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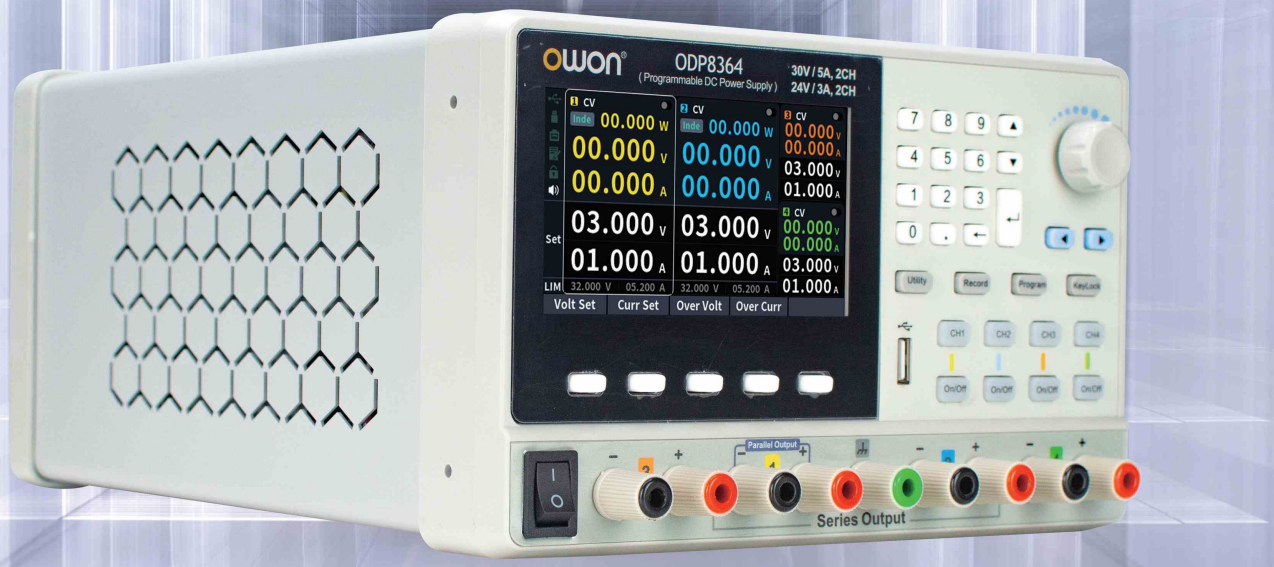


ODP8000 Series

Programmable DC Power Supply

Key Features

+ 3 or 4-channel independent adjustable output channels; CH1 and CH2 support series/parallel connection
+ CH1/CH2: 5A / 90W constant power; CH3/CH4: 3A / 24W constant power
+ 5-digit voltage/current display with 1mV / 1mA resolution
+ Low ripple and noise: ≤1mVrms / 5mVpp
+ OVP, OCP, OTP, OPP protection for safety and reliability
+ Intelligent CV/CC mode switching
+ Supports 100 sets of timed output sequences
+ Remote voltage sensing supported
+ Built-in data logger for displaying voltage, current, and power in table or waveform format
+ System parameter save/recall, with expandable data storage
+ 4.3-inch (480*272) IPS screen for sharp and vivid display
+ Supports USB 2.0, RS232, and LAN communication interfaces

