

IS Series

Mid-Frequency Inverter Resistance Welding Control

- 300, 800, and, 1400 Amp primary output current resistance weld control
- Six feedback modes for optimum feedback based on process and expected variability
- Built-in current, voltage, power, time and pulse monitor for precise process control
- Triple pulse weld profile: W1, W2, W3, up to 19 pulsations per weld segment
- Displacement and force monitoring Initial, Final and "Weld to" displacement
- Cascade option: 5 and 7 way cascade IS-800CA only
- RS232, RS485, EtherNet/IP™ communications

KEY FEATURES

Wide Current Range

The IS Series weld controls provide a wide range of current (.050 kA - 80 kA) to meet all your application needs. See specifications of individual controls on back. Higher current up to 320 kA available upon request.

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.

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.

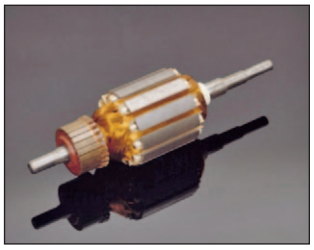
Triple Pulse Weld Capability

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.

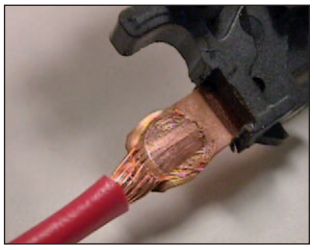
Factory Automation with Ethernet IP

Ethernet IP factory communications comes optional IS Series for integration into automation environments. It comes with built in Panel View screens for easy control of IS unit.

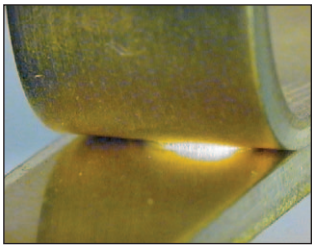
TYPICAL APPLICATIONS



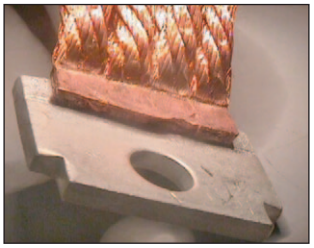
Commutator fusing



Wire termination



Sheet metal welding



Braided cable termination

TECHNICAL SPECIFICATIONS

	IS-300CA	IS-800CA	IS-1400CA
Maximum primary output current	300 amps @ 4.4%	800 amps @ 3%	1400 amps @ 3%
Settings – Constant current **– Constant power** **– Constant voltage** **– Fixed pulse**	0.05 - 20.00 kA 0.05 - 20.0 kW 0.20 - 9.99 V 10.0 - 99.9%	0.05 - 40.0 kA 0.05 - 60.0 kW 0.20 - 9.99 V 10.0 - 99.9%	0.05 - 80.0 kA 0.05 - 120 kW 0.20 - 9.99 V 10.0 - 99.9%
Weld monitors – Current **– Power** **– Voltage** **– Pulse %**	0.0 - 99.9 kA 000.0 - 999.9 kW 0.00 - 9.99 V 10.0 - 100%	0.0 - 99.9 kA 000.0 - 999.9 kW 0.00 - 9.99 V 10.0 - 100.0%	0.0 - 99.9 kA 000.0 - 999.9 kW 0.00 - 9.99 V 10.0 - 100.0%
Power source	380 - 480 VAC, Three Phase, 50/60 Hz, ±10%		
Output frequency*	600 - 3000 Hz	600 - 3000 Hz	600-3000 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** **Squeeze** **Upslope 1, 2, 3** **Weld 1, 2, 3** **Cool 1, 2** **Down slope 1 ,2, 3** **Hold** **Off time** **Pulsation setting**	0000 - 9999 (ms) / 0000 - 9999 (CYC) 0000 - 9999 (ms) / 0000 - 9999 (CYC) 000 - 999 (ms) / 00 - 50 (CYC) 000 - 999 (ms) / 00 - 50 (CYC) 0000 - 9999 (ms) / 0000 - 0999 (CYC) 000 - 999 (ms) / 00 - 50 (CYC) 00000 - 20000 (ms) / 00000 - 00999 (CYC) 0 or 0010 - 9990 (ms) / 0000 - 0099 (CYC) 01 - 19 (settable for WELD 1 to WELD 3, respectively)		
Transformer turns ratio	1.0 - 199.9		
Valve setting	Up to 6 valves	Up to 6 valves	Up to 6 valves
Control gain (GAIN)	1 - 9		
Step-up/-down (STEPPER COUNT)	STEP 1 - 9 (9 steps) Up (down) ratio (RATIO) 50 - 200% Counter setting (COUNT) 0000 - 9999		
Weld count monitor (PRESET COUNT)	0000 - 9999		
External communication	RS-232 or RS-485 (single or bidirectional), EtherNet/IP		
Program protect	Programming protected when active		

***Model dependent**

WEIGHT & DIMENSIONS

	IS-300CA	IS-800CA	IS-1400CA
Dimensions W x D x H	11 in x 7 in x 23 in (172 mm x 269 mm x 573 mm)	30 in x 13 in x 39 in (772 mm x 330 mm x 991 mm)	31 in x 13 in x 52 in (796 mm x 330 mm x 1321 mm)
Weight	36 lb (16.5 kg)	240 lb (109 kg)	350 lb (159 kg)

Options & accessories	EtherNet/IP, RS-485 communications (RS-232 standard) CE Filter Isolation contactors Programming pendant MA-660A	24 VDC valve option(115 VAC standard) • 2 amp • 5 amp 250 VA valve transformer (150 VA standard)

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