DP — CAVITY DUMPER DRIVER

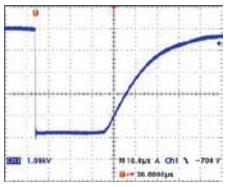
DP has been designed for use in mode-locked lasers for cavity dumping or for cavity Q-switching of solid-state nano-second lasers. Fast HV (less than 7 ns) edge ensures excellent pre- and post-pulse contrast.

Two versions are available: DP-3-4.2 and DP-3-5.2.

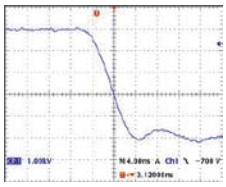
SPECIFICATIONS

Catalogue Number	DP-3-4.2	DP-3-5.2
Maximum high voltage (HV) pulse amplitude	4.2 kV	5.2 kV
HV pulse fall time	< 7 ns	< 9 ns
HV pulse rise time	~0.1 ms	
HV pulse duration	from 5 to 100 µs [1]	
Maximum HV repetition rate	3 kHz	2.5 kHz
Jitter	< 0.5 ns	
External triggering pulse duration requirement	100-1000 ns	
External triggering pulse amplitude requirement	3-5 V (50 Ω)	
External triggering pulse rise & fall time	< 20 ns	
HV pulse delay	35-40 ns	
External powering requirements:		
high voltage supply	4.4 kV, 0.2 mA max	5.5 kV, 0.2 mA max
low voltage DC supply	24-28 V, 50 mA max	
Size	100 x 50 x 40 mm	

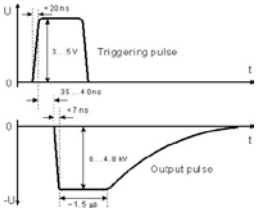
[1] *According to customers request.*



Oscillogram of DP driver operation: whole HV pulse



Oscillogram of DP driver operation: HV pulse fall



Time diagram of DP cavity dumping driver

DQF — POCKELS CELLS DRIVER FOR Q-SWITCHING FOR FLASHLAMP PUMPED LASERS

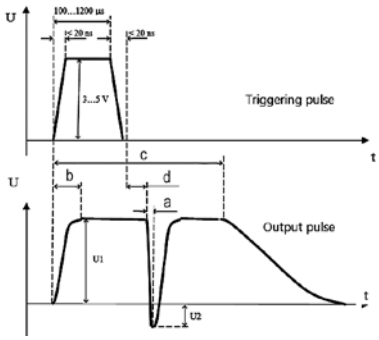


Fig. 1. Time diagram of DQF-0.2-5 driver

DQF-0.2-5 is designed for Q-switching of nanosecond lasers without use of phase retardation plate. High voltage is applied to Pockels cell in order to inhibit oscillation. Pockels cell is opened by negative polarity pulse allowing laser to radiate.

SPECIFICATIONS

Catalogue Number	DQF-0.2-5
Maximum high voltage to cell (HV) pulse amplitude (U1 + U2)	5 kV
U1 value *(Fig 1)*	equal to HV powering voltage
U2 value *(Fig 1)*	equal to 0.25×U1 (optionally 0 V)
HV pulse fall time (a)	< 15 ns
HV pulse rise time, typical (b)	60 µs
HV pulse duration, typical (c)	300 µs [1]
HV pulse repetition rate	≤ 250 Hz
HV pulse delay	40 ns
External triggering pulse duration requirement	100 – 1200 µs
External triggering pulse amplitude requirement	3 – 5 V (50 Ω)
External triggering pulse rise & fall time	< 20 ns
Board dimensions	92 × 70 × 22 mm [2]
Ø3.2 mm mounting holes location	84 × 62 mm
External powering requirements	
DC supply	12 – 24 V, max 200 mA
HV supply	4 kV, 1 mA

[1] *Can be modified to 1200 µs for lower repetition rates.*
[2] *Keep safety distance at least 5 mm from any side of board to other conductive parts.*

Specifications are subject to changes without advance notice.