

IA-0055



VP ELECTRONIQUE

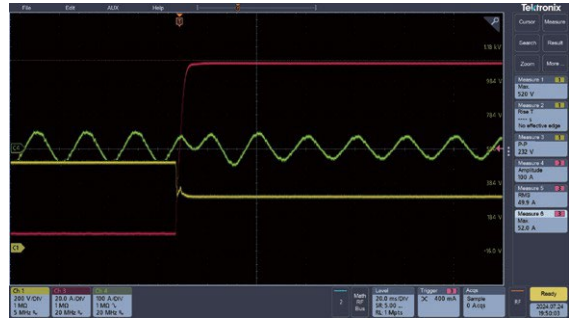
## Bidirectional DC Power Supplies

# VP35500

## Data sheet

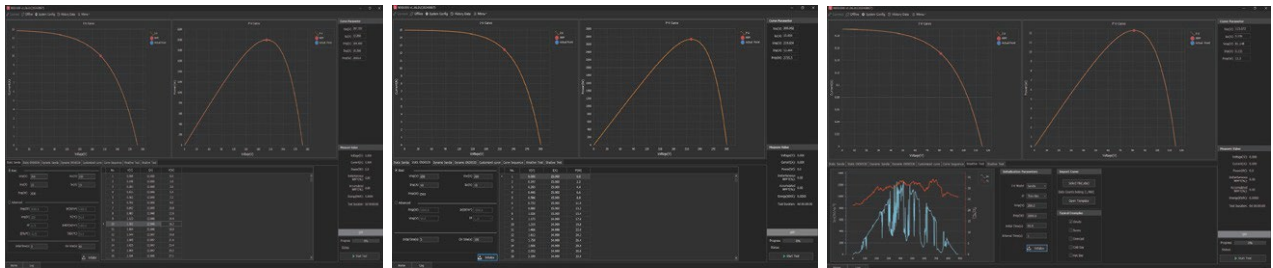






### PV Cell Simulation (Optional)

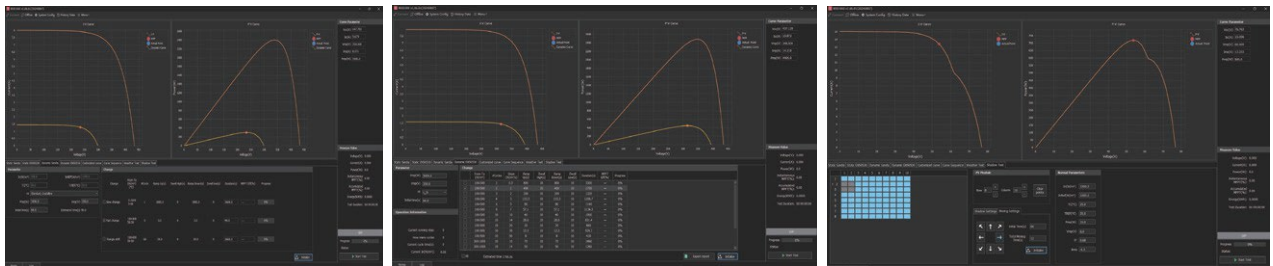
With the characteristics of accurate measurement, high stability, fast response speed, VP35500 series DC power supply with NS91000 can accurately simulate the I-V, P-V curve of the solar cell matrix. After setting  $V_{mp}$ ,  $P_{mp}$  and other parameters, it can generate reports in compliance with regulations, which is used to test the static and dynamic maximum power tracking efficiency of PV inverters, and also can provide support for system simulation and core equipment testing of microgrids, distributed photovoltaic and other power systems.



▲ Static Sandia

▲ Static EN50530

▲ Weather Test



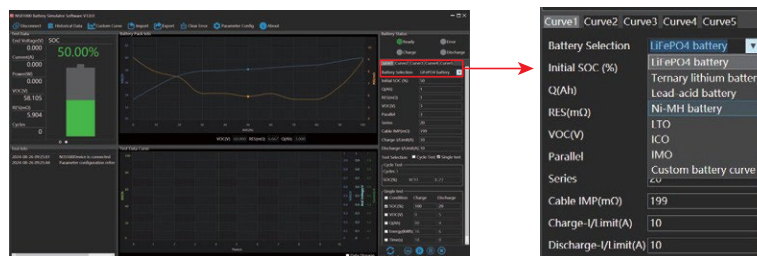
▲ Dynamic Sandia

▲ Dynamic EN50530

▲ Shadow Test

### Battery Simulation

VP35500 series with NS81000 battery simulator software to meet the user's needs for different types of battery simulation, and improve the test efficiency. NS81000 has 7 standard battery model libraries, users only need to select the corresponding battery type, configure the basic capacity and protection parameters, the software can quickly generate the corresponding type of battery characteristic curve; And there are 2 types of custom battery characteristic curve, engineers can be based on the actual measurement of the battery curve data, import the data into the software and carry out simulation.

