1-2 channels 500A - 100V Pulsed Power Supply

Powering Laser Diode from AC with up to 100V/2x500A or 1x1000A

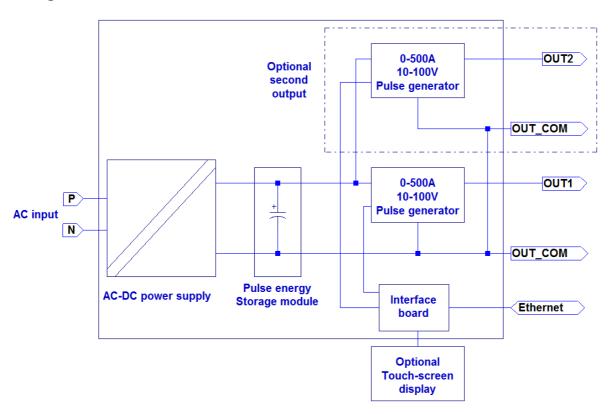


- ♥ Universal AC input: 115-230V_{AC} / 50-60Hz
- Diode voltage: 0 to 100V
 Current diode: 0 to 500A
- ★ 2 channels option, independent (2x500A) or paralleled (1x1000A)
- Pulse duration: 20μs to 3msAverage power: 1000W
- ♥ Output overvoltage, overcurrent, short-circuit, open circuit protection
- Can be parallelized for higher operation current

Power Supply		
Input voltage	85V _{AC} to 265V _{AC} / 45-65Hz (Universal AC)	
Load output		
Diode IR voltage	10-100V floating	
Output peak current	0 to 500A	
Output peak power	50kW	
Output average power	1000W	
Pulse energy	150J max	
Pulse duration	20 to 3000μs, limited by pulse energy	
Current rise time (10% - 90%)	10µs typical (depending on cabling), no current overshoot	
Current fall time (90% - 10%)	10μs typical (depending on cabling)	
Pulse repetition frequency	0 to 500Hz (limited by pulse duration and average power)	
Pulse to pulse stability	<0,10%	
Jitter	<100ns	
Input - Output insulation	2500V _{AC}	
Output - chassis insulation	$1500V_{DC}$	
	Interface	
Communication protocol	CAN, I2C, SPI	
Synchronisation	Internal or external	
Pulse mode	Single or repetition	
Control mode	Remote or local	
Internal Protections		
Permanent short circuit		
Over load protection		
Reverse polarity (programmable overvoltage protection)		
Open circuit		
Crowbar 110V +/-5V		
Temperature protection		
External Protections		
Security loop on back panel		
Front panel emergency stop		
Display		
Front LEDs	Ready (Green), Laser on (Orange), Error (Red)	
Control elements		
Keys	Switch button On/Off	
Emergency stop key	Instantaneously cuts all power circuits	
Options		
Display Touch screen on front panel		

Additional load output	 Additional output identical to #1 (0-500A, 10-100V) Same pulse characteristics Not isolated from #1 (common reference) Independent control (voltage and current) Internal or external synchronisation Total pulse energy is kept at 150J (shared between the two outputs) 	
Housing		
Dimensions	482 x 133 x 465 mm (19" rack, 3U)	
Weight	12kg typical	
Chassis material	Aluminium	
Temperature range	0 to +40°C	
Storage temperature	-20 to +70°C	
Cooling	Forced air (fan)	
Others		
Output connector	Screwed connector	
MTBF	>250 000 hours	
Norms		
Compliance to EN55011/22 Conducted Noise, Class B		
AC to DC conversion approved to UL, CSA		
CE marked		

Bloc diagram:



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