



Pulsar Series

Capacitive Discharge Welder

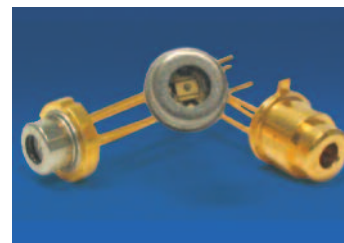
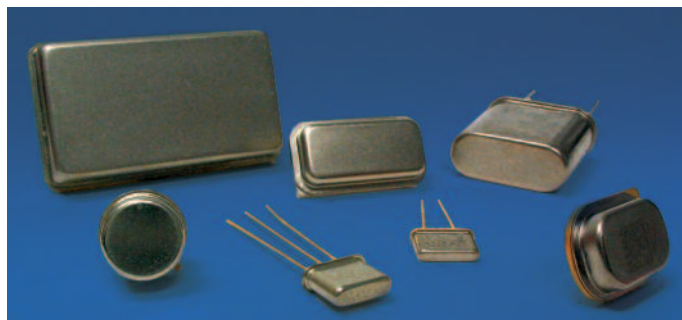
The Pulsar Series of Capacitor Discharge Power Supplies, combined with KN-II Weld Heads provide dependable, field proven solutions for hermetic sealing of microelectronic packages and joining of a variety of metal parts. The Pulsar Series offers a broad range of precision power choices and can be easily integrated into atmospheric enclosures to ensure high yield hermetic sealing results.



key features

- Capacitor Discharge (CD) technology supplies short, high energy welding pulses which localize heat in the weld zone, reducing heat build-up in sensitive microelectronic packages.
- Wide Range of Models from 1000-9000 joules of available energy. Hermetically seal diverse packages ranging from the smallest TO, UM and HC styles to hybrids up to five linear inches (127 mm) depending on package design.
- Weld Inhibit Function accepts input from atmospheric enclosure instruments, such as oxygen analyzers and moisture monitors for integrated process control.
- Weld Fire Lockout monitors the capacitor bank charge and prevents firing if the energy level differs from the set point, ensuring repeatable weld pulses.
- Efficient Stored Energy Design provides stable, consistent output pulses which are not affected by AC input power fluctuations.
- Single Phase AC Power allows for convenient installation.

typical applications





Projection Welding System – Design and Operations

- Straightforward operation and control is easy to learn and understand.
- All weld parameters are accessed, set, and displayed on the front panel of the SS-1 Weld Head Controller.
- Optimized digital control of charging and discharging rates decreases cycle times.
- KN-II Weld Head provides fast follow-up allowing for complete metal fusion without weld splatter.
- Standard one-inch (25.4mm) diameter electrodes for KN-II Single Range weld head and two-inch (50.4mm) diameter electrodes for KN-II Dual Range weld heads.
- Custom designed electrodes and holders are available to suit your application.
- Two anti-tie-down palm buttons safely initiate the weld cycle (foot switch optional).
- Adjustable electrode approach pressure and speed guarantee safe handling and avoid damage to fragile parts.
- Weld pressure, forge time and hold time are adjustable over a wide range of settings.



SS-1 Weld Head Controller



Desktop Projection Welding System

specifications

	P-1000	P-3000	P-6000	P-9000
Energy range:	1-999 joules	100-3000 joules	100-6000 joules	100-9000 joules
Capacitance:	Calibration set	9300 uF	18600 uF	27,900 uF
Maximum potential:	430 VDC max	50-800 VDC	50-800 VDC	50-800 VDC
Input voltage:	90-138 VAC or 180-264 VAC 50/60Hz	208/240/480 VAC 50/60 Hz Single Phase		
Input current:	15 Amps	Adjustable between 15 -30 amperes 50/60 Hz		
Dimensions inches (cm):	11.5 x 9.9 x 13.8 (29 x 25 x 35)	34.0 x 22.0 x 16.0 (86 x 56 x 41)		
Circuitry:	All solid-state/charge and discharge			
Control circuit protection:	Zener-referenced closed-loop circuit			
Weld transformer:	High-efficiency matched weld transformer			
Energy repeatability:	5% of energy set point			



Typical P9000 Welding System

KN-II weld head

Forge force:	
Single range:	Adjustable between 120-1200 lbs. (534-5340 newtons)
Dual range:	Adjustable between 120-4000 lbs. (534-18000 newtons)
Stroke:	47 mm (1.875") standard, 100 mm (4") optional, custom lengths available
Electrode holders:	Quick change
Alignment:	Zero alignment die set
Kinetic expander:	Expansion >6.4 mm (0.25 Inches)

SS-1pneumatic weld head controller

Dimensions (LxDxH) Inches (cm):	12 L x 15 D x 24 H (30.5 x 38.0 x 61.0)
Approach time:	Adjustable from 50 msec to 3 seconds
Forge time:	Adjustable from 50 msec to 3 seconds
Hold time:	Adjustable from 50 msec to 3 seconds
Weld initiate circuit:	Automatic
Locking regulators:	Adjustable from 10 psi (72 kpa) to 120 psi (827 kpa)
Cycle status:	Visual illuminated indicators



P1000



P3000 - P6000 - P9000



Integrated System



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