SigmaWeld™

Digital Welding inverters for MMA, TIG, MIG

Sigma Weld - AC/DC TIG

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 manual arc welding, TIG welding, high frequency TIG welding, pulse TIG welding. Advanced micro controller technology enables Sigmaweld to have upslope downslope and plusing even without the use of high frequency.

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

Features:

1. Constant Current Output Provided

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

2. Excellent Welding Performance

The parameters settable are peak current, base current , upslope time, downslope time, gas preflow, gas post flow, torch mode (2 Track , 4 Track), frequency (AC Welding), duty cycle.

If the operator presses the torch switch but does not start welding, the gas solenoid is switched off within 10 sec. Ensuring no wastage of shielding gas.

The AC mode helps weld materials like aluminum with great ease.

3. Protections and Safety

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

4. Water Cooling Unit Interlocking

Sigmaweld WCS (Water Cooling System) can be easily mounted below the Sigmaweld welding inverters making it one completely integrated unit. The Sigmaweld wcs contains stainless steel tank, radiator and forced air cooling. Interlocking of water cooling unit with the program ensures that the WCS is operational only in the GTAW mode. Further the flow switch ensures that if the waterflow is insufficient then there is no welding. This is to safe guard the welding torch and operator.

5. Welding Automation and Accessories:

Sigmaweld GTAW machines can be controlled with the help of our standard push button based remotes, potentiometer based remotes or foot controlled remote for adjusting welding current during welding.

Sigmaweld GTAW machines can be interfaced with robots, welding SPM's and other systems with ease.

Sigmaweld automation systems such as weaving units, AVC (Automatic Voltage Controllers), special purpose machines, cold wire feeders etc are specially designed to enhance productivity and quality of welding.

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Specifications	SW300 AC/DC	SW500 AC/DC
Rated Input Voltage	3 ϕ, 415 V, ± 15%, 50HZ	3 ϕ, 415 V, ± 15%, 50HZ
Power(KVA) at 100%	10 KVA @ 250Amps	14.5 KVA @500Amps
Duty Cycle @ 40° C	80% @ 300 Amps	60% @ 450 Amps
Open Circuit Voltage	80 Volts	80 Volts
Output Range	8 - 300 Amps	8 - 500 Amps
(D x W x H) mm	490 x 360 x 500 mm	610 X 630 X 660 mm
Weight	55 Kgs	90 Kgs

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)

Parameter

		MIN	MAX
1) Gas Pre Flow Time	Settable	0.1 Sec	25 Sec
2) Gas Post Flow Time	Settable	0.1 Sec	25 Sec
3) Peak Current Time	Settable	0.1 Sec	10.0 Sec
4) Base Current Time	Settable	0.1 Sec	10.0 Sec
5) Frequency	Settable	10 Hz	80 Hz
6) Peak Current	Settable	5 Amps	300 Amps
7) Base Current	Settable	5 Amps	300 Amps

Optional Accessories:

1.Water Cooling Unit

2. Remote Potentiometer Based

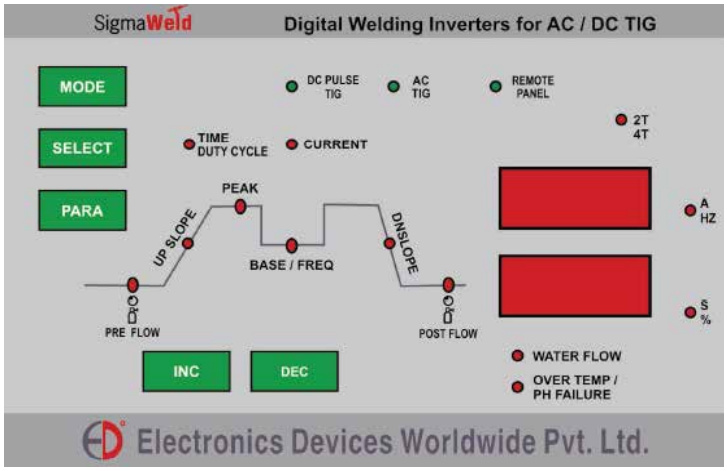
3. Remote Foot Ampere Control

4. AVC Controller (Automatic Voltage Controller)

5. Weaving Unit (X and Y Axis)

6. Welding Automation complete solution

Operating Panel:



*Continual development can lead to change in specification

Electronics Devices
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Making things happen

Sigma Therm
Induction Heating Solutions

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Sigma Weld
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