

HDP4000 Series Programmable Linear power supply



- Four-channel programmable linear DC regulated power supply, 245W output power, electrical isolation between channels, four channels continuously adjustable.
- 4.3-inch color display, real-time display voltage/current/power values and waveform, which makes the output status and trend clear at a glance.
- High resolution: 1 mV, 1 mA.
- Low ripple noise: < 350 μ Vrms / 2 mVpp.
- Transient response time: $\leq 50\mu$ s.
- Over voltage/over current/over temperature/short circuit protection functions. The over voltage and over current parameters can be flexibly set to achieve effective load protection.
- Intelligent temperature control fan automatically adjusts the speed, effectively reducing fan noise.
- The use of color and numeric identifiers makes it easy for users to identify information relevant to the output of a particular channel.
- Provide 10 groups of storage for sequence/delay/record/panel condition settings.
- List function. By editing the single-step voltage, current, time, list function can generate a variety of complex sequences to meet the complicated test requirements.
- Recorder function. The recorder can record the output voltage, current and power, and display them by graph.
- Keyboard lock function to prevent misoperation.
- Support SCPI remote command control
- Support U disk (FAT32 format, Flash) storage, one-click screenshot and data recording function.
- Standard configuration ports: USB HOST, USB DEVICE, LAN, digital I/O interface, RS232/RS485 (HDP4324B/HDP4424B), GPIB (HDP4324H/HDP4424H).

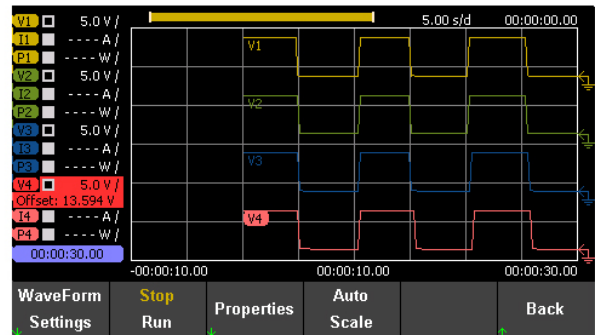


Excellent industrial design

A perfect combination of art and technology. Not only beautiful and fashionable, but also durable, accurate and stable.

4.3-inch color display

The set values and actual output values of the four channels are displayed on the same screen which makes users clear at a glance. Built-in $V \setminus A \setminus W$ value and waveform display make the change trend all in control.



List and data recording functions

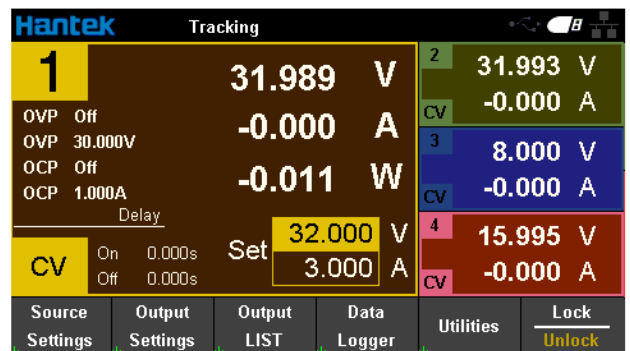
The list and data recording functions generate a variety of complex sequences by editing the single-step voltage, current and time to meet the complex test requirements, and record the actual voltage, current and power data of each step through the data recording function, and also generate waveform diagrams.

Output1 - Output LIST						Running
Step	Voltage	Current	Time	BOST	EOST	
0	15.000	1.500	1.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1	12.000	1.500	1.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	10.000	1.500	1.000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	8.000	1.500	1.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	6.000	1.500	1.000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	4.000	1.000	1.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	2.000	1.000	1.000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	0.000	0.100	1.000	<input type="checkbox"/>	<input type="checkbox"/>	

Buttons: Stop, Run, Add, Delete, Clear All, Properties, Back

Low ripple noise, low load regulation rate, fast transient response

Low ripple noise: $< 350 \mu\text{Vrms} / 2 \text{ mVpp}$, meets the demand of high purity power supply. Low load regulation rate: Voltage: $\leq 0.01\% + 2\text{mV}$, current: $\leq 0.01\% + 250\mu\text{A}$, calmly copes with the change of load. Fast transient response time: $\leq 50\mu\text{s}$, meets the needs of rapid voltage change.



Over voltage, over current, over temperature protection functions

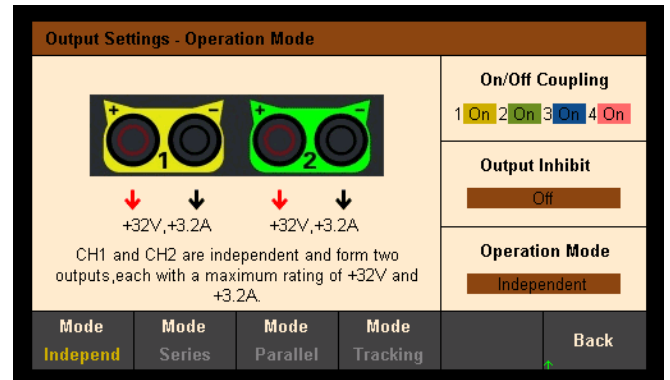
Provides the overvoltage and overcurrent protection functions. You can flexibly set the overvoltage and overcurrent parameters to effectively protect loads.

