

# HTP-EHQ

## HIGH VOLTAGE PSU IN 3U CASSETTE



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The HTP-EHQ series offers high voltage outputs up to 5kV in a convenient 3U cassette. RS-232, USB and CAN interfaces are provided as standard.

These units are designed to be housed within either a compact 4 slot crate or the rackmounting 8 slot crate. The crates have an integrated AC/DC converters allowing the crate and cassettes to operate from a standard main supply. The voltage ramp at output ON/OFF can be adjusted via the computer interface. The inhibit socket enables the unit to be shut down via an external TTL signal.

- + Remote Control via RS-232, USB & CAN
- + LCD Display for Voltage & Current
- + Voltage & Current Limits
- + Compact 3U Cassette
- + Switchable Polarity

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## FURTHER DETAILS

The kill function allows the output to be disconnected without ramp down. Switchable output polarity with front panel indication is provided across all HTP-EHQ models.

Along with standard voltage and current adjustability additional 10% limit switches help protect sensitive loads. The HV output socket is conveniently located on the front panel.

The 4 digit LCD allows either the output voltage & current trip point to be preset and displayed. Actual values are shown during operation.

### TECHNICAL DATA

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Ripple & Noise (102M, 103M, 104M)	2mV <sub>P-P</sub>
Ripple & Noise (105M)	5mV <sub>P-P</sub>
Resolution of Voltage Measurement	1V
Resolution of Current Measurement (Range)	1μA (option /104 = 100nA for current range of 0 - 100μA)
Voltage Accuracy (For One Year)	± (0.05% V <sub>O</sub> + 0.02% V <sub>NOM</sub> + 1 digit)
Current accuracy (For One Year)	± (0.05% I <sub>O</sub> + 0.02% of range + 1 digit)
Stability (ΔV <sub>O</sub> /ΔV <sub>IN</sub> )	< 5 × 10 <sup>-5</sup> × V <sub>NOM</sub>
Stability Load (ΔV <sub>O</sub> )	< 5 × 10 <sup>-5</sup> × V <sub>NOM</sub>
Temperature Coefficient	< 5 × 10 <sup>-5</sup> / K
LCD Display	4 digit for voltage or current
Voltage Setting	Manual: 10 turn potentiometer    DAC: via Interface
Ramp Speed at HV On/Off	Hardware ramp: 500V / s
Ramp Speed at Interface	Software ramp: 2 - 255V / s
Protection	Separate current & voltage limit, INHIBIT, current trip
DC Power Requirements	± 24VDC (< 500mA) (option /F12 ±12V (<1A))
AC Power Requirements	± 230VAC (optional 85 - 264VDC) with crates HTP-ECH 104/108
Polarity	Switchable
Dimensions (W × H × D)	40.8mm × 133.4mm (3U) × 160mm

## SELECTION TABLE

Part Number	Max. Power	Output Voltage Range	Output Current Range	Interface Type
HTP-EHQ 102M	12W	0 - 2kV	0 - 6mA	RS-232, CAN, USB
HTP-EHQ 103M	12W	0 - 3kV	0 - 4mA	RS-232, CAN, USB
HTP-EHQ 104M	12W	0 - 4kV	0 - 3mA	RS-232, CAN, USB
HTP-EHQ 105M	12W	0 - 5kV	0 - 2mA	RS-232, CAN, USB

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

## OPTIONS

CODE	DESCRIPTION
/104	Maximum current output reduced to 100 $\mu$ A for improved resolution of 100nA
/ECH 104	Unit placed in 4 slot mainframe with RS-232 interface (see below for details)
/ECH 108	Unit placed in 8 slot mainframe with RS-232 interface (see below for details)
/ECH 134	Unit placed in 4 slot mainframe with CAN interface (see below for details)
/ECH 138	Unit placed in 8 slot mainframe with CAN interface (see below for details)
/NI2	Full output power (12W) with $V_{IN} \pm 12V \pm <1A$
/AIO	Analogue interface in place of RS-232

## CRATES FOR HTP-EHQ CASSETTES

Part Number	Slots	Power	Interface	Dimensions (H x W x D)
HTP-ECH 104	4	200W	4 x RS232	1/2 19" x 3U x 350mm
HTP-ECH 108	8	200W	8 x RS232	19" x 3U x 350mm
HTP-ECH 134	4	200W	CAN IN /OUT	1/2 19" x 3U x 350mm
HTP-ECH 138	8	200W	CAN IN /OUT	19" x 3U x 350mm

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd 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. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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