



## MOSA DSP 600 PS Multiprocess 30 kVA Welder

Reference: C1FJ0060

### MOSA DSP600PS MOTORWELDER 30 KVA MULTIPROCESS

The MOSA DSP600PS is a professional motorwelding with digital regulation of DSP (Digital Signal Processor) welding parameters and circuit in Chopper technology (high frequency 20 kHz). Equipped with a Perkins 1103 series diesel engine and an asynchronous alternator, it can be used simultaneously as a motorwelding and as a three-phase and single-phase generator. Thanks to the rotation speed of the engine of 1500 rpm it is suitable for continuous duty.

The MOSA DSP600PS motorwelding machine has been designed to meet the needs of professional DC welding, by means of a selector switch 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) process.

MOSA DSP600PS is a super-silenced motorwelding with a compact fairing, suitable for a wide range of applications including the construction of metal structures, oil pipelines and use on construction sites.

### MOSA DSP MOTORWELDING PROGRAM

#### Technology

The acronym DSP, by which this line of MOSA DSP600PS motorwelding machines is called, stands for "Digital Signal Processor" and identifies the fact that the parameters are adjusted using digital technology. More precisely, in the DSP control unit are installed the programs through which the control of the different supported processes is carried out. The implementation of 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 allows to obtain superior characteristics compared to those possible with more traditional low frequency techniques.

#### Features MOSA DSP600PS motorwelding

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) process.

The front panel of the MOSA DSP600PS 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. The MOSA DSP600PS motorwelding machine is equipped with a digital measuring instrument for reading current and voltage. The software of the unit, in relation to the version of the welder on which it is installed, can manage various functions, among which:

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

The MOSA DSP600PS unit also implements some protection functions:

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

Versions on request

- Auxiliary output 400Y/230I/48I: N.1 x 400V 32A 3P+N+CEE / N.1 x 230V 32A 2P+E CEE / N.1 x 230V 16A 2P+ECEE
- 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

#### TECHNICAL CHARACTERISTICS MOTORWELDING MACHINE MOSA DSP600PS

Fuel: Diesel

Phase type: Single-phase / Three-phase

Voltage: 230 V / 400 V

Maximum power Single-phase 230 V (kVA): 15

Maximum power Three-phase 400 V (kVA): 30

Welding current (A): 600 A at 35% - 550 A at 60% - 500 A at 100%.

Current type: DC / CV

Welding Type: Multiprocess

Silenced 70 dB(A) @ 7 m

LENGTH (mm): 2030

WIDTH (mm): 870

HEIGHT (mm): 1130

Dry weight (Kg): 1000

Are you looking for a welder with different characteristics? [HERE](#) you can find the whole range of MOSA motorwelder or other specialized brands.

Images and technical data are not binding.

## Technical Sheet

Phase	Single phase / Three phase
Maximum power single phase (KW)	12
Maximum power single phase (KVA)	15
Maximum power three phase (KW)	24
Maximum power three phase (KVA)	30
Fuel	Diesel
Frequency (Hz)	50

Voltage (V)	230 / 400
Sockets configuration	1x400V 32A 3P+N+T CEE + 1x230V 32A 2P+T CEE + 1x230V 16A 2P+T CEE + 2 Sockets DINSE 200 A per 48V
Engine	PERKINS 1103A-33G1, 4 stroke
Emissions Regulations	Stationary Use
Engine rpm (rpm)	1500
Starting system	Electric
Engine capacity (cm <sup>3</sup> )	3300
Number cylinders	3
Cooling	Water
Inyección	Direct
Alternator	Asynchronous three-phase, self-excited, self-regulated, brushless
Regulation current (A)	10 - 600
Welding current (A)	600 at 35% - 550 at 60% - 500 at 100% / 550 at 60% - 500 at 100%
Open circuit voltage (V)	60
Maximum diameter electrodes (mm)	8
Type of welding current	CC / CV
Type of welding	Multiprocess
Fuel tank capacity (L)	65
Consumption (L/h)	5
Running time (h)	13
Acoustic power	94 dB(A)
Acoustic pressure	69 dB(A) at 7 m
Length (mm)	2330
Width (mm)	870
Height (mm)	1130
Dry weight (Kg)	1000
Silenced	Yes
Super silenced	No
Engine manufacturer	Perkins