

AMET Variable Polarity Power Sources

VPC450

The next Generation of Automated Welding Systems and Standalone Components



The **AMET VPC450** power source represents a significant advancement in both TIG (GTAW) and Plasma (PAW) welding. It utilizes AMET's proven Digital Signal Processor (DSP) technology with Intelligent Power Module (IPM) technology to produce an extremely accurate and stable Variable-Polarity (VP) welding power source. AMET VP sources provide accurate high speed VP switching rates as well as independent straight and reverse time control. This premium VP and DC TIG power source provides TIG welding capabilities beyond common square wave machines, allowing the operator to control the process as never before to optimize penetration and surface cleaning. With cutting edge DSP control technology, AMET variable polarity power sources deliver precision, high-speed control, of welder set parameters such as initial current, maximum current, slope-up rate, slope-down rate, pre-flow time, post-flow time, and DC pulse profile. The IPM devices form a rugged "Polarity Switch" with built-in protection against: over current, short-circuit under voltage, and over temperature conditions. The units are rated for sea-level inlet air at 90 deg F (32 deg C).

True VP- The high rate polarity switching of the AMET "IGBT" design delivers high restrike voltage and current for consistent, accurate variable polarity performance. This ensures a very stable arc, especially at lower currents, for improved weldability on aluminum. Continuous high frequency is unnecessary because of the advanced performance of this True VP switching processor.

Independent straight and reverse time/amplitude control - It means adjustable VP frequency and balance control for a focused arc resulting in better directional control, producing the desired arc/weld bead characteristics, allowing precise cleaning control and prolonged tungsten/ orifice life.

Balance control - Straight and reverse times are set in milliseconds (1ms min.) to provide optimum flexibility and accuracy of the VP cycle to ensure desired cleaning, prolonged tungsten / orifice life.

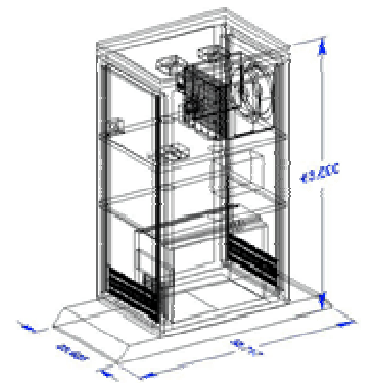
Line voltage compensation - Maintains desired power output regardless of fluctuations in input power.

Overload protection - Automatic thermal shutdown protects the unit from damage due to overheating.

Digital Display - A bright, friendly display is provided for easy operator setup and viewing of welding information.



Ratings:	VPC 450
Output Current	5-600 amps
Duty Cycle	60% at 565 amps
VP Duty Cycle	100% at 450 amps
Input Power	3Ø 460 VAC
Max. Open-Circuit Voltage	95 VDC



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