Make Testing More Accurate, Intelligent, and User-friendly!

BLUESiGHT
蓝 点 数 源

Bluesight Power Supply Ltd.

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BLUESiGHT
PRODUCT BROCHURE

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Contents

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BLUESIGHT - About Us

BLUESiGHT Power Supply Ltd. (hereinafter: “Bluesight”) was established in 2022, with its headquarters located in Hefei, Anhui Province. It is an international testing power supply technology company that integrates R&D, manufacturing, sales, and service, providing competitive testing products and system solutions for industries.

With a high-level, specialized technical R&D team, Bluesight produces DC and AC power supply testing equipment, fuel cell discharge systems, and ATE automated testing system solutions through independent research and development and technological innovation. These are widely applied in industries such as photovoltaic inverters, energy storage converters, electric vehicles, fuel cells, and charging station.

Bluesight always adheres to the philosophy of 'innovation-driven and customer first,' striving to become a leading global supplier of power supply testing systems, making testing more accurate, intelligent, user-friendly!

Enterprise Value

Adhering to the character and attitude of 'honest and reliable,' the working method of excellence and open-minded,' the growth path and motivation of 'innovative and respectful,' and the success goal and standard of 'customer first'.

Mission

Make Testing More Accurate, Intelligent, and User-friendly!

Vision

To become a leading global supplier of power testing systems

Research and Production

DC Source Programmable Feedback DC Source

PRODUCT FEATURES

- 3U/30KW high power density
- 0.02%FS high accuracy
- 100-μs dynamic response of voltage and current
- Adopting SiC technology, high-frequency isolation technology
- Master/parallel mode, scalability without compromising resolution
- Adopting a connector design, making integration and use more convenient
- Strong adaptability to power grid that supports normal operation of weak power grid
- Large aspect ratio touchscreen for direct control without the need for a host computer

Specifications/Model	LC30-2000-60
Output voltage	2000V
Output current	±60A
Output power	±30kW
Energy feedback	Supporting energy feedback
Isolation function	Input and output electrical isolation
AC characteristics	
Rated voltage	400Vac
Voltage range	360Vac-440Vac
Rated frequency	50Hz/60Hz
Frequency range	47Hz-63Hz
Wiring mode	Three-phase three-wire +PE
DC voltage/current	
Range of voltage regulation	0～2000Vdc
Voltage setting accuracy	≤0.02%FS
Voltage setting resolution	0.01V
Voltage display accuracy	≤0.02%FS
Voltage display resolution	0.01V
Source regulation rate	0.01%FS
Load regulation rate	0.01%FS
Remote compensation	≤40V
Voltage ripple (20Hz-20MHz)	<2400mVpp/RMS 400mV
Current regulation range	-60A~60A
Current setting accuracy	≤0.02%FS
Current setting resolution	0.01A
Current display accuracy	≤0.02%FS
Current display resolution	0.001A
Current rise time	550us (10%-90%)
Current switching time	7.6ms (-90%-90%) switching
Battery simulation function	
Battery type	Different battery types such as lithium iron phosphate, ternary lithium, and lead-acid batteries can be simulated
Parameter settings	Parameters such as battery type, number of batteries in series and parallel connection, SOC, and capacity of single battery
Display parameters	Real-time SOC curve, current capacity, current electric energy, accumulated charging/discharging energy, accumulated charging/discharging electric energy, operation time, and other parameters
IV curve simulation function	
Open-circuit voltage range	10-2000V
Short-circuit current setting	0A-60A
Types of photovoltaic panel	CSi、TF、SCMC、HEC、customized
Filling factor	0.25~0.95
IV curve function	PV scanning, tracking efficiency test, PV curve(including multiple peaks)generation, dynamic and static MPPT tests, shadow shading, cloud drift
Supporting standards	EN50530、Sandia、NB/T 32004、CGC/GF035、CGC/GF004
Programming function	
Programming groups	30 groups
Programming steps	300 steps
Programming mode	Support a multi-sequence complex output mode through steps, cycle times, mode of execution, step jump etc. for tests under complex working conditions and programming tests of various parameters of voltage, current and power
Trigger mode	Manual trigger, delay trigger
Operating mode	Constant voltage, constant current, constant power, supporting programming, battery simulation, and settable IV curve
Efficiency	~95%
Power factor	0.99
Harmonic thd	≤3%
Protection function	Overvoltage, overcurrent, undervoltage, overtemperature, fan fault,etc
Communication interface	USB、RS485、CAN、LAN、DB-26 interface
Control mode	Touch screen, upper computer
Heat dissipation mode	Forced air cooling
Operating temperature	-10℃～50℃ (derating above 40℃)
Storage temperature	-20℃～70℃
Relative humidity	≤80% (non-condensing)
(W*H*D) Structure size	440mm*132mm*671.5mm
Weight	35KG
Altitude	≤2000m

