

# DC-L Series

## Linear DC Resistance Spot Welding Power Supplies

The DC-L1000A and DC-L0600A are high performance 1000 A precision Linear DC spot welding power supplies that combine touch panel integrated database process control and monitoring with a high accuracy, low ripple linear transistor output stage that delivers ultra fast 10  $\mu$ s dynamic process response rates, with absolute closed loop 1 A incremental accuracy and repeatability.

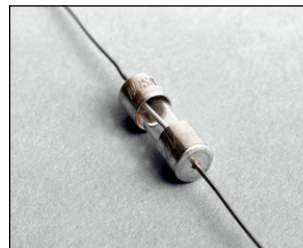
Typically used in aerospace, medical and electronic assembly applications, these units also incorporate SPC data collection and reporting capability via ethernet.

2 A to	1000 A	1 A steps	1% accuracy
10 mV to	10 V	10 mV steps	1% accuracy
10 W to	4 kW	1 W steps	1% accuracy

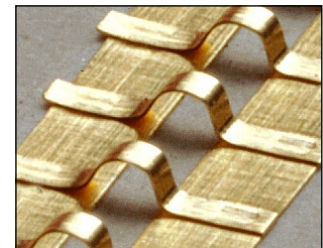
### KEY FEATURES

- High speed, ultra low ripple closed-loop output control for consistent welding process definition and control
- Constant current, voltage and power modes with programmable multi-pulse combinations 1 A steps to 1000 A
- Programmable part & weld checking coupled with optional displacement and force limit checking
- Three phase (DC-L1000A) and single phase (DC-L0600A) operational variants
- Full TCP/IP Ethernet interfacing to internal and external SPC database systems
- Associate and view PDF and text format work instructions and process manuals with weld schedules
- Associate and view JPG and BMP files with weld schedules for QC and process checking
- 3 USB ports : USB memory stick, mouse, keyboard, servo head drives, etc.
- SMART weld head force control within weld schedules
- High speed automation and communication ports with full remote control capability

### TYPICAL APPLICATIONS



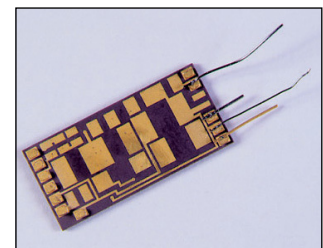
*Butt welding fuses*



*Gold Ribbon bonding*



*Welding components to leadframe*



*Welding fine wire to pad*

## OPTIONS

- Optically isolated analogue electrical channel monitoring
- Versions available with 1,3 or 6 channel weld displacement monitoring built-in and combining dynamic weld cut-off

## TECHNICAL SPECIFICATIONS

Model	DC-L1000A	DC-L0600A
Maximum output current	1000 A DC	1000 A DC
Output voltage at full load	4 V DC	4 V DC
Maximum output power	4 kW	4 kW
Full output duty cycle	5% @ 1000 A	4% @ 1000 A
Control modes	Current/Voltage/Power	Current/Voltage/Power
Output accuracy of setting	± 1%	± 1%
Program timing values	0.1 – 999.9 ms	
Squeeze time	0.1 – 999.9 ms	
Upslope time pulse 1	0.1 – 999.9 ms	
Peak time pulse 1	0.1 – 999.9 ms	
Downslope time pulse 1	0.1 – 999.9 ms	
Delay time between pulses	0.1 – 999.9 ms	
Upslope time pulse 2	0.1 – 999.9 ms	
Peak time pulse 2	0.1 – 999.9 ms	
Downslope time pulse 2	0.1 – 999.9 ms	
Hold time	0.1 – 999.9 ms	
Process monitor limits	Current/Voltage	Current/Voltage
Number of waveforms averaged	User defined	User defined
Waveform window limiting range	0 - 100%	0 - 100%
Waveform window tolerances	0 - 100%	0 - 100%
Optional displacement monitoring	LVDT or Encoder Up to 6 channels of real time weld displacement monitoring	LVDT or Encoder Up to 6 channels of real time weld displacement monitoring
Force	0 - 500 N (112 lb)	0 - 500 N (112 lb)
Input requirements	3 phase	1 phase
Input voltage	380 - 480 VAC	95 - 265 VAC
Control I/O	Opto isolated	Opto isolated
Serial communications	Ethernet via TCP/IP, USB 2.0, RS232	Ethernet via TCP/IP, USB 2.0, RS232

## WEIGHT & DIMENSIONS

	DC-L1000A*	DC-L0600A*
Dimensions (L x W x H)	15.7 in x 7.5 in x 15.7 in (400 mm x 190 mm x 400 mm)	15.7 in x 7.5 in x 15.7 in (400 mm x 190 mm x 400 mm)
Weight	101.4 lb (46 kg)	70.5 lb (32 kg)

\*Also available in horizontal configuration - ask factory for details



## AMADA WELD TECH INC.

1820 S. Myrtle Ave. • Monrovia, CA 91016 US  
T: (626) 303-5676  
info@amadaweldtech.com • www.amadaweldtech.com  
ISO 9001 Certified Company • 24/7 Repair Service: 1-866-751-7378

### AMERICAS

AMADA WELD TECH  
(Midwest Technical Center)  
Detroit, Michigan  
T: (248) 313-3078  
midwestsales@amadaweldtech.com

### AMADA WELD TECH (Mexico Office)

El Paso, Texas  
T: (915) 881-8765  
mxsales@amadaweldtech.com

### EUROPE

AMADA WELD TECH  
GmbH  
Munich, Germany  
T: +49-89-839403-0  
info@amadaweldtech.eu

### ASIA

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

AMADA WELD TECH  
SHANGHAI CO., LTD.  
Shanghai, China  
T: +86-21-6448-6000  
jwu@msc.miyachi.com

AMADA WELD TECH KOREA CO., LTD.  
Seoul, Korea  
T: +82-31-8015-6810  
sales@amadaweldtech.co.kr

AMADA WELD TECH TAIWAN CO., LTD.  
Taipei, Taiwan  
T: +886-2-2585-0161

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

AMADA VIETNAM CO., LTD.  
Ha Noi, Vietnam  
T: +84-4-6261-4583

AMADA WELD TECH  
INDIA PVT., LTD.  
Bangalore, India  
T: +91-80-4092-1749  
info@miyachiindia.com

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