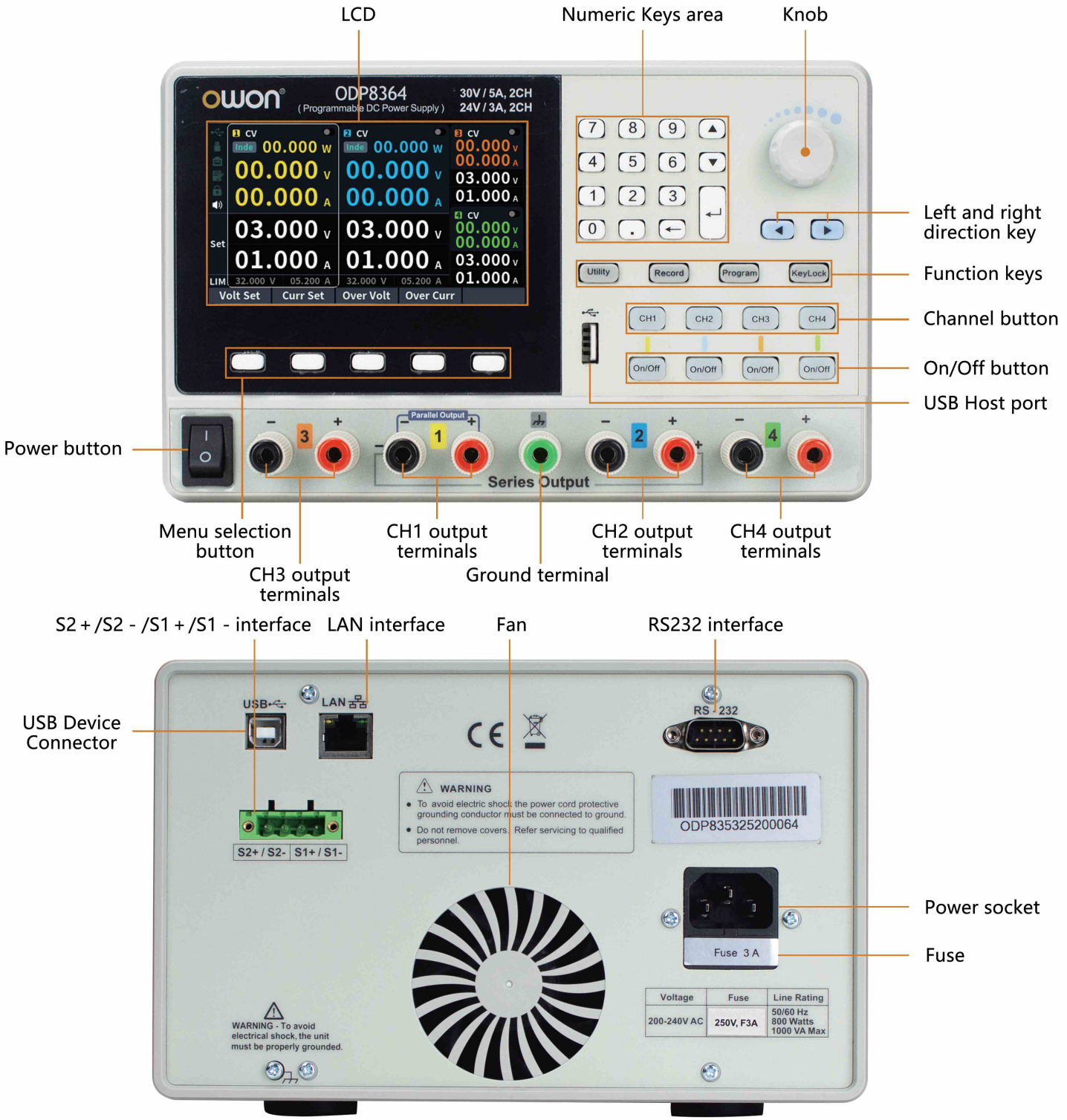
Product Overview

The ODP8000 Series Programmable DC Power Supply features a 4.3-inch IPS display, delivering an intuitive user interface and outstanding performance. With programmable functionality and real-time waveform display, it offers users a completely new experience.

This series includes two models, supporting up to four independent output channels, with a maximum rated output voltage of 30 V, minimum setting resolution of 1mV / 1mA, and up to 90 W constant power output per channel.

Equipped with a new power topology, it significantly improves power efficiency. Built-in OVP/OCP protection, intelligent CV/CC switching, and features such as high precision, low noise, and high reliability make it ideal for demanding applications. Standard interfaces include USB 2.0, RS232, and LAN, meeting the needs of R&D, production line testing, and more.

