

SINEXCEL-RE
盛弘新能

SINEXCEL-RE

Product Selection Guide

Dear Customer, thank you for choosing power supply equipment from Shenzhen Sinexcel Renewable Energy Equipment Co., Ltd. We are committed to creating competitive products that meet customer needs.

Shenzhen Sinexcel Renewable Energy Equipment Co., Ltd. provides comprehensive technical support. Please contact your nearest SINEXCEL office or customer service center for assistance.

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SXN62 Series Wide-Range Programmable DC Power Supply



The SXN62 Series uses high-frequency isolation and active PFC together with advanced LLC multi-resonant soft-switching technology to achieve high efficiency across the operating range. A standard 3U chassis delivers up to 18 kW. Its autoranging output provides a wider combination of voltage and current throughout the full power range, increasing application flexibility.

1 Applications

- Automotive Electronics
- Server Power Supplies
- Battery Packs
- Energy Storage Systems
- PV Modules
- Chargers and EV Charging Stations
- Fuel Cells
- Automated Test Equipment (ATE)
- Precision Electroplating and Sputtering

2 Key Features

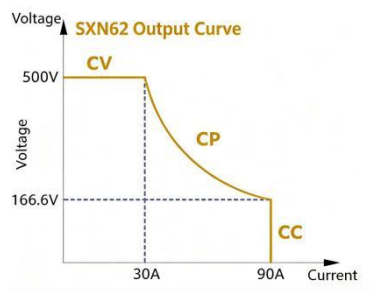
- (1) Color touchscreen for simple, fast, and intuitive operation
- (2) Autoranging, wide-range output
- (3) Up to 2250 V and 18 kW per unit
- (4) Parallel operation for higher output power
- (5) Automatic transition among constant-voltage (CV), constant-current (CC), and constant-power (CP) modes
- (6) Active PFC with input power factor up to 0.99
- (7) LLC multi-resonant soft-switching technology with efficiency up to 93%
- (8) Comprehensive protection: OVP, OCP, OPP, OTP, and input overvoltage/undervoltage protection
- (9) Solar array simulation
- (10) Black Box function automatically records operating parameters during abnormal events for subsequent review and maintenance
- (11) Multiple remote-control interfaces; RS232, RS485, CAN, LAN, and USB are standard, with analog control optional

3 Featured Functions

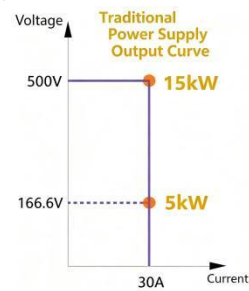
◆ Autoranging Wide-Range Output

The SXN62 Series expands the available voltage/current combinations at full power. A single unit provides an output envelope three times wider than that of a conventional power supply.

Example: The SXN6215-500-90 delivers 30 A at 500 V and 90 A at 166.6 V, while providing the full 15 kW at any voltage from 166.6 V to 500 V. A conventional 500 V/15 kW power supply delivers 30 A at 500 V but remains limited to 30 A at 166.6 V, reducing its output power to 5 kW.



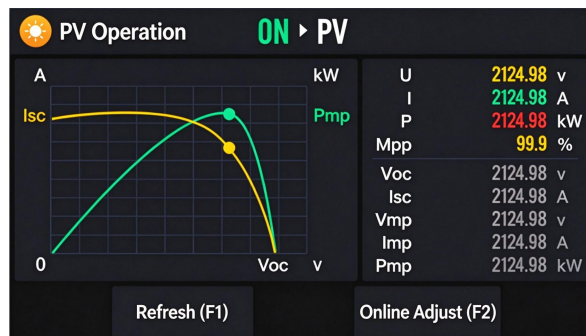
SXN62 Output Envelope



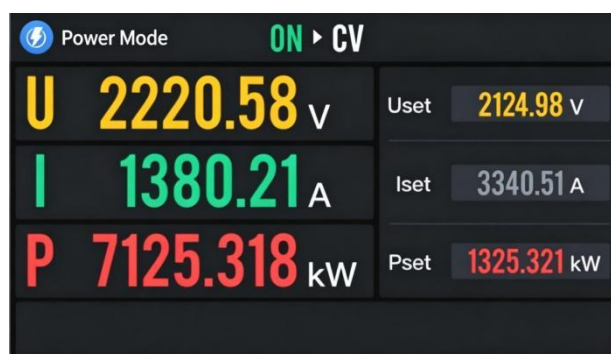
Conventional Power Supply Output Envelope

