

High Voltage DC Power Supply HV series

Introduction

HV series are high voltage DC power supply, available from 10kV to 200kV output. Output control can be switched between Remote control and Local control. Output displays and output indicators are direct on front panels and can be lead to external remote display screen. The high-voltage output terminal has over-current, over-current, short-circuit protection and arc protection.

The HV series are widely used in electrostatic applications, such as Electrostatic dust removal, Electrostatic spinning, Electrostatic electret, Electrostatic separation, Electrostatic spraying, Electrostatic flocking.

The HV series can also be used in High voltage insulation test, Material sorting, Metal vaporization, High voltage deburring and Laboratory test.

Features

- ✓ Output voltage full range adjustable
- ✓ Positive output +10kV to +200kV
- ✓ Negative output -10kV to -200kV
- ✓ 4 digits LED display for voltage and current
- ✓ Low EMI, strong anti-interference ability
- ✓ OVP, OCP, ARC and short circuit protections
- ✓ 0-10V analog control for voltage and current output

Applications

- ✓ Meltblown cloth electrostatic electret equipment
- ✓ Electrostatic spinning
- ✓ Electrostatic dust removal
- ✓ Capacitor charge and discharge
- ✓ Cable aging test, cable leakage test
- ✓ Optical fiber withstand voltage test

High Voltage DC Power Supply



Product Photos (500W frame)



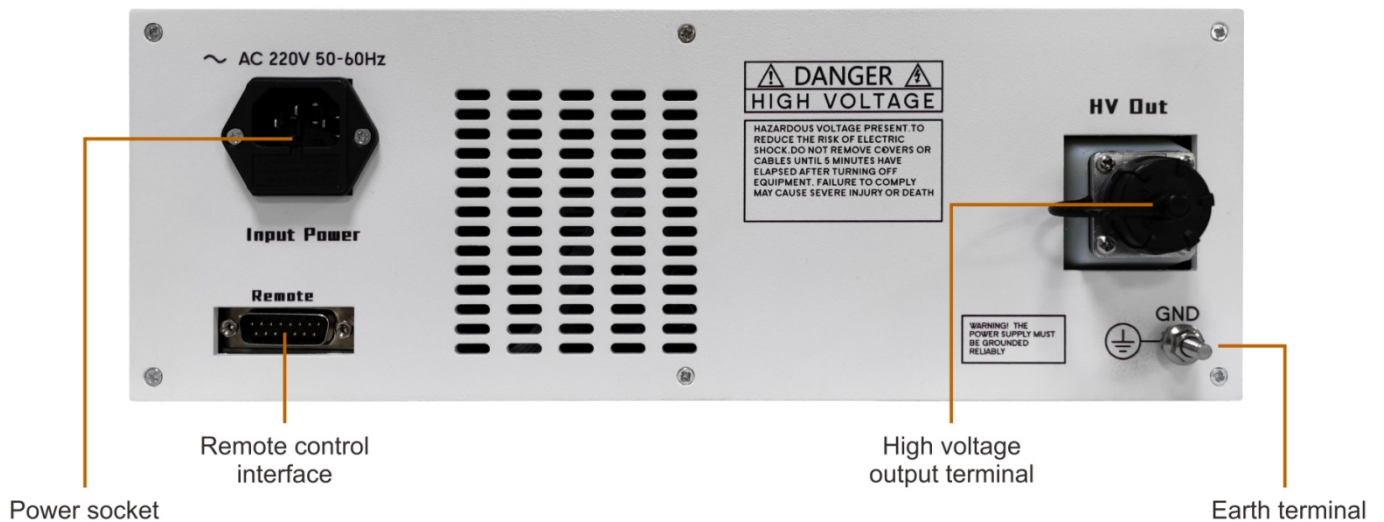
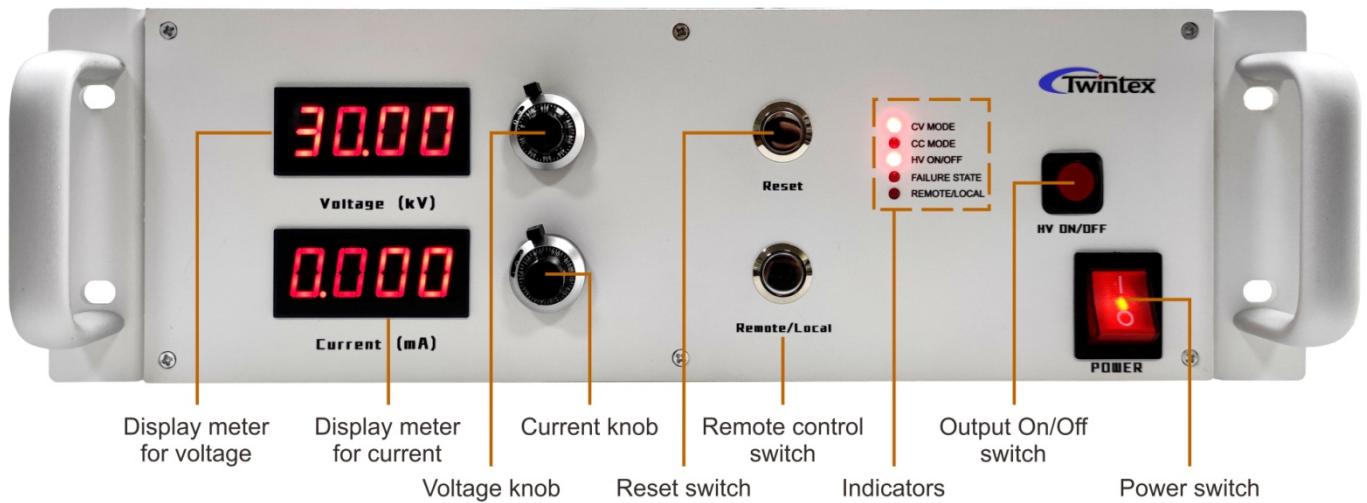
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High Voltage DC Power Supply



