



DC-H6000A - High Duty DC Spot Welding Power Supplies (formerly known as m31 SMART Series)

The DC-H6000A High Duty DC Spot Welding Power Supplies is designed for high-duty, demanding resistance welding applications requiring a high degree of process control and real-time data capture. Models are available from 6000 to 18000 amps @ 5% duty with <1% ripple. The units employ a unique twin loop control circuit enabling HFDC technology to provide performance similar to Linear DC. The unique system ensures a minimal output ripple across the entire operating range, thereby permitting highly accurate process measurements to be taken in real time.

The DC-H6000A High Duty DC Spot Welding Power Supplies offers a precise and responsive control of welding output for applications requiring larger currents, such as miniature contact welding, wire and lead termination, welding of automotive electronics and battery pack assembly.

Key Features DC-H6000A - High Duty DC Spot Welding Power Supplies

- > 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. 1amp steps to 18000A.
- > Programmable part & weld checking coupled with optional displacement and force limit checking.
- > 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 JPEG and BMP files with weld schedules for QC and process checking.
- > 3 USB ports : USB memory stick transfer, mouse, keyboard, servo head drives, wireless etc.
- > SMART weld head force control within weld schedules.
- > High speed automation and communication ports with full remote control capability

Specifications DC-H6000A - High Duty DC Spot Welding Power Supplies (formerly known as m31 SMART Series)

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Model	DC-H6000A		
Maximum Output Current	6000 Amps DC	12000 Amps DC	18000 Amps DC
Output voltage at full load	5V DC	5V DC	5V DC
Maximum output power	30KW	60KW	90KW
Full output duty cycle	5% @ 6000A	5% @ 12000A	5% @ 18000A
Control modes	Current / Voltage / Power	Current / Voltage / Power	Current only
Output accuracy of setting	± 1%	± 1%	± 1%
Ripple			
Programmed timing values	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Upslope time pulse 1	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Peak time pulse 1	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Downslope time pulse 1	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Delay time between pulses	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Upslope time pulse 2	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Peak time pulse 2	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Downslope time pulse 2	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Hold time	0.1 – 999.9 ms	0.1 – 999.9 ms	0.1 – 999.9 ms
Process monitor limits	Current/Voltage//Displacement	Current/Voltage//Displacement	Current/Voltage//Displacement
No of waveforms averaged	User defined	User defined	User defined
Waveform window limiting range	0 - 100%	0 - 100%	0 - 100%
Waveform window tolerances	0 - 100%	0 - 100%	0 - 100%
Displacement monitoring	Available on all units: LVDT or Encoder optional	Available on all units: LVDT or Encoder optional	Available on all units: LVDT or Encoder optional
Force range	0 - 500N	0 - 500N	0 - 500N
Input requirements	3 phase	3 phase	3 phase
Input voltage	380 - 480VAC	380 - 480VAC	380 - 480VAC
Control I/O	Opto isolated	Opto isolated	Opto isolated
Serial communications	Ethernet via TCP/IP, USB 2.0, RS232	Ethernet via TCP/IP, USB 2.0, RS232	Ethernet via TCP/IP, USB 2.0, RS232
WEIGHT & DIMENSIONS			
Width	-	305 mm	-

Height	-	335 mm	-
Depth	-	400 mm	-
Weight	-	46 kg	-

Specifications DC-H6000A - High Duty DC Spot Welding Power Supplies (formerly known as m31 SMART Series)

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Model	
Maximum Output Current	
Output voltage at full load	
Maximum output power	
Full output duty cycle	
Control modes	
Output accuracy of setting	
Ripple	
Programmed timing values	
Upslope time pulse 1	
Peak time pulse 1	
Downslope time pulse 1	
Delay time between pulses	0.1 – 999.9 ms
Upslope time pulse 2	
Peak time pulse 2	
Downslope time pulse 2	
Hold time	0.1 – 999.9 ms
Process monitor limits	
No of waveforms averaged	
Waveform window limiting range	
Waveform window tolerances	
Displacement monitoring	
Force range	
Input requirements	
Input voltage	
Control I/O	
Serial communications	
WEIGHT & DIMENSIONS	
Width	
Height	
Depth	
Weight	

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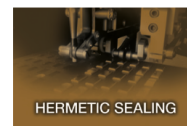
RESISTANCE WELDING



LASER WELDING



LASER MARKING



HERMETIC SEALING



HOT BAR REFLOW
SOLDERING & BONDING



SYSTEMS SOLUTIONS

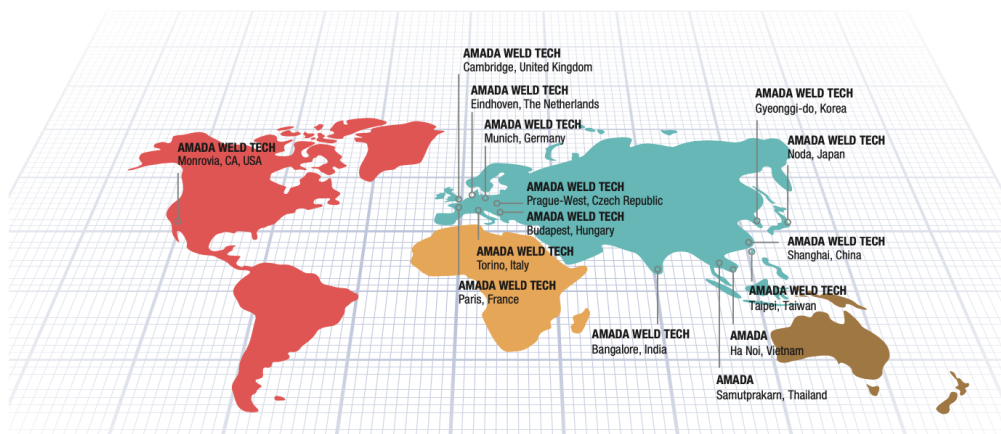


LASER CUTTING



MICRO TIG WELDING

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