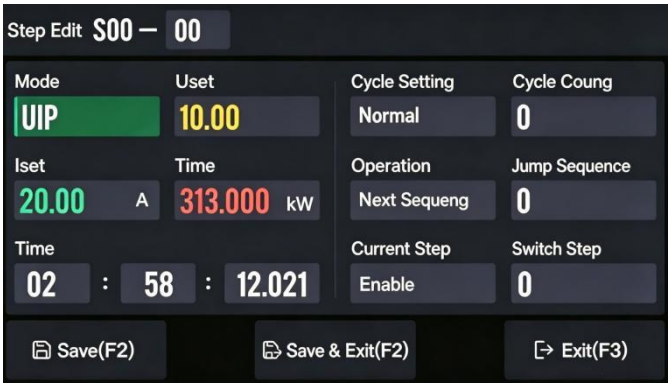
◆ Oscilloscope View of Solar Array Simulation Curves in Real Time

The SXN62 Series includes built-in EN 50530 and Sandia solar array simulator (SAS) models for simulating solar-array I-V and P-V curves. After the user enters the required parameters, the instrument generates and outputs the curves to evaluate an inverter's static and dynamic MPPT efficiency. An oscilloscope-style view on the touchscreen displays the I-V/P-V curves and the current operating point in real time.



◆ A color touchscreen combined with physical keys provides flexible and convenient operation.





◆ Parallel Operation for Power Expansion

When higher output power is required, units with the same rating can be connected in parallel. Setup is simple, while hardware synchronization provides accurate and reliable operation.



◆ Sequence Test Mode with Flexible, Automated Multi-Parameter Programming

In sequence test mode, users can program voltage and voltage changes, current and current changes, power, operating mode, dwell time, and other parameters. The instrument automatically executes the programmed steps for automated testing, burn-in, and related applications.

Sequence	S00	Previous (Enter)	Next (ESC)	Quick Group		
00	UIP	10.00V	20.00A 3.000KW 00:00:05.000	✓	00	1 Uset 0.00V Iset 340.00A Pset 15.000KW
01	UIP	20.00V	50.00A 3.000KW 00:00:05.000	✓	00	2 Uset 0.00V Iset 340.00A Pset 15.000KW
02	Uramp	20.00V → 10.00A	50.0KW	✓	02	3 Uset 0.00V Iset 340.00A Pset 15.000KW
03	Iamp	10.00V → 20.00A	10.00A	✓	03	4 Uset 0.00V Iset 340.00A Pset 15.000KW
04	UIP	5.00V	10.00A 10.00V	✓	04	5 Uset 0.00V Iset 340.00A Pset 15.000KW
Cut Step (1) Insert Step (2) Step Edit (F2) Exit (F3)				Save (F2) Discard Changes (F3)		

◆ Graphical PC software provides convenient access to sequence testing, PV simulation, and related functions.

4 Model Selection

Voltage	Model	Current	Power	Voltage	Model	Current	Power
0-80V	SXN6203-80-40S①	40A	3.2kW	0-300V			
	SXN6206-80-80S①	80A	6.4kW				
	SXN6202-80-120M	120A	1.8kW		SXN6202-300-30M	30A	1.8kW
	SXN6203-80-150M	150A	3kW		SXN6203-300-40M	40A	3kW
	SXN6205-80-170	170A	5kW		SXN6205-300-60	60A	5kW
	SXN6210-80-340	340A	10kW		SXN6210-300-120	120A	10kW
	SXN6215-80-510	510A	15kW		SXN6215-300-180	180A	15kW
	SXN6218-80-510X	510A	18kW		SXN6218-300-180X	180A	18kW
Voltage	Model	Current	Power	Voltage	Model	Current	Power
0-500V	SXN6202-500-20M	20A	1.8kW	0-750V	SXN6202-750-10M	10A	1.8kW
	SXN6203-500-30M	30A	3kW		SXN6203-750-15M	15A	3kW
	SXN6205-500-40	40A	5kW		SXN6205-750-20	20A	5kW
	SXN6210-500-80	80A	10kW		SXN6210-750-40	40A	10kW
	SXN6215-500-120	120A	15kW		SXN6215-750-60	60A	15kW
	SXN6218-500-120X	120A	18kW		SXN6218-750-60X	60A	18kW
Voltage	Model	Current	Power	Voltage	Model	Current	Power
0-1000V	SXN6210-1000-40	40A	10kW	0-1500V	SXN6210-1500-20	20A	10kW
	SXN6215-1000-60	60A	15kW		SXN6215-1500-40	40A	15kW
	SXN6218-1000-60X	60A	18kW		SXN6218-1500-40X	40A	18kW
0-2250V	SXN6215-2250-20	20A	15kW				
	SXN6218-2250-20X	20A	18kW				
Note 1: The SXN6203-80-40S and SXN6206-80-80S are dedicated PV simulators designed specifically for microinverter testing.							

