

High Voltage Pulse Generator



These very short rise time pulse generator use only solid state switches. The peak output voltage can reach 5, 20 or 30 kV on 50 ohm. A BNC 50 ohm connector produces triggering signals when the generator is internally triggered (internal mode). When the generator is in external mode, the HV pulse is only delivered when a synchronisation signal is present at this connector. In internal trigger mode, the repetition frequency is adjustable by a rotary knob up to 10 kHz, respectively 1 kHz. The output voltage is also adjustable by a rotary knob.

SPECIFICATIONS

Type	GP5-01-05	GP20-01-2	GP30-01-2
Maximum output voltage	5 kV (on 50 ohm)	20 kV (on 50 ohm)	30 kV (on 50 ohm)
Peak current	100 A (on 50 ohm)	400 A (on 50 ohm)	600 A (on 50 ohm)
Impedance	50 ohm	50 ohm	50 ohm
Rise time 15 - 95 %	105 ps +/- 5 ps	130 ps +/- 10 ps	130 ps +/- 10 ps
Pulse width at 50 %	500 ps +/- 100 ps	600 ps +/- 100 ps	600 ps +/- 100 ps
Jitter	30 - 40 ps	30 - 40 ps	30 - 40 ps
Pulse repetition freq.	≤ 10 kHz	≤ 10 kHz	≤ 1 kHz
Lifetime of the generator	> 10 ¹¹ pulses	> 10 ¹¹ pulses	> 10 ¹¹ pulses
Max. power into the load	2.5 W (at 10 kHz)	50 - 70 W (at 10 kHz)	10 W (at 1 kHz)
Connector type	HVM50K (other on request)	HN (other on request)	HVM50K
Triggering	internal or external BNC connector 50 ohm	internal or external BNC connector 50 ohm	internal or external BNC connector 50 ohm
Trigger signal	TTL, rise time 5-10 ns, pulse width 0.1-1 us	TTL, rise time 5-10 ns, pulse width 0.1-1 us	TTL, rise time 5-10 ns, pulse width 0.1-1 us
Cooling	air	air	air
Power supply	100 - 240 V _{ac} / 200 W	100 - 240 V _{ac} / 200 W	100 - 240 V _{ac} / 300 W
Weight	10 kg	10 kg	14 kg
Size (L x W x H)	48 x 45 x 12 cm (19" housing)	48 x 45 x 12 cm (19" housing)	48 x 45 x 12 cm (19" housing)

Other models are available on request.