DC Inverter Spot Welding / Fusing Power Supply

IS-800A/1400A

Precision waveform control ensures high quality welding!

Features

- Primary current PEAK control enables detailed parameter settings.

The control features below are only available when Primary current PEAK is selected. 【Voltage compensation】

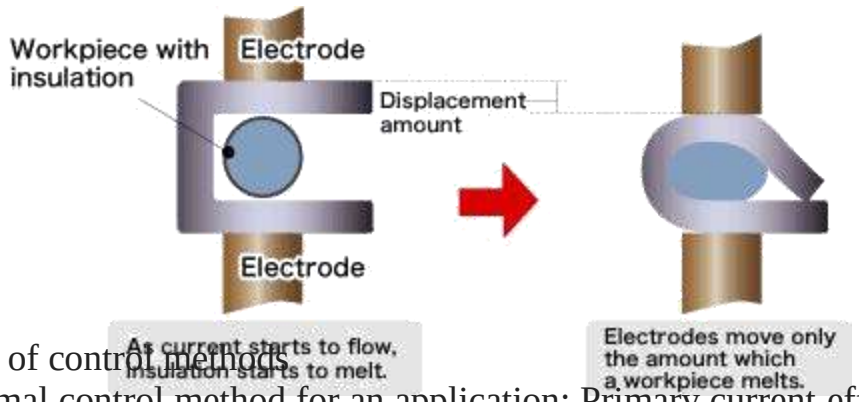
It is to adjust set values for Pulse limit depending on primary voltage fluctuation before welding. ・When 190VAC (-5%), pulse width set for Pulse limit is adjusted to increase 5%.

・When 210VAC (+5%), pulse width set for Pulse limit is adjusted to decrease 5%. 【Pulse limit】

This is to limit pulse width when current is up-sloping.

- Ground fault and short-circuit protections ensure the safety better.
- Adjustable welding frequency from 600 to 3000kHz with 100Hz increment.
- Program protect feature prevents false operation due to unintended touches to the screen.
- Up to the third welding is controllable. Pulsation and other control modes can be set for each welding.
- Interrupt feature

Interrupt feature functions when a displacement amount reaches up to set level and stops current to obtain stable fusing. For this feature, it needs to be connected with a weld checker with a built-in displacement monitor and set a displacement amount of electrodes beforehand.



- Six kinds of control methods

Select an optimal control method for an application: Primary current effective value control, secondary current effective value control, secondary power effective value control, Primary current peak value control, secondary voltage effective value control, and constant phase control.

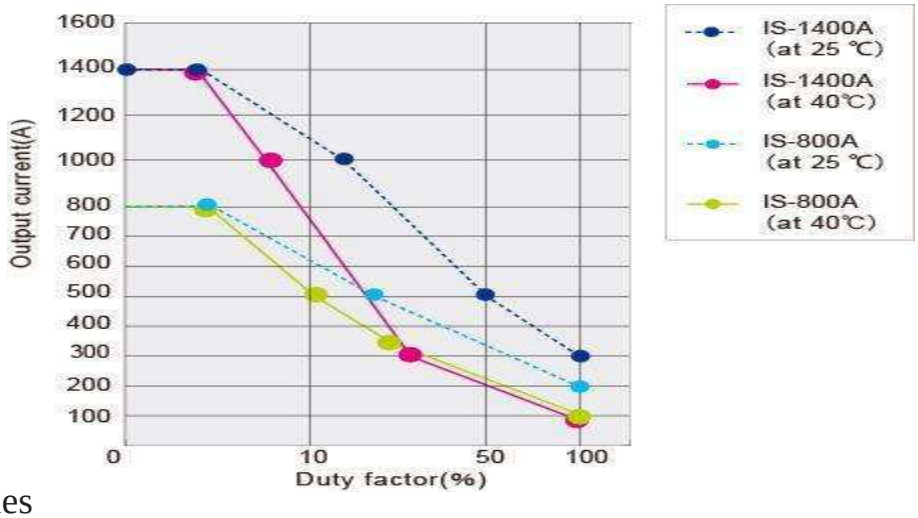
- Three kinds of monitoring

Current, voltage, or power can be monitored.