DC Source High Power Bi-Directional DC Source

PRODUCT FEATURES

- Wide DC voltage and current range
- Fast current dynamic response speed
- Supports parallel operation with multiple units of the same model
- Built-in function generator that supports arbitrary waveform generation
- Having PV I-V curve simulation
- Supporting various types of battery simulation
- Having standard USB/CAN/LAN/RS485 communication interface
- Having various protection functions(overvoltage, over-current, over-temperature, fan, under voltage protection)
- Built-in EMI filter for effective suppression of interference signals caused by high-frequency switching

Specifications/Model	LC200-2000-400
Output voltage	2000V
Output current	±400A
Output power	±200kW
Energy feedback	Supporting energy feedback
Isolation function	Input and output electrical isolation
AC characteristics	
Rated voltage	400Vac
Voltage range	360Vac-440Vac
Rated frequency	50Hz/60Hz
Frequency range	47Hz-63Hz
DC voltage/current	
Range of voltage regulation	0～2000Vdc
Voltage setting accuracy	≤0.05%FS
Voltage setting resolution	0.01V
Voltage display accuracy	≤0.05%FS
Voltage display resolution	0.01V
Voltage ripple	≤0.2%FS
Current regulation range	-400A~400A
Current setting accuracy	≤0.05%FS
Current setting resolution	0.01A
Current display accuracy	≤0.05%FS
Current display resolution	0.001A
Current rise time	≤3ms (10%-90%)
Current switching time	≤6ms (-90%-90%) switching
Battery simulation function	
Battery type	Different battery types such as lithium iron phosphate, ternary lithium, and lead-acid batteries can be simulated
Parameter settings	Parameters such as battery type, number of batteries in series and parallel connection, SOC, and capacity of single battery
Display parameters	Real-time SOC curve, current capacity, current electric energy, accumulated charging/discharging energy, accumulated charging/discharging electric energy, operation time, and other parameters
IV curve simulation function	
Open-circuit voltage range	10-2000V
Short-circuit current setting	0A-400A
Types of photovoltaic panel	CSi、TF、SCMC、HEC、customized
Filling factor	0.25~0.95
IV curve function	PV scanning, tracking efficiency test, PV curve(including multiple peaks)generation, dynamic and static MPPT tests, shadow shading, cloud drift
Supporting standards	EN50530、Sandia、NBT/32004、CGC/GF035、CGC/GF004
Programming function	
Programming steps	300 steps
Programming mode	Support a multi-sequence complex output mode through steps, cycle times, mode of execution, step jump etc. for tests under complex working conditions and programming tests of various parameters of voltage, current and power
Trigger mode	Manual, Delay
Operating mode	Constant voltage, constant current, constant power, supporting programming, battery simulation, and settable IV curve
Efficiency	~93%
Power factor	0.99
Harmonic thd	≤3%
Protection function	Overvoltage, overcurrent, undervoltage, overtemperature, fan fault,etc
Communication interface	RS485、CAN、LAN、Emergency Stop Interface
Control mode	Touch screen, upper computer
Heat dissipation mode	Forced air cooling
Operating temperature	-10℃～50℃ (derating above 40℃)
Storage temperature	-20℃～70℃
Relative humidity	0-90% (non-condensing)
(W*H*D) Structure size	1005mm*2100mm*1200mm
Weight	2200KG
Altitude	≤2000m

AC Source Feedback-type Source-load Integrated Machine

PRODUCT FEATURES

- High power density 3U up to 20kVA
- Efficient energy feedback
- Using silicon carbide(SiC) technology
- Supporting parallel operation of master and slave
- Touch screen design and simple UI interface
- Built-in abundant waveform database
- Adjustable phase angle range:0~360°
- Harmonic simulation and analysis functions up to 50times
- Simulating arbitrary waveform output and supporting CSV file import waveform
- Meeting the demand for grid connection regulation tests such as low voltage ride through, phase jump, frequency variation, and harmonic injection
- Multiple protection functions

