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*Ideal Power Solution*

## HVLP Series High Voltage Linear Power Supply

- Power range: 10 ~ 400KW
- Voltage range: 800V ~ 50KV
- Current range: 10mA ~ 500A
- Precise voltage and current setting and measurement capabilities
- OVP, OCP, OTP and short circuit protections etc.
- Nearly 200 types of output specifications are available.



### Overview

HVLP series Linear High Voltage Power Supplies are High-voltage DC power supplies that achieve AC/DC conversion through power frequency transformers and transistor loop control. Compared with switching high voltage power supplies, linear high-voltage power supplies have higher stability, higher accuracy, and lower output ripple. And the most important, because of the use of the power frequency AC/DC conversion principle, the linear power supply has no high-frequency radiation interference, and it is especially suitable for use in places with restrictions on EMC and EMI.

The HVLP series linear power supplies have a wide range of output specifications, the output power ranges from 1KW to 400KW, and the output voltage can reach up to 50KVDC, and accept customization.

The whole series linear power supply adopts industrial-grade metal chassis, pure copper AC/DC multi-insulation high-voltage transformer with varnish treatment, high-



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reliability multi-transistor filter loop, ensuring the power supplies can run for a long time at full load with high stability, high accuracy, and ultra-low ripple electronic characteristics, equipped with a complete protection circuit, which can better ensure the reliability of the linear power supply itself and the safety of the customer's load.

The output voltage and current can be adjusted by the 10-turn potentiometer with scale and lock on the front, equipped with 4 1/2-digit high-resolution LED meters for output value reading, and RS communication interface can also be added for remote control and monitoring of linear power supplies.

## Features

- Over 200 models, output voltage: 800V ~ 50KV, output current: 0 ~ 500A, output power: 10KW-400kW
- Constant voltage mode and constant current mode, automatic switchable, output voltage / current continuously adjustable from 5% to 100% rated value.
- Over voltage protection: Over voltage value continuously adjustable from 0 to 110% rated value, auto-shut down when output voltage exceeds the over voltage set point
- Short protection: Withstand short-circuit under start-up or any working modes, sound & light alarm when output has short. (<6KV)
- Auto-tripping when short-circuit and sound & light alarm (>6KV)
- Over load protection: Auto-tripping when power supply or load has fault and output current exceeds 1.5 times of rated value.

## Application

- Institutes, university HV tests
- HV electronics component burn-in test, gas discharging test
- Klystron, magnet tube, electronic gun driving.
- HV capacitor charging
- Other conditions need HV output.

## Optional functions

- Short alarm: sound & light alarm when output short-circuits.
- Automatic off-load and discharging: when power supply shutdown, power supply will

automatically cut off load and discharge electric in load for safety.

- Output display: Voltage & current both LED digital display.
- Pulsing working: could add time controller to be pulsing power supply.
- Communication port: RS232/RS485 for connection with computer to be remote controlled & monitored by computers.
- Analog signal: 0 ~ 5V (10V) or 4 ~ 20mA analog signal for output voltage & current control.

Specifications			
Input	Voltage		Single-phase 220Vac±10% (≤3KW) Three-phase 380Vac±10% (>3KW)
	Frequency		50Hz±10%
Output	Output modes		DC C.C. / C.V.
	Rated power		*** kW
	Output voltage		0V ~ *****V
	Output current		0A ~ ***A
	Output grounding mode		(Grounding: two optional modes, default configuration is negative high-voltage, positive grounding) 1. Positive high-voltage, negative grounding 2. Negative high-voltage, positive grounding
	Accuracy (C.V.)	Line regulation	≤0.1% Of the rated value (output voltage change ratio under input ±10% change)
		Stability	during 8 hrs≤0.3% of the rated value (output voltage change ratio due to 8 hours continuously working)
		Temp. coeff.offset	≤0.04% of the rated value/°C(output voltage change ratio due to environment temperature changes)
		Load regulation	≤0.3% of the rated value (output voltage change ratio due to output current change from 0 to rated value)
	Accuracy (C.C.)	Line regulation	≤0.1% Of the rated value (output current change ratio under input ±10% change)
		Stability	during 8 hrs≤0.3% of the rated value(output current change ratio due to 8 hours continuously working)
		Temp. coeff.offset	≤0.04% of the rated value/°C(output current change ratio due to environment temperature changes)
		Load regulation	≤0.3% of the rated value (output current change ratio due to output voltage change from 0 to rated value)

	Ripple +noise (RMS)		Positive high-voltage, negative grounding: ≤0.2% of the rated value+10mV (80%~100% rated output) Negative high-voltage, positive grounding: ≤0.1% of the rated value+10mV (80%~100% rated output)
	Efficiency		≥75% (measured @ 80%-100% resistive loading)
	Working ability		Withstand long-term continual working.
Setting & Display	Control mode		10-turn Potentiometer (with-lock)
	Display mode		4½ Digital LED
	Display error	Voltage	≤±1%±1digit (range:5%~50% of the rated value)
		Current	≤±0.5%±1digit (range:50%~100% of the rated value)
	Display resolution	Voltage	Four-digit display with a minimum resolution of 0.1V / 1V (As per rated output values)
		Current	Four-digit display with a minimum resolution of 0.01A / 1mA (As per rated output values)
Load characteristic			On demand
Protection & Monitoring functions	Input protection		Input lack voltage and lack phase protection. (available for three-phase input)
	Output over voltage protection (OVP)		Power supply automatically cuts off output and alarms when output has over voltage.
	Output over current protection (OCP)		Power supply automatically cuts off output and alarms when the output has over current.
	Over temperature protection (OTP)		Power supply automatically cuts off output and alarms when the internal temperature of the power supply exceeds 85 °C.
	Output short-circuit protection		Power supply automatically cuts off output and alarms when power supply output has short-circuited.
Noise			≤65 ~ 75dB
Protection degree			IP20
Cooling method			Forced air cooling
Working conditions	Ambient temperature		-10℃ ~ 40℃
	Humidity		10% ~ 80%(non-condensing)
	Height		≤1000m
Accessories			Fuse * 1 set High-voltage output line * 1pc Operation manual * 1pc
<ul style="list-style-type: none"><li>Input Voltage: Power source voltage can be changed to others on request.</li><li>Custom-made specifications are on request.</li></ul>			