Panel Descriptions (500W)

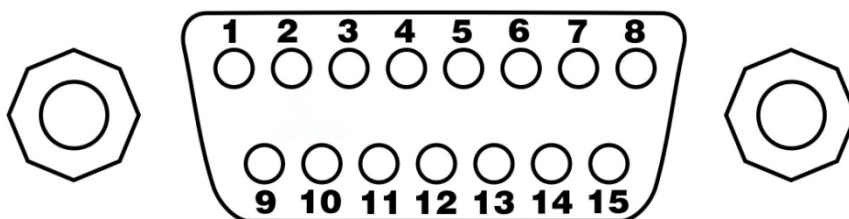


Specifications

Output		
Rated Voltage		Full range adjustable
Rated Current		Full range adjustable (except 1mA models)
Line Regulation		$CV \leq 0.1\%FS$
Load Regulation		$CV \leq 0.1\%FS$
Ripple & Noise		$\leq 0.5\% FS$
High Voltage stability		$\leq 0.1\%$ per hour after warm-up for one hour
Temperature co-efficient		100ppm/°C
Display		
Meter		4 digits LED display for voltage and current
Display	Voltage	0.01kV / 0.1kV
	Current	0.001mA / 0.01mA
Resolution	Voltage	$\leq 0.1\%FS + 2LSB$
	Current	$\leq 0.1\%FS + 2LSB$
Accuracy		
Protection		
Over Voltage Protection (O.V.P.)		Built-in OVP protection with limit of 105% rated output voltage. The output will be shut down when OVP is activated.
Over Current Protection (O.C.P.)		Built-in OCP protection with limit of 105% rated output voltage. The output will be shut down when OCP is activated.
Over Temperature Protection (O.T.P.)		Built-in OTP protection with heat sink temperature limit of $65^{\circ}C \pm 5^{\circ}C$ The output will be shut down when OTP is activated.
Short Circuit Protection		The output will be shut down when short circuit protection is activated.
General		
Cooling method		Cooling fan
Operating environment		$0^{\circ}C \sim 40^{\circ}C$, 10%~80%RH
Storage environment		$-20^{\circ}C \sim 70^{\circ}C$, 10%~90%RH
Input		AC220V $\pm 10\%$ single phase, 50/60Hz
Accessories		Input cable x1, Output cable x1, Operation manual x1
Dimensions		376W*367H*110D mm
Net weight		Approx 6.5kg

For the purpose of product improvement, specifications are subject to change without prior notice.

DB15 Pin-out definition:



Pin No.	Description	Reference value	Remarks
1	Input for voltage control	0 to +10V in proportion to 0 to 100% rated output.	
2	GND		
3	Input for current control	0 to +10V in proportion to 0 to 100% rated output.	
4	GND		
5	Voltage feedback	0 to +10V in proportion to 0 to 100% rated output.	
6	GND		
7	Current feedback	0 to +10V in proportion to 0 to 100% rated output.	
8	Reset	High level $\leq 15V$	
9	Output control loop	Pin 9-10 closed = HV ON	
10	Output control loop	Pin 9-10 closed = HV ON	
11	Voltage mode status	Open collector, maximum voltage 35V, maximum current 10mA	Low level valid
12	Current mode status	Open collector, maximum voltage 35V, maximum current 10mA	Low level valid
13	Failure status	Open collector, maximum voltage 35V, maximum current 10mA	Low level valid
14	HV ON/OFF indicator	Open collector, maximum voltage 35V, maximum current 10mA	Low level valid
15	+15V	Open collector, maximum voltage 35V, maximum current 10mA	