- Safety features

Overcurrent detector, no-current/no-voltage detector, heat abnormality detector, and self-check feature protect your safety.

- Two kinds of welding time unit ms or cycle can be selected.
- Duty factor and Output current



- Samples

▲Fusing of covered wires

▲Multiple wires and a terminal

▲Terminal and lead wire

Specifications

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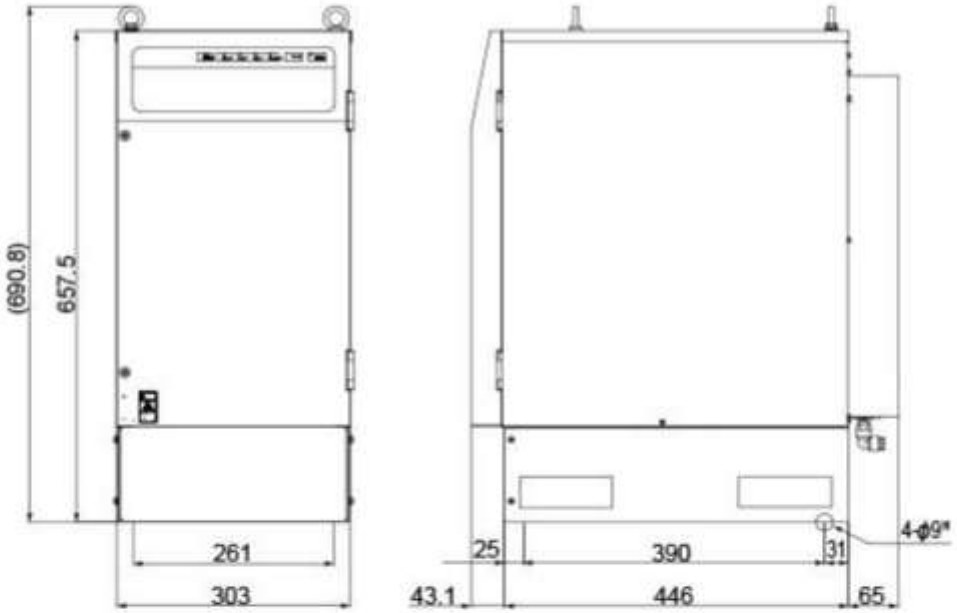
Model		IS-800A	IS-1400A
Power requirements		・Three phase, 380-480VAC (50/60Hz)10% ・Three phase, 200-240VAC (50/60Hz)10%	・Three phase, 380-480VAC (50/60Hz)10% ・Three phase, 200-240VAC (50/60Hz)10%
Maximum output current		800A (3%)	1400A (3%)
Number of schedules		255	
Output frequency		600Hz～3kHz	
Control method)		Primary current RMS/ Secondary current RMS/ Secondary power RMS/ Primary current PEAK/ Secondary voltage RMS/ Constant phase	
Timer setting		msec mode　cyc mode	
	SQUEEZE DELAY	0000～9999ms　000～999cyc	
	SQUEEZE	0000～9999ms　000～999cyc	
	UP SLOPE 1,2,3	000～999ms　00～50cyc	
	WELD 1,2,3	000～999ms　00～50cyc	
	DOWN SLOPE 1,2,3	000～999ms　00～50cyc	
	COOL 1,2	000～999ms　00～99cyc	

