



Unit 111, Dunston Innovation Centre  
 Chesterfield, S41 8NG, U.K.  
 T e l : + 44 (0) 1246 452909  
 F a x : + 44 (0) 1246 452942  
 W e b : w w w . e t p s . c o . u k  
 E m a i l : s a l e s @ e t p s . c o . u k  
 S a l e s : 0 8 0 0 6 1 2 9 5 7 5

# HPDx

# Compact High Voltage Sources

## Description

The HPDx are a series of programmable high voltage laboratory power supplies in a convenient desktop case. A wide range of voltage & current outputs are possible up to 80kV & 350W. Along with front panel control and display the unit is built with CAN and RS232 interfaces as standard. Versions with blank front panels controlled via analogue signal are also available. Innovative resonance mode techniques enable the units to operate at very high efficiencies. Constant current and constant voltage modes are provided. Low ripple and noise ensure these units are suitable for the widest range of applications. Typical examples include ion pumps & implantation, magnetrons, electrostatics, x-ray, laser & E-beam processing. Units from the HPDx range with modified regulation should be specified for capacitor and pulse loading. These HV supplies are also available in customer specific mechanical forms for medium volume OEM applications.



- Optional Ethernet and analogue interfaces
- RS232 and CAN interface as standard
- High voltages between 1kV to 80kV
- Very high efficiencies of up to 85%
- Compact benchtop case
- OEM versions on request

## Technical Data

Supply Voltage.....	.85 - 264VAC (50/60Hz) with PFC
Efficiency.....	up to 85%
Stability voltage.....	.02% ( $0 = I_{out} = I_{NOM}$ and $? V_{in}$ )
Stability current.....	.0.2% ( $R_{Load\ min} = R_{Load} < no\ load\ and\ ? V_{in}$ )
Ripple & noise.....	< 0.2% x $V_{NOM}$
Temperature coefficient.....	< $2 \times 10^{-4}/K$
Remote control.....	CAN and RS232 interface (opt. IEEE488.2, Ethernet and analogue interfaces)
Polarity.....	Factory fixed to positive or negative
Protection.....	OVP, short circuit, over temperature, overload
Dimensions (= 40kV).....	254 x 81 x 254mm (W x H x D)
Dimensions (40kV = $V_{NOM}$ = 60kV).....	254 x 106 x 254mm (W x H x D)
Dimensions (60kV = $V_{NOM}$ = 80kV).....	254 x 127 x 254mm (W x H x D)

Selection Table Overleaf



sales@etps.co.uk  
0800 612 95 75

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## Selection Table

Part Number	Maximum Power	Output Voltage	Output Current	Dimensions (Width x Height x Depth)
HPDx 10 357	350W	0 - 1kV	0 - 350 mA	254 x 254 x 81mm
HPDx 20 177	350W	0 - 2kV	0 - 175 mA	254 x 254 x 81mm
HPDx 30 127	350W	0 - 3kV	0 - 120 mA	254 x 254 x 81mm
HPDx 50 706	350W	0 - 5kV	0 - 70 mA	254 x 254 x 81mm
HPDx 80 456	350W	0 - 8kV	0 - 45 mA	254 x 254 x 81mm
HPDx 100 356	350W	0 - 10kV	0 - 35 mA	254 x 254 x 81mm
HPDx 150 236	345W	0 - 15kV	0 - 23 mA	254 x 254 x 81mm
HPDx 200 186	350W	0 - 20kV	0 - 18 mA	254 x 254 x 81mm
HPDx 250 146	350W	0 - 25kV	0 - 14 mA	254 x 254 x 81mm
HPDx 300 126	350W	0 - 30kV	0 - 12 mA	254 x 254 x 81mm
HPDx 400 095	350W	0 - 40kV	0 - 9 mA	254 x 254 x 106mm
HPDx 500 075	350W	0 - 50kV	0 - 7 mA	254 x 254 x 106mm
HPDx 600 065	350W	0 - 60kV	0 - 6 mA	254 x 254 x 127mm
HPDx 700 055	350W	0 - 70kV	0 - 5 mA	254 x 254 x 127mm
HPDx 800 045	320W	0 - 80kV	0 - 4 mA	254 x 254 x 127mm

Replace x in part number with P for positive or N for negative output polarity

Different output ranges and application/user specific options are possible.  
Please contact ET to discuss your requirements.

## Options Table

Code	Description
/P.....	Positive output polarity (Factory fixed)
/N.....	Negative output polarity (Factory fixed)
/LT.....	IEEE 488.2 interface, listener and talker
/ATI-5.....	0 - 5VDC analogue interface
/ETH.....	Ethernet interface
/ATE.....	Built without front panel control and display (Analogue interface provided as standard)