5 Technical Specifications

5.1 80 V Series

Model		SXN6202-80-120M	SXN6203-80-150M	SXN6203-80-40S	SXN6206-80-80S	SXN6205-80-170	SXN6210-80-340	SXN6215-80-510	SXN6218-80-510X
Output Range	Volt.	0–80V							
	Curr.	0–120A	0–150A	0–40A	0–80A	0–170A	0–340A	0–510A	0–510A
	Power	0–1.8kW	0–3kW	0–3.2kW	0–6.4kW	0–5kW	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS							
	Curr.	≤0.05%FS							
	Power	≤0.50%FS							
Setting Resolution	Volt.	0.01V							
	Curr.	0.01A							
	Power	0.001kW							
Readback Accuracy	Volt.	≤0.02%FS							
	Curr.	≤0.05%FS							
	Power	≤0.50%FS							
Readback Resolution	Volt.	0.01V							
	Curr.	0.01A							
	Power	0.001kW							
Ripple (20Hz–2MHz)	Vrms	30mV		50mV		30mV			
	Vpp	250mV		500mV		250mV			
Transient Response Time	Volt.	≤2ms							
Rise Time	Volt.	50ms(10%–90%)							
Line Regulation	Volt.	≤0.02%FS							
	Curr.	≤0.05%FS							
Load Regulation	Volt.	≤0.05%FS							
	Curr.	≤0.15%FS							
Overvoltage Protection (OVP)		Adjustable, 0-110% FS							
Remote-Sense Compensation Voltage		4V							
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection							
Parallel Operation		Supports multiple units in parallel		Parallel operation is not supported		Supports multiple units in parallel			
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB							
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA							
Efficiency		–93%							
Operating Temperature		0–40°C							
Storage Temperature		-10°C–70°C							
Humidity		20%-90% RH, non-condensing							
AC Input	Phases	Single-phase, two-wire + PE		Three-phase, three-wire + PE					
	Volt.	198–242V		340–420V					
	Freq.	47–63Hz							
	PF	0.99							
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 690 mm							
Weight (kg)		17	17	19	31	18	29	40	41

5.2 300 V Series

Model		SXN6202-300-30M	SXN6203-300-40M	SXN6205-300-60	SXN6210-300-120	SXN6215-300-180	SXN6218-300-180X
Output Range	Volt.	0–300V					
	Curr.	0–30A	0–40A	0–60A	0–120A	0–180A	0–180A
	Power	0–1.8kW	0–3kW	0–5kW	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Setting Resolution	Volt.	0.01V					
	Curr.	0.01A					
	Power	0.001kW					
Readback Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Readback Resolution	Volt.	0.01V					
	Curr.	0.01A					
	Power	0.001kW					
Ripple (20Hz–2MHz)	Vrms	50mV					
	Vpp	450mV					
Transient Response Time	Volt.	≤2ms					
Rise Time	Volt.	50ms(10%–90%)					
Line Regulation	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
Load Regulation	Volt.	≤0.05%FS					
	Curr.	≤0.15%FS					
Overvoltage Protection (OVP)		Adjustable, 0-110% FS					
Remote-Sense Compensation Voltage		6V					
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection					
Parallel Operation		Supports multiple units in parallel					
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB					
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA					
Efficiency		–93%					
Operating Temperature		0–40°C					
Storage Temperature		-10°C–70°C					
Humidity		20%-90% RH, non-condensing					
AC Input	Phases	Single-phase, two-wire + PE		Three-phase, three-wire + PE			
	Volt.	198–242V		340–420V			
	Freq.	47–63Hz					
	PF	0.99					
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm					
Weight (kg)		17	17	18	29	40	41