Specifications/Model		PG20-450-105
Rated power		20kVA
Voltage range（V_rms)		0~450L-N
Frequency range（Hz)		0.01～200
Maximum three-phase current		35（A_rms)
Maximum single-phase current		105（A_rms)
Voltage range（V_DC)		±636
Current range（A_DC)		±105
Output mode		AC,DC,AC+DC,DC+AC
Operating mode		Bidirectional feedback source
Number of output phases		Three-phase, single-phase, independent three phases
AC Output		
Voltage	Set resolution（V)	0.01
	Accuracy	0.01%± 0.05%FS
	Types of waveforms	Sinusoidal wave
	DC component（mV)	<20
	Voltage distortion	<0.5%@50Hz/60Hz
		<1%@0.001Hz~200Hz
	Load regulation rate	±0.05%FS
	Source regulation rate	±0.01%FS@10%variation
	Remote regulation rate	Adaptive
	Voltage slew rate	AC>3.0V/us
Frequency	Resolution（Hz)	0.001
	Accuracy	±0.01%
Phase	Range	A=0°，B=240°，C=120°（default）；programmable range 0°～359.9°
	Accuracy	±0.1°@0.001~200Hz
	Set resolution	±0.1°
Harmonics	Times	50times @40～70Hz
	Content	≤40%
	Amplitude error	±5%@ set value or fundamental value@less than0.1%@39times
	Phase angle range	0°～359.9°
DC output		
Voltage	Set resolution (A)	0.01
	Output accuracy	0.1%+0.05%FS
	Output ripple（V_rms)	<0.35@（DC-300kHz)
	Load regulation rate	±0.05%FS
	Source regulation rate	±0.01%FS@10%variation
	Output slew rate	DC>3.0V/us
Transient		
Programming	Mode	LIST，WAVE，Advanced，Harmonic，30 groups of DST
	Minimum programming time step	1ms
	Number of programmed waveforms	100
	Synchronization source/trigger source	Internal, external
	Data source	Edit,import,export
Built-in standards	AC IEC61000	4-11，4-13，4-14，4-27，4-28
	DC IEC61000	4-17，4-29
Measured parameters		
AC voltage	Resolution（V_rms)	0.01
	Accuracy	0.01%+0.05%FS
Frequency	Resolution（Hz)	0.001
	Accuracy	±0.01%
AC current	Resolution	0.01
	Accuracy	0.1%+0.2%FS
Peak current	Resolution（A)	0.01
	Accuracy	±2%FS
Peak factor	Resolution	0.01
	Accuracy	±2%FS
Active power	Resolution（W)	1
	Accuracy	±0.2%FS
Apparent power	Resolution（VA)	1
	Accuracy	±0.2%FS
Power factor	Resolution	0.01
DC voltage	Resolution（V)	0.01
	Accuracy	±0.1%FS
DC current	Resolution（A)	0.01
	Accuracy	0.1%+0.2%FS
Input parameters		
Connection mode		Three-phase four wire ABC+PE
Frequency（Hz)		47～63
Voltage range（V)		360～440
Input peak current（A)		<1.5x rated value
Power factor		>0.99
Efficiency		>91%
Universal interface		Type-B USB、LAN、RS485
Environment		
Operating range（℃)		-10～50(derating above 40°)
Storage range（℃)		-20～70
Humidity		≤80%
Structure size（W*H*D)		440mm*132mm*671.5mm
Weight		37KG

DC Source Micro-Inverter Aging DC Source

PRODUCT FEATURES

- Four-channel independent output, supporting series/parallel operation
- Operating at full power up to 50°C, strong environmental adaptability
- Plug-and-play design, easy to integrate
- Highly grid-friendly, supporting normal operation in weak grid conditions
- Having photovoltaic I-V curve simulation
- Supporting constant voltage, constant current, and constant power
- Adopting high-frequency isolation technology for high power density

Specifications/Model	PV06-100-30-4
Output voltage	100V
Output current	30A*4
Output power	1.5kW*4
Number of output channel	4
Isolation function	High-frequency transformer isolation
AC input characteristics	
Rated voltage	400Vac
Voltage range	360Vac-440Vac
Rated current	13A
Rated frequency	50Hz/60Hz
Wiring mode	Three-phase three-wire+PE
AC output characteristics	
Range of voltage regulation	0～100Vdc
Voltage setting accuracy	≤0.1%FS+0.1%
Voltage setting resolution	0.01V
Voltage display accuracy	≤0.1%FS+0.1%
Voltage display resolution	0.01V
Current regulation range	0～30A@ single channel
Current setting accuracy	≤0.1%FS+0.1%
Current setting resolution	0.01A
Current display accuracy	≤0.1%FS+0.1%
Current display resolution	0.01A
Operating mode	Constant voltage, constant current, constant power, settable IV Curve
Efficiency	≥93%@ full load
Power factor	0.99@ full load
Harmonic thd	≤3%@ full load
Protection function	Overcurrent, overvoltage/undervoltage, overfrequency/underfrequency, overtemperature, AC imbalance, etc.
Communication interface	RS485
Control mode	Upper computer
Heat dissipation mode	Forced air cooling
Operating temperature	-10℃～60℃（derating above 50℃）
Storage temperature	-30℃～70℃
Relative humidity	0-95%（non-condensing）
Structure size（W*H*D）	420mm*66mm*620mm（No mounting ears）
Weight	17KG
Altitude	≤2000m

