



# OWH80 Series

## Single-Channel Programmable DC Power Supply

### Key Features

- 1/2 3U rack cabinet size, suitable for installation in standard 19-inch racks
- High-Performance Power: 1800W/2000W output with 0.05% accuracy. Provides massive 0-80V voltage and huge current up to 120A.
- High setting resolution: 10mV/1mA; readback resolution: 10mV/1mA
- CV/CC priority setting
- Built-in bleed circuit to ensure no residual high voltage at shutdown
- 4.3-inch TFT LCD color screen display with curve output and online 1-minute data logging
- Full digital control integrated with OVP, OCP, OPP, over-temperature, and input undervoltage protection
- Supports LAN, RS485, RS232 serial communication interfaces, and support SCPI

## Product Introduction

The OWH80 series single-channel programmable DC power supply is a versatile and high-precision laboratory / industrial-grade instrument designed for advanced testing and automation applications. Offering adjustable outputs from 0-80V with maximum power ratings of 1800W/2000W, this device combines CV/CC dual-mode operation and a 100-step programmable list mode (LIST). Key features include:

**Ultra-Precise Control:** 10mV/1mA resolution and  $\leq 0.05\%$  accuracy ensure stable voltage/current regulation, while ripple/noise suppression ( $< 100\text{mVpp}$ ) guarantees reliable performance in sensitive environments.

**Intelligent Connectivity:** Equipped with USB, LAN, RS485/RS232 interfaces and SCPI protocol support, it integrates seamlessly with PC software for remote operation, data logging, and automated workflows.

**Robust Protection:** Built-in OVP/OCP/OPP safeguards protect devices under test from overvoltage, overcurrent, and overpower conditions, enhancing safety and reliability.

**User-Centric Design:** Intuitive controls, real-time waveform visualization, and self-diagnostic fault alerts simplify operation. USB connectivity enables rapid configuration backups or screenshots.

## Overview

1. Rotary Knob
2. System Function Keys
3. Function Keys
4. USB data interface
5. Power Switch
6. LAN Port
7. USB Serial Port
8. Remote Sense Terminals
9. DC Output Terminal
10. RS-485 Interface
11. DB9 Port
12. AC Power Input Terminal



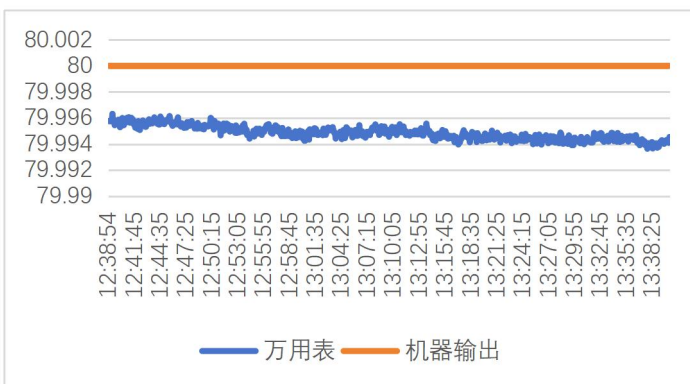
A

## High-precision voltage / current control

OWH80 series boasts a wide output range (80V/120A/1800W), high-precision voltage/current control capability, and combines long-term stability, high reliability, and low thermal drift characteristics, achieving a maximum accuracy of 0.05% for both voltage and current settings.



Low temperature drift update 80V/25A

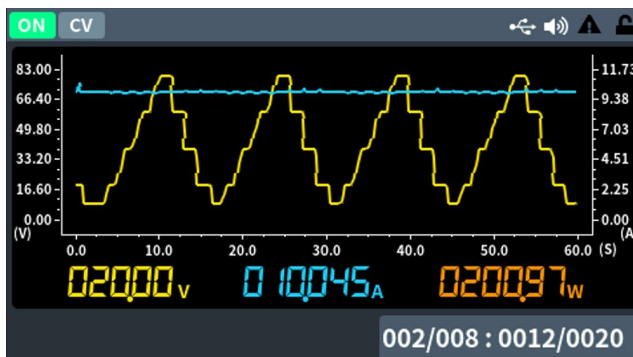


Reliability (worst case@high temp verification)

B

## Powerful List Mode

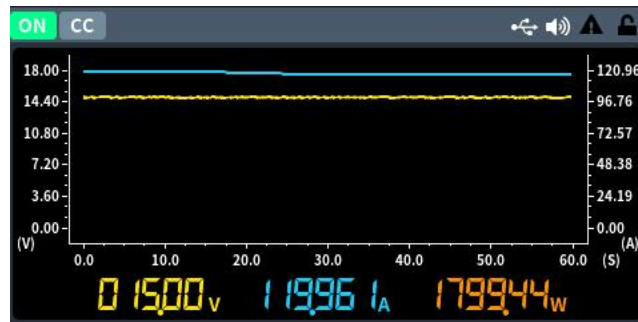
OWH80 series provide powerful list function to run the sequence and editable step flow as user's targeted, friendly user interface interaction, can support up to 100 steps, and also supports USB file import.



