UNI-T

Test & Measurement Instruments

UDP4303S

New Product

UDP4303S

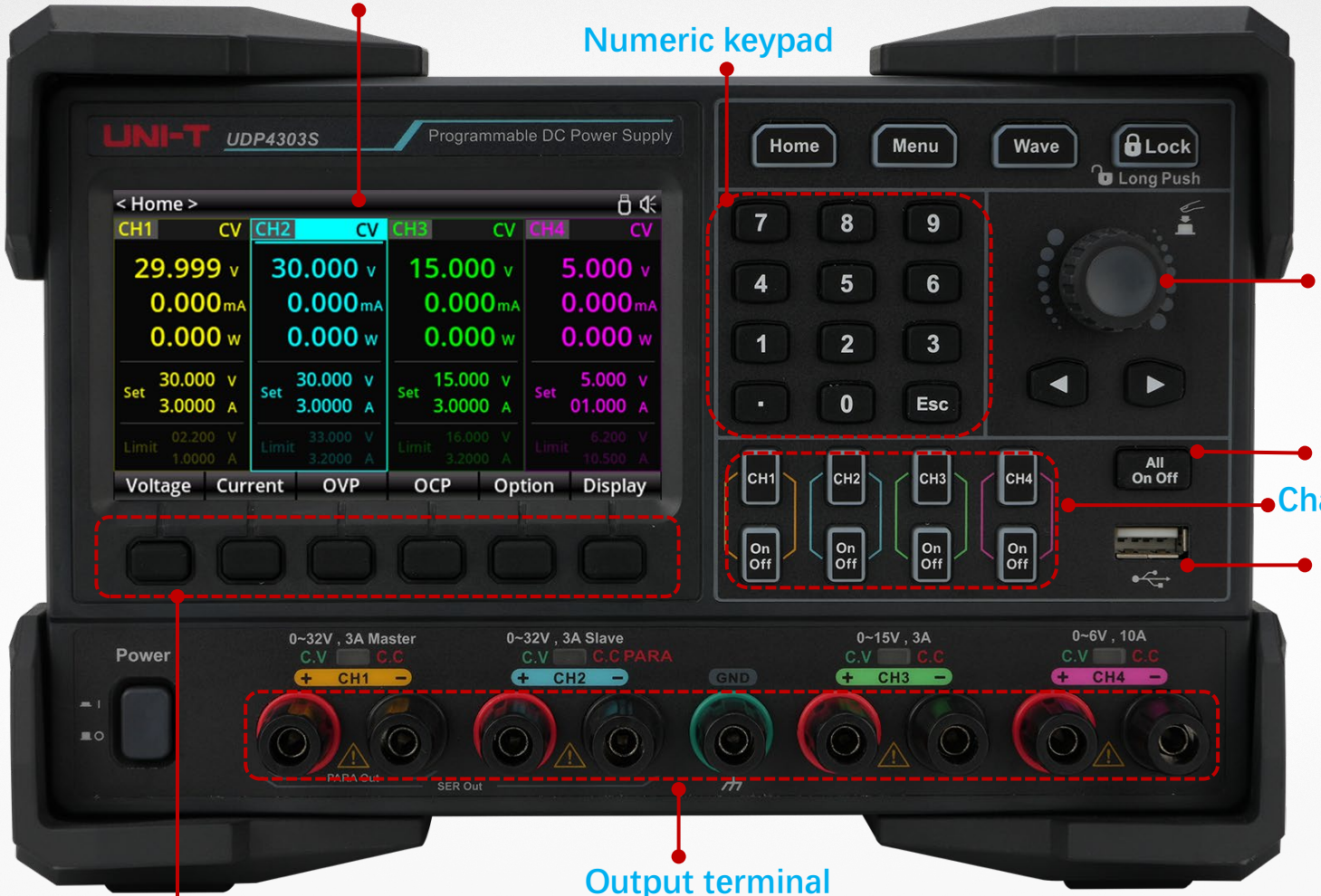
Programmable Linear DC Power Supply

Product Introduction

- 32 V/3 A, 32 V/3 A, 15 V/3 A, 6 V/10 A
- 297 W
- 1 μA
- <350 μVrms /2 mVpp

- 4-channel isolation
- 4.3-inch true color LCD
- One-touch series and parallel output
- Waveform measurement and display
- 8 kSa/s high speed sampling
- Fast transient response time: <50 μs
- 2-wire or 4-wire remote sense
- List and delayer support up to 512 outputs with minimum programming time of 1 ms
- Command processing time <10 ms
- Supports auto range test for large and small currents
- Web control and host computer control
- Multi-protection: OVP/OCP/OTP/sense protection, fast over-current protection time can be set (0ms-1000ms adjustable).

Product Panels



Product Panels

Product Comparisons

UDP4303S

UDP4303S
Voltage: CH1 & CH2 32V; **CH3 15V**; CH4 6V
Current: CH1&CH2 3A**;** CH3 3A; **CH4 10A**
Channel: **4**
Power: **297W**
Display: 4.3inch LCD

Main competitor

DP2031
Voltage: CH1 & CH2 32V; CH3 6V
Current: CH1&CH2 3A; CH3 5A
Power: 222W
Display: 4.3inch LCD

E36313A
Voltage: CH1 6V; CH2 & CH3 25V
Current: CH1 10A; CH2&CH3 2A
Power: 160W
Display: 4.3inch LCD

