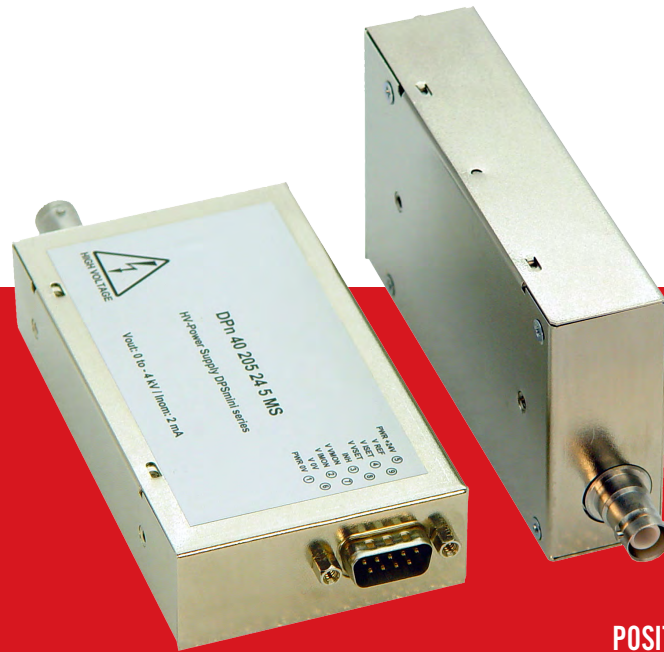


# HTP-DPS-MINI

## PRECISION HIGH VOLTAGE MODULES



POSITIVE PROBLEM SOLVING **+ =**

The HTP-DPS-MINI series includes high voltage power supply modules with output voltages up to 10kV in a very compact and easily mountable housing.

The maximum power is 9W, polarity is factory fixed. The HV output is available via a SHV connector or optional HV cable from 0.5kV to 6kV and a KINGS connector for the 8kV and 10kV modules. The supply and control voltages are connected via a D SUB 9 connector. An internal reference voltage can be used to control the output voltage with help of an external potentiometer.

- + Precision High Voltages of up to 10kV up to 9W
- + Patented Resonance Converter Technology
- + Modified Versions on Request
- + Positive or Negative Polarity
- + Very Low Ripple & Noise
- + Easily Mountable

# HTP-DPS-MINI

## PRECISION HIGH VOLTAGE MODULES

## FURTHER DETAILS

Analogue I/O is provided for remote monitoring and control. Our patented resonance converter technology and the metal box shielding guarantee lowest EMI.

### SELECTION TABLE

Part Number	Maximum Power	Input Voltage	Output Voltage Range	Output Current Range
HTP-DPp 05 156 24 5 M	7.5W	24 V	0 to +0.5kV	0 - 15mA
HTP-DPn 05 156 24 5 M	7.5W	24 V	0 to -0.5kV	0 - 15mA
HTP-DPp 10 805 24 5 M	8W	24 V	0 to +1kV	0 - 8mA
HTP-DPn 10 805 24 5 M	8W	24 V	0 to -1kV	0 - 8mA
HTP-DPp 20 405 24 5 M	8W	24 V	0 to +2kV	0 - 4mA
HTP-DPn 20 405 24 5 M	8W	24 V	0 to -2kV	0 - 4mA
HTP-DPp 30 305 24 5 M	9W	24 V	0 to +3kV	0 - 3mA
HTP-DPn 30 305 24 5 M	9W	24 V	0 to -3kV	0 - 3mA
HTP-DPp 40 205 24 5 M	8W	24 V	0 to +4kV	0 - 2mA
HTP-DPn 40 205 24 5 M	8W	24 V	0 to -4kV	0 - 2mA
HTP-DPp 60 105 24 5 M	6W	24 V	0 to +6kV	0 - 1mA
HTP-DPn 60 105 24 5 M	6W	24 V	0 to -6kV	0 - 1mA
HTP-DPp 80 105 24 5 M	8W	24 V	0 to +8kV	0 - 1mA
HTP-DPn 80 105 24 5 M	8W	24 V	0 to -8kV	0 - 1mA
HTP-DPp 100 504 24 5 M	5W	24 V	0 to +10kV	0 - 0.5mA
HTP-DPn 100 504 24 5 M	5W	24 V	0 to -10kV	0 - 0.5mA

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

### OPTIONS

CODE	DESCRIPTION
/K	600mm LEMO HV 9kV shielded cable for SHV connector and unterminated end

## TECHNICAL DATA

TECHNICAL DATA	
Stability ( $\Delta V_{IN}$ )	$< 1 \times 10^{-5} \times V_{OMAX}$
Stability No Load ( $\Delta R_{LOAD}$ )	$< 1 \times 10^{-5} \times V_{OMAX}$
Ripple & Noise	0.5 to 4kV output voltage (f> 10 Hz) typically <10mV <sub>p-p</sub> 6 to 10 kV output voltage (f> 10 Hz) maximum 30mV <sub>p-p</sub>
Temperature Coefficient	$< 5 \times 10^{-5} / K$
Remote Control and Measurement	0 - 5Vdc
Polarity	Positive or negative, factory fixed
INHIBIT	TTL low
Protection	Overload and short circuit protected
HV Output	0.5 to 6kV output voltage = SHV connector 8 to 10kV output voltage = KINGS connector
Case	Metal box
Supply Voltage	$V_{IN} = 24VDC \pm 5\%$
Dimensions	0.5 to 4kV output voltage = 62.5 × 109 × 25mm [W × D × H] 6kV output voltage = 68.5 × 109 × 31mm [W × D × H] 8 to 10kV output voltage = 74 × 98 × 22mm [W × D × H]

There is only one short circuit arc per second allowed. The output current must be limited to the nominal output current of the module externally or otherwise damage may occur.

## 9-PIN MALE D-SUB CONNECTOR

PIN	NAME	DESCRIPTION
1	PWR_0V	Power 0 V (connected to PIN 6, GND and metal box)
2	$V_{-I_{MON}}$	Monitor voltage corresponding $I_{OUT}$ $I_{OUT} = 0$ to $I_{OUTNOM} \pm 1$ -> $V_{2-6} = 0$ to $V_{MON}$ ( $R_{OUT} = 10k\Omega$ )
3	INH	INHIBIT (TTL level, LOW = active HIGH or n.c.      -> $V_{OUT} = 0$ -> $V_{OUT}$ according to $V_{SET}$ )
4	$V_{-I_{SET}}$	$I_{MAX} = 0$ to $I_{OUTNOM} \pm 1\%$ $V_{-I_{SET}}$ internally connected to $V_{REF}$ via 10k $\Omega$ -> $V_{4-6} = 0$ to $V_{SET}$
5	PWR_+	$+V_{IN}$
6	$V_{SET-0V}$	Signal 0V (connected to PIN 1, GND and metal box)
7	$V_{-V_{MON}}$	Monitor voltage corresponding $V_{OUT}$ $V_{OUT} = 0$ to $V_{OUTNOM} \pm 1\%$ -> $V_{7-6} = 0$ to $V_{MON}$ ( $R_{OUT} = 10k\Omega$ )
8	$V_{-V_{SET}}$	Setting voltage: $V_{8-6} = 0$ to $V_{SET}$ ( $R_{IN} = 1 M\Omega$ )      -> $V_{OUT} = 0$ to $V_{OUTNOM} \pm 1\%$
9	$V_{REF}$	$V_{9-6} = 5V$ (1mA) Internal reference voltage for an external pot. [Sliding contact on $V_{-V_{SET}}$ and/or $V_{-I_{SET}}$ ]

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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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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