



OWH6546

High-Voltage High-Power Programmable DC Power Supply

Key Features

- **6U** form factor, perfectly fits standard 19-inch racks.
- Designed for high-voltage, high-power applications (**18kW/1200V/30A**, three-phase input), delivering **0.05%** ultra-high precision control for long-term stability and low thermal drift
- 10mV/1mA setting and readback resolution.
- Selectable **CV/CC priority mode** for diverse load characteristics.
- Supports up to 100-step LIST sequence programming and PC control.
- Built-in P-V curve simulation to accurately **simulate solar panel I-V characteristics**(Optional).
- Fully digital control with integrated OVP, OCP, and OPP protections.
- Standard **USB Device, RS485, and LAN interfaces**; SCPI compatible.
- 3.9-inch TFT color display for real-time viewing of dynamic waveforms and test parameters.

Product Introduction

OWH6546 is a high-performance programmable DC power supply **designed for high-voltage, high-power applications**. With up to **18kW output (1200V/30A)** in a single unit, it combines high precision, versatile programmability, and excellent scalability. Whether for renewable energy simulation or precision component testing, it delivers stable, clean, and highly controllable DC power.

Key Highlights:

Compact Design, Powerful Output: The standard 6U form factor fits perfectly into 19-inch rack systems. A single unit delivers up to 18kW/1200V/30A of wide-range output, providing both flexible deployment and strong performance.

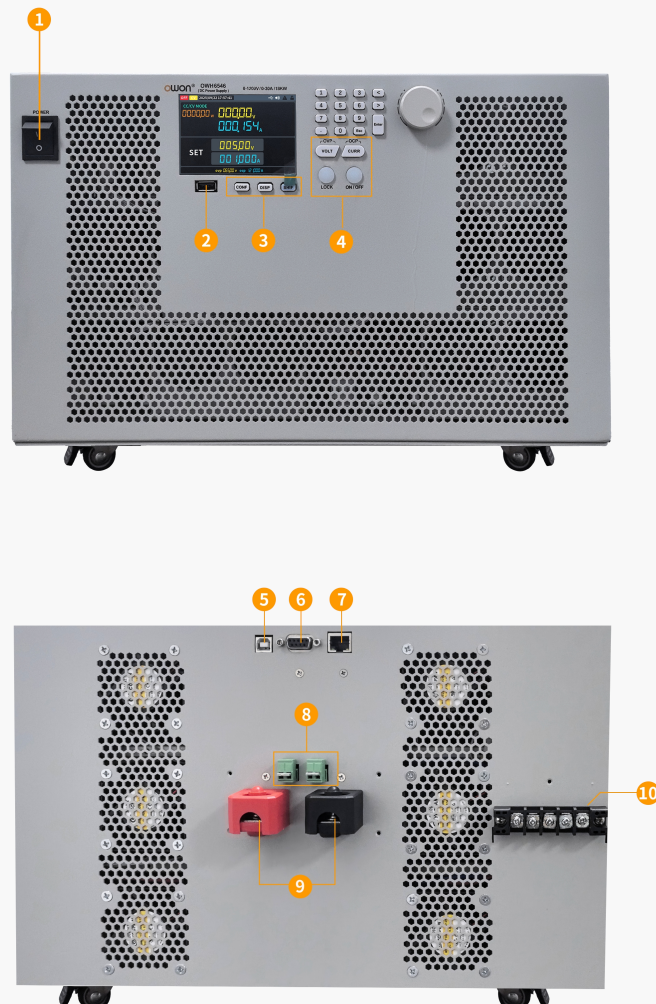
Exceptional Accuracy for Complex Loads: Featuring up to 0.05% output accuracy and 10mV / 1mA resolution, the OWH6546 supports selectable CV/CC priority modes, enabling reliable operation with a wide variety of load conditions.

Professional Simulation and Automated Testing: Built-in P-V curve simulation accurately emulates the I-V characteristics of solar panels. The power supply also supports up to 100-step LIST sequence programming. Combined with PC control software, it enables fully automated generation of complex output waveforms.

Smart Connectivity and Comprehensive Protection: Based on a fully digital control architecture, the system integrates multiple protections including OVP, OCP, and OPP. Standard USB Device, RS485, and LAN interfaces with full SCPI command compatibility ensure easy system integration. The 3.9-inch TFT color display provides clear real-time visualization of dynamic waveforms and key parameters, keeping every test under control.

Panel Overview

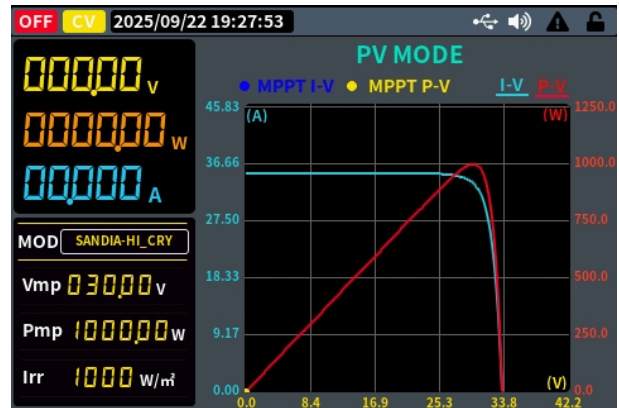
1. Power Button
2. USB Data Port
3. System Function Keys:
 - CONF - Configuration
 - DISP - Display
 - SHIF - Multi-function
4. Output Control Keys:
 - VOLT - Voltage Setting
 - CURR - Current Setting
 - LOCK - Panel Lock
 - ON/OFF - Output Switch
5. USB Interface
6. RS-485 Interface
7. LAN Interface
8. Remote Sense Terminals
9. DC Power Output Terminals
10. AC Power Input Terminals



