CD-P Series
Capacitor Discharge Power Supplies



AMADA WELD TECH's Benchmark® brand CD-P Series capacitor discharge welding power supplies are field proven solutions for welding applications which require precision, repeatability and low heat affected zone.

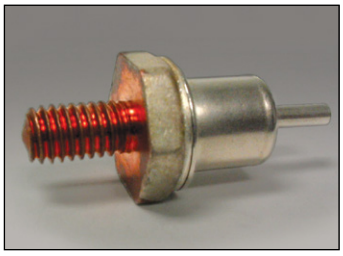
These power supplies deliver high peak current in short weld pulses which are suitable for difficult to weld materials like hard, high strength, stamped or drawn steel. Allows the use of much higher currents with low heat propagation preventing oxidation and surface decarburization resulting in joints that exceed manufacturers' required pushout and torque requirements without damaging the parts. Consistent and repeatable results eliminate the need for post-weld inspections, saving time and money.

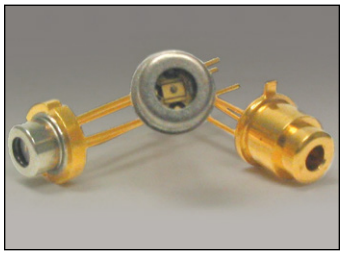
CD-P welding power supplies are typically used in the microelectronic, medical, military, sensor and automotive industries which utilize a vast range of materials like kovar, invar, cold rolled steel, hot stamped boron steel like USIBOR, stainless steel and nickel.

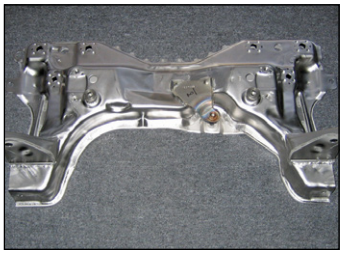
KEY FEATURES

- Capacitor discharge (CD) technology supplies short, high energy welding pulses which localize heat in the weld zone, reducing heat build-up in parts like sensitive microelectronic packages
- Wide range of CD power supplies from CD-P3000A (3,000 Joule) to CD-P9000A (9,000 Joule) configuration
- "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

TYPICAL APPLICATIONS


Power device


Photonic devices


Automotive components


Filters

ADDED FEATURES

- Straightforward operation and control is easy to learn and understand
- Active Discharge feature automatically activated when reducing power setting (no need to reset the power supply to discharge excess power)
- Separate power control board for easy calibration and repair
- Built-in air-cooling for improved air circulation and performance even in harsh environments
- Stop function inhibits firing, disables charging and initiates capacitor discharge with audible alarm
- Analog input voltage control allows power setting from an external device
- Analog output monitors the capacitor voltage
- Built-in thermal overheat safety weld inhibit switch
- Utilizes a high efficiency matched weld transformer

TECHNICAL SPECIFICATIONS

	CD-P3000A	CD-P6000A	CD-P9000A
Energy range	0.10 - 3.00 kJ	0.10 - 6.00 kJ	0.10 - 9.00 kJ
Capacitance	9,300 µF	18,600 µF	27,900 µF
Maximum potential	50 - 800 VDC	50 - 800 VDC	50 - 800 VDC
Input voltage	Single phase, 208/240/480 VAC 50/60 Hz		
Input current	Adjustable between 15 - 30 A 50/60 Hz		
Control circuit protection	Zener-referenced closed-loop circuit		
Weld transformer	High-efficiency matched weld transformer		
Energy repeatability	5% of energy set point		
Certification	CE, CCC compliant		

Note: 12,000 Joule model with matching weld transformer available upon request

WEIGHT & DIMENSIONS

	CD-P3000A	CD-P6000A	CD-P9000A
Power supply dimensions (W x D x H)	17 in x 35 in x 23 in (432 mm x 889 mm x 584 mm)	17 in x 35 in x 23 in (432 mm x 889 mm x 584 mm)	17 in x 35 in x 23 in (432 mm x 889 mm x 584 mm)
Power supply weight	326 lbs (148 kg)	343 lbs (156 kg)	359 lbs (163 kg)
Weld transformer dimensions (W x D x H)	24 in x 19 in x 27 in (610 mm x 483 mm x 686 mm)	24 in x 19 in x 27 in (610mm x 483 mm x 686 mm)	21 in x 28 in x 28 in (533 mm x 711 mm x 711 mm)
Weld transformer weight	780 lbs (355 kg)	780 lbs (355 kg)	1,300 lbs (591 kg)

Note: 12,000 Joule model with matching weld transformer available upon request

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