



Arc Lamp CW Laser Power Supply

Model 9514E



Description

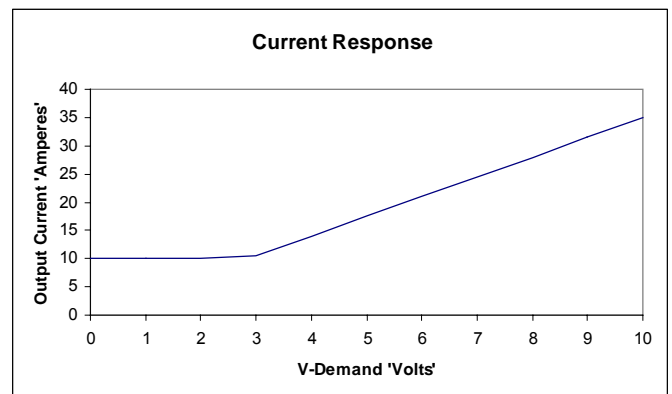
The product is a 19" CW Arc Lamp power supply in size 4U and is designed for operation from European 380V/415V 3-ph + N, 50Hz line supply, for use to output power levels of 6kW. The unit features 'integrated boost', 'series trigger', and 'automatic ignition' and incorporates many safety features. A flexible 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
- 35A 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 + N	380 – 415 VAC
AC Supply Tolerance	± 10%
Frequency	47 to 63Hz
Power Factor (Full Load)	≥0.9
Crest Factor (Full Load)	≤1.8
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
Output Rating	35A/6kW





Control Functions

- Interlock
- Status (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)

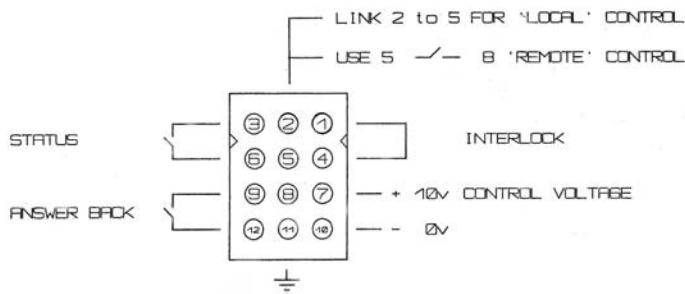
Front Panel Control

- 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 units are fitted with a 12-way 'QM' connector for remote operation.

Control Connector Pin-out



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.

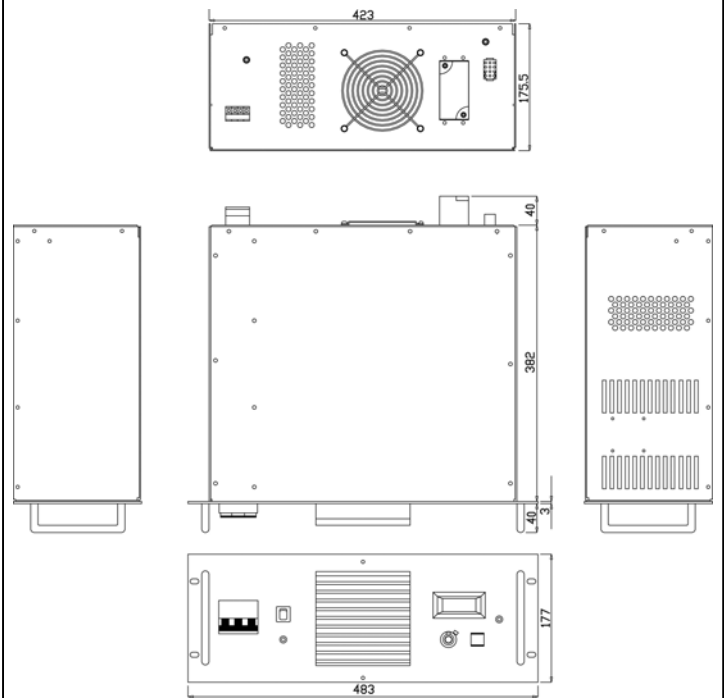
Should the lamp fail to ignite the trigger and boost voltages are removed from the output terminals.

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



All dimensions in 'mm'

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.

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