

## **SLA-HVP-452 High Voltage Power Amplifier**

Maximum output voltage 160Vp-p(±80Vp)

The maximum output current is 5.65Ap

Bandwidth (-3dB) DC to 1MHz

Slew rate ≥356V/µs



#### **Overview**

SLA-HVP-452 is an ideal single-channel high-voltage power amplifier for amplifying AC and DC signals. Maximum output voltage of 160 vp-p (±80Vp), power of 452Wp, can drive high voltage power type load. Voltage gain CNC adjustable, one key to save the common Settings, provides you with a convenient and simple choice of operation, can be used with the mainstream signal generator, to achieve perfect signal amplification.

#### **Voltage Gain**

Voltage gain 0~50 times NC adjustable, specifically divided into coarse adjustment (1step) and fine adjustment (0.1 step) two. Combined with the LCD panel gain display, can quickly and accurately adjust to the required voltage value.

### **LCD Panels Display**

SLA-HVP-452 adopts liquid crystal display, dynamic display of device status and parameters, different color prompts make man-machine interaction more efficient, operation interface at a glance, simple and easy to understand.

Monitor

1/100 Monitor: The voltage of this port is 1/100 of the output port, and the monitoring port is a BNC connector, which can be directly connected to the oscilloscope for real-time monitoring of the output voltage.

### **Output & Input**

The output is banana socket, the maximum output voltage is  $160\text{Vp-p}(\pm 80\text{Vp})$ , the maximum output current is 5.65Ap. The output voltage rail is adjustable in three gears. The input is BNC interface, input resistance of  $50\Omega$ ,  $5k\Omega$  two optional, perfect match high and low internal resistance signal source.