Product Comparisons（VS UNI-T Self）

Model		UDP3305S-E	UDP3305S	UDP4303S
Channel		4 full isolation	4 full isolation	4 full isolation
Output Rating	Voltage	0~30V,0~30V,0~6V,5V	0~30V,0~30V,0~6V,5V	0~32V,0~32V,0~15V,0~6V
	Current	0~5A,0~5A,0~3A,2A	0~5A,0~5A,0~3A,2A	0~3A,0~3A,0~3A,0~10A
	Power	328W	328W	297W
Load Regulation	Voltage	≤0.01%+2mV	≤0.01%+2mV	≤0.01%+2mV
	Current	≤0.01%+250μA	≤0.01%+250μA	≤0.01%+250μA
Line Regulation	Voltage	≤0.01%+2mV	≤0.01%+2mV	≤0.01%+2mV
	Current	≤0.01%+250μA	≤0.01%+250μA	≤0.01%+250μA
Programming Accuracy	Voltage	±（0.3%+20mV）	±（0.03%+10mV）	CH1-CH3:±（0.03%+8mV）/ CH4:±（0.04%+4mV）
	Current	±（0.2%+5mA）	±（0.2%+5mA）	CH1-CH3:±（0.15%+5mA）/CH4:±（0.15%+10mA）
Read back Accuracy	Voltage	±（0.1%+20mV）	±（0.03%+10mV）	CH1-CH3:±（0.03%+8mV）/ CH4:±（0.08%+3mV）
	Current	±（0.15%+5mA）	±（0.15%+5mA）	CH1-CH3:±（0.15%+5mA）/CH4:±（0.15%+10mA）
Ripple	Voltage	< 350μVrms /2mVpp(5Hz~1MHz)	< 350μVrms /2mVpp(5Hz~1MHz)	< 350μVrms /2mVpp(20Hz~20MHz)
	Current	≤2mArms	≤2mArms	≤2mArms
Readback resolution	Voltage	10mV	1mV	1mV
	Current	1mA	1mA	0.1mA (**1uA** in small current mode)
Programming time resolution		100ms	100ms	1ms
Current sampling rate		4Sa/s	4Sa/s	8kSa/s
Display		4.3-inch LCD	4.3-inch LCD	4.3-inch LCD
Interface		RS-232, USB Host, USB Device, LAN, Digital IO		RS-232,USB Host, USB Device, LAN, Digital IO, Sense
Waveform display		yes	yes	yes
List/delayer		yes	yes	yes
Monitor		yes	yes	yes

Product Comparisons(VS Competitors)

Model		UDP4303S	DP2031	E36313A
Channel		4 full isolation	3 full isolation	3 full isolation
Output Rating	Voltage	0~32V,0~32V,0~15V,0~6V	0~32V,0~32V,0~6V	0~6V,0~25V,0~25V
	Current	0~3A,0~3A,0~3A,0~10A	0~3A,0~3A,0~5A (optional 2A,2A,10A)	0~10A,0~2A,0~2A
	Power	297W	222W	160W
Load Regulation	Voltage	≤0.01%+2mV	≤0.01%+2mV	≤0.01%+4mV
	Current	≤0.01%+250μA	≤0.01%+250μA	≤0.01%+500μA
Line Regulation	Voltage	≤0.01%+2mV	≤0.01%+2mV	**≤0.01%+1mV**
	Current	≤0.01%+250μA	≤0.01%+250μA	≤0.01%+500μA
Programming Accuracy	Voltage	± (0.03%+8mV)	± (0.03%+8mV)	**± (0.03%+5mV)**
	Current	± (0.15%+5mA)	± (0.15%+5mA)	**± (0.04%+3mA)**
Read back Accuracy	Voltage	± (0.03%+8mV)	± (0.05%+8mV)	**± (0.03%+5mV)**
	Current	± (0.15%+5mA)	± (0.15%+5mA)	**± (0.04%+3mA)**
Ripple	Voltage	＜350μVrms /2mVpp(20Hz~20MHz)	＜350μVrms /2mVpp(20Hz~20MHz)	＜1mVrms /5mVpp(20Hz~20MHz)
	Current	≤2mArms	≤2mArms	≤2mArms
Readback resolution	Voltage	1mV	1mV(Device),0.1mV(PC Software)	1mV
	Current	0.1mA (1uA in small current mode)	0.1mA (1uA in small current mode)	**160μA**(2uA in small current mode)

Product Comparisons(VS Competitors)

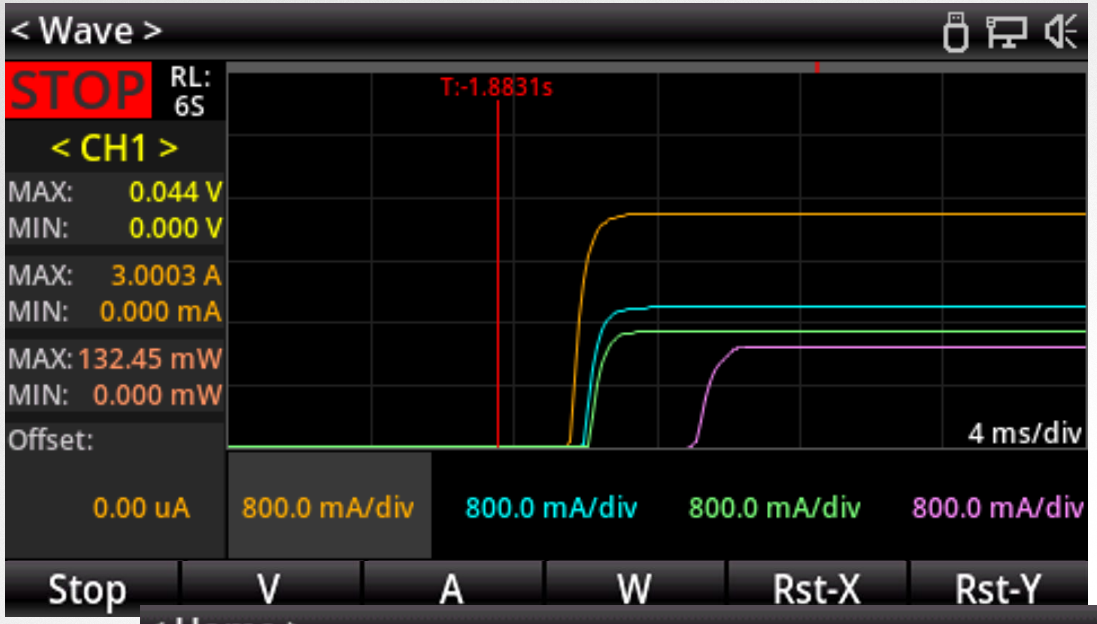
Model	UDP4303S	DP2031	E36313A
Low current mode	Full-channel	CH1, CH2	Full-channel
Programming time resolution	1ms	1ms	10ms
Current sampling rate	8kSa/s	7.5kSa/s	
Display	4.3-inch LCD	4.3-inch LCD	4.3-inch LCD
Interface	RS-232,USB Host, USB Device, LAN, Digital IO, Sense	RS-232,USB Host, USB Device, LAN, Digital IO, Sense	USB Host, USB Device, LAN, Digital IO, **GPIB (optional)**, Sense
Sense Protection	Yes	No	No
OCP protection time	0-10s	Upper computer (0-1000ms)	**0-3600S**
Waveform analysis	Yes	Yes	Yes
List/delayer	Yes/Yes	Yes/No	Yes/No
Monitor	Yes	No	No