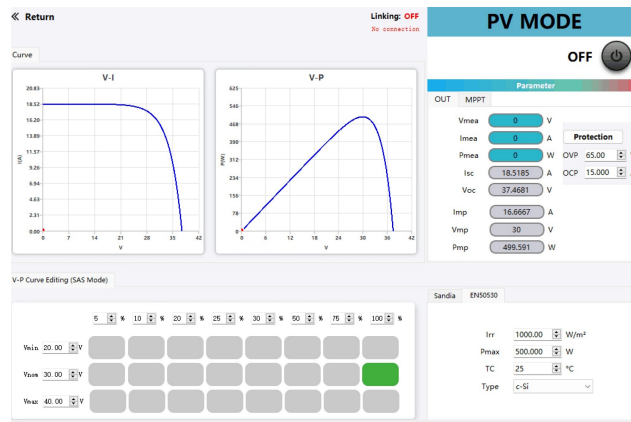
E P-V Curve Simulation (Optional)

The OWH65 series supports **P-V curve simulation**, which can simulate the I-V characteristics of solar panels under different conditions. It supports Static MPPT testing and includes EN50530 and Sandia PV models.

With the optional PV simulation software, multiple power supplies can be controlled for **MPPT tracking tests**, suitable for testing grid-tied inverters, string inverters, hybrid systems, and energy storage converters.

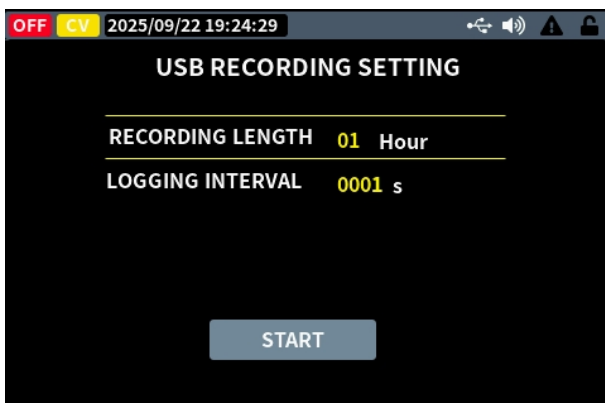


Full P-V curve simulation requires PC software. In addition to panel parameter settings, the PC software also supports static MPPT testing.



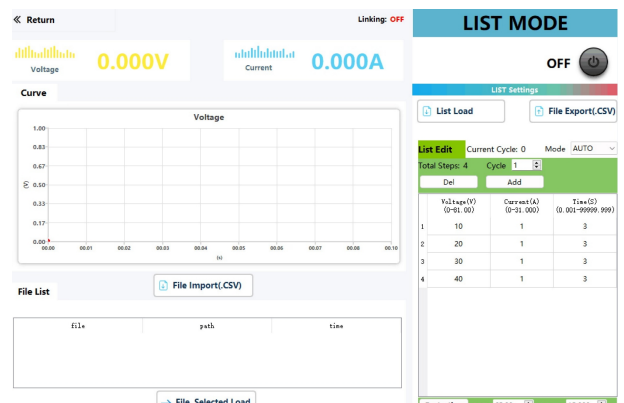
F USB Data Logging and Screenshot

The OWH65 series supports USB **screenshots** and **local data logging**, allowing users to easily capture and save test results. It also enables up to **72 hours** of abnormal data monitoring, improving analysis and troubleshooting efficiency and reliability.



G PC Software Support

The OWH65 series provides **USB Device, RS485, and LAN interfaces**. It also provides dedicated PC software with an intuitive and user-friendly interface, supporting remote monitoring, parameter configuration, and data logging, improving testing convenience and efficiency.



Main Specifications

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

Model		OWH6546	OWH6546A
Channel		1	
Rated output (0°C-40°C)	Voltage	0 -1200V	0-1200V
	Current	0-30A	0-20A
Power		18kW	12kW
Input power		3P4W, 380Vac+/-10%; 45Hz-65Hz (L1/L2/L3-N)	
Load regulation	CV	≤300mV	≤300mV
	CC	≤15mA	≤45mA
Input power regulation	CV	≤300mV	≤300mV
	CC	≤15mA	≤45mA
Setting resolution		10mV/1mA	
Readback resolution		10mV/1mA	
Setting accuracy	Voltage	≤0.05% ± 500mV	≤0.05% ± 500mV
	Current	≤0.1% ± 30mA	≤0.1% ± 90mA
Readback accuracy	Voltage	≤0.05% ± 500mV	≤0.05% ± 500mV
	Current	≤0.1% ± 30mA	≤0.1% ± 90mA
Ripple noise	Voltage	≤2Vp-p	≤2Vp-p
	Current	≤150mArms	≤300mArms
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)		≤5.0ms	
Working temperature		0-40°C	
Display		3.9-inch TFT LCD screen	
Interface		USB, LAN, RS485	
Dimension (W*H*D mm)		428 * 274.4 * 511	
Weight (kg)		30kg	

Specifications subject to change without prior notice.

Ordering Information

Ordering Information	Order NO.
Main Unit Models	
0-1200V, 0-30A, 18kW, 1CH	OWH6546
0-1200V, 0-20A, 12kW, 1CH	OWH6546A
0-1200V, 0-30A, 18kW, 1CH, PV Simulation Function	OWH6546-S
0-1200V, 0-20A, 12kW, 1CH, PV Simulation Function	OWH6546A-S
Standard Accessories	
Quick Guide	_____
Power cord	7Power-1
Data cable	7ULD10
Pluggable Terminal	7Term-1
Copper Shorting Bar	7Short-1
Warranty	
Main unit: 1-year warranty (excluding accessories)	