# **Specifications**

ModelSLA-HVP-452Form of outputSingle outputBandwidth (-3dB)DC to 1MHzMaximum output voltage $160\text{Vp-p}(\pm 80\text{Vp})$ Maximum output current $2\text{Ap} \text{ (DC} \sim 50\text{Hz})$ Maximum output power $452\text{Wp}$ Fuse $8\text{A}/250\text{V}$ Voltage gain $\times 39.75\Omega \text{ (DC} \sim 50\text{Hz})$ Upper limit of load $R_L$ $\geq 39.75\Omega \text{ (DC} \sim 50\text{Hz})$ Output impedance $0.25\Omega + 0.6\mu\text{H}$ Slew rate $\geq 356\text{V}/\mu\text{s}$ DC offset $\pm 75\text{V}(0.1\text{V step})$ Input resistance $50\Omega / 5k\Omega$ Input amplitude $0 \sim 10\text{Vp-pMAX}$ Output voltage error $\leq \pm 3\%\text{FS}@1\text{kHz}$ Voltage monitor $100:1$ Current monitor $/$ Total harmonic distortion $\leq 0.1\%@1\text{kHz}, 100\text{Vp-p}$ Zero-point drift of output voltage $\leq \pm 0.1\text{V}$ Signal-noise ratio(SNR) $\geq 80\text{dB}$		
Bandwidth (-3dB)         DC to 1MHz           Maximum output voltage         160Vp-p(±80Vp)           Maximum output current         2Ap (DC~50Hz)           Maximum output power         452Wp           Fuse         8A/250V           Voltage gain         ≥39.75Ω (DC~50Hz)           Upper limit of load Rt         ≥39.75Ω (DC~50Hz)           Output impedance         0.25Ω+0.6μH           Slew rate         ≥356V/μs           DC offset         ±75V(0.1V step)           Input resistance         50Ω / 5kΩ           Input amplitude         0~10Vp-pMAX           Output voltage error         ≤±3%FS@1kHz           Voltage monitor         /           Total harmonic distortion         ≤0.1%@1kHz, 100Vp-p           Zero-point drift of output voltage         ≤±0.1V           Signal-noise ratio(SNR)         ≥80dB	Model	SLA-HVP-452
Maximum output voltage $160Vp-p(\pm 80Vp)$ Maximum output current $2Ap (DC \sim 50Hz)$ Maximum output power $452Wp$ Fuse $8A/250V$ Voltage gain $\times 0 \sim 50 (0.1 \text{ step/1 step})$ Upper limit of load $R_L$ $\geq 39.75\Omega (DC \sim 50Hz)$ Output impedance $0.25\Omega + 0.6\mu H$ Slew rate $\geq 356V/\mu s$ DC offset $\pm 75V(0.1V \text{ step})$ Input resistance $50\Omega / 5k\Omega$ Input amplitude $0 \sim 10Vp - pMAX$ Output voltage error $\leq \pm 3\% FS@1kHz$ Voltage monitor $100:1$ Current monitor $/$ Total harmonic distortion $\leq 0.1\%@1kHz, 100Vp - p$ Zero-point drift of output voltage $\leq \pm 0.1V$ Signal-noise ratio(SNR) $\geq 80dB$	Form of output	Single output
Maximum output current         2Ap (DC~50Hz)           5.65Ap, 4Arms (>50Hz)           Maximum output power         452Wp           Fuse         8A/250V           Voltage gain         ×0~50 (0.1 step/1 step)           Upper limit of load RL         ≥39.75Ω (DC~50Hz)           Output impedance         0.25Ω+0.6μH           Slew rate         ≥356V/μs           DC offset         ±75V(0.1V step)           Input resistance         50Ω / 5kΩ           Input amplitude         0~10Vp-pMAX           Output voltage error         ≤±3%FS@1kHz           Voltage monitor         /           Current monitor         /           Total harmonic distortion         ≤0.1%@1kHz, 100Vp-p           Zero-point drift of output voltage         ≤±0.1V           Signal-noise ratio(SNR)         ≥80dB	Bandwidth (-3dB)	DC to 1MHz
Maximum output current $5.65Ap, 4Arms (> 50Hz)$ Maximum output power $452Wp$ Fuse $8A/250V$ Voltage gain $\times 0 \sim 50 (0.1 \text{ step/1 step})$ Upper limit of load $R_L$ $\geq 39.75\Omega (DC \sim 50Hz)$ Output impedance $0.25\Omega + 0.6\mu H$ Slew rate $\geq 356V/\mu s$ DC offset $\pm 75V(0.1V \text{ step})$ Input resistance $50\Omega / 5k\Omega$ Input amplitude $0 \sim 10Vp - pMAX$ Output voltage error $\leq \pm 3\% FS@1kHz$ Voltage monitor $100:1$ Current monitor $/$ Total harmonic distortion $\leq 0.1\%@1kHz, 100Vp - p$ Zero-point drift of output voltage $\leq \pm 0.1V$ Signal-noise ratio(SNR) $\geq 80dB$	Maximum output voltage	160Vp-p(±80Vp)
S.65Ap, 4Arms (>50Hz)		2Ap (DC~50Hz)
