



QUANTUM TECHNOLOGY, INC.

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MODEL HVP-5
HV PULSERS
DATA SHEET 728

MODEL HVP-5 PULSER SERIES

- w Outputs: 5KV and to 8 KV (-8KV option)
- w All Solid State
- w Laser or Radar Applications
- w High Repetition Rate (5, 50 and 100KHz,)
- w Fast Rise / Fall Times

The **Model HVP-5** is an advanced, flexible, solid state driver designed to suit a variety of applications. Based upon proprietary Quantum pulse technology, it offers consistent, low jitter performance. Featuring an adjustable high voltage output to 5 KV or 8 KV (-8KV option), the HVP-5 can be triggered up to 100 KHz continuous or 200KHz bursts.

The Model HVP-5 may be thought of as operating a fast, digital **ON-OFF** switch coupled to a HV power supply. The output pulse amplitude is easily adjusted by changing the power supply voltage. The unique feature of this response is that the HVP-5 will respond to DC thus, the output will be in the ON state as long as the input is held high. If DC response is not required, then the system will produce pulses up to 1 msec with a droop of less than 1% with a 20 pF load when the unit is ordered without the DC Option (less pulse conditioner card).

The minimum pulse width is 200 nsec. Rise and fall times are less than 10 nsec with 20 pF load. Two systems are offered: one with a miniature driver for 5 KHz rep rates and an air cooled driver for the 100 KHz rep rates. Options include digital programmable pulse width and delay plug-in modules.

Applications include Q switch driver or Pockels cell shuttering, using any Quantum's QC series Pockels cell and EMP testing, Time of Flight Mass Spectroscopy, micro-channel plate drivers or any other application requiring a flexible high voltage pulser.

Quantum manufactures a variety of HV drivers and Pulsers with sub-nanosecond and nanosecond speeds. Please refer to data sheets 733, 736, 740 and 749. Quantum has unique expertise in the growth of strain-free KD*P crystals for Pockels cells. See the data sheets 718, 722, 729 and 738.

SPECIFICATIONS:

Output	0 to 5 KV (8KV w/8KV option)
Rise/Fall Times (30 pF load)	<12 nsec, 10 nsec typ load + cable
Pulse Width w/o DC option	<200 nsec to DC <200 nsec to 1 msec
Jitter	<1 nsec
Pulse Rep rate	DC to 5KHz (50KHz w/50K option) (100KHz w/100K option)
Trigger	3-5 volt into 1 Kohm (TTL)
Weight	20 lbs (HVP-5) 30 lbs (with 50K or 100K option)
Power	100 / 115 / 230 VAC, 50-60 Hz

(Specify when ordering)

Standard -5KHz

50KHz with - 50K option

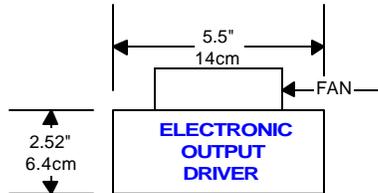
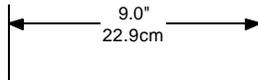
100KHz with - 100K option

w/o DC capability add -1ms to main model no

NOTE: The higher REP-RATE options are fan cooled.

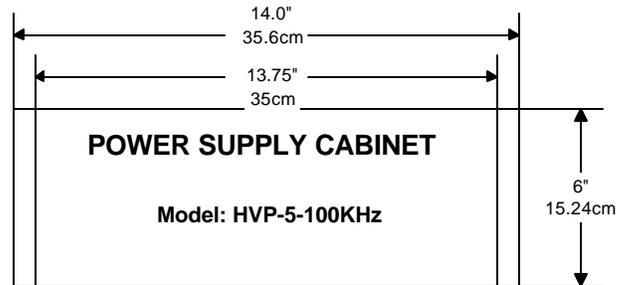
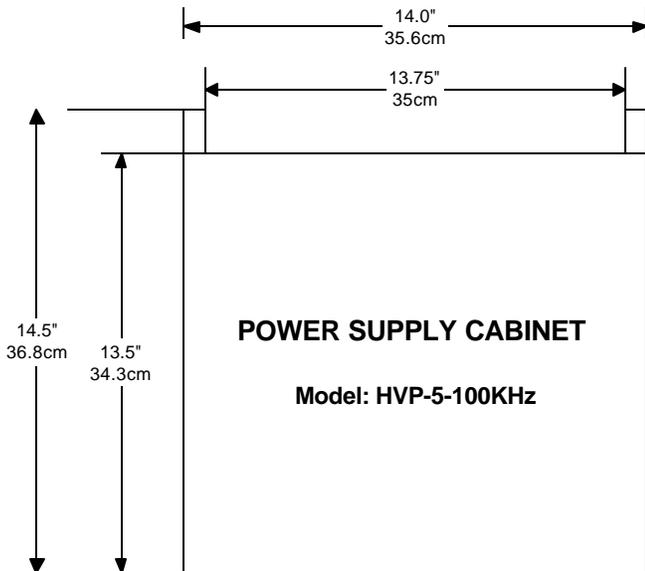
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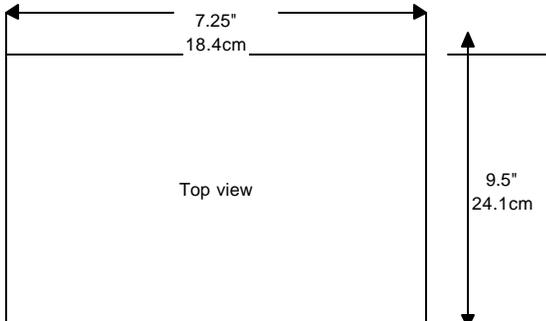
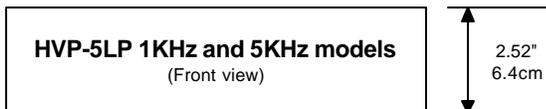
TOP VIEW

SIDE VIEW



TOP VIEW

FRONT VIEW



HVP-5-SERIES CABINETS FOR POWER SUPPLY and OUTPUT DRIVER