

MIB-300A/600A
AC Inverter Power Supply

The MIB-300A/600A are AC inverter welding power supplies with up to 300 A or 600 A primary current.

Compared to standard AC welding power supplies, AC inverters provide more controlled input of heat to the workpiece, minimizing potential damage to surrounding parts.

AC inverters also helps avert magnetization of the workpieces or of magnetic parts and prevent uneven welds due to the Peltier effect when welding dissimilar materials.

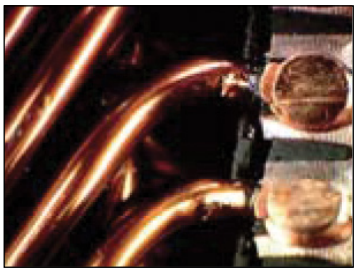
KEY FEATURES

- More effective control of heat input than standard AC welding power supplies
- Reduced Peltier effect during weld and reduced magnetization of work piece and magnetic materials around electrodes
- Secondary constant current control
- Increased maximum number of pulsations: up to 20 times each for WELD 1, 2, 3
- Set interrupt, upslope and downslope for all waveforms (Weld 1, 2, 3) – Interrupt function helps prevent over welding of workpiece; upslope and downslope improve energy input into workpiece

WELD COMPARISON:
AC weld vs AC Inverter weld



AC weld – Coating burned around weld location



AC Inverter weld – reduced/no burning of coating

TECHNICAL SPECIFICATIONS

Model		MIB-300A	MIB-600A
Power requirements		3 phase AC200 to 240 V ±10%(50/60 Hz)	3 phase AC200 to 240 V ±10%(50/60 Hz)
		3 -phase 200 to 240 VAC ±10% (50/60 Hz) or 3-phase 380 to 480 VAC ± 10% (50/60 Hz) (Voltage level is factory-set and is not field selectable.)	
Maximum output current		300 A	600 A
Number of schedules		255	
Output frequency		50, 53, 56, 59, 63, 67, 71, 77, 83, 91, 100, 111, 125, 143, 167, 200, 250, **294, 417, 500** Hz (Initial setting is 63 Hz.) Frequencies in bold are available only when FREQ MODE (START) is set to PWM-OFF.	
Control method		Primary constant-current peak value control / Secondary constant-current peak value control / Secondary constant-current effective value control	
Timer setting range	SQUEEZE	0 to 9999 ms	
	SQUEEZE DELAY	0 to 9999 ms	
	UP SLOPE 1, 2, 3	0.0 to 99.5 CYC	
	WELD 1, 2, 3	0.0 to 99.5 CYC	
	DOWN SLOPE 1, 2, 3	0. 0 to 99.5 CYC	
	COOL 1, 2	0.0 to 99.5 CYC	
	HOLD	0 to 20000 ms	
	OFF *1	0 or 10 to 9990 ms	
Transformer turn ratio		1.0～199.9	
Pulsation setting		01 to 20 (settable for WELD 1 to WELD 3 respectively)	
Valve setting		2 valves (VALVE 1, VALVE 2)	
Setting range	40kA range	–	2.0 to 40.0 kA
	20kA range	1.0 to 20.0 kA	1.0 to 20.0 kA
	10kA range	0.50 to 9.99 kA	0.50 to 9.99 kA
	5kA range	0.05 to 5.00 kA	0.05 to 5.00 kA
Monitor display	Current	0.0 to 99.9 kA / 0.0 to 9.99 kA	
	Voltage	0.0 to 9.99 V	
Cooling method		Air cooled	Water cooled Flow rate: 2 L/min Water temperature: 35°C max.
Protection	Over current	150 A Fuse	200 A Fuse
	No current	Power is turned off in the following cases: a. When a secondary current is not detected in Secondary constant-current control b. When a primary current is not detected in Primary constant-current control	
	Temperature	Overheating of power unit of inverter and welding transformer are detected	
	Self diagnostic error	Setting dates (e.g., schedule settings) are diagnosed	
External communication		RS-232C / RS-485 (Simplex and duplex)	
Program protection		Prohibit to change setting	
Transformer		MT-510AC / MT-520AC / MT-530A / MT-25	WT-A56241-220 / MUE90-225 / MUE90-445 / MUE100-226 / MUE100-446 / MUE110-225 / MUE125-226 / MUE150-225 / MUE175-226 / MUE175-446

WEIGHT & DIMENSIONS

Dimensions (W x D x H)	6.8 in x 22.5 in x 11.8 in (172 mm x 572 mm x 299 mm)	11.0 in x 21.5 in x 20.6 in (280 mm x 546 mm x 523 mm)
Weight	36 lb (16.5 kg)	84 lb (38 kg)

*1 No repetitive operation will be performed if “0” is selected for OFF

USA Headquarters and Western Technical Center
AMADA WELD TECH
1820 S. Myrtle Ave. • Monrovia, CA 91016 US • T: (626) 303-5676
info@amadaweldtech.com • www.amadaweldtech.com
ISO 9001:2015 Certified Company • 24/7 Repair Service: 1-866-751-7378

AMADA WELD TECH (Eastern Technical Center)
High Point, North Carolina
T: (941) 544-5762
southsales@amadaweldtech.com

AMADA WELD TECH (Midwest Technical Center)
Detroit, Michigan
T: (248) 313-3078
midwestsales@amadaweldtech.com

AMADA WELD TECH GmbH
Puchheim, Germany
T: +49-89-839403-0
infode@amadaweldtech.eu

AMADA WELD TECH SHANGHAI CO., LTD.
Shanghai, China
T: +86-21-6448-6000
jwu@amadaweldtech.com.cn

AMADA WELD TECH KOREA CO., LTD.
Seoul, Korea
T: +82-31-8015-6810
sales@amadaweldtech.co.kr

AMADA TAIWAN CO., LTD.
Taipei, Taiwan
T: +886-3-328-3511

AMADA (THAILAND) CO., LTD.
Bangkok, Thailand
T: +66-2170-5900
info@amada.co.th

AMADA VIETNAM CO., LTD.
Ha Noi, Vietnam
T: +84-24-6261-4583
thuyet@amada.co.jp

AMADA WELD TECH INDIA PVT., LTD.
Bangalore, India
T: +91-80-4092-1749
info@amadaweldtech.in

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