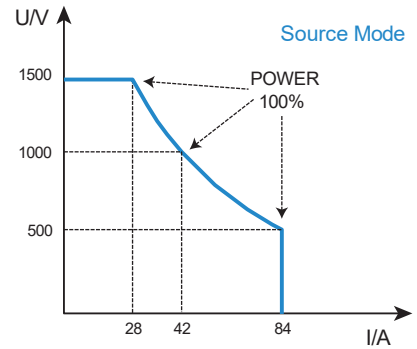


▲ Master Computer Interface

▲ Battery Type

## Wide range, high power density for saving cost and space

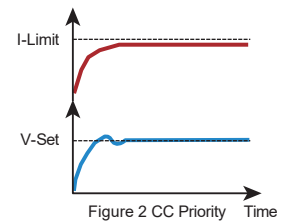
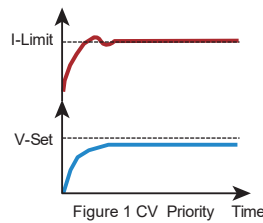
VP35500 series DC power supply adopts systematic heat dissipation design, optimised device selection, main circuit topology, system heat dissipation, to achieve 42kW power output in 3U chassis, and adopts wide range output design, voltage up to 1500V, current up to 65A. With wide range and high power density design, VP35500 series satisfy engineers' test application scenarios for products of various voltage/current levels, and greatly reducing purchase cost and space occupancy in laboratory or automated test systems.



## CC&CV priority function

VP35500 series has the function of setting voltage-control priority or current-control loop priority, it can adopt the optimal working mode for testing according to the characteristics of DUT, so as to better protect DUT.

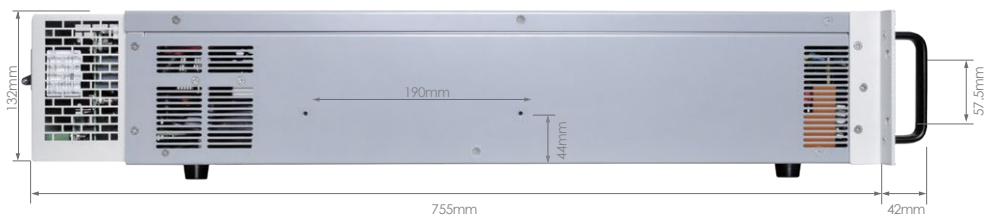
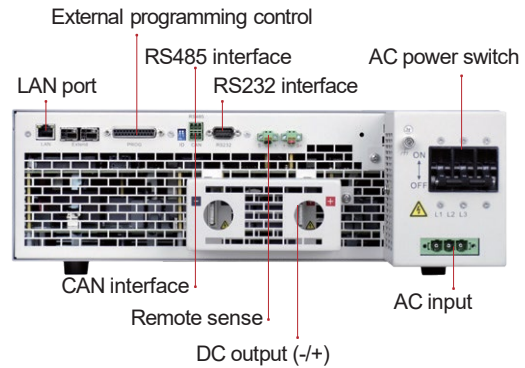
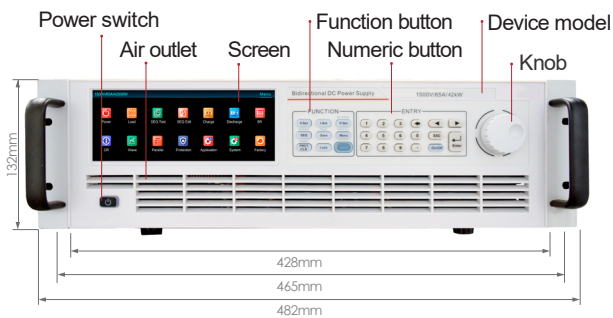
As shown in Figure 1, when it needs to reduce voltage overshoot during testing, such as powering a DC-DC power module, the voltage priority mode should be used to obtain a fast and smooth rising voltage.



— Voltage Waveform — Current Waveform

As shown in Figure 2, when it needs to reduce current overshoot during testing or the component to be measured is low impedance such as in the battery charging scenario, the current priority mode should be used to obtain a fast and smooth rising current.

