AC/DC TIG Welding



Quick Specifications

Processes STICK (SMAW) TIG (GTAW) Lift, HF & Pulse

Fabrication, Aerospace, Food/ Beverage, Contractors, Installation/ Repair, Dairy Industry.

Input Voltage 208-230/460 VAC 1/3 Phase

Input Frequency 50/60 Hz

Rated Output @ Duty Cycle 300A/32V @ 25% 250A/30V @ 40%

Output Range 5-300A DC 10-300A AC (60Hz cleaning 50% TIG mode)

Weight 53 lb (24 kg)

Package Includes

SANARG 300AP Power Cord 2 ea Dinse 50mm plugs

Order Information

Part No: IA-3000TP-U3E Description: SANARG 300AP

Tough, Compact & Light Weight.

Excellent Performance: Embedded microprocessor with digital controls, delivering full Constant Current output with perfectly smooth, stable arc characteristics for TIG and Stick electrodes, E6010 Cellulose and low hydrogen electrodes.

Easy to use: Simple, user friendly setup and operation.

Smart Warning Diagnostics: Alerts operator to power supply abnormalities.

Primary Smart Switch: Prevents damage to the internal components if installed to improper voltage. Multi voltage 208-230/460 1 or 3 phase providing maximum flexibility.

Thermal Overload Protection: Indicator alerts the operator if duty cycle is exceeded or airflow is blocked.

Remote 14pin Receptacle Fitted: Makes compatibility of SanRex, competitive remote devices simple.

Excellent Portability: Lightweight, less than 60 lbs.

IP23S: Suitable for outdoor use.

Digital Meters: Voltage and Amperage: Preview and Hold capability.

Heat sensing fan: Operates as needed to cool components & reduce airborne contaminants pulled through the power source.

Dinse Twist Lock Output Terminals: Allow for easy polarity changing and cable connection.

Warranty: 3 Years.

Standards Compliant Integrated VRD: Voltage Reduction Device reduces the OCV when the power supply is not in use. This all but eliminates the risk of electrocution to the operator from the secondary welding circuit.

Job Save & Load: Allows operator to store up to 5 exact optimized welding parameters then digitally recall them with perfect repeatability.

Lift Start TIG: Provides TIG arc starting without use of high frequency.

HF Start TIG: Provides non-contact arc starting that eliminates tungsten or material contamination.

AC Waveforms Output: True Square Wave, AC-Soft, Triangle and Variable Polarity.

AC Frequency: Give the operator control over weld bead shape.

AC Balance: Allows you to fine tune the AC welding cycle.



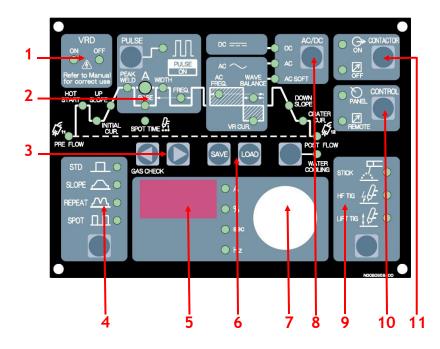


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SANREX COPRORATION PORT WASHINGTON, NY, USA

AC/DC TIG Welding

Control Panel

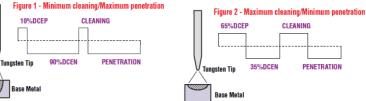


Effects of Wave Balance Adjustment on AC/GTAW - Complete Welding Control

The 300AP AC output uses advanced embedded micro processor technology. This control of the wave form changes the amount of time spent on DCEP (cleaning) and DCEN (penetration) parts of each cycle, increasing arc stability. The DCEP cycle insures that the aluminum oxide is thoroughly removed, allowing the DCEN cycle a thorough penetration of the base metal. Both cycles enhance weld quality and significántly improve performancé.

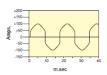
When a conventional system changes its wave balance, there can be as much as a 50% increase in amperage draw. Sanrex® 300AP amperage draw is unaffected by any adjustments. The 300AP increases efficiency and eliminates tungsten spitting and enables the use of a smaller diameter tungsten electrodes

operate at a higher current levels. Figures 1 & 2 show the difference in TIG torch electrode and heat and cleaning

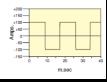


SanRex - The Leader in Technology and Service!

Conventional Square AC wave @ 100 amps output



Sanrex 300AP Square Wave Inverter Power Supply @ 100 amps output.