Fuse8A/250VVoltage gain×0~50 (0.1 step/1 step)≥39.75Ω (DC~50Hz)Dupper limit of load $R_L$ ≥39.75Ω (DC~50Hz)213.91Ω (>50Hz)≥13.91Ω (>50Hz)Output impedance0.25Ω+0.6μHSlew rate≥356V/μsDC offset±75V(0.1V step)Input resistance $50Ω / 5kΩ$ Input amplitude0~10Vp-pMAXOutput voltage error≤±3%FS@1kHzVoltage monitor100:1Current monitor/Total harmonic distortion≤0.1%@1kHz, 100Vp-pZero-point drift of output voltage≤±0.1VSignal-noise ratio(SNR)≥80dB	maximum output current	5.65Ap, 4Arms ( > 50Hz)
Voltage gainx0~50 (0.1 step/1 step)Upper limit of load RL≥39.75Ω (DC~50Hz)≥13.91Ω (>50Hz)Output impedance0.25Ω+0.6μHSlew rate≥356V/μsDC offset±75V(0.1V step)Input resistance $50Ω / 5kΩ$ Input amplitude $0~10Vp-pMAX$ Output voltage error≤±3%FS@1kHzVoltage monitor $100:1$ Current monitor $/$ Total harmonic distortion≤0.1%@1kHz, 100Vp-pZero-point drift of output voltage≤±0.1VSignal-noise ratio(SNR)≥80dB	Maximum output power	452Wp
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fuse	8A/250V
Upper limit of load $R_L$ ≥13.91Ω (>50Hz)         Output impedance $0.25\Omega+0.6\mu H$ Slew rate       ≥356V/ $\mu$ s         DC offset $\pm 75V(0.1V \text{ step})$ Input resistance $50\Omega / 5k\Omega$ Input amplitude $0\sim10Vp-pMAX$ Output voltage error       ≤±3%FS@1kHz         Voltage monitor       100:1         Current monitor       /         Total harmonic distortion       ≤0.1%@1kHz, 100Vp-p         Zero-point drift of output voltage       ≤±0.1V         Signal-noise ratio(SNR)       ≥80dB	Voltage gain	x0~50 (0.1 step/1 step)
		≥39.75Ω (DC~50Hz)
Slew rate $≥356V/μs$ DC offset $±75V(0.1V \text{ step})$ Input resistance $50Ω / 5kΩ$ Input amplitude $0~10Vp-pMAX$ Output voltage error $≤±3\%FS@1kHz$ Voltage monitor $100:1$ Current monitor $/$ Total harmonic distortion $≤0.1\%@1kHz$ , $100Vp-p$ Zero-point drift of output voltage  Signal-noise ratio(SNR) $≥80dB$	Upper limit of load K∟	≥13.91Ω (>50Hz)
DC offset $\pm 75V(0.1V \text{ step})$ Input resistance $50\Omega / 5k\Omega$ Input amplitude $0 \sim 10Vp\text{-pMAX}$ Output voltage error $\leq \pm 3\%\text{FS@1kHz}$ Voltage monitor       100:1         Current monitor       /         Total harmonic distortion $\leq 0.1\%@1k\text{Hz}$ , 100Vp-p         Zero-point drift of output voltage $\leq \pm 0.1V$ Signal-noise ratio(SNR) $\geq 80\text{dB}$	Output impedance	0.25Ω+0.6μΗ
Input resistance $50Ω / 5kΩ$ Input amplitude $0 \sim 10 Vp\text{-pMAX}$ Output voltage error $≤ ±3\%FS@1kHz$ Voltage monitor       100:1         Current monitor       /         Total harmonic distortion $≤ 0.1\%@1kHz$ , 100Vp-p         Zero-point drift of output voltage $≤ ±0.1V$ Signal-noise ratio(SNR) $≥ 80dB$	Slew rate	≥356V/µs
Input amplitude  O~10Vp-pMAX  Output voltage error  Voltage monitor  Current monitor  Total harmonic distortion  Zero-point drift of output voltage  Signal-noise ratio(SNR)  O~10Vp-pMAX  ≤±3%FS@1kHz  /  /  100:1  /  ≤0.1%@1kHz, 100Vp-p  ≤±0.1V	DC offset	±75V(0.1V step)
Output voltage error  Signal-noise ratio(SNR)	Input resistance	50Ω / 5kΩ
Voltage monitor  Current monitor  /  Total harmonic distortion  Zero-point drift of output voltage  Signal-noise ratio(SNR)  100:1  /  ≤0.1%@1kHz, 100Vp-p  ≤±0.1V  ≥80dB	Input amplitude	0~10Vp-pMAX
Current monitor  Total harmonic distortion  Zero-point drift of output voltage  Signal-noise ratio(SNR)	Output voltage error	≤±3%FS@1kHz
Total harmonic distortion ≤0.1%@1kHz, 100Vp-p  Zero-point drift  of output voltage   Signal-noise ratio(SNR) ≥80dB	Voltage monitor	100:1
Zero-point drift of output voltage  Signal-noise ratio(SNR) ≥80dB	Current monitor	/
of output voltage  ≤±0.1V  Signal-noise ratio(SNR)  ≥80dB	Total harmonic distortion	≤0.1%@1kHz, 100Vp-p
	•	≤±0.1V
0.11	Signal-noise ratio(SNR)	≥80dB
Output connector 4mm Banana socket	Output connector	4mm Banana socket
Protection Overcurrent protection	Protection	Overcurrent protection

# **Other**

Supply voltage	AC110~240V, 50/60Hz
Operating temperature	0°C ~ 45°C
Storage temperature	-20°C ~ 50°C
Humidity	≤80% RH,no condensation
Warranty	3 years
Size	440*163*470mm(w * h * d)

# **Order**

Model	SLA-HVP-452 High Voltage Power Amplifier
Parameters	DC to 1MHz (-3dB)
Accessories	*1 three-core power cord, *2 BNC wires, *1 set of output wires, *1 safety tube, product specification, certificate, packing list and factory test report each.
Contact	sales@salukitec.com