Product Features

- **Higher resolution**

  Current resolution in the **μA** class, **1000 times** more capable than previous generation power supplies

Product Features



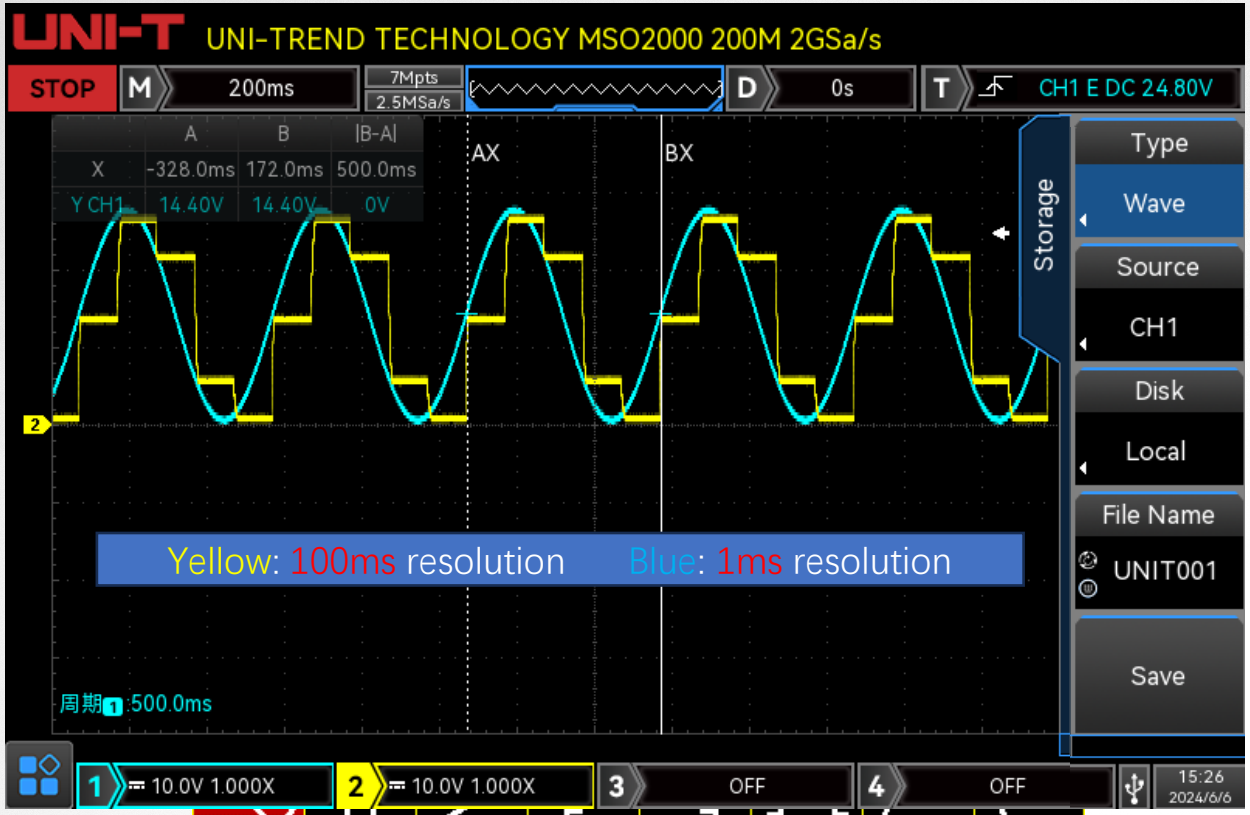
➢ Display Waveforms

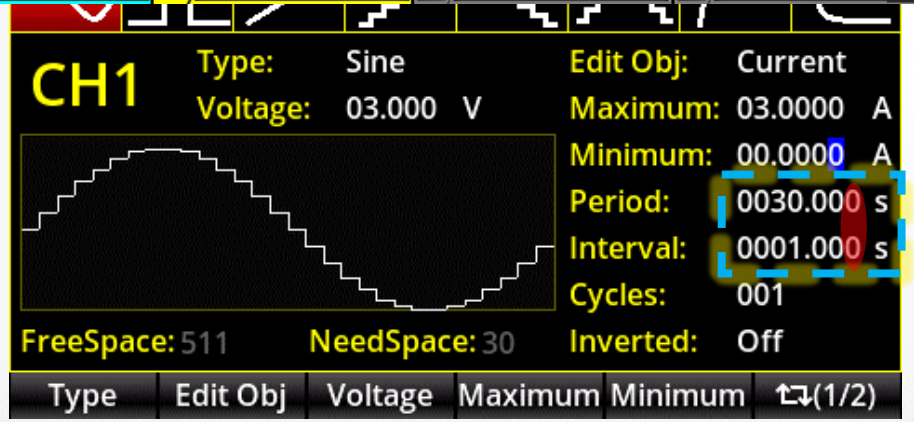
8kSa/s current sampling rate

Four-channel current high-speed sampling. Accurately captures and displays transient changes.