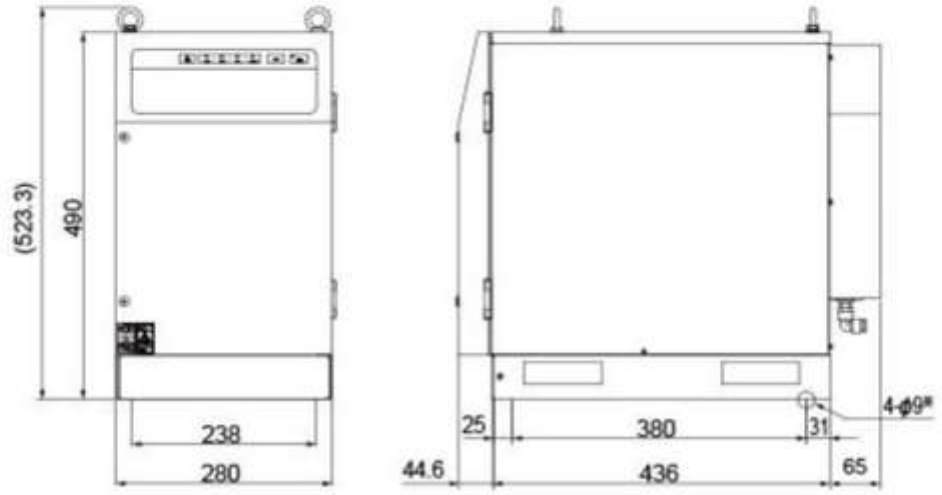
	HOLD	00000～20000ms　000～999cyc	
	OFF	0 or 0010～9990ms　00～99cyc	
Transformer turn ratio		1.0～199.9	
Pulsation setting		01～19	
Valve setting		2	
Setting range (1)Constant current　(2)Constant power (3)Constant voltage (4)Constant phase		(1)0.05～40.0kA (2)0.05～60.0kW	(1)0.05～80.0kA (2)0.05～120.0kW
		(3)0.20～9.99V (4)10.0～99.9%	(3)0.20～9.99V (4)10.0～99.9%
Current monitor		HIGH 0.00～9.99kA / LOW 0.00～9.99kA	HIGH 00.0～99.9kA / LOW 00.0～99.9kA
Power monitor		HIGH 0.00～9.99kW / LOW 0.00～9.99kW	HIGH 00.0～99.9kW / LOW 00.0～99.9kW
Voltage monitor		HIGH 0.00～9.99V / LOW 0.00～9.99V	
Pulse width monitor		10～100%	
Installation environment	Ambient temp.	5 - 40℃	
	Max. humidity	90% (No condensation)	
	Max. altitude	1000m or below	
Mass		38kg	60kg

External view

■IS-1400A



■IS-800A



※ For fixing the Power Supply. Remove the cover plate on the base front to tighten screws.
Recommended caster (M8 nut)
No.303T (without brake) TOCHIGIYA CO.,LTD.
No.303TS (with brake) TOCHIGIYA CO.,LTD.

Corresponding transformer

For IS-800A/1400A				
Model	ITH-651B6W	ITI-875A6W	SIT-F241-HC	ITG-1050B6W
Rated capacity	26.8kVA	37.1kVA	75kVA (50%)	40.7kVA
Rated primary voltage	300V/600V		300V	300V/600V
No-load secondary voltage	9.3V	12.5V	11.7V	15V
Transformer turns ratio	32:1/64:1	24:1/48:1	24:1	20:1/40:1
Input frequency	1kHz			
Maximum welding current	7000A		14400A	7000A
Duty cycle	8.5%	9%	10%	7.5%
Cooling method	Water-cooled			
Mass	16kg	19kg	35kg	21kg
Dimensions (mm) *	168 (W) × 398 (D) × 199 (H)	168 (W) × 446 (D) × 199 (H)	240 (W) × 481 (D) × 180 (H)	168 (W) × 439 (D) × 199 (H)

For IS-800A/1400A			
Model	MIR77-64560	MIR109-69060	MIR115-39060
Rated capacity	45kVA	90kVA	
Rated primary voltage	600V	600V/650V	300V/325V
No-load secondary voltage	8.3V	10.9V/11.8V	11.5V/12.5V
Transformer turns ratio	72:1	55:1	26:1
Input frequency	600Hz/1kHz		
Maximum welding current	13000A	18000A	
Duty cycle	10%		
Cooling method	Water-cooled		
Mass	12kg	21kg	23kg
Dimensions (mm) *	96 (W) × 213.5 (D) × 155 (H)	167 (W) × 365 (D) × 155 (H)	167 (W) × 435 (D) × 155 (H)

* Include projections