PENETRATION

- 1. VRD (Voltage Reduction Device) lights indicate on or off.
- 2. Pulse Function Pressing this button enables the TIG current pulse functions.
- 3. Scroll buttons used to select the parameter to be set. The LED's show which function is being adjusted on the weld sequence graph.
- 4. TIG Mode Functions Pressing this button scrolls through the output TIĞ function modes (Standard, Slope, Slope w/repeat, Spot).
- 5. Digital LED display welding amperage and parameter values are displayed in this window. Internal warnings such as over temperature, low or high input voltage applied are signaled to the operator by a warning sound and error message on the
- 6. Save/Load Buttons By using the Save & Load buttons the operator can easily save up to 5 welding parameter programs.
- 7. Control knob allows the operator to adjust the output amperage within the entire range of the power source, also used to set each parameter value.
- 8. AC/DC Button Selects between AC or DC welding output.
- 9. Process functions pressing this button scrolls through the output process modes (Stick, Lift & HF Start TIG).
- 10. Remote current function pressing this button enables remote current.
- 11. Remote contactor function pressing this button enables remote contactor on or off.



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SANREX COPRORATION

AC/DC TIG Welding

Features

Recessed Control Panel

Simple to use operator interface with protective cover.

14 Pin Remote Receptacle

Easy to connect.

Flow Through Cooling

Heat Sensing Fan.

Coolant Pressure Switch

Torch safety feature.



Primary Smart Switch

Multi voltage 208-230/460 1 or 3 phase providing maximum flexibility.

Heavy Duty Case

ABS High Density Plastic.

Sheilding Gas Outlet

Has Pre and Post flow solenoid.

Output Terminals

Dinse Twist Lock.

Specifications

300AP		
Input Voltage	Primary Cable Length	
208-230/460V, 1/3 Phase	10 ft.	
Rated Output @ Duty Cycle	Output Range	
300A/32V @ 25% TIG (208-230/460V, 1/3 Ph)	5—300A AC/DC Mode	
250A/30V @ 40% STICK (208-230/460V, 1/3 Ph)	(60Hz cleaning 50% TIG mode)	
Input Frequency	OCV	
50/60 Hz	65	
Lift Mode Short Current	Weight	
25A	53 lb (24 kg)	
Approvals	Dimensions (HxWxD)	
CSA (Pending); IP23S, IEC 60974-1 (CE)	16.5 x 8.3 x 17.7 in (420 x 210 x 450 mm)	

			Input Voltage (VAC)							
	Duty Cycle	Output Ams	OCV	Output Voltage	No. Phase	208 Input Amps	230 Input Amps	460 Input Amps	kVA	kw
Output	25%	300	65	32	3	47	43	21	17	12.8
Output	40%	250	65	30	3	37	33	17	13.3	10
No Load	-	-	-	-	3	1.4	1.1	0.7	0.5	0.13
Output	25%	300	65	32	1	96	87	-	20	12
Output	40%	250	65	30	1	71	64	-	14.8	8.9
No Load	-	-	-	-	1	2.5	1.8	-	0.5	0.13



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SANREX COPRORATION PORT WASHINGTON, NY, USA

AC/DC TIG Welding

Ordering Information

Product	Part Number	Description
SANARG 300AP	IA-3000TP-U3E	Power Supply includes 2 ea Dinse Plugs & 10ft. Primary Cable.

Accessories

Foot Control	FC1000 - 15ft. FC1001 - 25ft.	Included in TIG Kits. Contactor On/Off, Current control, 25ft. Cable and 14 pin male plug.
	20015 1001	
300AP-HDWTK Kit Shown	300AP-ACTK	Includes 300AP, regulator/flowmeter with 12.5' gas hose, 12.5' 200 Amp Air cooled TIG torch, accessory kit, 15' work cable, 15' foot control & running gear/Cylinder Rack.
	300AP-WTK	Includes 300AP, regulator/flowmeter with 12.5' gas hose, 12.5' 250 Amp Water cooled TIG torch, accessory kit, 15' work cable, Water Cooler w/hose & 2 gal. Coolant, 15' foot control & running gear/Cylinder Rack.
	300AP-HDWTK	Includes 300AP, regulator/flowmeter with 12.5' gas hose, 12.5' 350 Amp Water cooled TIG torch, accessory kit, 15' work cable, Water Cooler w/hose & 2 Gal. Coolant, 15' Foot control & running gear/Cylinder Rack.
	TK1027	Water Cooling System 115vac. Included in Water cooled TIG Kits.
	WCE0006	15ft. Work Lead.
	MS1000	12.5ft Gas Hose.
	TK1000	12.5ft. Water Hose.
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Note: The 300AP is compatible with CK Worldwide 14 Pin Remote Amperage Controls or equivalent.



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