



IS Series

Mid-Frequency Inverter Resistance Welding Control

- 800 or 1400 amp primary output **resistance weld control**
- Six feedback modes
- Built-in current, voltage, power, time and pulse monitor
- Optional displacement monitoring and proportional regulator control
- Primary short circuit protection
- Triple pulse weld profile: W1, W2, W3, up to 19 pulsations per weld segment
- Pre-weld check process tool
- I/O check screen
- Cascade option: 5 and 7 way cascade
- RS232 or RS485 communications
- NEMA style enclosures

KEY FEATURES

Six Weld Control Modes

Six different weld control modes allow the user to select the best mode for the application: primary limit, primary and secondary RMS, power RMS, voltage control, or pulse percent

Triple Pulse Weld Capability

Provides flexible weld profiles with up to three pulses in each weld cycle. Each weld segment can be programmed with upslope and downslope and may have up to 19 pulsations per segment. Users may change the control mode for each weld segment.

Wide Current Range

IS-800CR has a current range of .050 A to 40 kA; and IS-1400CR has a range of .050 A to 80 kA making it possible to weld a large range of parts – from small, electronic components to sheet metal and copper bus bars – with the same welding control

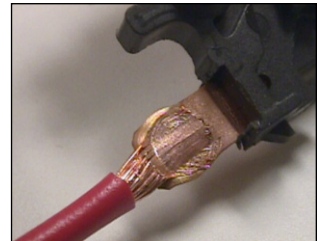
Optional Displacement Limits & Force Monitoring

Dial-in the weld process by utilizing the IS Series' displacement and force features including initial part thickness, weld-displacement, and final displacement limits. Monitor the force of each segment of the weld pulse

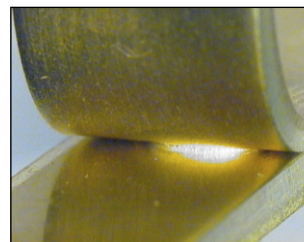
TYPICAL APPLICATIONS



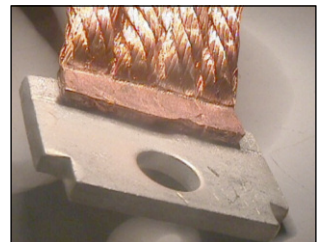
Commutator fusing



Wire termination



Sheet metal welding



Braided cable termination

TECHNICAL SPECIFICATIONS

	IS-800CR-AA-AA (Basic unit)	IS-800CR-BA-AA (Advanced unit)	IS-1400CR-AA-AA (Basic unit)	IS-1400CR-BA-AA (Advanced unit)
Maximum primary output current (peak)	800 amps @3%	800 amps @3%	1400 amps @3%	1400 amps @3%
Settings – Constant current	0.050 - 40.0 kA	0.050 - 40.0 kA	0.050 - 80.0 kA	0.050 - 80.0 kA
– Constant power	0.05 - 60.0 kW	0.05 - 60.0 kW	0.05 - 120.0 kW	0.05 - 120.0 kW
– Constant voltage	0.20 - 9.99 V	0.20 - 9.99 V	0.20 - 9.99 V	0.20 - 9.99 V
– Fixed pulse	10.0 - 99.9%	10.0 - 99.9%	10.0 - 99.9%	10.0 - 99.9%
Weld monitors – Current	0.0 - 99.9 kA	0.0 - 99.9 kA	0.0 - 99.9 kA	0.0 - 99.9 kA
– Power	000.0 - 999.9 kW	000.0 - 999.9 kW	000.0 - 999.9 kW	000.0 - 999.9 kW
– Voltage	0.00 - 9.99 V	0.00 - 9.99 V	0.00 - 9.99 V	0.00 - 9.99 V
– Pulse %	010.0 - 100.0%	010.0 - 100.0%	010.0 - 100.0%	010.0 - 100.0%
Power source	380 - 480 VAC, Three Phase, 50/60 Hz, +-10%			
Output frequency	600 - 3000 Hz	600 - 1000 Hz	600 - 3000 Hz	600 - 1000 Hz
Control modes	Primary constant current control Primary limit control Secondary RMS control Power RMS control Voltage control Pulse % control			
Number of schedules	255 (Selectable by pendant or external I/O)			
Time settings	0000 - 9999 (ms) / 0000 - 9999 (CYC)			
Squeeze delay	0000 - 9999 (ms) / 0000 - 9999 (CYC)			
Squeeze	000 - 999 (ms) / 00 - 50 (CYC)			
Upslope 1, 2, 3	000 - 999 (ms) / 00 - 50 (CYC)			
Weld 1, 2, 3	0000 - 9999 (ms) / 0000 - 0999 (CYC)			
Cool 1, 2	000 - 999 (ms) / 00 - 50 (CYC)			
Down slope 1, 2, 3	00000 - 20000 (ms) / 00000 - 00999 (CYC)			
Hold	0 or 0010 - 9990 (ms) / 0000 - 0099 (CYC)			
Off time	01 - 19 (settable for WELD1 to WELD 3, respectively)			
Pulsation setting	1.0 - 199.9			
Transformer turns ratio	2 valves	Up to 6 valves	2 valves	Up to 6 valves
Valve setting	1 - 9			
Control gain (GAIN)	1 - 9 (9 steps)			
Step-up/-down (STEPPER COUNT)	50 - 200%			
	0000 - 9999			
Weld count monitor (PRESET COUNT)	RS-232 (single or bi-directional)			
External communication	Programming protected when active			
Program protect				

WEIGHT & DIMENSIONS

	IS-800CR-AA-AA (Basic unit)	IS-800CR-BA-AA (Advanced unit)	IS-1400CR-AA-AA (Basic unit)	IS-1400CR-BA-AA (Advanced unit)
Dimensions L x W x H	13 in x 30.4 in x 39 in (330 mm x 772 mm x 991 mm)		13 in x 31 in x 52 in (330 mm x 796 mm x 1321 mm)	
Weight	240 lb (109 kg)		3500 lb (159 kg)	
Options	RS-485 communications (RS-232 standard) CE Filter Isolation contactors		24 VDC valve option(115 VAC standard) <ul style="list-style-type: none">• 2 amp• 5 amp 250 VA valve transformer (150 VA standard)	

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