Panel Introduction



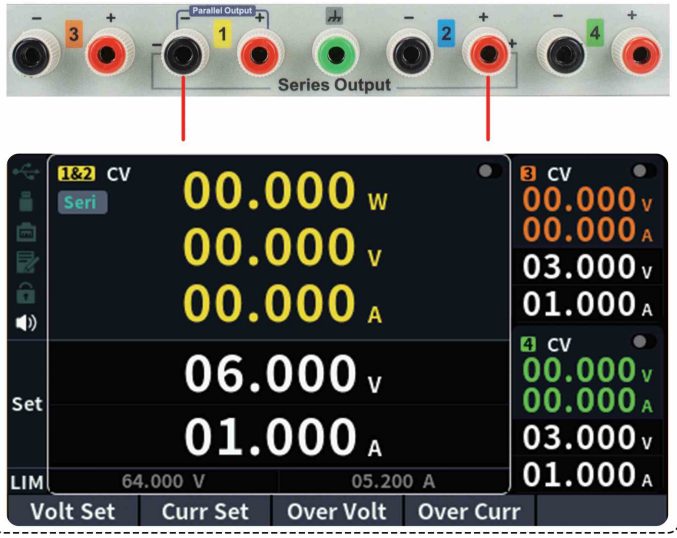
A. High-Resolution Output

The ODP8000 Series Programmable DC Power Supply delivers excellent output precision, with a minimum resolution of 1mV / 1mA. It features low ripple and noise performance (≤1mVrms / 5mVpp), along with outstanding setting and read-back accuracy, ensuring clean and stable power output for precision-demanding applications.

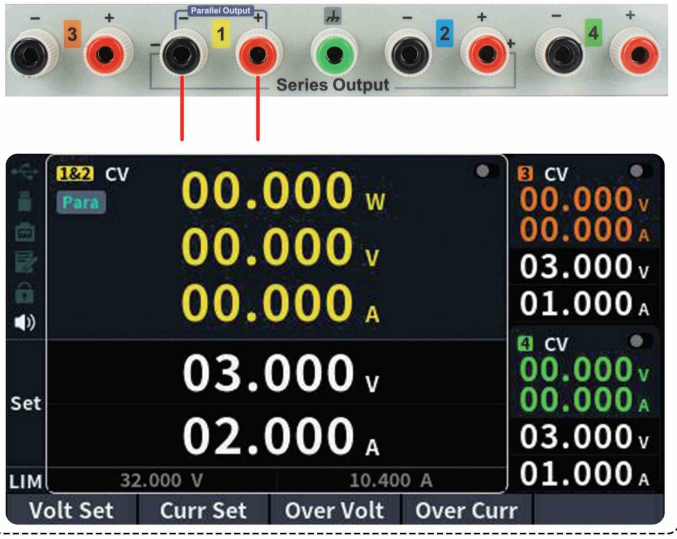
B. Series / Parallel / Independent / Tracking Output Modes

The output mode selection applies to CH1 and CH2 only, allowing users to simplify parameter configuration for these two channels.Series and parallel modes are internally configured without external jumpers, enabling seamless expansion of a single-channel output's power capacity.