Sampling rate 2000 times higher than previous generation power supplies

Product Features



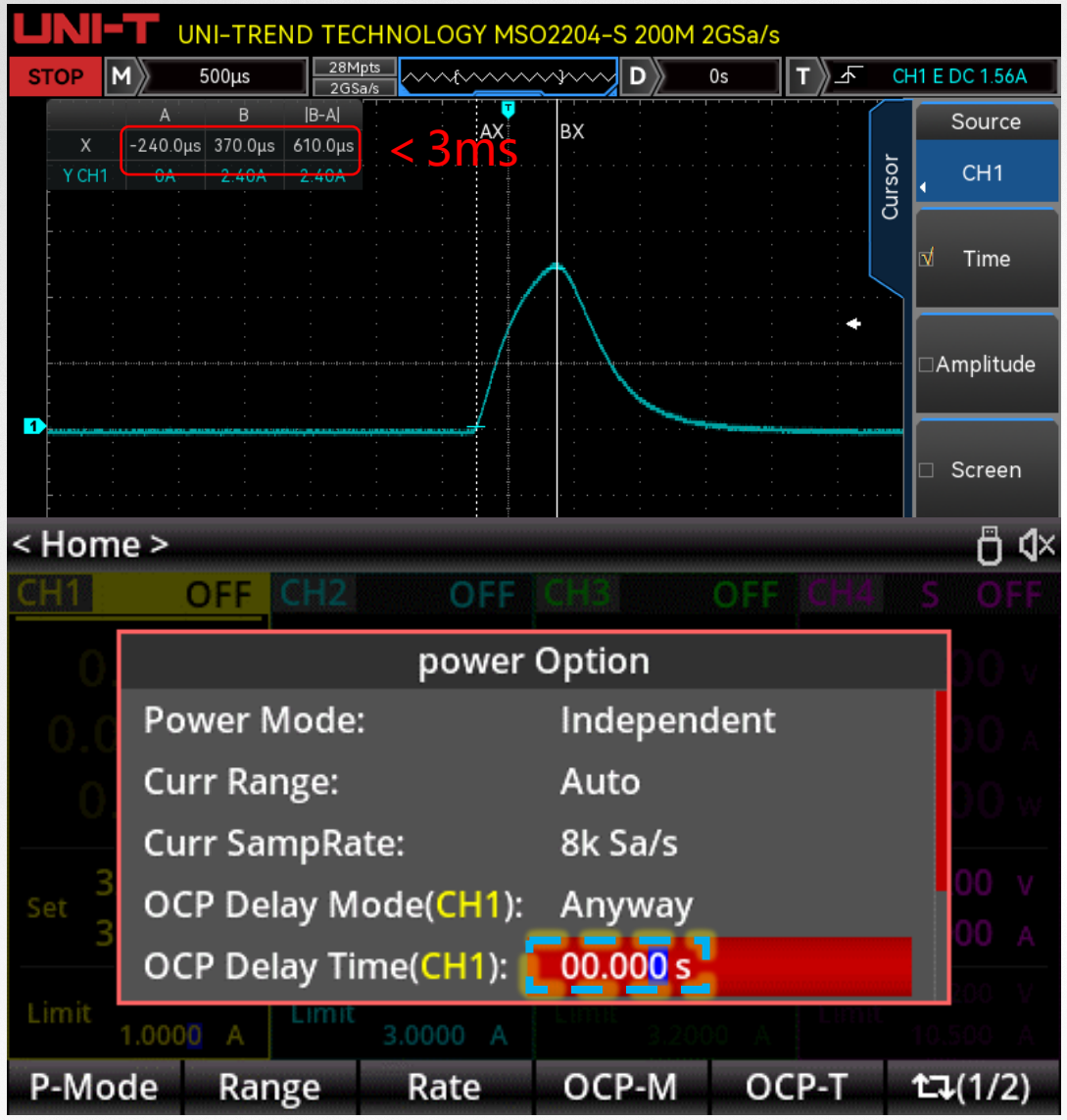


➢ 1ms programming time resolution

Programming time resolution up to **1ms**, more refined output for diverse arbitrary waveforms

