

High Voltage DC Power Supply



Introduction

The UPH series are high power output Switching DC power supply with rated power of **500W** to 8KW. The UPH series adopts ZVZCS PWM technology, which greatly reduces switching consumption and therefore facilitates switching function with high efficiency and high stability.

The UPH series are built into a 2U 19-inch standard chassis. The maximum rated voltage is from +1000V to **+30KV**. There is option for negative output from -1000V to **-30KV**. RS232 and RS485 communication interfaces are made as standard part for UPH series, providing multiple communication choices for digital control.

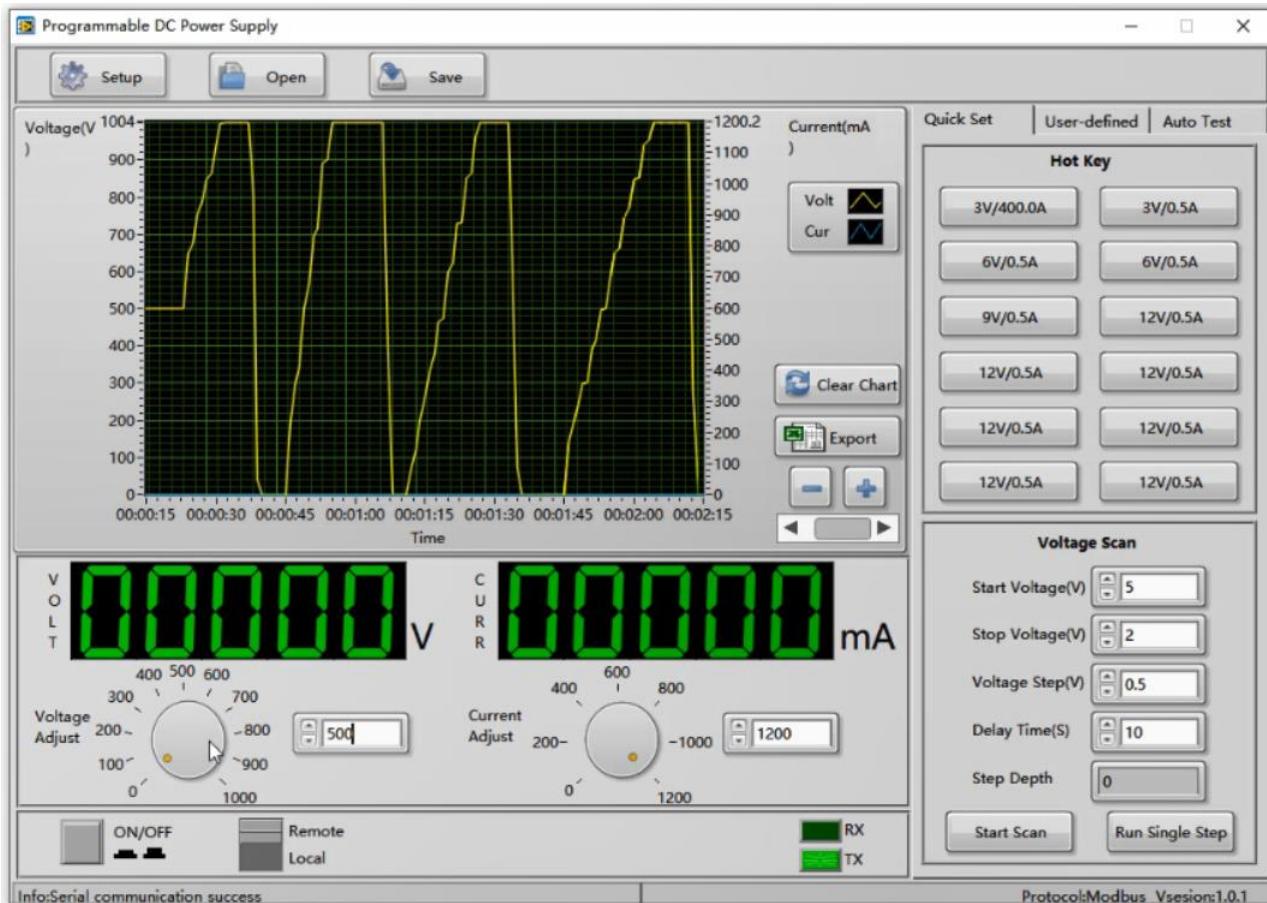
Features

- ✓ Adopting ZVZCS PWM technology, high efficiency and high stability
- ✓ Max.rated output **500W** to 8KW
- ✓ Max.rated voltage from +1000V to **+30KV**
- ✓ Option for negative output from -1000V to **-30KV**
