

Sigma Weld - MMA | SMAW

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:

Constant Current Output Provided

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. The output current does not drop even at 100 meters of copper cable length.

Energy Saving , VRD Inbuilt

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

Excellent Welding Performance in MMA for all alloys

The optimized design along with added features like adaptive hot start, arc force control, helps achieve seamless beads with all steels and alloy steels. Welding with all types of electrodes such as 6013, 7018, SS316, SS308, or 6010 is also possible with ease.

Protections and Safety

Sigmaweld welding inverters are designed for safety of both operator and machines. It has inbuilt protections for over voltage, 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.

Machines, Electrodes & Currents Selector Guide

Sigma Weld	ELECTRODE	RUTILE	BASIC	Cellulosic
Model	Ø	Amps	Amps	Amps
SW 170 MMA	1.6	30 - 55	50 - 75	20 - 45
SW 170 MMA	2.5	50 - 100	70 - 120	40 - 80
SW 170 MMA	3.15	80 - 130	110 - 150	70 - 120
SW 250 MMA	4.0	120 - 170	140 - 200	100 - 150
SW 400 MMA	5.0	150 - 250	190 - 260	140 - 230
SW 600 MMA	6.3	220 - 370	250 - 320	200 - 300

INDY MMA

3 PHASE MANUAL METAL ARC WELDING INVERTERS

ENERGY SAVER



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

Features:

- Constant current output provided
- User friendly panel contains knob for current and arc force adjustment.
- Energy saving inbuilt, which gives 40% to 70% power saving over rectifier & transformer based technology.
- Excellent welding performance in MMA for all steels & alloys
- Protection and safety for overvoltage, overcurrent, low voltage, thermal shutdown for high temperature.

Sigma Weld	Electrode	Rutile	Basic	Cellulosic
INDY Model	Ø	Amps	Amps	Amps
INDY 250MMA	4.0	120-170	140-200	100-150
INDY 400MMA	5.0	150-250	190-260	140-230
INDY 600MMA	6.3	220-370	250-320	200-300

Specification	INDY 250MMA	INDY 400MMA	INDY 600MMA
Rated Input Voltage	3Ø 415 V, ±15%, 50 Hz	3Ø 415 V, ±15%, 50 Hz	3Ø 415 V, ±15%, 50 Hz
Power (KVA)@100%	7KVA	12.6KVA	22KVA
Duty Cycle @ 40 Ć	100% @200A	100% @300A	100% @400A
Open Circuit Voltage	80V	80V	80V
Output range	5-250Amps	5-400Amps	5-600Amps
(D X W X H) mm	610X300X500	610X300X500	610X380X650
Weight	35Kg	35Kg	50Kg

Protection, Safety Features & Parameter

1) Thermal shutdown	In built (over temperature Indication)
2) Under voltage	In built (Phase failure Indication)
3) Over current	In built (Phase failure Indication/MOV)
4) IGBT Peak current	In built
5) Energy saving	In built
6) Cooling type	Forced Air cooling

1) Arc Force Control	Adjusted
2) Arc breaking Control	In Built
3) Hot start current	30%
4) Hot start duration (approx.)	300m Sec
5) Digital Ammeter	In Built

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