



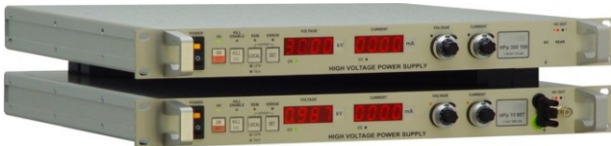
Unit 14, The Bridge, Beresford Way
 Chesterfield, Derbyshire, S41 9FG, UK
 T e l : + 44 (0) 1246 452909
 F a x : + 44 (0) 1246 452942
 W e b : w w w . e t p s . c o . u k
 E m a i l : s a l e s @ e t p s . c o . u k
 S a l e s : 0800 612 95 75

HPx

High Voltage Power Supply

Description

The HPx are a series of programmable high voltage laboratory power supplies. Along with front panel control and display the unit is built with CAN and USB interfaces as standard. Innovative resonance mode techniques enable the units to operate at efficiencies of almost 95%. Constant current and constant voltage modes are provided. Low ripple and noise ensure these units are suitable for the widest range of applications. These HV supplies are also available in customer specific mechanical forms for medium volume OEM applications. Available extras include a GPS variant with no front panel but integrated analogue interface, capacitor-charging functionality and a wide variety of communications interfaces (USB and CAN interfaces as standard, optionally with IEEE488.2, Ethernet or RS-232). Typical applications include x-ray, magnetrons, electrostatics, laser & E-beam processing.



- Extraordinary control specifications for output V and I
- High voltages up to 30kV. Output power up to 10kW
- Full range of remote control interfaces
- Patented resonance mode technique
- Very high efficiencies of up to 95%

Technical Data

Input voltage (300W/800W).....	85 - 264VAC, 50/60Hz with PFC
Input voltage (1.5kW/3kW).....	110VAC or 230VAC (option 85 - 264VAC, 50/60Hz with PFC for some models)
Input voltage (10kW).....	3x 400VAC \pm 10%
Efficiency.....	up to 95%
Stability voltage.....	0.01% ($0 \leq I_{out} \leq I_{NOM}$ and ΔV_{in})
Stability current.....	0.2% ($R_{Load\ min} \leq R_{Load} < \text{no load}$ and ΔV_{in})
Ripple & noise (Except 10kW).....	If $P_{out} \leq 800W$ then $< 1 * 10^{-4} V_{OMAX}$ or if $P_{out} > 800W$ then $< 2 * 10^{-3} V_{OMAX}$
Ripple & noise (10kW).....	$< 5 * 10^{-3} V_{NOM}$
Temperature coefficient.....	$< 2 * 10^{-4} /K$
Remote control (Except 10kW).....	CAN and USB interfaces, (opt. IEEE488.2, Ethernet, RS232 and isolated analogue)
Remote control (10kW).....	Isolated analogue and USB interfaces (opt. IEEE488.2, Ethernet, RS232, CAN)
Polarity.....	Factory fixed to positive or negative
Protection.....	OVP, short circuit, temperature, overload
Casing.....	19" rack
Accuracy voltage.....	$\pm (0.05\% V_{out} + 0.02\% V_{out\ max} + 1\ \text{digit})$
Accuracy current.....	$\pm (0.05\% V_{out} + 0.02\% V_{out\ max} + 1\ \text{digit})$

Options Table

Code	Description
/P.....	Positive output polarity (Factory fixed)
/N.....	Negative output polarity (Factory fixed)
/WIPFC.....	Input voltage 85 - 264VAC & PFC, 50/60Hz with PFC for 1.5kW & some 3kW units
/LT.....	IEEE 488.2 interface, listener and talker
/ATI-5.....	Isolated 0 - 5V DC analogue interface
/AIE.....	Analogue & IEEE 488.2 interface
/ETH.....	Ethernet interface (replaces a standard interface, please specify)
/RS232.....	RS-232 interface
/LPC.....	Unit functions as a capacitor charger.
/GPS.....	Unit built with no front panel controls or display. Non isolated 0-5Vdc analogue interface provided as standard for control and measurement



