



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.



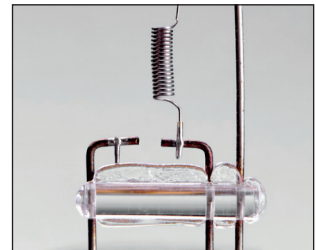
KEY FEATURES

- 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.

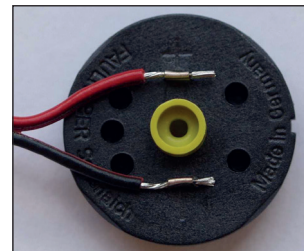
TYPICAL APPLICATIONS



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

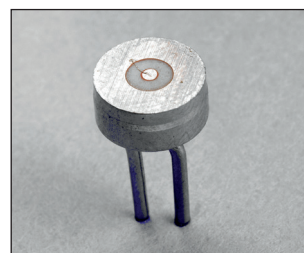
A versatile linear supply for precision joining below 1000 Amps. The m1-10 is typically used for:

- 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

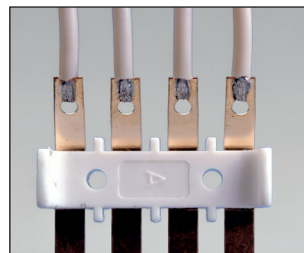
A high power HFDC based supply for conductive component. The m1-40 is typically used for:

- 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 & 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



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