- ✓ Constant voltage and constant current operations, auto CV/CC switch
- ✓ Built into 2U 19-inch standard chassis
- ✓ Thermostatic control fan, low noise
- ✓ Low ripple, high stability
- ✓ No overshoot during startup
- ✓ List mode function, Auto Run function
- ✓ Preset function, setting of voltage and current with output open circuit
- ✓ Front panel operation: preset voltage and current, output ON/OFF
- ✓ Multiple protections: OVP, OTP, UVP and current limit protections
- ✓ Multiple programming interfaces: RS232, RS485
- ✓ Support ModBus-RTU commands

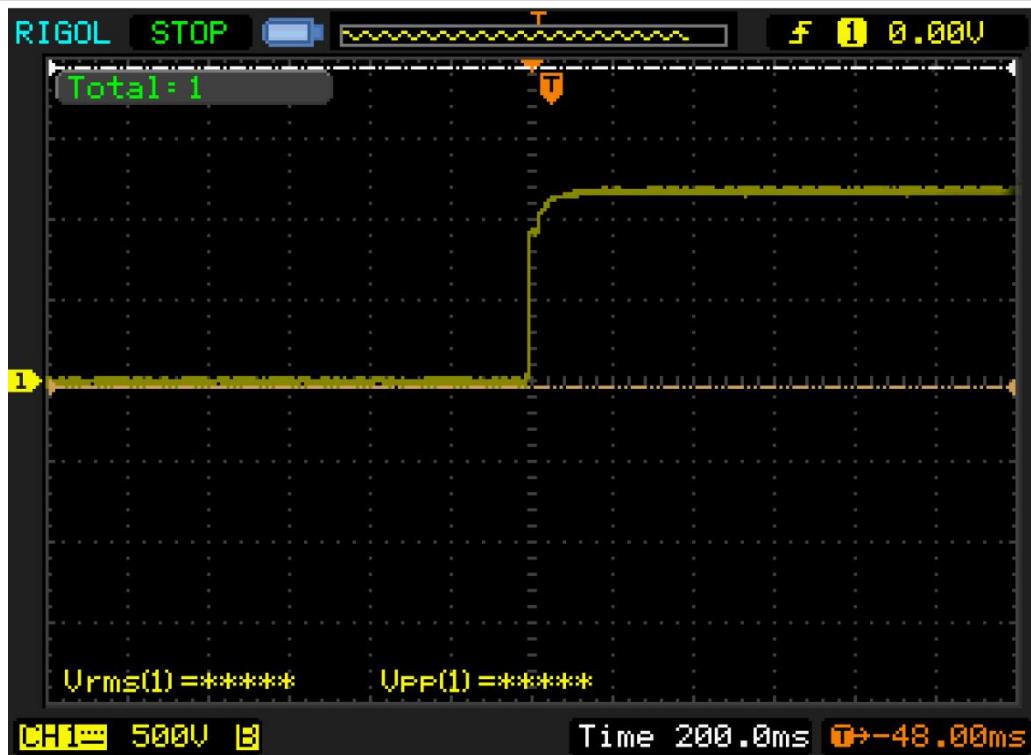
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Free PC Software

Multiple remote control and sampling functions. Such as: voltage & current setup, voltage & current feedback, data recording, export data to EXCEL, List mode function, auto run function. **Adjustable voltage rise time.**