## Product Dimension



## Technical Specifications

Model		VP35514-500-65	VP35542-500-195
Rated	Voltage	0~500V	
	Current	-65A~+65A	-195A~+195A
	Power	-14kW~+14kW	-42kW~+42kW
<b>CV Mode</b>			
Range	0~500V		
Setting Resolution	1mV		
Setting Accuracy(23±5°C)	≤0.02%+0.02%F.S.		
Voltage Ripple(20Hz-20MHz)	≤3Vp-p		
	≤0.4Vrms		
Max. Voltage Slew Rate	300V/ms		
<b>CC Mode</b>			
Range	-65A~+65A	-195A~+195A	
Setting Resolution	0.1mA	1mA	
Setting Accuracy(23±5°C)	≤0.1%+0.1%F.S.		
Current Ripple(20Hz-20MHz)	≤1.4Ap-p	≤2Ap-p	
	≤200mArms		
<b>CP Mode</b>			
Range	-14kW~+14kW	-42kW~+42kW	
Setting Resolution	0.1W		
Setting Accuracy(23±5°C)	≤0.1%+0.1%F.S.		
<b>Voltage Measurement</b>			
Range	0~500V		
Readback Resolution	1mV		
Readback Accuracy(23±5°C)	≤0.02%+0.02%F.S.		
Temperature Coefficient	≤15ppm/°C		
<b>Current Measurement</b>			
Range	-65A~+65A	-195A~+195A	
Readback Resolution	0.1mA	1mA	
Readback Accuracy(23±5°C)	≤0.1%+0.1%F.S.		
Temperature Coefficient	≤30ppm/°C		
<b>Dynamic Characteristics</b>			
Voltage Rise Time (no load 10%~90%)	≤5ms		
Voltage Rise Time (full load 10%~90%)	≤5ms		
Voltage Fall Time (no load 10%~90%)	≤300ms		
Voltage Fall Time (full load 10%~90%)	≤5ms		
Transient Response Time	The recovery time of load varying from 10% to 60% and output voltage recovering within 0.75% of rated voltage is less than 500μs.		
<b>Line Regulation</b>			
Voltage	<0.01%F.S.		
Current	<0.02%F.S.		
<b>Load Regulation</b>			
Voltage	<0.01%F.S.		
Current	<0.05%F.S.		
<b>Others</b>			
Isolation (Output to ground)	1000V DC		
Max. Efficiency	93%		
Power Factor	0.99		
Protection	OVP/OCP/OPP/UVP/UCP		
Interface	LAN/RS232/RS485/CAN		
Communication Response Time	5ms		
AC Input	Three phase 340VAC~480VAV,47Hz~63Hz,≤25A	Three phase 340VAC~480VAV,47Hz~63Hz,≤70A	
Temperature	Operating temperature: 0°C~50°C (>35°C derating output); Storage temperature: -10°C~70°C		
Operating Environment	Altitude <2000m; relative humidity:5%~90%RH(non-condensing); atmospheric pressure: 80~110kPa		
Dimension	132.0mm(H)*482.0mm(W)*755.0(D)(with shield)		
Net Weight	Approx. 34kg	Approx. 42kg	

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Technical Specifications

Model		VP35528-1000-65
Rated	Voltage	0~1000V
	Current	-65A~+65A
	Power	-28kW~+28kW
CV Mode		
Range		0~1000V
Setting Resolution		10mV
Setting Accuracy(23±5°C)		≤0.02%+0.02%F.S.
Voltage Ripple(20Hz-20MHz)		≤3Vp-p
		≤0.4Vrms
Max. Voltage Slew Rate		300V/ms
CC Mode		
Range		-65A~+65A
Setting Resolution		0.1mA
Setting Accuracy(23±5°C)		≤0.1%+0.1%F.S.
Current Ripple(20Hz-20MHz)		≤1.4Ap-p
		≤200mArms
CP Mode		
Range		-28kW~+28kW
Setting Resolution		0.1W
Setting Accuracy(23±5°C)		≤0.1%+0.1%F.S.
Voltage Measurement		
Range		0~1000V
Readback Resolution		10mV
Readback Accuracy(23±5°C)		≤0.02%+0.02%F.S.
Temperature Coefficient		≤15ppm/°C
Current Measurement		
Range		-65A~+65A
Readback Resolution		0.1mA
Readback Accuracy(23±5°C)		≤0.1%+0.1%F.S.
Temperature Coefficient		≤30ppm/°C
Dynamic Characteristics		
Voltage Rise Time (no load 10%~90%)		≤5ms
Voltage Rise Time (full load 10%~90%)		≤5ms
Voltage Fall Time (no load 10%~90%)		≤300ms
Voltage Fall Time (full load 10%~90%)		≤5ms
Transient Response Time	The recovery time of load varying from 10% to 60% and output voltage recovering within 0.75% of rated voltage is less than 500μs.	
Line Regulation		
Voltage		<0.01%F.S.
Current		<0.02%F.S.
Load Regulation		
Voltage		<0.01%F.S.
Current		<0.05%F.S.
Others		
Isolation (Output to ground)		1500V DC
Max. Efficiency		93%
Power Factor		0.99
Protection		OVP/OCP/OPP/UVP/UCP
Interface		LAN/RS232/RS485/CAN
Communication Response Time		5ms
AC Input	Three phase 340VAC~480VAV,47Hz~63Hz,≤50A	
Temperature	Operating temperature: 0°C~50°C(>35°C derating output); Storage temperature: -10°C~70°C	
Operating Environment	Altitude <2000m; relative humidity: 5%~90%RH(non-condensing); atmospheric pressure: 80~110kPa	
Dimension	132.0mm(H)*482.0mm(W)*755.0(D)(with shield)	
Net Weight	Approx. 38kg	

