



# m1 Series

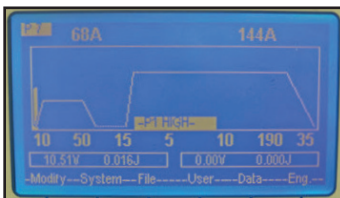
## Compact DC Resistance Welding Power Supplies

The m1 Series is a compact, lightweight resistance welding power supply range that blends leading edge power technology with affordable pricing.

The range offers high speed closed loop adaptive feedback control with embedded monitoring, making it the ideal tool for a wide range of joining applications where quality is crucial.

The m1-10 unit offers precision linear technology for low current applications.

The m1-40 uses a hybrid fast response twin loop HFDC system for higher current applications.



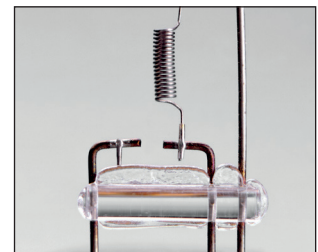
### KEY FEATURES

- Very high speed closed loop output control for consistent welding process definition and control.
- Constant current, voltage and power modes with programmable double pulse combinations.
- Advanced component conditioning functions.
- Simple to use, intuitive menu.
- Compact, high performance and low cost.
- Single phase 95VAC to 265VAC operation.
- Built in graphical process monitoring with Pass/Fail limit checking and trend plotting/data logging.
- Programmable part & weld checking.

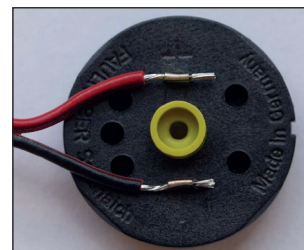
### TYPICAL APPLICATIONS



*Welding tabs to batteries*



*Lamp manufacturing*



*Welding wire to motor connector*



*Welding components to leadframe*



### KEY FEATURES

- Precision control, ultra fast response for low current applications
- Ideal replacement for MCW-550 & Unibond™® systems

## m1-10: 1000 Amp Precision linear DC Welding power supply

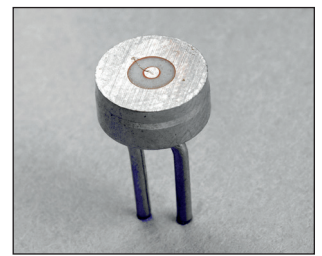
A versatile linear supply for precision joining below 1000 Amps. The m1-10 is typically used for:

- Gold ribbon welding
- Micro circuit welding
- Solar cell assembly
- Sensor and component welding
- Detonator and bridge wire welding

### TYPICAL APPLICATIONS



*Gold ribbon bonding*



*Bridge wire welding of sensors*



### KEY FEATURES

- Short high current pulse capability for conductive material joining.
- Ideal replacement for capacitor discharge equipment
- Hybrid HFDC for very fast response

## m1-40 product: 4000 Amp hybrid HFDC Welding power supply

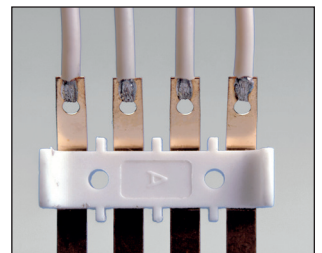
A high power HFDC based supply for conductive component. The m1-40 is typically used for:

- Battery and battery pack assembly
- Miniature contact welding
- Automotive electronics
- Wire and lead termination
- Lamp manufacture
- Conductive material welding

### TYPICAL APPLICATIONS



*Welding of battery tabs*



*Cable wire terminations*

## TECHNICAL SPECIFICATIONS

Model	m1-10	m1-40
Maximum Output Current (A)	1000 Amps DC	4000 Amps DC
Maximum Output Voltage at Full Load	5 V DC at maximum current	4 V DC at maximum current
Maximum Output Power	5 KW	16 KW
Duty Cycle at: - 4000 Amps - 3000 Amps - 2000 Amps - 1000 Amps - 500 Amps	- - - 40ms / second 100ms / second	5ms / second 20ms / second 20ms / second 70ms / second
Control Modes	Current, voltage and power	Current, voltage and power
Output Accuracy	± 1% of set value or ± 1 Amp	±1% of set value or ± 20 Amps

