



**Electronics
Devices**

Worldwide Pvt. Ltd.

Making things happen

Sigma Weld

Digital Welding Inverters for MMA, TIG, MIG

Sigma Weld - AC/DC TIG

Digital Welding Inverters



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 on Generator Sets with balanced load.

2. Energy Saving , VRD Inbuilt

When the operator is not welding for more than 2 minutes , the power source automatically switches to low open circuit voltage output below 24V for safety of operator. This also leads to saving of no load losses.

3. Excellent Welding Performance

The parameters settable are Peak Current, Base Current, Peak Time, Base Time, Upslope Time, DownSlope Time, Gas preflow, Gas Post flow, Torch Mode (2Track, 4 Track), Frequency (AC Welding)

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.

In case the tungsten touches the job, the welding current and voltage are stopped immediately, helps avoid Tungsten Inclusion defects.

The AC Mode helps weld materials like Aluminum with great ease.

4. Protections and Safety

SigmaWeld welding inverters are designed for Safety of both operator and machines. It had inbuilt protections for Overvoltage, Undervoltage,

Output Short, Thermal Overload and IGBT Peak Current locking. This ensures longer life of equipment and our inbuilt Voltage Reduction Circuit which ensures OCV as low as 24 Volts or below when not welding keeps operators safe.

5. 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.

6. 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.

Sigma Weld - AC/DC TIG

| Specifications | SW300ACDC |
|----------------------|-----------------------|
| Rated Input Voltage | 3 ϕ , 415V, 50HZ |
| Power (KVA) at 100% | 12KVA |
| Duty Cycle @ 40° C | 60% @ 300 Amps |
| Open Circuit Voltage | 60 Volts |
| Output Range | 5 - 300Amps |
| (D x W x H) mm | 490 x 360 x 500 |
| Weight | 55 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) |

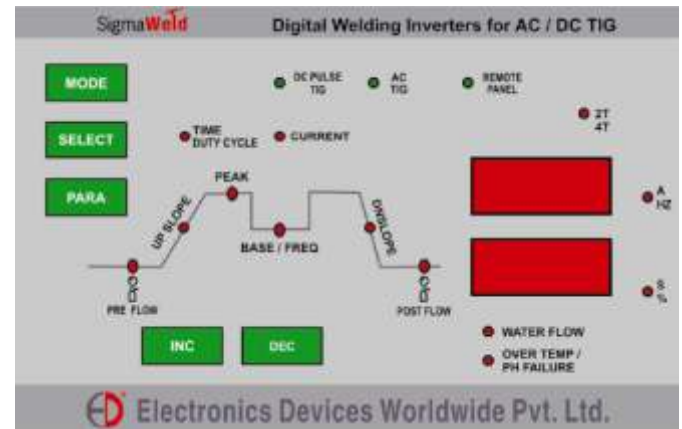
Parameter

| Parameter | | MIN | MAX |
|-----------------------|----------|---------|----------|
| 1) Gas Pre Flow Time | Settable | 0.1 Sec | 30.0 Sec |
| 2) Gas Post Flow Time | Settable | 0.1 Sec | 30.0 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 | 100 Hz |
| 6) Peak Current | Settable | 5 Amps | 350 Amps |
| 7) Base Current | Settable | 5 Amps | 350 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



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