), to detect the voltage of 18 battery cells.
- ◆ RS232/RS485 communication interface CDT and MODBUS communication protocol, easy to connect with automatic system
- ◆ One single-phase AC input and one PT100 input.Under PT input conditions,the system automatically limit the output power, output current limit to 2.0A,for 110V system,current limit to 3.0A
- ◆ bus insulation monitoring and bus ground fault alarm.
Battery breaker trip off alarm as well.
- ◆ Outlet Method: inlet and outlet at bottom(outlet diameter: 4*Φ 30)
- ◆ Hot pluggable.

Technical Parameters

AC input: 220V ± 15%	Current sharing imbalance : ± 3%
PT voltage: 100V ± 10% (optional)	Over voltage protection: 320V ± 15V (160V ± 8V for 110V system)
Frequency: 50HZ ± 5%	Insulation resistance: ≥20MΩ
Efficiency: ≥92%	Insulation strength: output to ground, input to ground, input to output impose 2.1KVAC, no flashover in 1minute
Output voltage: 190V–260V (95V–130V)	Noise: ≤50dB
Output current limit: 0.3A–3A(single module)(0.5A–5.25A for 110V system)	Dimension:560*700*300mm
Voltage stabilization: ≤ ± 0.5%	Weight: 40kg
Current stabilization: ≤ ± 1%	
Ripple factor: ≤ ± 0.5%	

Integrated DC Power System

GZDW
DC System

GZDW-220V/40AH

This system consist of two cabinets, one charging and feeding cabinet and one battery cabinet. It is composed of 1 set of 20A/35V voltage step-down silicon diode chain, 5 control bus(10A),5 switching bus(20A),Dual 380V AC input. auto switchover; 2 nature cooling charging module (220D07ZZ-3) made by our company, LCD Chinese-English monitors (JK001G-3S), configured with complex information detector module(ZHCL-2), insulation monitoring module and battery detector module(DCXJ-19). Cabinet is designed with double door
external dimension: 2260x800x600mm
Color: RAL7035(computer grey)



GZDW-220V/65AH



This system consist two cabinets, one charging and feeding cabinet and one battery cabinet. It is composed of 1 set of 20A/35V voltage step-down silicon chain, 5 control bus (20A). 5 switching bus (32A). Dual 380V AC input, auto switchover. 2 pieces natural cooling charging module (220D07ZZ-3) , LCD Chinese-English monitors (JK001G-3S), configured with complex information detector module(ZHCL-2), insulation monitoring module and battery detector module DCXJ-19. Cabinet is designed with double door
External dimension: 2260x800x600mm
Color: RAL7035(computer grey)

Integrated DC Power System



GZDW-220V/100AH

This system consists two cabinets, one charging and feeding cabinet and one battery cabinet. It is composed of 1 set of 20A/35V voltage silicon diode chain , 5 control bus (20A). 5 switching bus (32A). Dual 380V AC input, auto switchover. It uses 3 pieces nature cooling charging module (230D10ZZ-3), LCD Chinese. English monitors (JK001G-3S), equipped with complex information detector module (ZHCL-2), insulation monitoring module and battery detector module (DCXJ-19). Cabinet is designed with double door External dimension: 2260x800x600mm Color: RAL7035(computer grey)



Integrated DC Power System

GZDW
DC System

System List

Model	DC output		Cabinet number	Battery		Rectifier		Max current load
	Switch bus	Control bus		Capacity (Ah)	Quantity	Current (A)	Quantity	
GZDW-220V/40AH	20A × 5	10A × 5	1	40	18	5	2	5
GZDW-220V/65AH	32A × 5	20A × 5	2	65	18	10	2	8
GZDW-220V/100AH	32A × 5	20A × 5	2	100	18	10	3	10
GZDW-220V/100AH × 2	32A × 10	20A × 10	3	100	36	10	6	10
GZDW-220V/200AH	40A × 10	20A × 10	3	200	104	10(20)	4(3)	20
GZDW-220V/200AH × 2	40A × 16	20A × 24	6	200	208	10(20)	8(6)	20
GZDW-220V/300AH	40A × 10	20A × 10	5	300	104	20	4	30
GZDW-220V/300AH × 2	40A × 16	20A × 24	10	300	208	20	8	30
GZDW-220V/400AH	63A × 10	20A × 16	2	400	104	20	5	40
GZDW-220V/400AH × 2	63A × 16	20A × 24	5	400	208	20	10	40
GZDW-220V/600AH	63A × 10	20A × 16	2	600	104	20	6	60
GZDW-220V/600AH × 2	63A × 16	20A × 24	5	600	208	20	12	60
GZDW-220V/800AH	100A × 10	20A × 16	2	800	104	20	8	80
GZDW-220V/800AH × 2	100A × 16	20A × 24	5	800	208	20	16	80
GZDW-220V/1000AH	100A × 10	20A × 16	3	1000	104	30	7	100
GZDW-220V/1000AH × 2	100A × 16	20A × 24	6	1000	208	30	14	100

- ◆ The information above is for reference only, which is subject to change
- ◆ Please specify the model, quantity, delivery time when make order
- ◆ Please provide model and quantity if order battery
- ◆ Please provide cabinet spec and color, otherwise our standard cabinet is identified (2260*800*600mm)

Color: RAL7035(Computer gray)



Toughness Persistence
Pragmaticism Equal rights



Yueqing Sandi Electric Co.,Ltd

Add: Lvao industrial zone, Yueqing city, 325604, Zhejiang province, China

Web: www.lgis.cc

Tel: 0086-577-62776918

Fax: 0086-577-61209955

Mob/Whatsapp: +86-13175696608

E-mail: carrie@sandi.cc