Frequency Power

LP	1/ 3	1/ 3	5K
LA Series Frequency Power	Input phase	Output phase	Capacity: 5KVA

Product Overview

Langrui Electric's LP series variable frequency power supplies, developed and manufactured by the company, utilize a microprocessor as the core, employing PWM technology and sine pulse width modulation techniques. Single-unit capacities range from 500VA to 1000KVA, and the output can simulate different voltages and frequencies worldwide, meeting the load requirements of various industries. The power supply features an isolated transformer output, ensuring safety and reliability while enhancing overall system stability. It boasts strong load adaptability, excellent output waveform quality, simple operation, compact size, and light weight. It also includes comprehensive protection functions against short circuits, overcurrent, overvoltage, and overheating to guarantee reliable operation.

Product Description

The LP series variable frequency power supply is primarily designed to convert mains power into the required voltage and frequency through a power conversion circuit. Its main features include providing a clean and reliable sinusoidal power output, low harmonic distortion, and high frequency and voltage stability. It can simulate the output characteristics of different voltages and frequencies worldwide, covering the needs of the entire industry. It fully meets the requirements of engineers in applications such as design and development, production line testing and quality assurance product testing, lifespan testing, overvoltage/undervoltage simulation testing, and power supply for imported equipment and production lines.

Technical features:

The inverter core uses original German Infineon inverter modules, and the drive protection uses original German Infineon chips, ensuring reliable operation of the IGBTs.

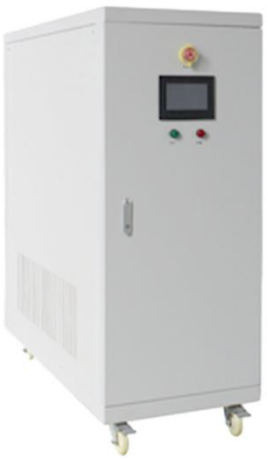
The power devices are rationally applied, providing strong load capacity, and can operate continuously at 100% load.

It features fast dynamic response, with a voltage drop of less than 1% under sudden load changes, and a response time of less than 2ms.

The power supply and meter are integrated, offering simple and convenient operation, with high-precision LED digital display of voltage, current, frequency, and power.

It allows for rapid adjustment of output voltage and frequency. The output adjustment range is wide, with a low-voltage range of 0-150V continuously adjustable and a high-voltage range of 0-300V continuously adjustable.

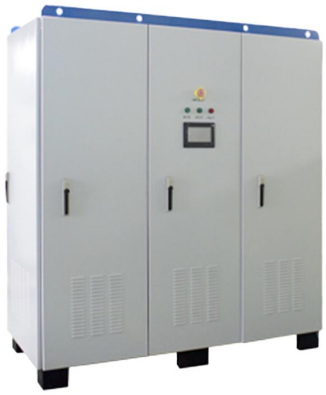
It has comprehensive protection and fault alarm and display functions. It features a fuse-less input switch, and the electronic circuit quickly detects input undervoltage, output overvoltage, overcurrent, overload, overtemperature, and short circuits, providing rapid protection, issuing alarms, and displaying faults.



Single-phase variable frequency power supply technical parameters

Power supply model			LP11					LP31		
			0.5k	2k	3k	5k	10k	15K	60K	100K
Circuit type			IGBT/PWM pulse width modulation method							
Enter	Ph.Num		1-phase					3-phase		
	Volt		220V±10%					380V±10%		
	Freq		50Hz/60Hz ±10%							
Output	Ph.Num		1 phase							
	Wfm		Pure sine wave							
	Voltage	Low range	0-150V							
		High range	0-300V							
	PSVR		≤1%							
	LVR		≤1%							
	Freq		50Hz, 60Hz, 40Hz-60Hz adjustable							
	Freq.Stab		≤0.01%							
	Current	Low range	4.2A	16.8A	24A	42A	84A	125A	500A	840A
		High range	2.1A	8.4A	12A	21A	42A	63A	250A	420A
	Wfm.Dist		THD ≤ 3%							
	Eff		≥94% (100% load)							
	Resp.Time		≤2ms							
Display			7-inch LCD touchscreen display showing voltage, current, frequency, power, and power factor							

Cooling method		Fan cooling
Output protection		Complete protection functions and alarm devices for overvoltage, overcurrent, short circuit, and overheating
Env	Ins.Res	DC ≥ 500V 10MΩ
	Withst.Volt/Ins	AC 1800V 5mA/1 minute
	Op.Temp	-10°C to 45°C
	RH	0-90% (non-condensing)
	Alt	≤1000 meters



Three-phase variable frequency power supply technical parameters

Power supply model			LP33				
			6K	20K	75K	100K	150K
Circuit type			IGBT/PWM pulse width modulation method				
Enter	Ph.Num		3-phase				
	Volt		380V±10%				
	Freq		50Hz/60Hz ±10%				
Output	Ph.Num		3-phase (can be configured as 3-phase 4-wire or 3-phase 3-wire upon request)				
	Wfm		Pure sine wave				
	Voltage	Phase voltage	Low range: 0-150V adjustable; High range: 0-300V adjustable				
		Line current	Low range: 0-260V adjustable; High range: 0-520V adjustable				
	PSVR		≤1%				
	LVR		≤1%				
	Freq		50Hz, 60Hz, 40Hz-60Hz adjustable				

	Freq.Stab		≤0.01%				
	Current	Low range	16.8K	56K	208A	276A	420A
		High range	8.4K	38K	104A	138A	210A
	Wfm.Dist		THD ≤ 3%				
	Eff		≥94% (100% load)				
	Resp.Time		≤2ms				
Display			7-inch LCD touchscreen display showing voltage, current, frequency, power, and power factor				
Cooling method			Fan cooling				
Output protection			Complete protection functions and alarm devices for overvoltage, overcurrent, short circuit, and overheating				
Env	Ins.Res		DC ≥ 500V 10MΩ				
	Withst.Volt/Ins		AC 1800V 5mA/1 minute				
	Op.Temp		-10°C to 45°C				
	RH		0-90% (non-condensing)				
	Alt		≤1500 meters				

Three-phase variable frequency power supply technical parameters

Power supply model		LP33				
		300K	450K	500K	600K	800K
Circuit type		IGBT/PWM pulse width modulation method				
Enter	Ph.Num	3-phase				
	Volt	380V±20%				

	Freq		50Hz/60Hz ±20%				
Output	Ph.Num		3-phase (can be configured as 3-phase 4-wire or 3-phase 3-wire upon request)				
	Wfm		Pure sine wave				
	Voltage	Phase voltage	Low range: 0-150V adjustable; High range: 0-300V adjustable				
		Line current	Low range: 0-260V adjustable; High range: 0-520V adjustable				
	PSVR		≤1%				
	LVR		≤1%				
	Freq		50Hz, 60Hz, 40Hz-60Hz adjustable				
	Freq.Stab		≤0.01%				
	Current	Low range	834K	1200K	1360A	1600A	2100A
		High range	417K	600K	680A	800A	1050A
	Wfm.Dist		THD ≤ 3%				
	Eff		≥94% (100% load)				
	Resp.Time		≤2ms				
Display			7-inch LCD touchscreen display showing voltage, current, frequency, power, and power factor				
Cooling method			Fan cooling+				
Output protection			Complete protection functions and alarm devices for overvoltage, overcurrent, short circuit, and overheating				
Env	Ins.Res		DC ≥ 500V 10MΩ				
	Withst.Volt/Ins		AC 1800V 5mA/1 minute				
	Op.Temp		-10°C to 45°C				
	RH		0-90% (non-condensing)				
	Alt		≤1500 meters				

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