5.3 500 V Series

Model		SXN6202-500-20M	SXN6203-500-30M	SXN6205-500-40	SXN6210-500-80	SXN6215-500-120	SXN6218-500-120X
Output Range	Volt.	0–500V					
	Curr.	0–20A	0–30A	0–40A	0–80A	0–120A	0–120A
	Power	0–1.8kW	0–3kW	0–5kW	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Setting Resolution	Volt.	0.01V					
	Curr.	0.01A					
	Power	0.001kW					
Readback Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Readback Resolution	Volt.	0.01V					
	Curr.	0.01A					
	Power	0.001kW					
Ripple (20 Hz-2 MHz)	Vrms	70mV					
	Vpp	700mV					
Transient Response Time	Volt.	≤2ms					
Rise Time	Volt.	50ms(10%–90%)					
Line Regulation	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
Load Regulation	Volt.	≤0.05%FS					
	Curr.	≤0.15%FS					
Overvoltage Protection (OVP)		Adjustable, 0-110% FS					
Remote-Sense Compensation Voltage		25V					
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection					
Parallel Operation		Supports multiple units in parallel					
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB					
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA					
Efficiency		–93%					
Operating Temperature		0–40°C					
Storage Temperature		-10°C–70°C					
Humidity		20%-90% RH, non-condensing					
AC Input	Phases	Single-phase, two-wire + PE		Three-phase, three-wire + PE			
	Volt.	198–242V		340–420V			
	Freq.	47–63Hz					
	PF	0.99					
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm					
Weight (kg)		17	17	18	29	40	41

5.4 750 V Series

Model		SXN6202-750-10M	SXN6203-750-15M	SXN6205-750-20	SXN6210-750-40	SXN6215-750-60	SXN6218-750-60X
Output Range	Volt.	0–750V					
	Curr.	0–10A	0–15A	0–20A	0–40A	0–60A	0–60A
	Power	0–1.8kW	0–3kW	0–5kW	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Setting Resolution	Volt.	0.1V					
	Curr.	0.01A					
	Power	0.001kW					
Readback Accuracy	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
	Power	≤0.50%FS					
Readback Resolution	Volt.	0.1V					
	Curr.	0.01A					
	Power	0.001kW					
Ripple (20 Hz-2 MHz)	Vrms	200mV					
	Vpp	800mV					
Transient Response Time	Volt.	≤2ms					
Rise Time	Volt.	50ms(10%–90%)					
Line Regulation	Volt.	≤0.02%FS					
	Curr.	≤0.05%FS					
Load Regulation	Volt.	≤0.05%FS					
	Curr.	≤0.15%FS					
Overvoltage Protection (OVP)		Adjustable, 0-110% FS					
Remote-Sense Compensation Voltage		37.5V					
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection					
Parallel Operation		Supports multiple units in parallel					
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB					
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA					
Efficiency		–93%					
Operating Temperature		0–40°C					
Storage Temperature		-10°C–70°C					
Humidity		20%-90% RH, non-condensing					
AC Input	Phases	Single-phase, two-wire + PE		Three-phase, three-wire + PE			
	Volt.	198–242V		340–420V			
	Freq.	47–63Hz					
	PF	0.99					
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm					
Weight (kg)		17	17	18	29	40	41

5.5 1000 V Series

Model		SXN6210-10-1000-40	SXN6215-15-1000-60	SXN6218-18-1000-60X
Output Range	Volt.	0–1000V		
	Curr.	0–40A	0–60A	0–60A
	Power	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
	Power	≤0.50%FS		
Setting Resolution	Volt.	0.1V		
	Curr.	0.01A		
	Power	0.001kW		
Readback Accuracy	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
	Power	≤0.50%FS		
Readback Resolution	Volt.	0.1V		
	Curr.	0.01A		
	Power	0.001kW		
Ripple (20Hz–2MHz)	Vrms	350mV	380mV	380mV
	Vpp	1600mV	1800mV	1800mV
Transient Response Time	Volt.	≤2ms		
Rise Time	Volt.	50ms(10%–90%)		
Line Regulation	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
Load Regulation	Volt.	≤0.05%FS		
	Curr.	≤0.15%FS		
Overvoltage Protection (OVP)		Adjustable, 0-110% FS		
Remote-Sense Compensation Voltage		25V		
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection		
Parallel Operation		Supports multiple units in parallel		
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB		
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA		
Efficiency		~93%		
Operating Temperature		0–40°C		
Storage Temperature		-10°C–70°C		
Humidity		20%-90% RH, non-condensing		
AC Input	Phases	Three-phase, three-wire + PE		
	Volt.	340–420V		
	Freq.	47–63Hz		
	PF	0.99		
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm		
Weight (kg)		29	40	41

