

## Sigma Weld - MIG | MAG | FCAW Digital Welding Inverters



Sigmaweld series welding machines are sophisticated IGBT based inverters with total digital control having wide current range. Sigmaweld is designed to meet varied requirement of the welding industry covering metal inert gas (MIG), (MAG), submerged arc welding and hard facing. Advanced micro controller technology enables sigma weld to have parameter locking technology which doesn't allow welders to adjust the parameters beyond the WPS settings.

**Significant energy saving vis-à-vis traditional welding equipments for all applications.**

### Features:

#### 1.Constant Voltage Output Provide.

The output of Sigmaweld welding inverters are constant even if there is a power fluctuation in the mains of upto  $\pm 15\%$ . The power source works equally well with generator sets with balanced load.

#### 2.Protections and Safety

Sigmaweld welding inverters are designed for safety of both operator and machines. It has inbuilt protections for overvoltage, undervoltage, output short, thermal overload and IGBT peak current locking. This ensures longer life of equipment.

#### 3.IGBT Based Solid State Inverter Design

Latest technology used for full bridge topology to ensure reliable, superior weld control every time. The new multilayer control card design ensures noise immunity and rugged inverter design.

#### 4.Easy to Learn Easy to Weld parameter setting

Simple design for ease of operators, settable parameters such as welding voltage, wire feeding speed, crater voltage and crater wire feeding speed can be adjusted from the panel or wire feeder. The sigmaweld welding inverters can be used in 2T/4T mode.

#### Optional Solutions Available

#### 5.Voltage and Speed Lockable Parameters\*

With advanced micro-controller technology it is possible to lock the voltage and current parameters to desired level by the supervisor, ensuring complete run at desired WPS parameters without changes by the operators.

#### 6.Weld Parameter Recording System\*

Our data monitoring system can be easily added to this M/C to give complete log of welding parameters such as welding voltage, welding inverters & wire feed rate etc.

## Product Selector Guide

SIGMA WELD MODEL	WIRE SIZE	OUTPUT RANGE	INDUSTRY APPLICATION
SW250MM	0.6 to 1.2 mm	50 to 250 Amps 16 to 30 Volts	Automobile, Light Fabrication, Furniture, Control Panel Manufacturers
SW400MM	0.8 to 1.6 mm	50 to 400 Amps 16 to 38 Volts	Heavy fabrication, Automobile, Structural, Boiler Pressure Vessels
SW600MM	0.8 to 1.6 mm Solid, 2.4 mm Flux Cored	50 to 600 Amps 16 to 40 Volts	Heavy Metal Fabrication, PEB, Boiler, Pressure Vessels, Ship Building

Specifications	SW250MM	SW400MM	SW600MM
Rated Input Voltage	3 $\phi$ , 415 V, $\pm$ 15%, 50HZ	3 $\phi$ , 415 V, $\pm$ 15%, 50HZ	3 $\phi$ , 415 V, $\pm$ 15%, 50HZ
Power (KVA) @ 100%	8 KVA	13 KVA	18 KVA
Duty Cycle @ 40°C	250Amps @ 60%	400Amps @ 60%	600Amps @ 60%
Open Circuit Voltage	60V	80V	80V
Output Range	50 to 250 Amps 16 to 30 Volts	50 to 400 Amps 16 to 38 Volts	50 to 600 Amps 16 to 40 Volts
(W x D x H) mm	320 x 460 x 560	320 x 460 x 560	360 x 655 x 650
Weight	32 Kgs	35 Kgs	57 Kgs

## Wire Feeder Options

Specifications	SW 2 R WF	SW 4 R WF	SW 4 R EWF
Wire Size	0.8 ~ 1.2	0.8 ~ 1.6	0.8 ~ 1.6
Wire Feed	2 Roll	4 Roll	4 Roll
Feeding Rate	2- 24mtr/min	2- 24mtr/min	2- 24mtr/min
(D x Wx H) mm	190 x 475 x 335	190 x 475 x 395	230 x 680 x 440

## Protection, Safety Features

1) Thermal Shutdown	Inbuilt (Over temperature Indication)
2) Under Voltage	Inbuilt (Phase Failure Indication)
3) Over Voltage	Inbuilt (Phase Failure Indication/MOV)
4) IGBT Peak Current	Inbuilt
5) Cooling Type	Forced Air Cooled
6) Water Cooling Interlocking	Water Flow Switch (Optional)
7) Output Short	In built (Output Short Indication)

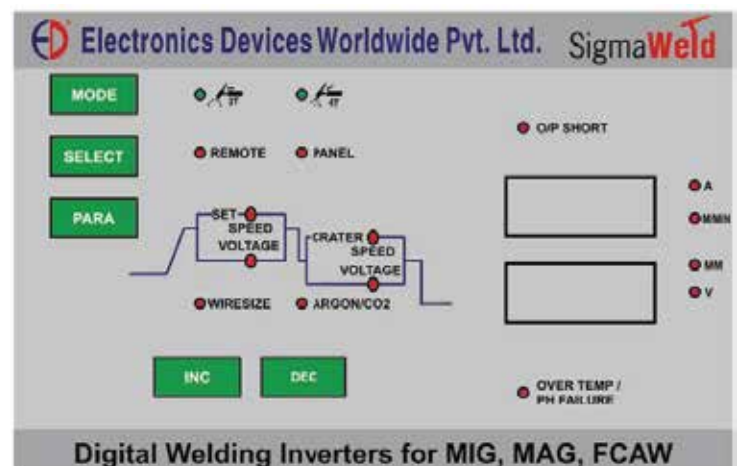
## Features

1) Crater Voltage, Speed	Adjustable	
2) Welding Mode	2 T	4 T
3) Digital Ammeter & Voltmeter	In Built	
4) Process Memory Recall	In Built	
5) Wire Feeder Motor	2 Roll	4 Roll
6) Wirefeeder Type	Open	Enclosed
7) Parameter Locking Remote	Optional	

## Optional Accessories:

Water Cooling Unit  
 Weaving Unit (X and Y Axis)  
 Potentiometer Based Remote  
 Welding Automation Solution.  
 Welding Torch and Consumables  
 Parameter Locking Remote  
 Data Monitoring System & Data Logger

## Operating Panel:



\*Continual development can lead to change in specification