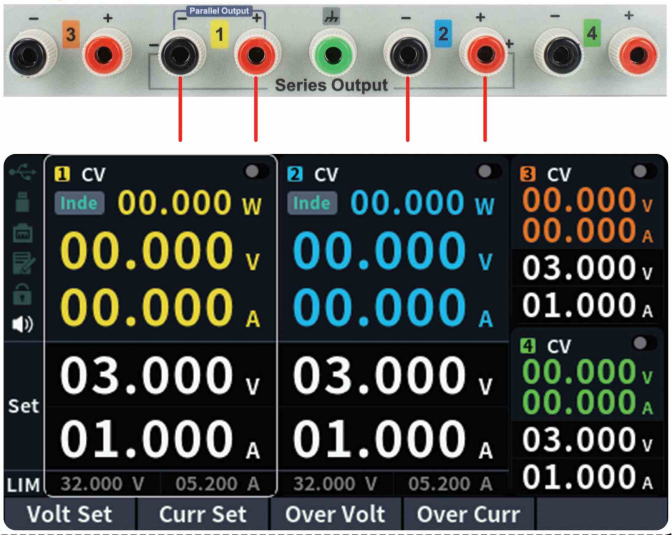
Series Mode



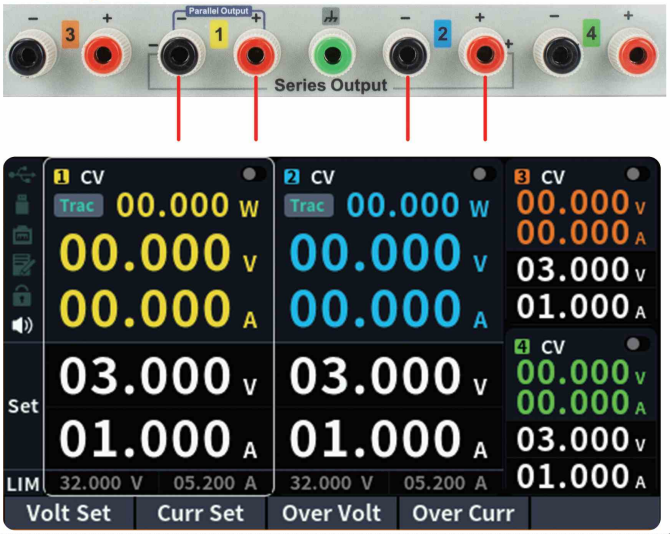
Parallel Mode



Independent Mode

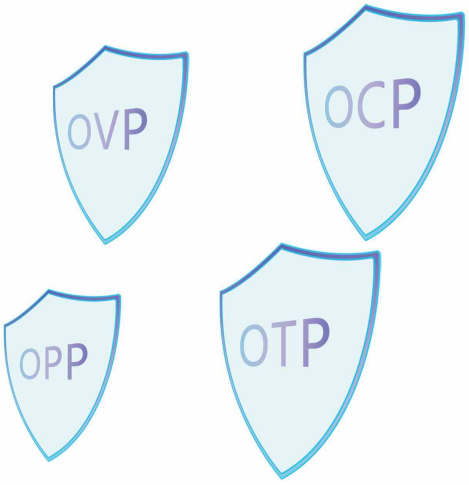


Tracking Mode



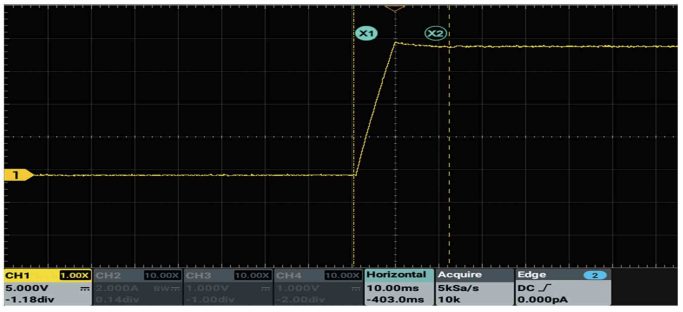
C. Multiple Protection Features

The ODP8000 Series is equipped with multiple safety mechanisms, including Over Voltage Protection (OVP), Over Current Protection (OCP), Over Power Protection (OPP), and Over Temperature Protection (OTP), ensuring stable operation under abnormal conditions and preventing hardware damage.

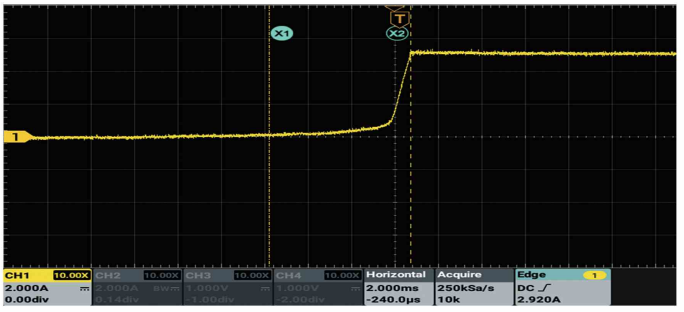


D. Automatic Constant Voltage / Constant Current Switching

The ODP8000 power supply normally runs in Constant Voltage (CV) mode, keeping voltage steady while current changes with the load. If a short circuit or overload causes an overcurrent condition, the hardware quickly switches to Constant Current (CC) mode, limiting current to a safe level and lowering voltage. This fast hardware switching happens in micro-seconds without software control, ensuring safe and reliable operation.