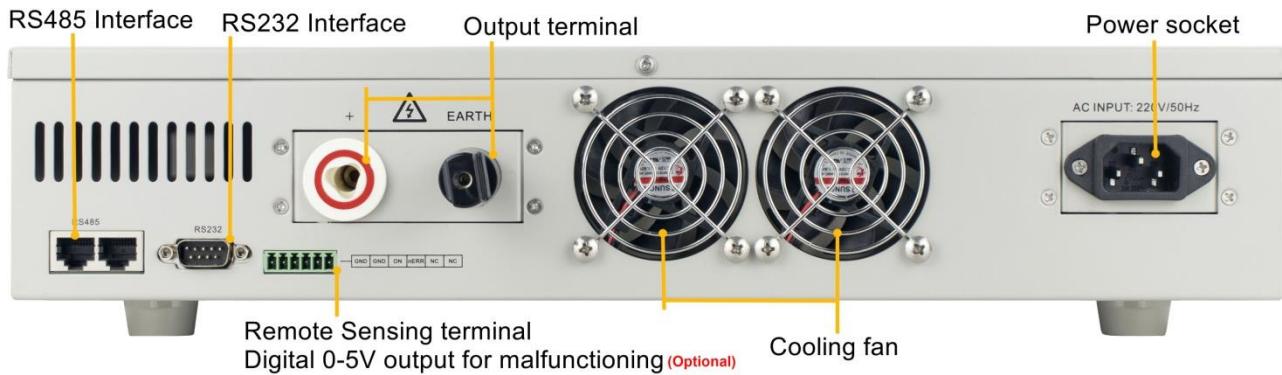
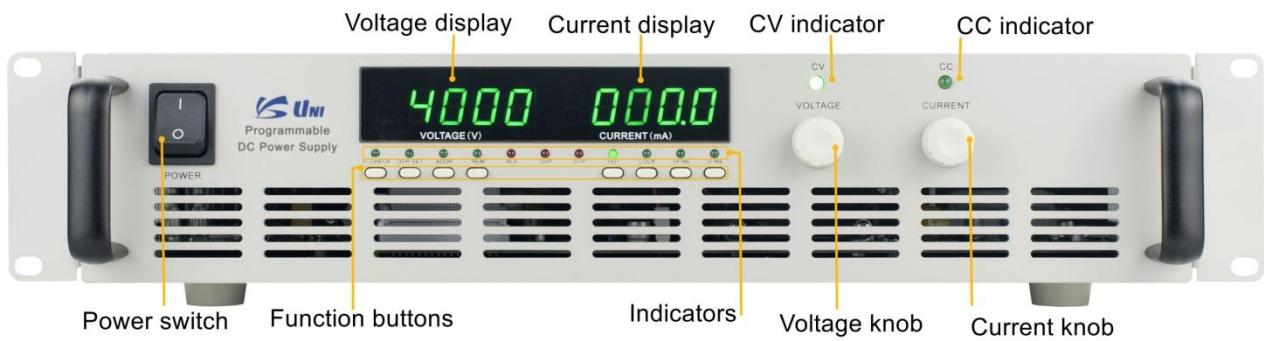


No overshoot



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Panel Descriptions (2U frame)



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Product Photos (1/2 2U frame for 600W, Max 3kV)



Product Photos (2U frame for 600W~5kW)



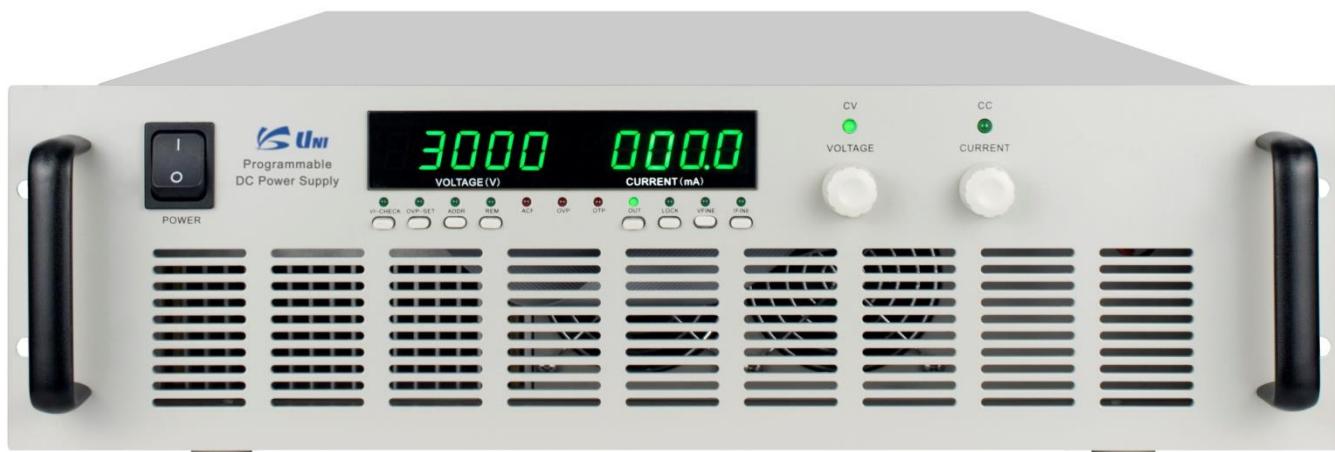
(220Vac input for 600W ~ 2.4kW)



