



He-Ne laser power supply

Size: 200 x 105 x 60 mm

Weight: 0.8 kg

Model	Output Voltage (Vdc)	Start voltage * - on request	Output Current	Input Voltage (Vac)	Laser head connector	Price
HNPS-1014-36Lab	1000-1400 V	>10kV, >12kV*	up 3 to 6 mA	115, 230Vac	Alden, high voltage	395€
HNPS-1319-36Lab	1300-1900 V	>10kV, >12kV*	up 3 to 6 mA	115, 230Vac	Alden, high voltage	395€
HNPS-1926-47Lab	1900-2600 V	>10kV, >12kV*	up 4 to 7 mA	115, 230Vac	Alden, high voltage	395€
HNPS-2432-57Lab	2400-3200 V	>10kV, >12kV*	up 5 to 7 mA	115, 230Vac	Alden, high voltage	525€
HNPS-2432-810Lab	2400-3200 V	>12kV	up 8 to 10 mA	115, 230Vac	Alden, high voltage	by request
HNPS-3240-57Lab	3200-4000 V	>12kV	up 5 to 7 mA	115, 230Vac	Alden, high voltage	525€
HNPS-3240-810Lab	3200-4000 V	>12kV	up 8 to 10 mA	115, 230Vac	Alden, high voltage	by request
HNPS-4254-78Lab	3200-4000 V	>12kV	up 7 to 8 mA	115, 230Vac	Alden, high voltage	by request



Laser Power Supplies For Pulsed Flash-Lamp Pumped Solid-State Lasers

Model	FLD
Input	
Voltage	230 VAC *
Output:	
Max. output voltage	450V (up to 1000 V on request)
Max. output power	3.5 kW *
Pulse width	0.1-20 ms *
Repetition rate	Up to 200 Hz *
Efficiency	85-90%
Protection	overvoltage, overheating, flashlamp breakdown, interlock etc
Cooling	Forced air (built-in fans)
Simmer supply	SBZ-2008
Capacitor bank	28000uF *
Environment:	
Operation temperature	0 ... +40 °C
Storage temperature	-20 ... +80 °C
Humidity	90%, non-condensing
Size (LxWxH)	500x315x172 mm
Weight	12 kg
Price	from 4600 €

*- other values are available on request



Pockels Cell Driver

Model	QBD	QBU
Input:		
Voltage	+24VDC	+24VDC
Output:		
Voltage	up to 6 kV (2.4-6 kV/2-5 kV/1.6-4 kV /1.2-3 kV/0.8-2 kV)	up to 5 kV (2-5 kV/1.6-4 kV /1.2-3 kV/0.8-2 kV)
Repetition rate	From single pulse to 100 kHz *	From single pulse to 100 kHz *
Load	up to 0.5 nF	up to 0.5 nF
Rise time (Fall time)	20 ns (typical)	20 ns (typical)
Recovery time	10 us (@ 100 pF)	10 us (@ 100 pF)
Leakage current	not more than 150 uA	not more than 150 uA
Environment:		
Operation temperature	0 ... +40 °C **	0 ... +40 °C **
Storage temperature	-40 ... +85 °C	-40 ... +85 °C
Humidity	90 %, non-condensing	90 %, non-condensing
Size (LxWxH)	110x80x25 mm	130x80x20 mm
Weight	0.1 kg	0.1 kg
Output signal		
Price	870€	1440€

* – at low voltage and with small load capacitance
 ** – harsh environment version is available on request



Laser Flashlamp Pulse Driver

Model	NBU-1012	NBU-0405
Input:		
Voltage	+24V +/- 7V DC	+24V +/- 7V DC
Output:		
Voltage	up to 1000 V	400 V
Current	up to 1200 A	500 A
Flashlamp pulse width	up to 100 ms (on request)	up to 500 us
Simmer Parameters:		
Voltage	up to 150 V	
Open circuit voltage	up to 1350 V	
Current	up to 800 mA	
Triggering Parameters:		
Voltage	20 kV negative pulse	20 kV negative pulse
Pulse width	~1 us	1 us
Restrike rate	~30 Hz	2-3 Hz
Environment:		
Operation temperature	-20 ... +45 °C	-40 ... +60 °C
Storage temperature	-40 ... +85 °C	-65 ... +85 °C
Humidity	90 %, non-condensing	90 %, non-condensing
Size (LxWxH)	210x198x51.5 mm	178x120x30 mm
Weight	3.5 kg	0.6 kg
Price	2000€	1450€



