

# Invertec® 160SX

Lincoln Electric EMEA

**TPS**  
WeldTech

## ADVANTAGE

### ► More Power

30% more output current with the same input current allows welding up to 4.0mm electrode with 16A input.

### ► Portable everywhere

Lightweight, easy to handle in any situations, primary power extension cables can be utilised by up to 100m, also suitable for motor generator use.

### ► Robust design, Industrial use

Electrical safety (IP23), potted PC boards and optimum airflow reduce contamination to extend the equipments life in the harshest environmental conditions.

### ► Excellent Welding Experience

Good arc ignition with a smooth stable arc, Soft and Crisp mode, Auto Adaptive Arc Force an optimum choice for welding with every electrode.

### ► Cellulosic Capability

No electrode is too difficult to weld. Suitable for small diameter pipe welding.

### ► Extended input voltage range

Suitable for 115-230Vac single phase use smart switching.

### ► Green Welding Initiative

PFC gives low current consumption, energy saving, low current harmonics and reduction of the total CO<sub>2</sub> produced by the welding process.



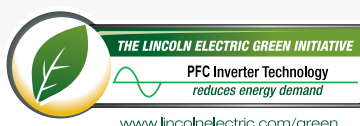
## Professional Performance Industrial Innovation

At Lincoln Electric we understand the significant impact that engineering knowledge has on every large or small welding project. The Invertec® 160SX is built to perform: rugged and robust on one hand, portable in another. The Invertec® 160SX is lightweight and easy to handle in a wide variety of applications and is ideal for professional industrial maintenance and small industrial projects, both on site and in workshops. The Invertec® 160SX is also suitable for use with motor generators.

The Invertec® 160SX is equipped with Power Factor Correction (PFC) which corrects the input current waveform. As a result for the same input current almost 30% more output can be obtained, allowing the use of larger diameter electrodes, thus reducing energy demands and costs.

In addition PFC reduces the power dissipation on input cables by up to 50% with consistent money saving. The Perfect Sinusoidal input current waveform reduces harmonics and allows compliance with the latest European standard EN 61000-3-12. The Invertec® 160SX is a real "Green Initiative" welding machine.

Select the Stick Soft, Stick Crisp or TIG process option and set the welding current for a greater welding experience. The Invertec® 160SX defines a new standard for the professional welder; an efficient and affordable way to weld.



Publication E0071 | Issue Date 09/12

# Invertec® 160SX

## TECHNICAL SPECIFICATIONS

Product	Item Number	Primary Voltage	Fuse Size	Weight (kg)	Dimensions HxWxD (mm)	Protection/ Insulation Class	Compliance
160SX	K12050-1	115/230V/1/50-60Hz +/-15%	16A	9	224 x 148 x 385	IP23 / H	EN60974-1 EN61000-3-12 CE - ROHS

## WELDING OUTPUT

Process	Input voltage	Current range	O.C.V.	Rated output (40°C)
STICK	230V AC	5-160A	80V	160A / 26.4V @ 30% 100A / 24V @ 100%
	115V AC	5-100A		100A / 24V @ 30% 70A / 22.8V @ 100%
TIG	230V AC	5-160A	12V	160A / 16.4V @ 30% 100A / 14V @ 100%
	115V AC	5-150A		150A / 16V @ 30% 100A / 14V @ 100%

## INPUT POWER

Process	Input voltage	Input Current I <sub>max</sub> /I <sub>eff</sub>	Input Power (P <sub>max</sub> )	Rated output (40°C)
STICK	230V AC	21,5A/11,8A 12,5A/12,5A	5.0kVA 2.9kVA	160A / 26,4V @ 30% 100A / 24V @ 100%
	115V AC	26,3A/14,4A 16,2A/16,2A	3.0kVA 1.9kVA	100A / 24V @ 30% 70A / 22,8V @ 100%

## CONTROL PANEL



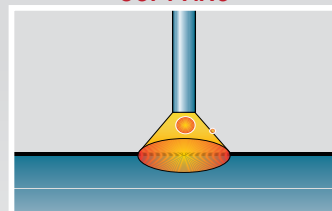
1. Amps Display shows set current at idle and real measured current while welding
2. Status LEDs control equipment electronics functioning and error status
3. Mode Push button and LEDs allow the best process setting: Soft Stick, Crisp Stick or Lift TIG
4. Current setting dial
5. Large connections (35mm<sup>2</sup>) for professional welding
6. Rubber feet and metal case. No compromise, robust construction

## ACCESSORIES

Item Number	Description
KIT-200A-25-3M	KIT Power Cable/Electrode Holder 200A, 25mm <sup>2</sup> , 3m
KIT-200A-35-5M	KIT Power Cable/Electrode Holder 200A, 35mm <sup>2</sup> , 5m
K10513-17-4V	TIG torch LT17 GV, 4m
K10513-17-8V	TIG torch LT17 GV, 8m

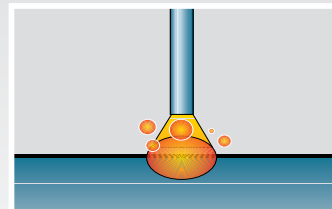
## STICK WELDING

### SOFT ARC



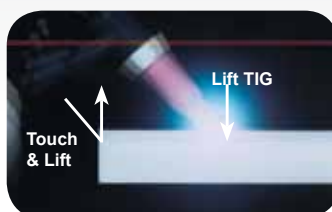
Provides a lower arc force level to deliver a smooth arc with reduced spatter. It provides a clean flat fillet weld with excellent wetting and bead appearance. For stainless electrodes, rutile and low hydrogen electrodes.

### CRISP ARC



Provides a more dynamic arc characteristic for welding in all positions. Ideal for cellulosic electrodes

## TIG WELDING



The machine has a low open circuit voltage in TIG mode to reduce tungsten contamination. Simply touch the tungsten to the work piece and lift off. The machine will instantly ramp up the voltage and current to establish the arc without the use of high frequency.