

Welding Power Supplies — AC/DC

AC/DC WELDING POWER SUPPLIES

Designed for high reliability spot welding applications, the HRW AC/DC dual output welding power supplies combine a capacitor discharge weld pulse with an ac preheat. This preheat establishes a constant current path through the parts, thus reducing the shock effect of the subsequent dc pulse and better controlling expulsion and deformation. Applications include wire-wound resistors, Teflon insulated wire, precious metals, stranded wire, plated sheet metals, and contaminated materials, as well as where expulsion control is difficult.

- AC preheat controls consist of AC AMPLITUDE (power delivered), AC ON TIME (number of cycles), and DC DELAY (time between end of ac preheat and start of dc weld pulse).
- Two operational modes allow selection of either a conventional dc pulse or a dual ac/dc pulse.

- DC power preselect buttons give five programmable heat settings — convenient for rapid change from one weld application to another. Recessed side-mounted controls change the pushbutton settings for the dc pulse only.
- Dual heat range buttons provide two-way adjustment of dc heat settings.
- Triple pulse output selection allows choice of three dc weld pulse outputs — short, mid, and long. Pulse width is increased approximately 100 percent between the short and long settings.
- High repetition rates of four welds per second are factory set, with optional rates of five to six per second.
- All solid state circuitry means high reliability and low maintenance, with calibration preset at factory. Operates on 115/230 volts input, 50/60 Hz.
- Cam-Lok type receptacles are provided on the front panel for no-tools-required connection of weld cables.

Model HRW-250 AC/DC

SPECIFICATIONS • Model HRW-250 AC/DC

Energy storage — dual range	Low range: 1-50 watt seconds High range: 5-250 watt seconds
Capacitor bank	3,750 μ F at 60 Hz, no bias and 24°C ambient temperature
Capacitor voltage	Low range: 20-183 V High range: 20-410 V
Maximum dc peak current output	Short pulse: 5,800 A at 5.0-ms base Mid pulse: 3,800 A at 9.0-ms base Long pulse: 3,200 A at 12.0-ms base
Maximum ac peak current output	Adjustable 150-1000 A (with 115 volts, 60 Hz input)
AC on time	Adjustable 1-30 cycles (16-500 ms)
Delay time to dc pulse	Adjustable 70-550 ms (Delay period begins at end of ac preheat pulse)
Input power requirements	Single phase, 50-60 Hz, 105-125 V, 20 A circuit breaker (Standby current at 115V, 1 A) Single phase, 50-60 Hz, 205-240 V, 12 A circuit breaker (No charge option)
Dimensions (H \times W \times D)	14 \times 16 \times 15 in (365 \times 406 \times 381 mm)
Weight	103 lb (47 kg) net, 115 lb (52 kg) shipping

Specify HRW-250 AC/DC-MC for factory set 230 V, 50 or 60 Hz operation.