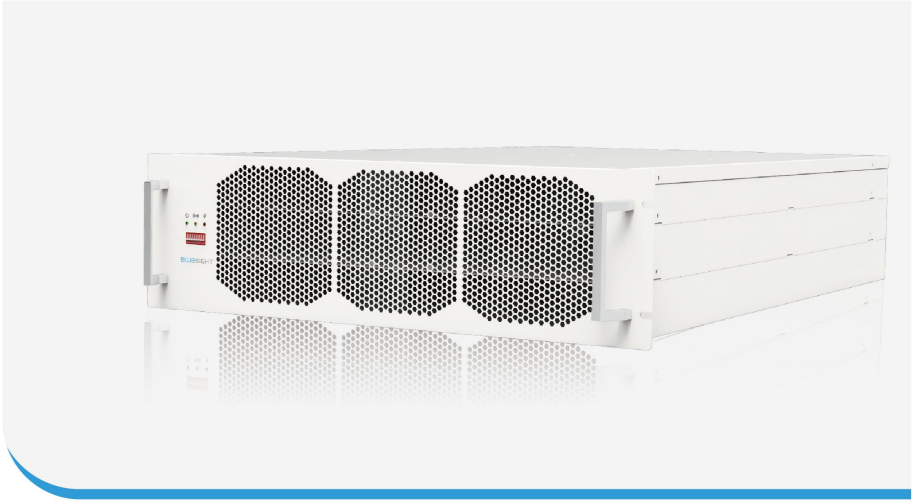
DC Source Unidirectional DC Source

PRODUCT FEATURES

- Adopting high-frequency isolation technology, Supporting constant voltage and constant current automatically switching
- Supporting multi-unit parallel operation, easy power expansion and low harmonic
- Having photovoltaic I-V curve simulation
- Strong adaptability to power grid that supports normal operation of weak power grid
- Having various protection functions(OVP, OCP, OPP, overtemperature, fan default protection)
- Having standard CAN/RS485 communication interfaces

Specifications/Model	PV30-1500-40	PV30-1500-60	PV180-1500-40-6	PV180-1500-60-6
AC characteristics				
Rated voltage	400Vac			
Voltage range	360Vac-440Vac			
Rated frequency	50Hz/60Hz			
Frequency range	47Hz-63Hz			
Power factor	> 0.99@rated power			
THD	≤3%@maximum current			
DC characteristics				
Voltage regulation range	0～1500Vdc			
Current regulation range	0～40A	0～60A	0～240A	0～360A
Power regulation range	0～30KW		0～180KW	
Voltage setting accuracy	≤0.1%FS			
Voltage setting resolution	0.1V			
Voltage display accuracy	≤0.1%FS			
Voltage display resolution	0.1V			
Current setting accuracy	≤0.1%FS			
Current setting resolution	0.1A			
Current display accuracy	≤0.1%FS			
Current display resolution	0.1A			
DC Ripple	Ripple voltage peak factor < 0.5%			
Other				
Efficiency	≥93%			
Protection	Undervoltage, overvoltage, phase loss, three-phase imbalance, short-circuit protection, overtemperature protection, fan failure			
Operating temperature	-10℃～45℃			
Humidity	0-95% (non-condensing)			
Storage temperature	-20℃～70℃			
Control mode	Upper computer control			
Heat dissipation mode	Forced air cooling			
Isolation mode	High frequency isolation			
Communication interface	RS485、CAN			
Structure size (W*H*D)	410mm*220mm*630mm		1000mm*1700mm*800mm	
Weight	≤45KG		400KG	