Output 1 - Source Settings			
Voltage	32.100 V	OCP State	On
Current	0.050 A	OVP State	On
OV Protection	30.000 V	OCP Protection	1.000 A

1	-0.003 V	2	-0.003 V	3	0.000 V
OFF	-0.000 A	OFF	-0.000 A	OFF	0.001 A
OCP State	Off On	OVP State	Off On		Back

Four modes: independent, series, parallel, tracking

The series and parallel functions can combine two power supplies into one power supply to obtain double voltage or current, expanding the applicable range and flexibility of the power supply.



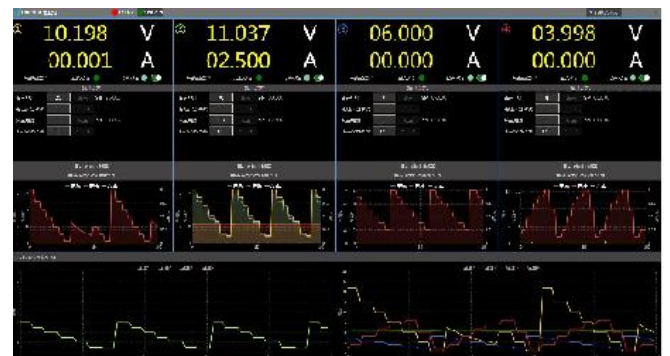
Rich interface configurations

USB HOST, USB DEVICE, LAN, 4-line digital I/O interface; RS232/RS485 (HDP4324B/HDP4424B); GPIB (HDP4324H/HDP4424H); Support U disk (FAT32 format, Flash) storage; Support SCPI remote command control.



Convenient computer connection

Plug and play, safe and stable, provide free secondary development instructions, making it easy to form an automatic test system.



Model	Channel	Total power	Output	Resolution	Noise	Load regulation rate	Power regulation rate	Screen	Standard interface
HDP4324	3CH	245W	32V/ 3.2A, 32V/3.2A, 8V/5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN
HDP4324B	3CH	245W	32V/ 3.2A, 32V/3.2A, 8V/5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN, RS232, RS485
HDP4324H	3CH	245W	32V/ 3.2A, 32V/3.2A, 8V/5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN, RS232, RS485, GPIB
HDP4424	4CH	245W	32V/3.2A, 32V/3.2A, 8V/2A, 16V/1.5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN
HDP4424B	4CH	245W	32V/3.2A, 32V/3.2A, 8V/2A, 16V/1.5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN, RS232, RS485
HDP4424H	4CH	245W	32V/3.2A, 32V/3.2A, 8V/2A, 16V/1.5A	1 mV, 1 mA	<350 μ Vrms / 2mVpp	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A;	Voltage: \leq 0.01% + 2mV; Current: \leq 0.01% + 250 μ A	4.3 inch TFT	USB HOST, USB DEVICE, Digital I/O, LAN, RS232, RS485, GPIB

Dc output (0°C ~ 40°C)			
Channel		voltage	current
HDP43XX	CH1	32V	3.2 A
	CH2	32V	3.2 A
	CH3	8V	5A

HDP44XX	CH1	32V	3.2 A		
	CH2	32V	3.2 A		
	CH3	8V	2A		
	CH4	16V	1.5 A		
Series-parallel output					
Channel		Series	parallel		
HDP43XX	CH1	64 v, 3.2 A	32 v, 6.4 A		
	CH2				
	CH3	-	-		
HDP44XX	CH1	64 v, 3.2 A	32 v, 6.4 A		
	CH2				
	CH3	-	-		
	CH4	-	-		
Load regulation rate \pm (output percentage + bias)					
Voltage	< 0.01% + 2 mV				
Current	< 0.01% + 250 μ A				
Linear regulation rate \pm (output percentage + bias)					
Voltage	< 0.01% + 2 mV				
Current	< 0.01% + 250 μ A				
Ripple and noise (20Hz ~ 20MHz)					
Norm voltage	< 350 μ Vrms/ 2 mVpp				
Accuracy (25°C \pm 5°C) \pm (output percentage + bias)					
Channel		programming		read-back	
		voltage	current	voltage	current
HDP43XX	CH1	0.05% + 10 mV	0.2% + 5 mA	0.05% + 10 mV	0.2% + 5 mA
	CH2				
	CH3	0.1% + 5 mV	0.1% + 10 mA	0.1% + 5 mV	0.1% + 10 mA
HDP44XX	CH1	0.05% + 10 mV	0.2% + 5 mA	0.05% + 10 mV	0.2% + 5 mA
	CH2				
	CH3	0.1% + 5 mV	0.1% + 10 mA	0.1% + 5 mV	0.1% + 10 mA
	CH4				
Transient response time					
The time for the output current changing from full load to half load, or from half load to full load, and the output voltage returning to 15mV is less than 50 μ s.					
Machinery					
Size	232*153*392 mm				
Weight	HDP43XX	9.15 Kg			

	HDP44XX	9.45 Kg
Power supply		
Ac input (50Hz to 60Hz)	100Vac±10%, 115Vac±10%, 230Vac±10% (Max. 250Vac)	
Maximum input power	600VA	
Environment		
Cooling method	Air cooling	
Working temperature	0 °C to 50 °C	
Storage temperature	- 40 °C ~ 70 °C	
Humidity	0°C to 30°C : ≤95% relative humidity	
	30°C to 40°C : ≤75% relative humidity	
	40 ° C to 50 ° C: ≤45% relative humidity	
Altitude	Below 3000 metres	