DIGISTAR

MULTIFUNCTION INVERTER POWER SOURCES FOR DUAL-PULSED MIG, PULSED MIG, MIG/MAG, MMA AND TIG.

The synergic multifunction DIGISTAR 250 power sources, based on the most modern IGBT inverter technology and fully digital controlled, allow premium welding quality in MIG/MAG, Pulsed and Dual-Pulsed MIG on all materials and particularly on stainless steel, aluminium and galvanized steel, by minimizing any reworking job thanks to their spatter free welding.

Innovative, robust and easy-to-use, DIGISTAR’s represent the ideal solution for any application requiring high precision and repeatability of the achieved results, by making these power sources perfectly suitable for the most qualified industrial and professional jobs, particularly in qualified maintenance and automotive sector.

Their lightweight and reduced size provide the portability and their very high technological content makes them “star” performers even in toughest working conditions. DIGISTAR’s versatility allows the operator achieve optimal results both in TIG by “Lift” mode striking and in MMA welding.

► Synergic digital control of all the welding parameters
► Spatter free exceptional welding characteristics in MIG, MIG Pulsed and Dual-Pulsed MIG on any material and different gas type
► High welding performances both in MMA and TIG by “Lift” mode striking
► Ability to store personalized welding programs
► “Energy Saving” function to switch off the power source cooling fan when no longer necessary
► Monitoring and repeatability of the welding parameters which can be printed
► User friendly and easy-to-use selection and recalling of the parameters and welding programs
► Low energy consumption
► Auto-diagnostic feature for trouble shooting
► Initial and crater welding cycle control
► Total or partial equipment access locking key by password
► Use of special MIG torches enables the remote adjustment of the welding parameters from the torch
► Control panel protected against accidental impact
► IP 23 protection class and dust-proof electronic components, thanks to the innovative “tunnel” fan cooling system, allow use in the toughest work environments
Digital adjustment of all the welding parameters
Digital Voltmeter and Ammeter with Hold Function of the last parameter and presetting of the welding current
Digital display to preset and read the welding parameters
Digital display to read the preset welding programs
Selector: workpiece thickness, current, wire speed
Selector: arc length, voltage, electronic inductance
Welding “Process” selector:
MIG Pulsed • MIG Dual Pulsed • MIG/MAG • MMA • TIG DC
Welding “Cycle” selector:
2T/4T • “Initial & Crater” • Spot Timer
“Mode” selector:
- SYN (Synergic): optimum welding parameters are synergically adjusted depending on the preset welding program
- AUT (Auto): to retrieve personalized welding parameters
- MAN (Manual): digital potentiometers allow manual adjustment of welding current and voltage as in a traditional machine
Arc length and electronic inductance fine adjustment
Gas purge and wire inch
Special function key

MMA WELDING
- Adjustable Arc Force to select best welding arc dynamics
- Adjustable Hot Start to improve arc striking with most difficult electrodes
- Electrode Antisticking function

TIG WELDING
- DC TIG welding by “Lift” mode striking to minimize tungsten inclusion

DIGITORCH
DIGITORCH’s allows the operator readily see on the large display and adjust main welding parameters: welding current, material thickness, wire speed, arc length, electronic inductance and memorized program number. Using the up/down button, depending on the selected welding mode, it is possible to switch from one program to the other or increase/decrease the parameters of the synergic curve in use.
VISION ARC

VISION.ARC is the innovative welding arc performed by DIGISTAR’s: a powerful microprocessor manages in real time the welding process, by elaborated and adjusting, in a very few microseconds, over 100 welding parameters. The entire welding process is under total control by keeping the arc extremely stable and precise in spite of any change in external conditions, while also compensating for the torch movement and workpiece irregularity. VISION.ARC grants premium performances with an exceptionally high quality impossible to be obtained by traditional power sources, thus resulting into much faster welding speed, higher welding wire deposition and remarkable reduction in spatters and workpiece thermal dilatations.

VISION.PULSE

The new VISION.PULSE optimizes the results of traditional pulsed welding, allowing to obtain the classical “one pulse one droplet” deposition by using an even shorter arc. Thanks to the very fast dynamic response of the control, VISION.PULSE modifies in real time the parameters, while maintaining a constantly monitored short arc. This allows to reduce the high heat input, typical in pulse welding, with a consequent reduction in distortion, an improvement in the puddle and considerable increase in welding speed too.

DUAL-PULSED

This Pulsed Mig innovative system couples existing pulse peaks with a second level of variable frequency pulses. Dual pulse favours a reduction in the heat transfer to the workpiece by minimizing its deformation and produces premium quality aesthetic beads similar to TIG finishing. Dual Pulsed welding is extremely useful when welding aluminium and stainless steel.

DIGITAL CONTROL

An easy-to-use and user friendly control panel helps the inexperienced user to easily operate DIGISTAR’s in MIG, Pulsed MIG and Dual Pulsed MIG. After choosing the preset welding program according to material, wire diameter and gas to be used, it is then sufficient to select the material thickness: the microprocessor automatically chooses the most correct parameters while compensating for any changes that occur during welding.

WSC - WIRE START CONTROL

This new arc striking control device prevents any possible wire sticking to the workpiece or torch nozzle, by ensuring a precise and “soft” arc striking, particularly while welding aluminium.
WFC – WAVE FORM CONTROL

Both welding parameters and pulse wave form, digitally controlled by the micro-processor, are monitored and modified in microseconds in order to keep the arc precise and stable while compensating for continuous changes in welding conditions caused by the torch movement and workpiece irregularity.

BURN BACK CONTROL

At the end of each weld, in any condition and with any material, the digital control ensures a perfect wire cut thus avoiding the formation of the typical “wire globule” by ensuring the subsequent best arc restriking.

OPEN TO THE FUTURE

DIGISTAR equipment are systems open to evolving technology: both control firmware and software are designed to be always updatable.

<table>
<thead>
<tr>
<th>TECHNICAL DATA</th>
<th>DIGISTAR 250</th>
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<tbody>
<tr>
<td>Three phase input 50/60 Hz</td>
<td>V +15% / -20%</td>
</tr>
<tr>
<td>Input Power @ I2 Max</td>
<td>kW</td>
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<tr>
<td>Delayed Fuse (I2 @ 60%)</td>
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<tr>
<td>Power Factor / cos φ</td>
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<tr>
<td>Efficiency Degree</td>
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<td>Open circuit voltage</td>
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<td>Current range</td>
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<td>Duty cycle at (40°C)</td>
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<td></td>
<td>A 60%</td>
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<td></td>
<td>A 35%</td>
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<td>EN 60974-10</td>
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<td>Weight</td>
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Other voltages available on request
These power sources are built for industrial environment use. EMC (CISPR 11): class A

ACCESSORIES

- Up/Down torches
- Gas cylinder trolley
- Autotransformer