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Selection guide

Model (10kV)	Rated Output			Model (15kV)	Rated Output		
	V	A	W		V	A	W
HV10P-1	10kV	1mA	10W	HV15P-1	15kV	1mA	15W
HV10N-1	10kV	1mA	10W	HV15N-1	15kV	1mA	15W
HV10P-5	10kV	5mA	50W	HV15P-2	15kV	2mA	30W
HV10N-5	10kV	5mA	50W	HV15N-2	15kV	2mA	30W
HV10P-10	10kV	10mA	100W	HV15P-4	15kV	4mA	60W
HV10N-10	10kV	10mA	100W	HV15N-4	15kV	4mA	60W
HV10P-15	10kV	15mA	150W	HV15P-6.67	15kV	6.67mA	100W
HV10N-15	10kV	15mA	150W	HV15N-6.67	15kV	6.67mA	100W
HV10P-20	10kV	20mA	200W	HV15P-10	15kV	10mA	150W
HV10N-20	10kV	20mA	200W	HV15N-10	15kV	10mA	150W
HV10P-30	10kV	30mA	300W	HV15P-20	15kV	20mA	300W
HV10N-30	10kV	30mA	300W	HV15N-20	15kV	20mA	300W

Model (20kV)	Rated Output			Model (30kV)	Rated Output		
	V	A	W		V	A	W
HV20P-1	20kV	1mA	20W	HV30P-0.33	30kV	0.33mA	10W
HV20N-1	20kV	1mA	20W	HV30N-0.33	30kV	0.33mA	10W
HV20P-2	20kV	2mA	40W	HV30N-0.5	30kV	0.5mA	15W
HV20N-2	20kV	2mA	40W	HV30P-0.5	30kV	0.5mA	15W
HV20P-3	20kV	3mA	60W	HV30P-2	30kV	2mA	60W
HV20N-3	20kV	3mA	60W	HV30N-2	30kV	2mA	60W
HV20P-5	20kV	5mA	100W	HV30P-1	30kV	1mA	30W
HV20N-5	20kV	5mA	100W	HV30N-1	30kV	1mA	30W
HV20P-7.5	20kV	7.5mA	150W	HV30P-2	30kV	2mA	60W
HV20N-7.5	20kV	7.5mA	150W	HV30N-2	30kV	2mA	60W
HV20P-10	20kV	10mA	200W	HV30P-3.33	30kV	3.33mA	100W
HV20N-10	20kV	10mA	200W	HV30N-3.33	30kV	3.33mA	100W
HV20P-15	20kV	15mA	300W	HV30P-5	30kV	5mA	150W
HV20N-15	20kV	15mA	300W	HV30N-5	30kV	5mA	150W
				HV30P-10	30kV	10mA	300W
				HV30N-10	30kV	10mA	300W

Model (40kV)	Rated Output			Model (50kV)	Rated Output		
	V	A	W		V	A	W
HV40P-1	40kV	1mA	40W	HV50P-0.6	50kV	0.6mA	30W
HV40N-1	40kV	1mA	40W	HV50N-0.6	50kV	0.6mA	30W
HV40P-2.5	40kV	2.5mA	100W	HV50P-1	50kV	1mA	50W
HV40N-2.5	40kV	2.5mA	100W	HV50N-1	50kV	1mA	50W
HV40P-3.75	40kV	3.75mA	150W	HV50P-2	50kV	2mA	100W
HV40N-3.75	40kV	3.75mA	150W	HV50N-2	50kV	2mA	100W
HV40P-7.5	40kV	7.5mA	300W	HV50P-3	50kV	3mA	150W
HV40N-7.5	40kV	7.5mA	300W	HV50N-3	50kV	3mA	150W
HV40P-10	40kV	10mA	400W	HV50P-4	50kV	4mA	200W
HV40N-10	40kV	10mA	400W	HV50N-4	50kV	4mA	200W
				HV50P-10	50kV	10mA	500W
				HV50N-10	50kV	10mA	500W

Model (60kV)	Rated Output		
	V	A	W
HV60P-0.17	60kV	0.17mA	10W
HV60N-0.17	60kV	0.17mA	10W
HV60P-0.5	60kV	0.5mA	30W
HV60N-0.5	60kV	0.5mA	30W
HV60P-1	60kV	1mA	60W
HV60N-1	60kV	1mA	60W
HV60P-2	60kV	2mA	120W
HV60N-2	60kV	2mA	120W
HV60P-2.55	60kV	2.5mA	150W
HV60N-2.5	60kV	2.5mA	150W
HV60P-5	60kV	5mA	300W
HV60N-5	60kV	5mA	300W