

Model MCW-550

Constant Voltage Power Supply



- Weld parallel gap, opposed or offset
- Braze connector leads, relay blades
- Bond thin film, thick film
- Reflow solder flat pack (single or multiple lead), discrete components

Industry Leader

The industry leader, this easy-to-use power supply has earned the title of "The industry's best precision welding power supply." Weld voltage and duration are simply dialed into the machine using positive, digital selectors. The MCW-550 power supply is capable of ultrafine weld heat control. It is specified for parallel gap welding to the thinnest vacuum deposited films or for the heavier requirements of reflow soldering. It is the standard for welding solar cell interconnections.

Automatic Current Control

The Model MCW-550 constant voltage power supply is the heart of an entire family of precision bonding systems. With this efficient energy source, the dc current pulse is dynamically controlled during the discharge period to maintain a constant preset voltage across the electrodes. This is accomplished through an active feedback circuit that constantly monitors the weldment and signals the need for increased or reduced weld current. Current density is thus consistent, even though the size of the materials may vary. It is important to note consistency and operating range of both current output and length of pulse compared to those of other equipment.

SPECIFICATIONS • Model MCW-550

Welding pulse	Constant voltage, direct current, solid state circuitry
Pulse duration	Adjustable from 1–9,900 ms in 3 ranges: 1–99, 10–990, and 100–9,900 ms
Voltage amplitude	Adjustable from 0.01 to 1.99 V, automatically maintains voltage selected
Pulse waveform	Up to 600 A. Current varies to maintain constant weld voltage
Max. charge rate	5 A
Repetition rate	More than 60 welds per minute—typical flat pack lead
Response time to load variations	Approximately 25 μ s
Constant voltage regulation	Within 25 mV throughout range
Illuminator output	6.5 V to drive illuminator of MCW-552 and MCW-557 optical aids
Input power requirements	115/230 Vac, single phase, 50–60 Hz
Standby power line demand	Less than 1 A
Dimensions (H x W x D)	10.5 x 20 x 13 in (267 x 508 x 330 mm)
Weight	65 lb (29 kg) net, 80 lb (36 kg) shipping

U.S. Patent 3,346,716

Specify 115 or 230 V input voltage when ordering.

Model ABP-15

Auxiliary Battery Pack



The Model ABP-15 is used with the MCW-550 power supply to extend the duty cycle capability. The energy pack includes one 6 V battery providing 50 A hours. This is twice the energy storage of the standard MCW-550. The Model ABP-15 has a sustained charging rate that is triple the rate of the standard MCW-550 unit. The MA-09-36 heavy duty heat sink is recommended for use in conjunction with ABP-15 in most cases (sold separately).

SPECIFICATIONS • Model ABP-15

Charge rate	15 A continuous, 25 intermittent
Input power requirements	150/230 Vac, 50/60 Hz, 3 A
Dimensions (H x W x D)	12 x 10 x 12 in (305 x 254 x 305 mm)
Weight	47 lb (21 kg) net, 55 lb (25 kg) shipping

Specify 115 or 230 V when ordering.