CV Priority

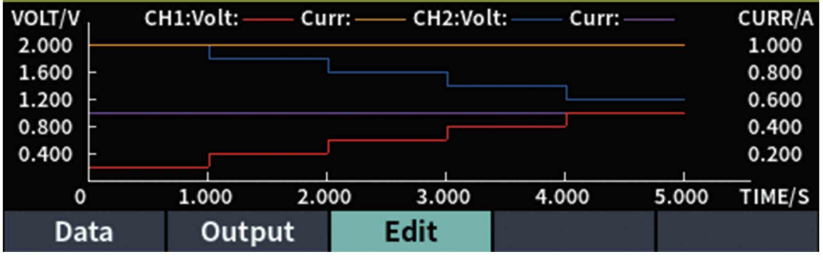


CC Priority

E. Programmable Output Function

The programmable output function allows you to create flexible test sequences by setting step values and durations. It also supports importing data files via USB for multi-step operations to meet complex testing needs. Each channel can store up to 100 sets of timing parameters. Once enabled, the instrument outputs preset current and voltage values according to the programmed timing, fulfilling diverse and precise testing requirements.

CH1				CH2			
No	Volt	Curr	Time	No	Volt	Curr	Time
1	00.200	01.000	1	1	02.000	00.500	1
2	00.400	01.000	1	2	01.800	00.500	1
3	00.600	01.000	1	3	01.600	00.500	1
4	00.800	01.000	1	4	01.400	00.500	1
5	01.000	01.000	1	5	01.200	00.500	1

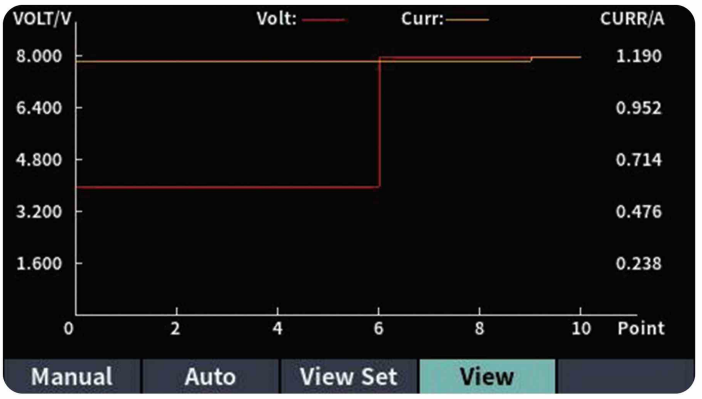


F. Innovative Data Logger Function

Built-in data logger supports both manual and automatic recording, with flexible settings for interval time, number of points, and channels. It can capture real-time voltage, current, and power data, displaying them visually as tables or waveforms.

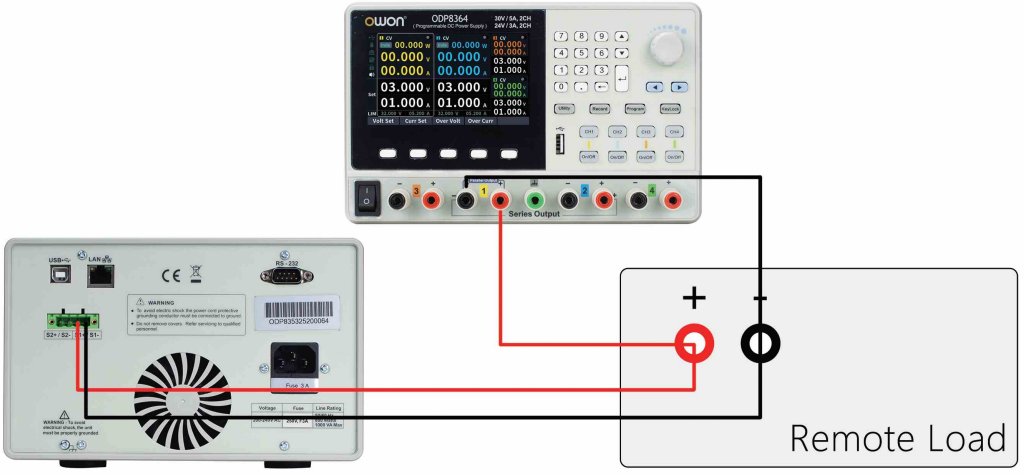
NO	CH1		
	Volt	Curr	Power
1	04.000	01.170	04.680
2	04.000	01.170	04.680
3	04.000	01.170	04.680
4	04.000	01.170	04.680
5	04.000	01.170	04.680
6	04.000	01.170	04.680
7	08.000	01.170	09.360
8	08.000	01.170	09.360
9	08.000	01.170	09.360
10	08.000	01.190	09.520

