

IS Series

Mid-Frequency Inverter Resistance Welding Control



- 800, 1400, 2200 or 4500 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

The IS-Series weld controls provide a wide range of current (.050 kA - 225 kA) to meet all your application needs. See specifications of individual controls on back.

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.

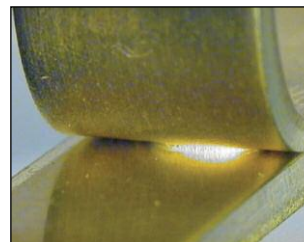
TYPICAL APPLICATIONS



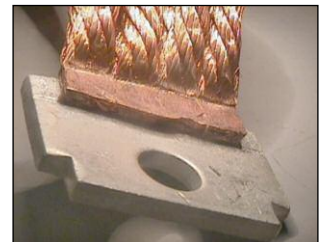
Commutator fusing



Wire termination



Sheet metal welding



Braided cable termination

TECHNICAL SPECIFICATIONS

	IS-800CR-BA-AA	IS-1400CR-BA-AA	IS-2200CR-BA-AA	IS-4500CR-BA-AA
Maximum primary output current (peak)	800 amps @ 3%	1400 amps @ 3%	2000 amps @ 12%	4000 amps @ 12%
Settings – Constant current	0.05 - 40.0 kA	0.05 - 80.0 kA	0.50 - 125 kA	1.00 - 260 kA
– Constant power	0.05 - 60.0 kW	0.05 - 120 kW	0.50 - 190 kW	0.50 - 390 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 - 150.0 kA	0.0 - 300.0 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 %	10.0 - 100.0%	10.0 - 100.0%	10.0 - 100.0%	10.0 - 100.0%
Power source	380 - 480 VAC, Three Phase, 50/60 Hz, +-10%			
Output frequency	600 - 3000 Hz	600 - 1000 Hz	600 - 1000 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	Squeeze delay 0000 - 9999 (ms) / 0000 - 9999 (CYC) Squeeze 0000 - 9999 (ms) / 0000 - 9999 (CYC) Upslope 1, 2, 3 000 - 999 (ms) / 00 - 50 (CYC) Weld 1, 2, 3 000 - 999 (ms) / 00 - 50 (CYC) Cool 1, 2 0000 - 9999 (ms) / 0000 - 0999 (CYC) Down slope 1, 2, 3 000 - 999 (ms) / 00 - 50 (CYC) Hold 00000 - 20000 (ms) / 00000 - 00999 (CYC) Off time 0 or 0010 - 9990 (ms) / 0000 - 0099 (CYC) Pulsation setting 01 - 19 (settable for WELD 1 to WELD 3, respectively)			
Transformer turns ratio	1.0 - 199.9			
Valve setting	2 valves	Up to 6 valves	Up to 6 valves	Up to 6 valves
Control gain (GAIN)	1 - 9			
Step-up/-down (STEPPER COUNT)	STEP Up (down) ratio (RATIO) Counter setting (COUNT)		1 - 9 (9 steps) 50 - 200% 0000 - 9999	
Weld count monitor (PRESET COUNT)	0000 - 9999			
External communication	RS-232 (single or bi-directional)			
Program protect	Programming protected when active			

WEIGHT & DIMENSIONS

	IS-800CR-BA-AA	IS-1400CR-BA-AA	IS-2200CR-BA-AA	IS-4500CR-BA-AA
Dimensions	13 in x 30 in x 39 in	13 in x 31 in x 52 in	14 in x 31 in x 52 in	13 in x 31 in x 52 in
L x W x H	(330 mm x 772 mm x 991 mm)	(330 mm x 796 mm x 1321 mm)	(355 mm x 796 mm x 1321 mm)	(330 mm x 796 mm x 1321 mm)
Weight	240 lb (109 kg)	350 lb (159 kg)	340 lb (154 kg)	500 lb (227 kg)

Options	RS-485 communications (RS-232 standard) CE Filter Isolation contactors	24 VDC valve option(115 VAC standard) • 2 amp • 5 amp 250 VA valve transformer (150 VA standard)
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