## C

## Waveform Display

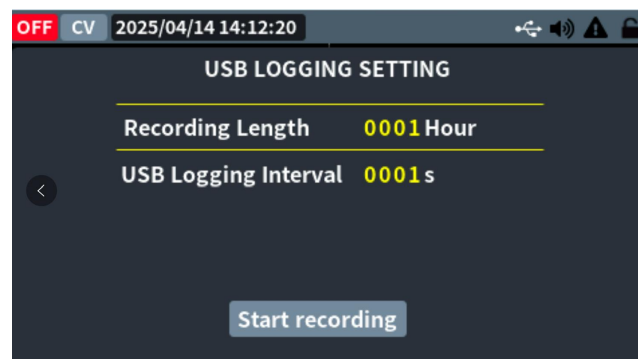
OWH80 series provide waveform display function, it is convenient for users to capture the abnormal situations and realize power supply and scope functions.



## D

## USB Data Logging & Screenshot

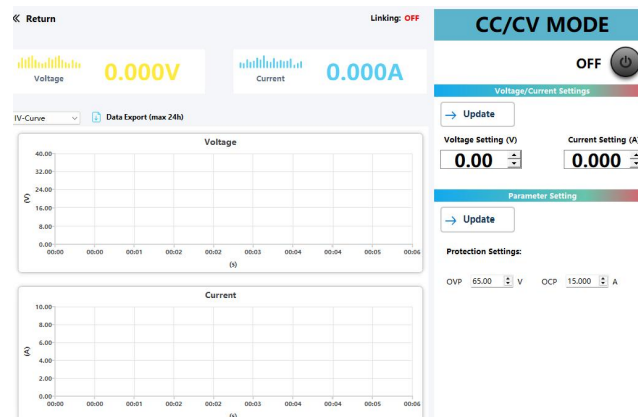
OWH80 series provide USB screenshot and recording local storage function, it is convenient for user to monitor the abnormal data up to 72 hours long-term.



## E

## PC software support

OWH80 series support full communication interface, RS232, RS485, Ethernet, and also provide PC software for users to easily remote control the model.



## ○ Main Specifications

The instrument must be operated continuously for more than 30 minutes at the specified operating temperature to achieve the following specifications

Model		OWH80120-1800	OWH50120-1800	OWH8080-2000
Channel		1	1	1
Rated output (0°C-40°C)	Voltage	0 - 80V	0 - 50V	0-80V
	Current	0 - 120A	0-120A	0-80A
Power		1800W	1800W	2000W
Input power		198V-240Vac*; 45Hz-65Hz		
Load regulation (%of output+offset)	CV	$\leq 0.03\% + 20\text{mV}$	$\leq 0.03\% + 20\text{mV}$	$\leq 0.03\% + 20\text{mV}$
	CC	$\leq 0.05\% + 30\text{mA}$	$\leq 0.05\% + 30\text{mA}$	$\leq 0.05\% + 30\text{mA}$
Input power regulation (%of output+offset)	CV	$\leq 0.03\% + 20\text{mV}$	$\leq 0.03\% + 20\text{mV}$	$\leq 0.05\% + 20\text{mV}$
	CC	$\leq 0.05\% + 30\text{mA}$	$\leq 0.05\% + 30\text{mA}$	$\leq 0.05\% + 30\text{mA}$
Setting resolution		10mV/1mA		
Readback resolution		10mV/1mA		
Setting accuracy	Voltage	$\leq 0.05\% \pm 40\text{mV}$	$\leq 0.05\% \pm 40\text{mV}$	$\leq 0.05\% \pm 40\text{mV}$
	Current	$\leq 0.1\% \pm 0.1\%\text{FS}$	$\leq 0.1\% \pm 0.1\%\text{FS}$	$\leq 0.1\% \pm 0.1\%\text{FS}$
Readback accuracy	Voltage	$\leq 0.05\% \pm 40\text{mV}$	$\leq 0.05\% \pm 40\text{mV}$	$\leq 0.05\% \pm 40\text{mV}$
	Current	$\leq 0.1\% \pm 0.1\%\text{FS}$	$\leq 0.1\% \pm 0.1\%\text{FS}$	$\leq 0.1\% \pm 0.1\%\text{FS}$
Ripple noise	Voltage	$\leq 100\text{mVp-p}$	$\leq 100\text{mVp-p}$	$\leq 100\text{mVp-p}$
	Current	$\leq 100\text{mA}_{\text{rms}}$	$\leq 100\text{mA}_{\text{rms}}$	$\leq 120\text{mA}_{\text{rms}}$
Output temp drift coefficient (0°C-40°C)		100ppm/°C (Voltage) ; 200ppm/°C (Current)		
Readback temp drift		100ppm/°C (Voltage) ; 200ppm/°C (Current)		
Transient response (10%-90% rated load)		$\leq 5.0\text{ms}$		
Working temperature		0-40°C		
Display		USB, LAN, RS485, RS232		
Interface		4.3-inch TFT LCD screen		
Dimension (W*H*Dmm)		215.0 x 133.0 x 446.2		
Weight (kg)		Approx. 6kg		

\*: Input voltage: 100-120Vac, output power reduced by half.

Specifications subject to change without prior notice.

## ○ Ordering Information

Ordering Information	Order NO.
<b>Main Unit Models</b>	
0-50V, 0-120A, 1800.0W, 1CH	OWH50120-1800
0-80V, 0-120A, 1800.0W, 1CH	OWH80120-1800
0-80V, 0-80A, 2000.0W, 1CH	OWH8080-2000
<b>Standard Accessories</b>	
Quick Guide	_____
Power cord	_____
Data cable	7ULD10
<b>Warranty</b>	
Main unit: 1-year warranty (excluding accessories)	