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Technical Specifications

Model		VP35522 -1500-60	VP35532 -1500-60	VP35542 -1500-65
Rated	Voltage	0~1500V		
	Current	-60A~+60A		-65A~+65A
	Power	-22kW~+22kW	-32kW~+32kW	-42kW~+42kW
<b>CV Mode</b>				
Range	0~1500V			
Setting Resolution	10mV			
Setting Accuracy(23±5°C)	≤0.02%+0.02%F.S.			
Voltage Ripple(20Hz-20MHz)	≤3Vp-p			
	≤0.4Vrms			
Max. Voltage Slew Rate	300V/ms			
<b>CC Mode</b>				
Range	-60A~+60A		-65A~+65A	
Setting Resolution	0.1mA			
Setting Accuracy(23±5°C)	≤0.1%+0.1%F.S.			
Current Ripple(20Hz-20MHz)	≤1.4Ap-p			
	≤200mArms			
<b>CP Mode</b>				
Range	-22kW~+22kW	-32kW~+32kW	-42kW~+42kW	
Setting Resolution	0.1W			
Setting Accuracy(23±5°C)	≤0.1%+0.1%F.S.			
<b>Voltage Measurement</b>				
Range	0~1500V			
Readback Resolution	10mV			
Readback Accuracy(23±5°C)	≤0.02%+0.02%F.S.			
Temperature Coefficient	≤15ppm/°C			
<b>Current Measurement</b>				
Range	-60A~+60A		-65A~+65A	
Readback Resolution	0.1mA			
Readback Accuracy(23±5°C)	≤0.1%+0.1%F.S.			
Temperature Coefficient	≤30ppm/°C			
<b>Dynamic Characteristics</b>				
Voltage Rise Time (no load 10%~90%)	≤5ms			
Voltage Rise Time (full load 10%~90%)	≤5ms			
Voltage Fall Time (no load 10%~90%)	≤300ms			
Voltage Fall Time (full load 10%~90%)	≤5ms			
Transient Response Time	The recovery time of load varying from 10% to 60% and output voltage recovering within 0.75% of rated voltage is less than 500μs.			
<b>Line Regulation</b>				
Voltage	<0.01%F.S.			
Current	<0.02%F.S.			
<b>Load Regulation</b>				
Voltage	<0.01%F.S.			
Current	<0.05%F.S.			
<b>Others</b>				
Isolation (Output to ground)	2250V DC			
Max. Efficiency	93%			
Power Factor	0.99			
Protection	OVP,OCP,OPP,UVP,UCP			
Interface	LAN/RS232/RS485/CAN			
Communication Response Time	5ms			
AC Input	Three phase 340VAC~480VAV,47Hz~63Hz,≤40A	Three phase 340VAC~480VAV,47Hz~63Hz,≤55A	Three phase 340VAC~480VAV,47Hz~63Hz,≤70A	
Temperature	Operating temperature: 0°C~50°C(>35°C derating output); Storage temperature:-10°C~70°C			
Operating Environment	Altitude <2000m; relative humidity: 5%~90%RH(non-condensing); atmospheric pressure: 80~110kPa			
Dimension	132.0mm(H)*482.0mm(W)*755.0(D)(with shield)			
Net Weight	Approx. 42kg			

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