100 times the resolution of previous generation power supplies

Product Features



➢ **Protection response time can be set**

Adjustable overcurrent protection delay time

The fastest protection response time < 3ms

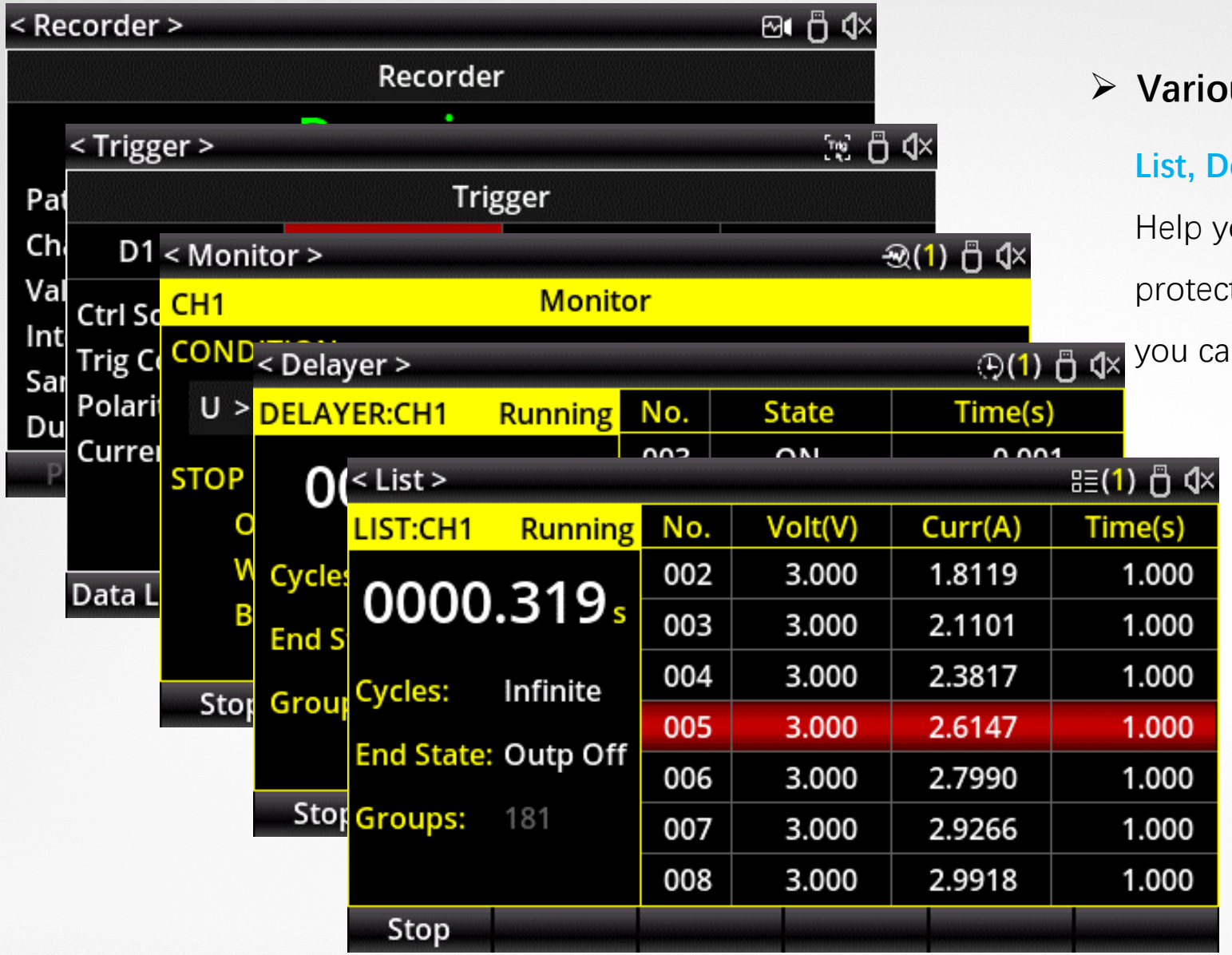
Protect the load for safe and flexible application.

Product Features

➢ Multiple display styles

4.3 inch LCD clear display, 6 interface display styles to help you better view the measurement results

Product Features



➢ Various useful functions

List, Delayer, Monitor, Trigger, Recorder

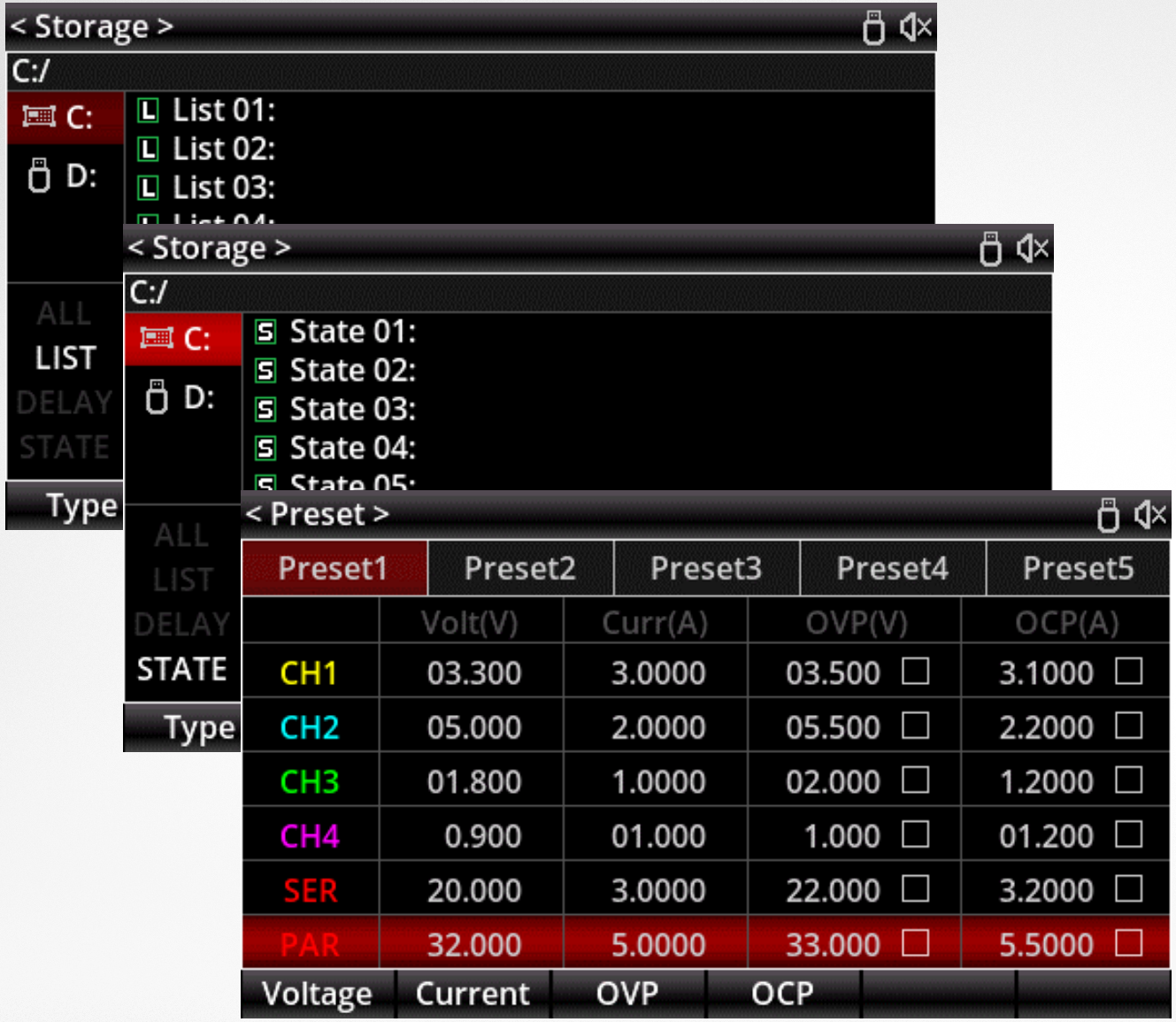
Help you automate tests, monitor and protect intelligently, and record the data you care about.