Capacitor Charging Power Supply

Model	PCP-17	PCP-20
Input:		
Voltage	230 VAC rectified	230 VAC
Output:		
Maximal output voltage	500/700/1000/1500/2000 V	500/700/1000/1500/2000 V
Average power	1750 W	2000 W
Stability	0.5%	0.5%
Pulse to pulse	0.5%	0.5%
Efficiency	More than 90%	More than 90%
PFC coefficient	0.90 (Partial)	0.98 (active)
Leakage current	Not more than 150 µA	Not more than 150 µA
Protection:	HV arc to ground during operation	HV arc to ground during operation
	Turn on with open circuit	Turn on with open circuit
	Turn on with short circuit	Turn on with short circuit
	Shut down on over-temperature,	Shut down on over-temperature,
	Shut down on over-voltage	Shut down on over-voltage and open interlock
Cooling	Forced air (external fan required)	Forced air (built-in fan)
Environment:		
Operation temperature	-20 ... +45 °C	-20 ... +45 °C
Storage temperature	-40 ... +85 °C	-40 ... +85 °C
Humidity	90%, non-condensing	90%, non-condensing
Size (LxWxH)	155x140x73 mm	263x168x131 mm
Weight	1.3 kg	2.5 kg
Options	Modifications for full (complete) discharge are available on request	
Price	1600€	2200€



High and Medium Power Laser Diode Drivers (CW)

	LDD-150 / 250 / 400	LDD-600 / 1000 / 1500
Model		
Input:		
Voltage	110/230VAC, 50/60Hz or 230VAC, 50/60Hz	110/230VAC, 50/60Hz or 230VAC, 50/60Hz
Current	< 3 A	< 15 A
Output:		
Maximum power (W _{max})	150, 250 or 400W	600, 1000 or 1500W
Maximum current (I _{max})	selectable in range 10 ... 100 A	selectable in range 10 : 100 A
Maximum voltage (U _{max})	is obtained automatically from formula W_{max} / I_{max}	is obtained automatically from formula W_{max} / I_{max}
Rise/fall time	< 1 ms (10% to 90% full current), < 500 µs on request	< 1 ms (10% to 90% full current), < 500 µs on request
Current regulation accuracy	< 1% of I _{max}	< 1% of I _{max}
Current value error	< 1% of I _{max}	< 1% of I _{max}
Current overshoot	< 1% of I _{max}	< 1% of I _{max}
Efficiency	> 80%	> 80%
Safety:		
PFC value	> 0.98 (active)	> 0.98 (active)
Leakage current	< 150 µA	< 150 µA
Safety approval	IEC60950, IEC60601-1	IEC60950, IEC60601-1
Case fault voltage	4000 VAC	4000 VAC
EMC approval	EN55011 (Class A)	EN55011 (Class A)
Interface:		
Connector	15 Pin "D"-Sub Female	15 Pin "D"-Sub Female
Current program	analog, 0-10 V	analog, 0-10V
Current monitor	analog, 0-10 V	analog, 0-10V
Voltage monitor	analog, 0-10 V	analog, 0-10V
Environment:		
Operating temperature	0 : +40 °C	0 ... +40 °C
Storage temperature	-20 : +60 °C	-20 ... +60 °C
Humidity	90%, non-condensing	90%, non-condensing
Size (LxWxH)	250x180x70 mm	290x220x70 mm
Weight	1.8 kg	2 kg
Price:	1200€ / 1300€ / 1500€	1750€ / 2000€ / 2400€