(380Vac input for 2.4kW ~ 5kW)

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Product Photos (3U frame for 6kW~8kW)



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Specifications

Output		
Rated Voltage		Full range adjustable
Rated Current		Full range adjustable
OVP Range		Up to 105% of rated voltage adjustable
Line Regulation		$CV \leq 0.5\% + 2LSB$, $CC \leq 0.5\% + 2LSB$
Load Regulation		$CV \leq 0.1\% + 2LSB$, $CC \leq 0.1\% + 2LSB$
Ripple & Noise		$\leq 0.05\% FS$, $\leq 0.1\% FS$
Programming		
Programming	Voltage	1V
Resolution	Current	0.01mA / 0.1mA / 1mA
	OVP	1V
Interface		RS232, RS485
Commands		ModBus-RTU
Display		
Meter	Voltage	4 digits LED display for 1000V to 8000V, 5 digits LED display for 10000V to 30000V
	Current	4 digits LED display
Display	Voltage	1V
Resolution	Current	0.01mA / 0.1mA / 1mA
Display	Voltage	$\leq 0.2\%FS + 2LSB$
Accuracy	Current	$\leq 0.5\%FS + 2LSB$
Protection		
Over Voltage Protection (O.V.P.)		Built-in OVP protection with limit of 105% rated output voltage. The output will be shut down when OVP is activated.
Over Temperature Protection (O.T.P.)		Built-in OTP protection with heat sink temperature limit of $50^{\circ}\text{C} \pm 5\%$. The output will be shut down when OTP is activated.
Under Voltage Protection (U.V.P.)		Built-in UVP protection with limit of 165Vac. The output will be shut down when UVP is activated.
General		
Cooling method		Cooling fan
Operating environment		$0^{\circ}\text{C} \sim 40^{\circ}\text{C}$, 10%~80%RH
Storage environment		$-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$, 10%~90%RH

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Model (8000W)	Rated Output			Voltage Ripple	Programming Resolution			Display Resolution	
	V	A	OVP		V	A	OVP	V	A
UPH8000-10H	0~1000V	0~8000mA	0~1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-10HN	-200~ -1000V	0~8000mA	-200~ -1050V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-12H	0~1200V	0~6670mA	0~1260V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-12HN	-240~ -1200V	0~6670mA	-240~ -1260V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-15H	0~1500V	0~5330mA	0~1575V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-15HN	-300~-1500V	0~5330mA	-300~ -1575V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-20H	0~2000V	0~4000mA	0~2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-20HN	-400~ -2000V	0~4000mA	-400~ -2100V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-30H	400~3000V	0~2660mA	400~3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-30HN	-600~ -3000V	0~2660mA	-600~ -3150V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-40H	550~4000V	0~2000mA	550~4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-40HN	-800~ -4000V	0~2000mA	-800~ -4200V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-50H	700~5000V	0~1600mA	700~5250V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-50HN	-1000~ -5000V	0~1600mA	-1000~ -5250V	≤0.1% FS	1V	1mA	1V	1V	1mA
UPH8000-60H	800~6000V	0~1330mA	800~6120V	≤0.1% FS	1V	0.1mA	1V	1V	1mA
UPH8000-60HN	-1200~ -6000V	0~1330mA	-1200~ -6120V	≤0.1% FS	1V	0.1mA	1V	1V	1mA
Dimensions	482.6Wx132.5Hx533D mm (3U)								
Weight	Approx 22kg								
AC Input	3φ4W, 380V±10% 47~63Hz								

For the purpose of product improvement, specifications are subject to change without prior notice.