Product Features

➢ Series and parallel

Independent, series and Parallel operation can be easily realized through the menu. Strong performance even when connected in series and parallel

Product Features



➢ Storage and presets

Local can save 10 status files, 10 list files and 10 delayer files. 5 groups of often-used settings can be saved in presets. A USB flash drive can be used to save and recall more settings files.

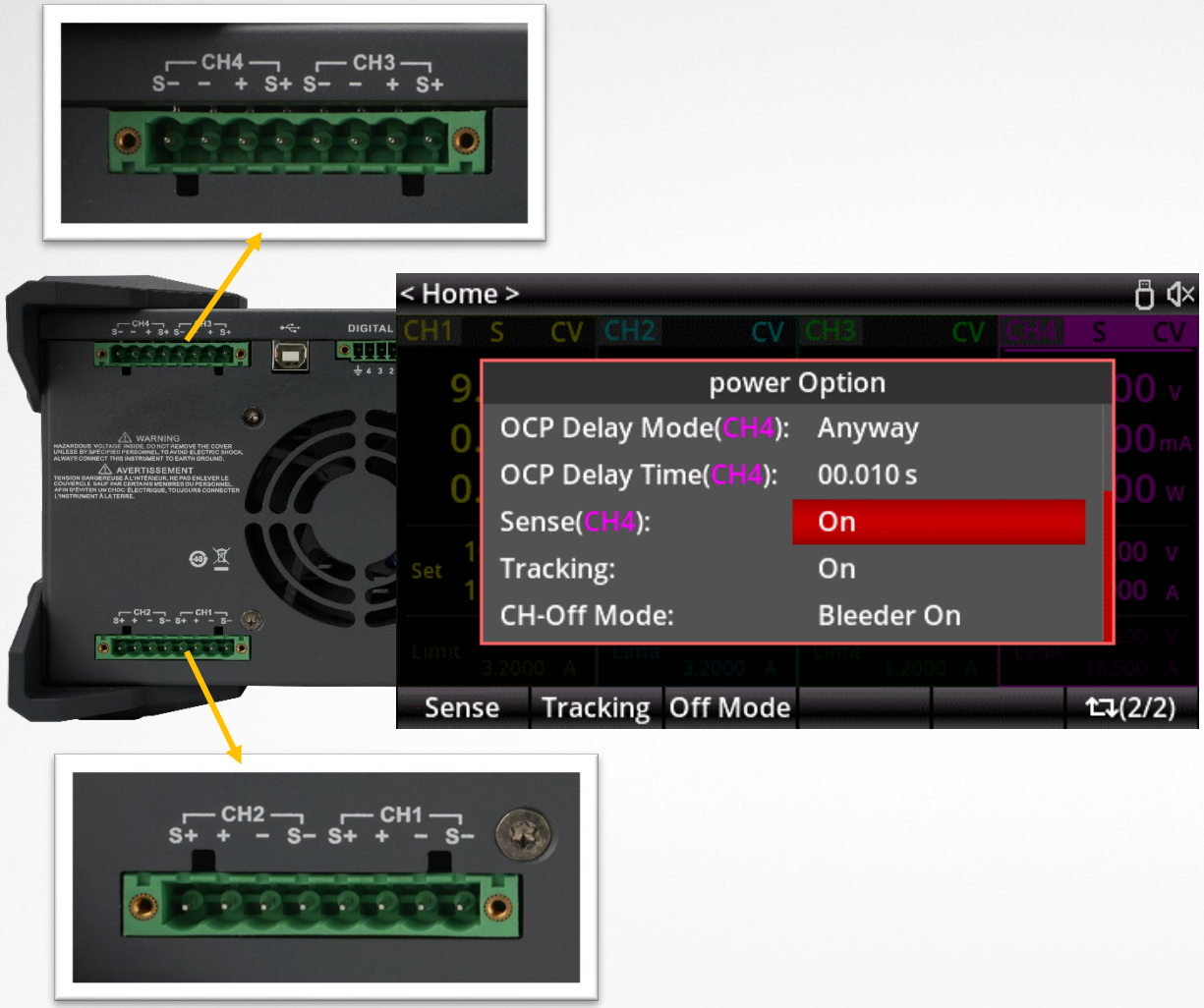
Product Features

➢ **Full Channel Isolation**

Four-channel full isolation

Isolation without crosstalk, comfort and safety

Product Features

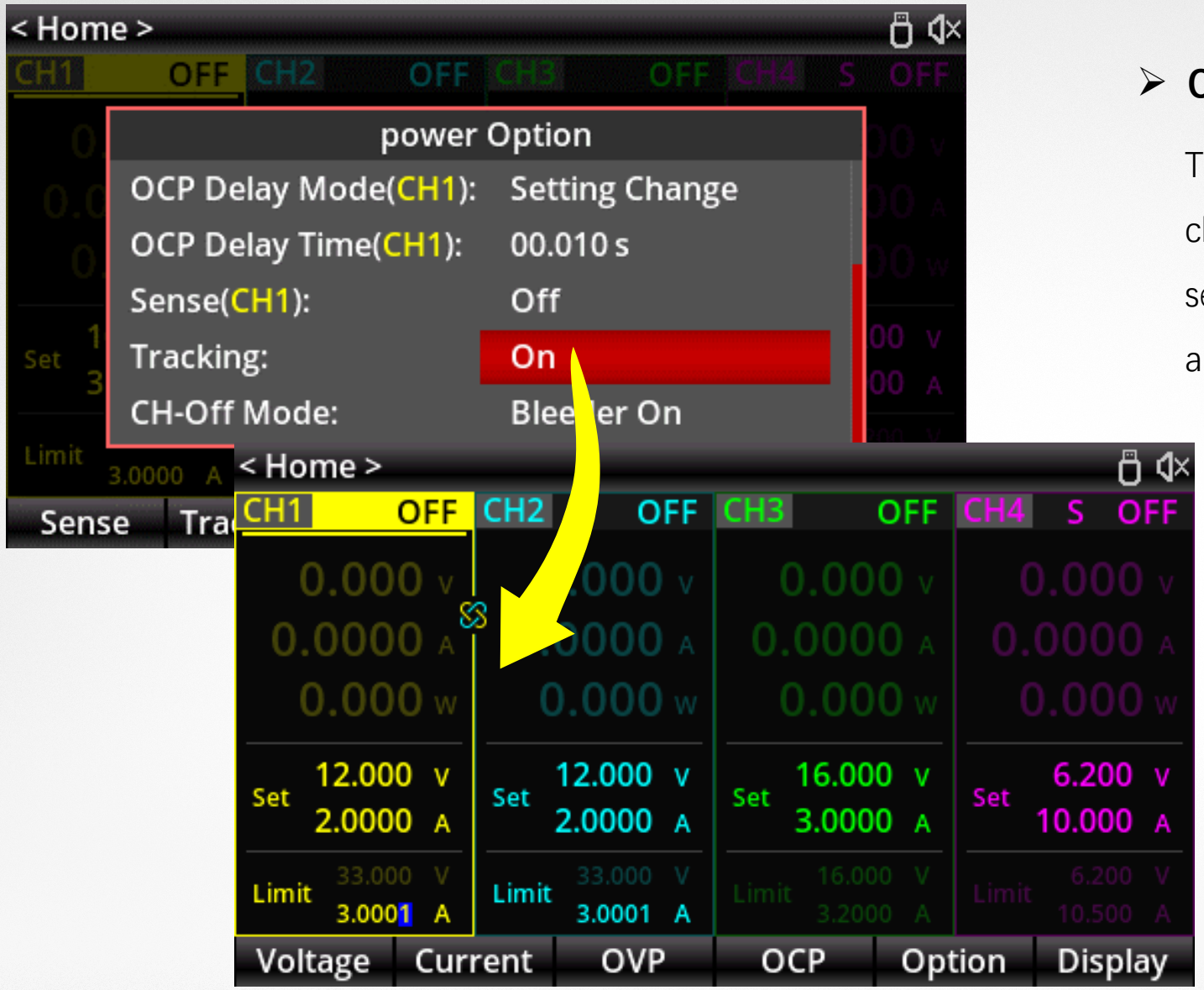


➢ Full Channel remote compensation

All four channels support remote compensation, reverse connection and overvoltage protection.