sales@etps.co.uk
0800 612 95 75

HPx

High Voltage Power Supply

Selection Table

Part Number	Maximum Power	Output Voltage	Output Current	Dimensions (Width x Height x Depth)
HPx 10 307	300W	0 - 1kV	0 - 300 mA	19" x 1U x 420mm
HPx 20 157	300W	0 - 2kV	0 - 150 mA	19" x 1U x 420mm
HPx 30 107	300W	0 - 3kV	0 - 100 mA	19" x 1U x 420mm
HPx 40 756	300W	0 - 4kV	0 - 75 mA	19" x 1U x 420mm
HPx 60 506	300W	0 - 6kV	0 - 50 mA	19" x 1U x 420mm
HPx 80 356	300W	0 - 8kV	0 - 35 mA	19" x 1U x 420mm
HPx 120 256	300W	0 - 12kV	0 - 25 mA	19" x 1U x 420mm
HPx 150 206	300W	0 - 15kV	0 - 20 mA	19" x 1U x 420mm
HPx 200 156	300W	0 - 20kV	0 - 15 mA	19" x 1U x 420mm
HPx 300 106	300W	0 - 30kV	0 - 10 mA	19" x 1U x 420mm
HPx 10 807	800W	0 - 1kV	0 - 800 mA	19" x 1U x 420mm
HPx 20 407	800W	0 - 2kV	0 - 400 mA	19" x 1U x 420mm
HPx 30 257	800W	0 - 3kV	0 - 250 mA	19" x 1U x 420mm
HPx 40 207	800W	0 - 4kV	0 - 200 mA	19" x 1U x 420mm
HPx 60 137	800W	0 - 6kV	0 - 130 mA	19" x 1U x 420mm
HPx 80 107	800W	0 - 8kV	0 - 100 mA	19" x 1U x 420mm
HPx 120 656	800W	0 - 12kV	0 - 65 mA	19" x 1U x 420mm
HPx 150 506	800W	0 - 15kV	0 - 50 mA	19" x 1U x 420mm
HPx 10 158	1500W	0 - 1kV	0 - 1500 mA	19" x 3U x 420mm
HPx 20 757	1500W	0 - 2kV	0 - 750 mA	19" x 3U x 420mm
HPx 40 357	1500W	0 - 4kV	0 - 350 mA	19" x 3U x 420mm
HPx 80 187	1500W	0 - 8kV	0 - 180 mA	19" x 3U x 420mm
HPx 120 127	1500W	0 - 12kV	0 - 120 mA	19" x 3U x 420mm
HPx 150 107	1500W	0 - 15kV	0 - 100 mA	19" x 3U x 420mm
HPx 10 308	3000W	0 - 1kV	0 - 3000 mA	19" x 4U x 420mm
HPx 20 158	3000W	0 - 2kV	0 - 1500 mA	19" x 4U x 420mm
HPx 40 758	3000W	0 - 4kV	0 - 750 mA	19" x 4U x 420mm
HPx 80 357	3000W	0 - 8kV	0 - 350 mA	19" x 4U x 420mm
HPx 120 257	3000W	0 - 12kV	0 - 250 mA	19" x 4U x 420mm
HPx 150 207	3000W	0 - 15kV	0 - 200 mA	19" x 4U x 420mm
HPx 10 108	10kW	0 - 1kV	0 - 1000 mA	19" x 4U x 500mm
HPx 20 507	10kW	0 - 2kV	0 - 500 mA	19" x 4U x 500mm
HPx 50 207	10kW	0 - 5kV	0 - 200 mA	19" x 4U x 500mm
HPx 100 107	10kW	0 - 10kV	0 - 100 mA	19" x 4U x 500mm
HPx 200 506	10kW	0 - 20kV	0 - 50 mA	19" x 4U x 500mm

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

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

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ET must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ET specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Your chosen unit may differ from that shown.