



elektrosistem



PUMP CHOPPER TYPE "SYSTEM-MOS"

The new line of control units type System Mos Pump comes from the already known line of System Mos devoted to Traction and has been designed for applications on lift trucks where power steering, lift, translation and swing functions have to be adjusted.

Designed according to the new Power Mos technology that guarantees a reliability never reached by the older bipolar transistor technology, the chopper System Mos Pump is indicated to control low voltage high currents.

This product offers reliability, functionality and high operator's safety and can be fitted on vehicles to export as it is realised in compliance with the EEC directive No. 86/663 of 22/12/86.

The extremely compact shape (obtained thanks to the high performance of these choppers) has been designed in order to protect the power components and the electronic printed boards by means of an heatsink. Adjusting trimmers can be easily reached by the upper part of the chopper, with no need to remove covers.

The chopper includes two printed boards: a logic card that is the same for all pump models and operating voltages and can be easily replaced in case of malfunctioning and an interface that is different according to the chopper model and the operating voltage and can not be replaced as integral part of the power circuits.

All printed boards are tested by a computerized system (Automatic Test Equipment) that guarantees reliability as far as assembling (on printed boards) and operation features are concerned, reducing breakdowns and malfunctioning situations due to cold welding or defective components.

Dissipation occurs by contact with the vehicle structure.

Produced in a wide range of models from 160 to 550A with battery voltages of 24-36-48-60-72-80 VDC, these choppers can be divided into two main groups:

- chopper for compensated power steering
- chopper for pump power steering, chopper for compensated pump power steering.

Chopper for compensated power steering (IC)

The chopper acts on the power steering motor or on the pump motor (when this is used for the power steering) changing the revolutions according to the required steering intensity. This model is available even with diode for protection against battery polarity inversion that could occur during installation, or in case of battery or plug replacement.

Dimensions depend on the power required from the power steering circuit, so that when the pump motor is used even for power steering, the chopper is not able to adjust lift continuously, a simple problem that can be easily solved using the pump contactor.

Elektrosistem can supply a printed board (DTA-01) delaying the contactor closing. In this way the contactor is enabled after the motor has been started by the chopper, thus limiting the initial current peak. Timing can be controlled by means of the already known TCSSAB board.

Chopper for pump power steering (PI), chopper for compensated pump power steering (PIC)

This kind of chopper enables the control of lift and power steering functions at low costs.

This solution involves the use of the lift motor even for power steering simply adding an economical device (flux dividing valve) used to adapt the power steering circuit requirements to the lift circuit features.

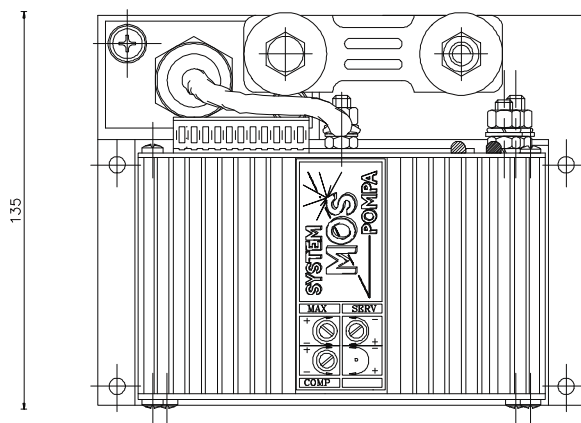
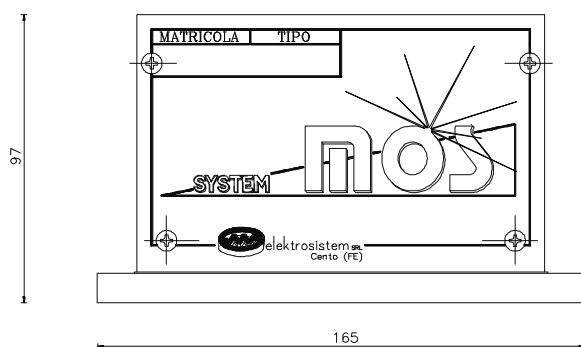
Compensation, if present, acts both on power steering and on lift, enabling compensation of the big differences in the lift speed (of pump motor) due to load variations and to battery voltage.

~~NEWS~~**TECHNICAL SPECIFICATIONS**

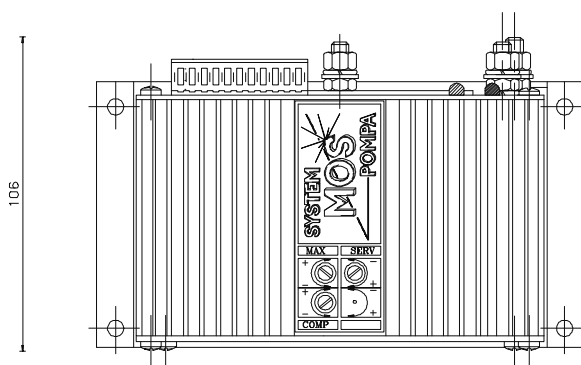
Voltage rating	24-80 VDC	Thermal limiter action	80° C
Allowed variation	67-125 %	Max. voltage supplied at 24 VB	90 %
Operation frequency	350 Hz	Max. voltage supplied at 48 VB	95 %
Ambient temperature	from -20 to +40° C	Max. voltage supplied at 80 VB	97 %
Relative humidity at 25°C	90 %	Insulation of mechanical parts	2VB + 1000 V

TECHNICAL FEATURES

Models	MOS IC 16 P
Voltage	48 V
Current supplied for 1 min.	160 A
Current supplied for 1 hour	110 A
Short circuit current	180 A

MECHANICAL CLEARANCE

Model with diode for protection
against battery polarity inversion



Model without protection

~~NEWS~~

TECHNICAL FEATURES

Models	MOS PI-PIC 35	MOS PI-PIC 45	MOS PI-PIC 55
Voltage rating	24-80 V	24-80 V	24-80 V
Current supplied for 1 min.	350 A	450 A	550 A
Current supplied for 1 hour	210 A	260 A	300 A
Short circuit current	385 A	495 A	600 A

MECHANICAL CLEARANCE

