



## MOSA DSP 500 PS 16 kVA Multiprocess Welder

Reference: C1CC1020

### MOSA DSP500PS 16KVA MULTI-PROCESS MOTORWELDER DSP500PS

MOSA DSP500PS Motorwelder 16kVA Multiprocess is a professional machine with digital regulation of DSP (Digital Signal Processor) welding parameters and welding circuit in Chopper technology (high frequency 20 kHz). Mosa DSP500PS Equipped with a Perkins 400 series diesel engine and asynchronous alternator, can be used simultaneously as a motorwelder and as a three-phase and single-phase generator set. Mosa DSP500PS Thanks to the rotation speed of the engine of 1500 rpm it is suitable for continuous duty.

Mosa DSP500PS Motorized 16kVA Multiprocess Motorwelder Designed to meet the needs of professional DC welding, through a selector allows to choose between 5 different welding programs.

1. LIFT ARC TIG - Performs TIG by controlling the trigger in "Lift Arc" mode. The arc is triggered by a simple contact of the electrode on the workpiece, without sliding.
2. STICK (3 PROGRAMS) - These are specific for ELECTRODE (DC) welding and differ from each other in three different levels of arc penetration (arc force), with increasing short circuit currents.
3. MIG MAG - It is dedicated to FULL OR ANIMATED WIRE, performing a constant voltage (CV) welding process.

Mosa DSP500PS This is a super-silenced motorwelder with a compact fairing, suitable for a wide range of applications including the construction of metal structures, oil pipelines and use on construction sites.

### DSP MOSAIC PROGRAM DSP500PS 16KVA MULTIPROCESS MOTORWELDER DSP500PS

Mosa DSP500PS Technology 16kVA Multiprocess motorwelder

The acronym DSP, by which this line of MOSA motorwelding machines is called, stands for "Digital Signal Processor" and identifies the fact that the welding parameters are adjusted using digital technology. More precisely, in the DSP control unit are installed the programs through which the control of the various supported welding processes is carried out. The control is carried out by means of a "Chopper" type converter (Chopper Technology), which operates at high frequency (20 kHz). The high conversion frequency makes it possible to obtain higher welding characteristics than those possible with more traditional low frequency techniques.

Features Mosa DSP500PS Multiprocess 16kVA Motorwelder

Using a selector, it is possible to choose between 5 different welding programs:

- 1) LIFT ARC TIG - Performs TIG welding by controlling the trigger in "Lift Arc" mode. The arc is triggered by a simple contact of the electrode on the workpiece, without sliding.
- 2) STICK (3 PROGRAMS) - These are specific for ELECTRODE (DC) welding and differ from each other in three different levels of arc penetration (arc force), with increasing short-circuit currents.
- 3) MIG MAG - It is dedicated to FULL OR ANIMATED WIRE welding, performing a constant voltage (CV) welding process.

Mosa DSP500PS Multiprocess motorwelder with front panel of the MOSA DSP control unit is equipped with a circular military type

connector to which a Mosa remote control or a Mosa wire feeder can be connected, for MIG MAG welding. When the external connector is inserted, the control is automatically switched to the remote unit knob. All the machines in this series are equipped with a digital measuring instrument for reading the welding current and voltage. The Mosa software of the control unit, in relation to the version of the Mosa Motorwelder machine on which it is installed, can manage various functions, including

- a) Mosa Power Optimizer - Function that prevents motor overload during welding
- b) Mosa VRD - (Voltage Reduction Device) Function that reduces the no-load voltage to safety values when the welding is suspended.
- c) Mosa Polarity inversion - The Mosa control unit manages the contactor that actuates the polarity inversion, when present.

The MOSA DSP control unit also implements some protection functions:

- Chopper converter overtemperature
- Overcurrent during welding (due to failure or malfunction)
- Current sensor not connected
- Supply voltage abnormality

Versions on request Mosa DSP500PS MotorWelders 16kVA Multiprocess

- Auxiliary output 400Y/230I/48I: N.1 x 400V 32A 3P+N+E CEE / N.1 x 230V 32A 2P+E CEE / N.1 x 230V 16A 2P+E CEE
- Auxiliary output 400Y/230I: N.1 x 400V 32A 3P+N+E CEE / N.1 x 230V 32A 2P+E CEE / N.2 x 230V 16A 2P+E CEE
- Auxiliary output 400Y/230I/110I CTE: N.1 x 400V 32A 3P+N+E CEE / N.1 x 230V 32A 2P+E CEE / N.1 x 110V 32A 2P+E CEE / N.1 x 110V 16A 2P+E CEE
- PL version: version with polarity change and VRD (ignition voltage reduction device)

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Images and technical data Mosa DSP500PS not binding

## Technical Sheet

| Phase                              | Single phase / Three phase  |
|------------------------------------|---|
| Maximum power single phase (KW)    | 9.6   |
| Maximum power single phase (KVA)   | 12  |
| Maximum power three phase (KW)     | 12.8  |
| Maximum power three phase (KVA)    | 16  |
| Fuel                               | Diesel  |
| Frequency (Hz)                     | 50  |
| Voltage (V)                        | 230 / 400   |
| Engine                             | Perkins 404A-22G1   |
| Emissions Regulations              | Stationary Use  |
| Engine rpm (rpm)                   | 1500  |
| Starting system                    | Electric  |
| Engine capacity (cm <sup>3</sup> ) | 2216  |
| Number cylinders                   | 4   |
| Cooling                            | Water   |
| Inyección                          | Indirect  |
| Alternator                         | Asynchronous three-phase, self-excited, self-regulated, brushless |

|                                  |  |
|----------------------------------|--|
| Welding current (A)              | 500 at 35% - 450 at 60% - 400 at 100% / 450 at 60% - 400 at 100% |
| Open circuit voltage (V)         | 62   |
| Maximum diameter electrodes (mm) | 8  |
| Type of welding current          | CC / CV  |
| Type of welding                  | Multiprocess   |
| Fuel tank capacity (L)           | 60   |
| Consumption (L/h)                | 3.8  |
| Running time (h)                 | 16   |
| Acoustic power                   | 91 dB(A)   |
| Acoustic pressure                | 66 dB(A) at 7 m  |
| Length (mm)                      | 1720   |
| Width (mm)                       | 980  |
| Height (mm)                      | 1110   |
| Dry weight (Kg)                  | 750  |
| Silenced                         | Yes  |
| Super silenced                   | Yes  |
| Engine manufacturer              | Perkins  |