



HF2 High Frequency Inverter Spot Welding Power Supply

The HF2 High Frequency Inverter Spot Welding Power Supply recisely controls and monitors electrical AND mechanical weld parameters. Miniature welds are highly sensitive to small heat profile fluctuations in the resistance welding process. Overheating deforms and destroys parts, while underheating results in a weak and unacceptable bond. To achieve consistent, reliable welds of small to micro-miniature parts, heating needs to be precisely controlled. This necessitates superior control of the energy output.

Key features HF2 High Frequency Inverter Spot Welding Power Supply

- > Constant current, voltage or power control modes
- > High weld repetition rates
- > Spot, braze and seam welding applications
- > Graphical and alpha-numeric user interface
- > I/O communication ports for factory installation
- > Small transformers facilitate easy integration
- > Optional built-in Weld Sentry with SPC



Specifications HF2 High Frequency Inverter Spot Welding Power Supply 1/2

Control system	2 KHz pulse width modulated (PWM) inverter welding control with constant current, voltage or power feedback operating modes. Feedback response every 250 microseconds.	
Line voltage	Three phase, 208, 230, 380 or 460 VAC ±13%, 50/60 Hz	
Input circuit rating	HF2/208-50 A: HF2/230-50 A; HF2/380-30 A; HF2/460-30 A	
Weld current	0.05 – 4.0 kA	
Weld power	0.10 – 9.99 kW	
Weld voltage	0.1 – 5.0 V	
Weld period	2000 milliseconds (maximum)	
Graphical weld display	Graphical display of programmed and actual weld current, voltage and power	
Welding functions	10 functions – basic, braze, dual pulse, pre/weld/post heat, pulsation, quench/te per, roll-spot, weld/repeat, up/down slope and seam	
Weld schedules	The user can save (write) 128 different weld schedules. Weld schedules 1 through 127 can be protected. Schedule O is designed to be used as a scratchpad for schedule development.	
Input signals		
Remote control external input connector	Provides control for the following remote control signals: emergency stop, weld inhibit and remote weld schedule selection. Use dry relay contacts or optocouplers to control remote external input signals.	
Firing switch	1-level footswitch, 2-level footswitch, 2-wire firing switch, 3-wire firing switch and optofiring switch. Use dry relay contact or opto-couplers to control input signals.	
Output signals		
Solid state relays	2 user-programmable solid state relays: AC-24/115 VAC @ 15 VA: DC-24 VDC @ 15 VA.	
Valve driver outputs	2 solid state relay outputs for controlling air actuated weld heads. Valve #1 can control a single 24/115 VAC air head. Valve #2 can control a single 24 VAC air head.	
HF2 transformer model	IT-X3A/230	IT-X3A/380
Nominal AC input voltage	208/240	400
Input KVA (50%) duty cycles	9	9
Number of primary taps	1	1
Turn ratio	46:1	90:1
Maximum unloaded output voltage (v)	6.5	6.5
Maximum output current (A)	4,000	4,000
Duty cycle (%) at max. current	6	5

IT-X3A/460

480

9

1

109:1

6.5

4,000

5

Model	Inverter	IT-X3A/230 IT- X3A/380 IT-X3A/460	IT-X11A/230
Dimensions (LxWxH)	381 mm x 267 mm x 216 mm (15 in x 10.5 in x 8.5 in)	368 mm x 183 mm x 183 mm (14.5 in x 7.2 in x 7.2 in)	455 mm x 183 mm x 183 mm (17.9 in x 7.2 in x 7.2 in)
Weight	19 kg (42 lb)	13 kg (29 lb)	25 kg (56 lb)



Specifications HF2 High Frequency Inverter Spot Welding Power Supply 2/2

Control system		
Line voltage		
Input circuit rating		
Weld current		
Weld power		
Weld voltage		
Weld period		
Graphical weld display		
Welding functions		
Weld schedules		
Input signals		
Remote control external input connector		
Firing switch		
Output signals		
Solid state relays		
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HF2 transformer model	11-X11A/230	11-X11A/46U
Nominal AC input voltage	208/240	400/480
Input KVA (50%) duty cycles	19	15
Number of primary taps	2	4
Turn ratio	25:1/30:1	Turns Ratios: 44:1, 52:1, 60:1, 68:1
Maximum unloaded output voltage (v)	10.0/12.0	11.8/14.3
Maximum output current (A)	4,000	4,000
Duty cycle (%) at max. current	5	5
Model	IT-X11A/460	
Dimensions (LxWxH)	470 mm x 183 mm x 183 mm (18.5 in x 7.2 in x 7.2 in)	
Weight	26 kg (58 lb)	



Product applications HF2 High Frequency Inverter Spot Welding Power Supply



Resistor to terminal



Seam welding



Brazing



Capacitor to lead frame



OUR TECHNOLOGIES

















OUR SALES OFFICES





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