



## **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

# **CD-P Series** Capacitor Discharge Power Supplies

AMADA WELD TECH's Benchmark<sup>®</sup> 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.

## TYPICAL APPLICATIONS





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    |                |                |  |  |
| <b>Control circuit protection</b> | 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<br>dimensions<br>(L x W x H)     | 35 in x 17 in x 23 in<br>(89 cm x 43 cm<br>x 59 cm) | 35 in x 17 in x 23 in<br>(89 cm x 43 cm<br>x 59 cm) | 35 in x 17 in x 23 in<br>(89 cm x 43 cm<br>x 59 cm) |
| Power supply weight                           | 326 lbs (148 kg)                                    | 343 lbs (156 kg)                                    | 359 lbs (163 kg)                                    |
| Weld transformer<br>dimensions<br>(L x W x H) | 19 in x 24 in x 27 in<br>(49 cm x 61 cm<br>x 69 cm) | 19 in x 24 in x 27 in<br>(49 cm x 61 cm<br>x 69 cm) | 28 in x 21 in x 28 in<br>(71 cm x 54 cm<br>x 71 cm) |
| 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

AMADA WELD TECH DO

São Paulo, Brasil

antonio.ruiz@ama

T: +55-11-4193-3607

LTDA.





#### AMADA WELD TECH INC.

AMERICAS AMADA WELD TECH (Midwest Technical Center) Detroit, Michigan T: (248) 313-3078 nadaweldtech.com

AMADA WELD TECH (Mexico Office) Èl Paso, Texas T: (915) 881-8765 @amadaweldtech.com

|              | ISO 9001 Certified Company • 24/7 Repair Service: 1-866-751-7378 |                              |                           |  |
|--------------|--|------------------------------|---------------------------|--|
|              | EUROPE   | ASIA                         |                           |  |
| H DO         | AMADA WELD TECH<br>GmbH  | AMADA WELD<br>Tech Co., LTD. | AMADA WEL<br>Korea Co., I |  |
|              | Munich, Germany  | Isehara, Japan               | Seoul, Korea              |  |
| 07           | T: +49-89-839403-0   | T: +81-4-7125-6177           | T: +82-31-80              |  |
| weldtech.com | infode@amadaweldtech.eu  | sales@miyachi.com            | sales@amada               |  |

T: (626) 303-5676

1820 S. Myrtle Ave. • Monrovia, CA 91016 US

info@amadaweldtech.com • www.amadaweldtech.com

AMADA WELD TECH CO., LTD. Isehara, Japan T: +81-4-7125-6177 sales@mivachi.com AMADA WELD TECH

AMADA WELD TECH SHANGHAI CO., LTD. TAIWAN CO., LTD. Shanghai, China Taipei, Taiwan T: +86-21-6448-6000 T: +886-2-2585-0161 jwu@msc.miyachi.com

AMADA WELD TECH Korea Co., LTD.

T: +82-31-8015-6810

daweldtech.co.kr

AMADA (THAILAND) CO., LTD. Bangkok, Thailand T: +66-2170-5900 info@ ada.co.th

INDIA PVT., LTD. Bangalore, India

ESEN ELEKTRONIK

MÜHENDİSLİK DAN. SAN. VE TİC. LTD. ŞTİ.

Yaylagül Sk. 8/4, A.Ayrancı 06540 ANKARA - TÜRKİYE Tel: +90 (312) 468 8114 Faks: +90 (312) 468 8115 http://www.esenel.com eposta@esenel.com

AMADA VIETNAM CO., LTD. Ha Noi, Vietnam T·+84-4-6261-4583 T: +91-80-4092-1749 info@mivachiindia.com

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