

# Arc Lamp CW Laser Power Supply

## Model 2002



### Description

The product is a 19" CW Arc Lamp power supply in size 3U and is designed for operation from European 240V 1-ph, 50Hz line supply, for use to output power levels of 6kW.

The unit features 'integrated boost', 'series trigger', and 'automatic ignition' and incorporates many safety features.

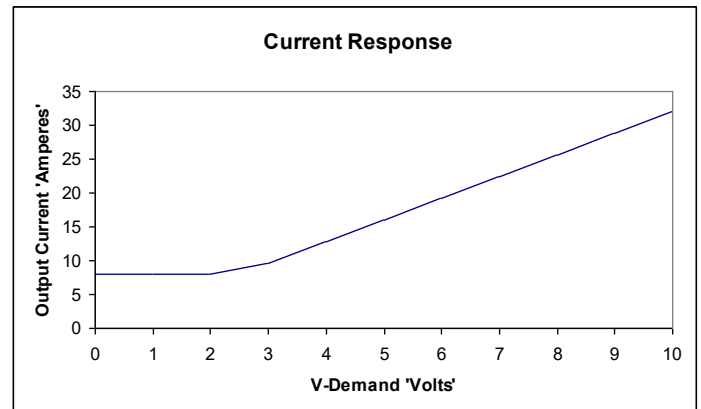
A flexible design approach has produced a unit which has become an industry standard with small laser system integrators or as a replacement product for a refurbished laser system.

### Highlights

- 6kW output power
- 32A Maximum output current
- Robust Design using IGBT technology
- Front panel manual control
- Rear panel remote control
- Fully RoHS compliant
- After sales engineering support.
- Ease of maintenance.
- 2 year warranty
- Compliant with the following safety standards;
  - EN61010-1
- Compliant with the following EMC standards;
  - EN61000-6-2
  - EN61000-6-4
  - EN61000-3-2
  - EN61000-3-3
  - ENV50204

### Electrical Characteristics

Line Input 3-Phase	190 – 255 VAC
AC Supply Tolerance	± 10%
Frequency	47 to 63Hz
Power Factor (Full Load)	≥0.98
Crest Factor (Full Load)	≤1.45
Output Ripple (Full Load)	1% (3% peak to peak) 1kHz Band Width
Line Regulation	0.1% for ± 10% Line Voltage Change
Output Drift	≤0.1% over 8 hour period (with constant temp, load & Line conditions)
Efficiency	≥90%
Ignition Pulse Voltage	28kV, nominal
Boost Voltage	1000V, nominal, two stage
Output Rating	32A/6kW





**Control Functions**

- Interlock
- Status (Volt free relay contact)
- Over-temperature (Volt free relay contact)
- Lamp 'ON' Answer Back (Volt free relay contact)
- Remote /Local select of ON /OFF
- Output Current Demand Voltage 0-10VDC
- Output Current Monitor Voltage (Optional)

**Front Panel Control**

- MCB line breaker.
- ON /OFF Rocker switch (with automatic lamp ignition)
- 10-turn potentiometer for lamp current control.
- 3 1/2 Digit LED Display of lamp current.
- Push Switch selecting 'Standby', Remote or potentiometer control of output lamp current.
- Fault Indicator.

**Rear Panel Connection**

The unit is fitted with a 15-way 'D' (female) connector for remote operation.

**Connector Pinout**

+12v	1		
Over temperature	2	9	Interlock link
Status	3	10	Interlock
Answer Back	4	11	On/off link to pin 12 or 13.
Common return	5	12	Front panel on/off
V-monitor +	6	13	Remote on/off
V-monitor -	7	14	+ V-demand 10v=100%
chassis earth	8	15	- V-demand

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We manufacture over thirty Standard and OEM power supplies.  
 Please contact us to discuss your requirements.

**Safety**

All control circuitry is low voltage and wiring has full galvanic isolation from the line supply.

The build standards comply with EN61010-1 and conform to the requirements of the Low Voltage Directive 73/23/EEC and carry the CE Mark.

Should the lamp fail to ignite the trigger and boost voltages are removed from the output terminals.

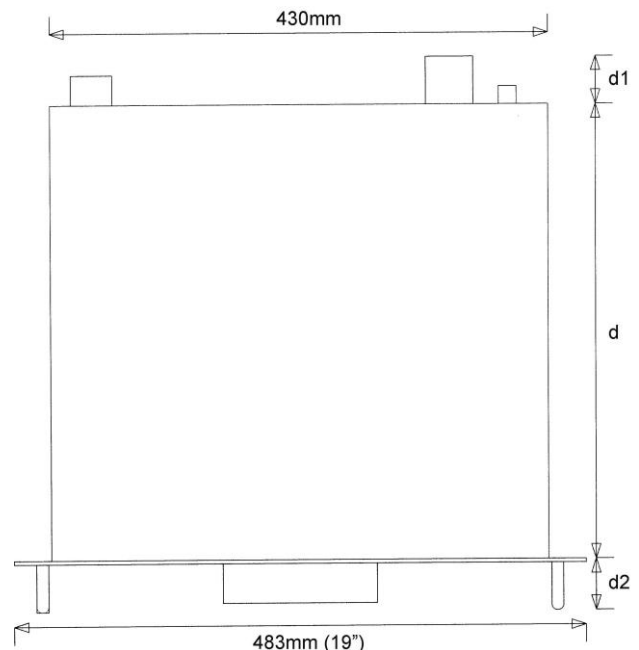
An appropriate EMC Filter is fitted. Units comply with the Emission and Immunity Standards EN50082-2 and EN50081-1 (Class A).

**Protection**

Protection on the line input is by VDE rated circuit breaker. Output protection is included in the event of a lamp failure or connection to earth. Latching over current limit 'OCL' is included. Thermal protection is included against overload.

**Mechanical**

Size (mm)	Height	133 (3U)
	Depth d	380
	d1	40
	d2	42
	Weight	28kg



Cooling Forced air, entering at the front via a Graded filter and exiting at the rear.

Temperature Continuous in an ambient of 0°C to 60°C with appropriate de-rating above 35°C.