DC Source Unidirectional DC Source



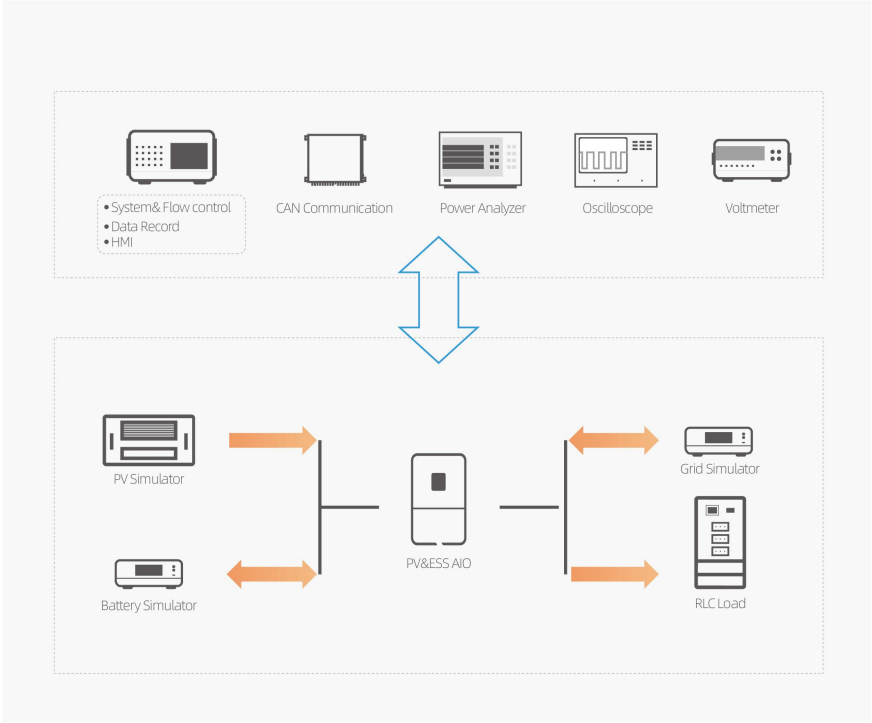
PRODUCT FEATURES

- Operating at full load between 250V to 1000V
- Adopting a dual relay solution for the AC input , complying with safety regulations
- Three-channel independent output, supporting parallel operation
- Plug-and-play design, easy to integrate
- Having photovoltaic I-V curve simulation
- Supporting constant voltage, constant current, and constant power
- Adopting high-frequency isolation technology for high power density

Specifications/Model	PV60-1000-40-3
Output voltage	1000V
Output power	20kW*3
Number of output channel	3
Isolation function	High-frequency transformer isolation
AC input characteristics	
Rated voltage	400Vac
Voltage range	360Vac-440Vac
Maximum input current of single channel	35A
Number of input channel	3
Rated frequency	50Hz/60Hz
Wiring mode	Three-phase three-wire+PE
DC output characteristics	
Range of voltage regulation	Low voltage mode：200～450 Vdc
	High voltage mode：450~1000Vdc
Voltage setting accuracy	≤0.5%FS
Voltage setting resolution	0.1V
Voltage display accuracy	≤0.5%FS
Voltage display resolution	0.1V
Current regulation range	Low voltage mode：0~80A@ single channel
	High voltage mode：0~40A@ single channel
Current setting accuracy	≤0.5%FS
Current setting resolution	0.1A
Current display accuracy	≤0.5%FS
Current display resolution	0.1A
Operating mode	Constant voltage, constant current, constant power, settable IV Curve
Efficiency	95%@full load
Power factor	0.99@ full load
Harmonic thd	<5%@full load
Protection function	DC-short circuit, overcurrent, overvoltage/undervoltage, overfrequency/underfrequency, overtemperature, AC imbalance, etc.
Communication interface	RS485
Control mode	Upper computer
Heat dissipation mode	Forced air cooling
Operating temperature	-10℃～60℃（derating above 45℃）
Storage temperature	-30℃～70℃
Relative humidity	0-95%（non-condensing）
Structure size（W*H*D）	440mm*146mm*720mm（No mounting ears）
Weight	52KG
Altitude	≤2000m

Solutions ATE (Automated Testing Equipment)

The ATE automated testing system offers comprehensive automated testing solutions for a variety of products, including photovoltaic inverters, energy storage converters, charging piles, and on-board chargers. It is mainly used to test whether the functions and performance of these products meet design requirements and related standards. The entire system comprises DC sources, AC source simulation devices, various analytical instruments, and the host computer testing system. During the entire testing process, the host computer system performs procedural testing according to pre-selected test items, automatically records test data, analyzes the data, and generates reports with a single click, truly achieving full automation in testing. This greatly enhances testing efficiency, saving time and reducing costs for equipment manufacturers and testing organizations.



Application Cases

• Inverter production line test platform of S company

· Testing platform of a testing organization in GZ

· Testing platform of a testing organization in Suzhou

· Testing platform of a new energy company in Suzhou

· Testing platform of a new energy company in Ningbo

· Testing platform of a new energy company in Hefei

• Testing platform of a testing organization in Shenzhen