Programmed Timing Values		
Squeeze Time	0.1 – 999 ms	0.1 – 999 ms
Upslope Time Pulse 1	0.1 – 999 ms	0.1 – 999 ms
Peak Time Pulse 1	0.1 – 999 ms	0.1 – 999 ms
Downslope Time Pulse 1	0.1 – 999 ms	0.1 – 999 ms
Delay Time Between Pulses	0.1 – 999 m	0.1 – 999 ms
Upslope Time Pulse 2	0.1 – 999 ms	0.1 – 999 ms
Peak Time Pulse 2	0.1 – 999 ms	0.1 – 999 ms
Downslope Time Pulse 2	0.1 – 999 ms	0.1 – 999 ms
Process Monitor Limits	Voltage and Current	Voltage and Current

Input Requirements		
Input Voltage	95 – 260VAC	95 – 260VAC
Control I/O	Single phase	Single phase
Serial Communications	Options: RS232, RS422/485, CAN	Options: RS232, RS422/485, CAN

## WEIGHT &amp; DIMENSIONS

Dimensions (Width X Height x Depth)	170 x 275 x 470 mm	170 x 275 x 470 mm
Weight	16.5 kg	16.5 kg



Lindberghstrasse 1 • DE-82178 Puchheim, Germany  
T: +49 (0) 89 83 94 030 • Fax : +49 (0) 89 839403 68  
infode@amadamiyachi.eu • www.amadamiyachi.eu  
ISO 9001 Certified Company

**MIYACHI MIYACHI MIYACHI MIYACHI**  
UNITEK P E G G EAPRO MacGregor

## EUROPE

**Amada Miyachi Europe BV**  
Helmond, The Netherlands  
T: +31 (0) 492 542 225  
infonl@amadamiyachi.eu

**Amada Miyachi Europe Kft.**  
Budapest, Hungary  
T: +36 1 431 9927  
infohu@amadamiyachi.eu

**Amada Miyachi Europe**  
Mildenhall, United Kingdom  
T: +44 (0) 1638 510 011  
infouk@amadamiyachi.eu

**Amada Miyachi Europe**  
Tremblay-en-France, France  
T: +33 (0) 149 903 000  
infofr@amadamiyachi.eu

**Amada Miyachi Europe**  
Torino, Italy  
T: +39 011 223 83 16  
infoit@amadamiyachi.eu

**Amada Miyachi Europe**  
Prague-West, Czech Republic  
T: +420 251 512 157  
infocz@amadamiyachi.eu

## AMERICAS

**Amada Miyachi America Inc.**  
Monrovia, CA, USA  
T: +1-626-303-5676  
info@amadamiyachi.com

**Amada Miyachi do Brasil Ltda.**  
Sao Paulo, Brasil  
T: +55-11-4193-1187  
antonio.ruiz@miyachi.com

## ASIA

**Amada Miyachi Co., Ltd.**  
Noda, Japan  
T: +81-4-7125-6177  
sales@miyachi.com

**Amada Miyachi Shanghai, Co., Ltd.**  
Shanghai, China  
T: +86-21-6448-6000  
zqzhang@msc.miyachi.com

**Amada Miyachi Korea Co., Ltd.**  
Gyeonggi-do, Korea  
T: +82-31-8015-6810  
dykim@mkc.miyachi.com

**Amada Miyachi Taiwan Co., Ltd.**  
Taipei, Taiwan R.O.C.  
T: 886-2-2397-4778  
keigaku@miyachi.com

**Amada Miyachi (Thailand) Co., Ltd.**  
Samutprakarn, Thailand  
T: +66 (0) 2-170-5977  
info@mtl.miyachi.com

**Amada Vietnam Co., Ltd.**  
Ha Noi, Vietnam  
T: +84-4-6261-4583

**Amada Miyachi India Pvt., Ltd.**  
Bangalore, Kalyan Nager  
T: +91-80-4092-1749  
info@miyachiindia.com

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