Manual | Auto | View Set | View



G. Remote Sensing Compensation

When the load draws high current, voltage drops occur on the cables between the power supply and the load. To ensure accurate measurements, the ODP8000 series has remote sensing terminals on the back panel. Users can use these terminals to compensate for voltage loss in the cables and improve measurement accuracy.



I. Rich Interfaces

Supports USB 2.0, RS232 serial port, and LAN for communication and data transfer.

+ Performance Parameters

The specifications below are based on the instrument having run for at least 30 minutes continuously under the specified operating temperature.

Model		ODP8353	ODP8354
Output Ratings		3 (independent controllable channel)	4 (independent controllable channel)
Voltage / Current		CH1: 30V/5A, Maximum 90W constant power output CH2: 30V/5A, Maximum 90W constant power output CH3: 24V/3A, Maximum 24W constant power output	CH1: 30V/5A, Maximum 90W constant power output CH2: 30V/5A, Maximum 90W constant power output CH3: 24V/3A, Maximum 24W constant power output CH4: 24V/3A, Maximum 24W constant power output
CH1、CH2 Parallel Voltage / Current		60V/5A, Maximum 180W constant power output	60V/5A, 180W constant power output
CH1、CH2 Series Voltage / Current		30V/10A, Maximum 180W constant power output	30V/10A, 180W constant power output
Max out put power		204W	228W
Settings Resolution	Voltage	1mV	
	Current	1mA	
Read Back Resolution	Voltage	1mV	
	Current	1mA	
Settings Accuracy (Within 12 months) (25℃±5℃)	Voltage	Independent: ± (0.03% of reading+10) mV; Parallel: ± (0.03% of reading+10) mV Series: ± (0.06% of reading+20) mV	
	Current	Independent: ± (0.1% of reading+5) mA; Parallel: ± (0.2% of reading+20) mA; Series: ± (0.1% of reading+5) mA	
Read Back Accuracy (25℃±5℃)	Voltage	Independent: ± (0.03% of reading+10) mV; Parallel: ± (0.03% of reading+10)mV Series: ± (0.06% of reading+20) mV	
	Current	Independent: ± (0.1% of reading+5) mA; Parallel: ± (0.2% of reading+10) mA; Series: ± (0.1% of reading+5) mA	
Noise and Ripple* (20Hz-20MHz)	Voltage	Independent: ≤5mVp-p; Parallel: ≤5mVp-p; Series: ≤10mVp-p	
	Voltage	≤1mVrms	
	Current	Independent: ≤5mArms; Parallel: ≤10mArms; Series: ≤5mArms	
Load Regulation	Voltage	Independent: ≤0.01%+5mV; Parallel: ≤0.01%+50mV; Series: ≤0.01%+50mV	
Voltage Regulation	Voltage	≤0.01%+3mV	
	Current	≤0.01%+3mA	
ReadBack Temperature Coefficient	Voltage	100ppm/℃	
	Current	200ppm/℃	
Programmable output	Storage	1M points; 100 groups	
	Time setting	Second	
Data Record Function		10k groups of data (voltage, current)	
Working temperature		0-40℃	
Ports		USB Host, USB Device, RS232, LAN, supports USB TMC protocol	
Display		4.3 inch IPS LCD	
Dimension		290mm (W) *130mm (H) *212mm (D)	
Device weight		≈9kg	

Noise bandwidth 20MHz,ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to eht output terminal for testing.

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.


Power Cord

Quick Guide


USB Cable


Fuse


Test Leads (optional)

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Fujian Lilliput Optoelectronics Technology Co., Ltd.

No. 19, Heming Road, Lantian Industrial Zone Zhangzhou 363005 P.R. China
Tel : +86.596.213.0430 E-mail : info@owon.com.cn www.owon.com