Guarantee the accuracy and safety of the test

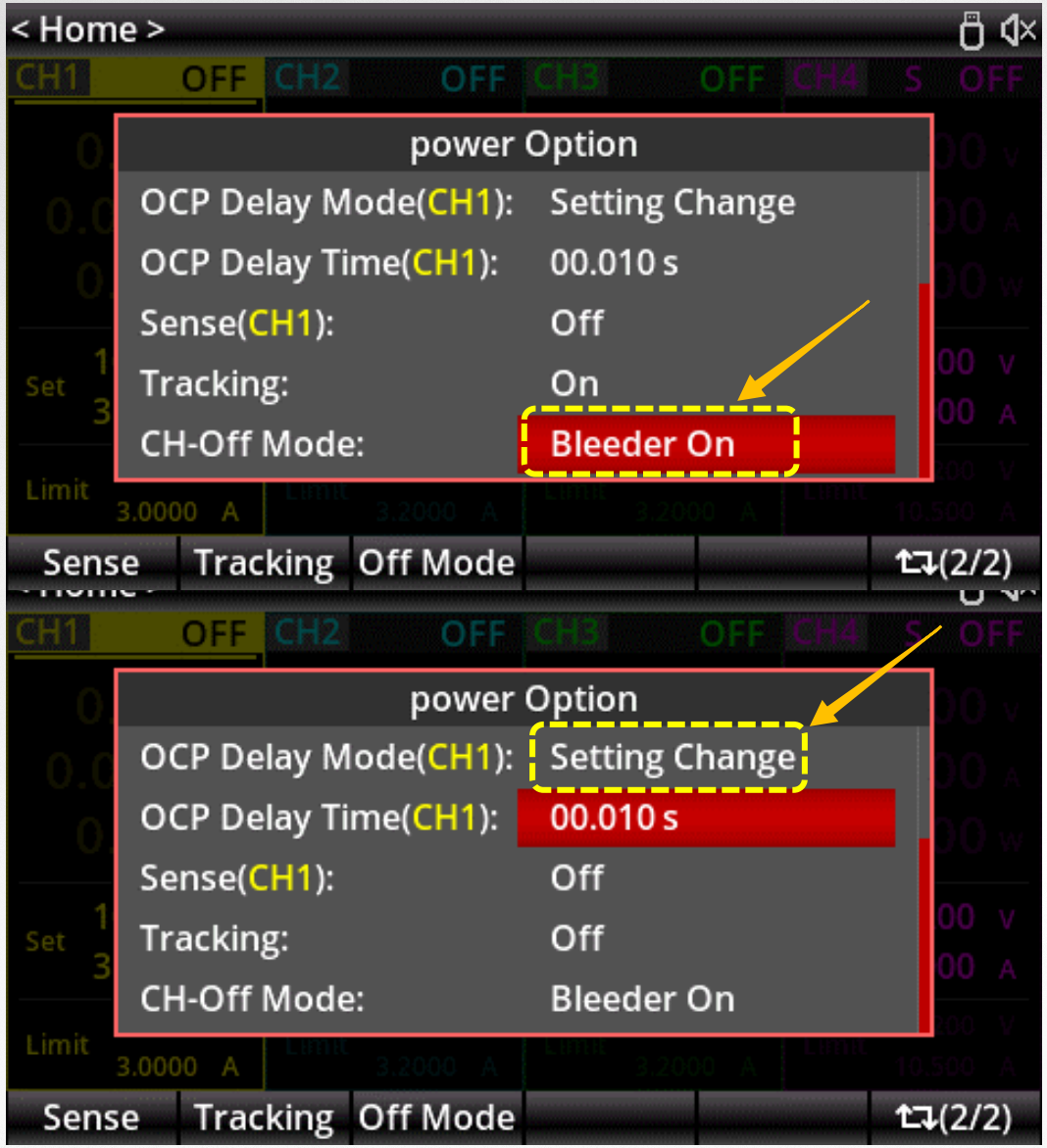
Product Features



➢ CH1 & CH2 channel tracking

Turn on the tracking function. Arbitrarily change the settings of one channel and the settings of the other channel will be changed accordingly

Product Features



➢ Bleeder circuit

When the power output is turned off, selecting Bleeder circuit On enables a fast voltage drop. Select Bleeder circuit Off for **battery test** scenarios.

➢ OCP delay protection

Select "**Setup change**" mode to detect overcurrent events after a set period of time. Prevents OCP from being mistakenly triggered when the output is turned on.

Selling Points

Features	Advantages	Benefits
4.3 inch color LCD display	The display content is more comprehensive, and the measurement data is shown more clearly.	Good user experience
Multiple display styles	A total of 6 display styles to give users more choices	More intuitive measurement interface
Programming resolution 1 ms	It achieves a 1 ms minimum pulse width output and allows for finer editing of arbitrary waves, which is 100 times better than the previous power supply.	Quick changes, precise output
Maximum sampling rate of up to 8 kSa/s	The high sampling rate ensures fine and high-fidelity output, which is 2000 times better than the previous power supply, with equivalent performance across 4 channels.	Precise output, high capture rate
Low current mode with 1 μA resolution	The low current mode can sample down to 20 mA and has ultra-fine resolution. All four channels support low-current mode.	Supports more refined measurement areas
4-channel full isolation	There is no crosstalk between channels or between channels and communication links, allowing for free series-parallel connections.	More secure and reliable
One-key serial and parallel connection	Use the menu to quickly enable serial and parallel connections of CH1 and CH2. The performance will not be reduced, and no external wiring is needed.	Quick to use, and allows for obtaining both high voltage and high current simultaneously
2-wire or 4-wire remote sense	All four channels support remote sense. When the test wires are too long, it uses a four-wire method to compensate voltage and ensure test quality.	More accurate measurements
Adjustable protection time	OCP (Overcurrent Protection) can be set to detect the protection condition after 0 to 10 seconds and respond immediately if the protection is triggered. This effectively prevents boot error triggers.	Flexible protection function allows for more reliable testing
Controllable bleeder circuit	The bleeder circuit switch is flexible. During battery testing, turning off the bleeder circuit can effectively prevent the battery from remaining discharged.	Flexible for various application scenarios

Selling Points

Features	Advantages	Benefits