5.6 1500 V Series

Model		SXN6210-1500-20	SXN6215-1500-40	SXN6218-1500-40X
Output Range	Volt.	0–1500V		
	Curr.	0–20A	0–40A	0–40A
	Power	0–10kW	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
	Power	≤0.50%FS		
Setting Resolution	Volt.	0.1V		
	Curr.	0.01A		
	Power	0.001kW		
Readback Accuracy	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
	Power	≤0.50%FS		
Readback Resolution	Volt.	0.1V		
	Curr.	0.01A		
	Power	0.001kW		
Ripple (20Hz–2MHz)	Vrms	400mV	400mV	400mV
	Vpp	2400mV	2400mV	2400mV
Transient Response Time	Volt.	≤2ms		
Rise Time	Volt.	50ms(10%–90%)		
Line Regulation	Volt.	≤0.02%FS		
	Curr.	≤0.05%FS		
Load Regulation	Volt.	≤0.05%FS		
	Curr.	≤0.15%FS		
Overvoltage Protection (OVP)		Adjustable, 0-110% FS		
Remote-Sense Compensation Voltage		25V		
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection		
Parallel Operation		Supports multiple units in parallel		
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB		
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA		
Efficiency		~93%		
Operating Temperature		0–40°C		
Storage Temperature		-10°C–70°C		
Humidity		20%-90% RH, non-condensing		
AC Input	Phases	Three-phase, three-wire + PE		
	Volt.	340–420V		
	Freq.	47–63Hz		
	PF	0.99		
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm		
Weight (kg)		29	40	41

5.7 2250 V Series

Model		SXN6215-2250-20	SXN6218-2250-20X
Output Range	Volt.	0–2250V	
	Curr.	0–20A	0–20A
	Power	0–15kW	0–18kW
Setting Accuracy	Volt.	≤0.02%FS	
	Curr.	≤0.05%FS	
	Power	≤0.50%FS	
Setting Resolution	Volt.	0.1V	
	Curr.	0.01A	
	Power	0.001kW	
Readback Accuracy	Volt.	≤0.02%FS	
	Curr.	≤0.05%FS	
	Power	≤0.50%FS	
Readback Resolution	Volt.	0.1V	
	Curr.	0.01A	
	Power	0.001kW	
Ripple (20Hz–2MHz)	Vrms	600mV	
	Vpp	3200mV	
Transient Response Time	Volt.	≤2ms	
Rise Time	Volt.	50ms(10%–90%)	
Line Regulation	Volt.	≤0.02%FS	
	Curr.	≤0.05%FS	
Load Regulation	Volt.	≤0.05%FS	
	Curr.	≤0.15%FS	
Overvoltage Protection (OVP)		Adjustable, 0-110% FS	
Remote-Sense Compensation Voltage		37.5V	
Protection Functions		OVP, OCP, OPP, OTP, reverse-polarity protection for Vsense, and input overvoltage/undervoltage protection	
Parallel Operation		Supports multiple units in parallel	
Communication Interfaces (Standard)		RS232, RS485, CAN, LAN, USB	
Analog Control Interface (Optional)		Start, stop, alarm, 0-5 V, 0-10 V, or 4-20 mA	
Efficiency		~93%	
Operating Temperature		0–40°C	
Storage Temperature		-10°C–70°C	
Humidity		20%-90% RH, non-condensing	
AC Input	Phases	Three-phase, three-wire + PE	
	Volt.	340–420V	
	Freq.	47–63Hz	
	PF	0.99	
Dimensions (W x H x D, mm)		19-inch standard 3U chassis, 482 x 133.3 x 670 mm	
Weight (kg)		40	41