OCP delay protection	OCP (Overcurrent Protection) response time can be set according to the user's needs, with the fastest protection response time reaching less than 3 ms.	Flexible protection function allows for more reliable testing
Channel tracking mode	The channel tracking mode is available for CH1 and CH2, where changing one channel's parameter automatically changes the other channel's parameter without requiring additional settings.	Enables quicker adjustments and higher efficiency under the same output conditions
Front/Rear panel output	Select either the front output or the rear output according to the test environment. The rear output standard terminal can be used simply by connecting the wires.	Convenient and flexible adaptation to different environments
List and Delayer	The arbitrary waveform output can be freely edited or quickly edited using a template, supporting up to 512 groups.	Enhances test efficiency
	The delayer can be set up for up to 512 switch operations, and the resolution time can reach 1 ms.	
Trigger	Several power sources can be triggered using the digital I/O terminal or by importing the power output to the master control machine.	Convenient for remote control or multi-device control
Waveform analysis	Entering the waveform display menu, the output quality analysis of all four channels will be clearly shown.	Easier measurement analysis
Recorder	The recorder can capture the voltage, current, and power of all channels, including series and parallel connections, saving the data in tables for convenient analysis later.	Convenient for data saving and analysis
Monitor	Set the monitoring condition to detect whether the output is within the range to prevent damage to the DUT. An audible and visual alarm will be triggered when the preset condition is reached.	Protection functions are more flexible
Web access and control	Supports Web access and control, upper computer is not neede, allowing for more flexible operations.	Freely remote control
Save and Preset	List, delayer, and monitor settings can be saved for later use. These setting can also be saved to a USB flash drive for other power supply to use.	Save setup time and speed up testing

Order Information

	Description	Product Size	Product Net Weight	Standard Quantity per Carton	Order No.
DC power supply	4CH, CH1/CH2: 0~32 V 3 A, CH3: 0~15 V 3 A, CH4: 0~6 V 10 A; Resolution: 1 mV, 1 μA; P: 297 W	225mmW×159.6mmH×445mmD	10.5kg	1pcs	UDP4303S
Standard accessories	Power cord	--	--	1 pcs	--
	USB Data Cable	--	--	1 pcs	--
	5PIN plug (3.81mm)	--	--	1 pcs	--
	8PIN plug (5.08mm)	--	--	2 pcs	--

Standard Pricing

Model	Description	MSRP (USD)	Factory Price Discount	Factory Price (USD)
UDP4303S	4CH, CH1/CH2: 0~32 V 3 A, CH3: 0~15 V 3 A, CH4: 0~6 V 10 A; Resolution: 1 mV, 1 μA; P: 297 W	**US$ 1,399.00**	**60%**	**US$ 839.00**

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