

# QUADRO AVVIAMENTO AUTOMATICO

## EAS 111 / 170 - 809

- Automatic panels with load transfer switch for generators (AMF + ATS)
- TE809A microprocessor controller
- Back-lit LCD graphic display- 64x128 pixel
- Three-phase mains and generator monitoring
- RS232 port MODBUS RTU protocol
- RS485 port and USB port
- Fully programmable by keyboard
- 4 languages available on board (others languages available on CD)
- Event list (250) and data-logger
- Date and time (REAL TIME clock with battery)
- Complete of control cable - 10 meters
- Meets EC directives

Standard equipment



- Metal case painted with epoxy powder
- TE 809A microprocessor controller
- Changeover power contactors both mechanically and electrically interlocked
- Automatic battery charge 2 A
- Emergency stop button
- Alarm Buzzer
- Protection fuses
- Heater circuit breaker
- N° 3 current transformers

Options to factory installation



- Remote control by PC:  
via RS232 port (15m max.) - via RS485 port - via MODEM - via GSM MODEM - via GPS MODEM - via ETHERNET.

TECHNICAL DATA	EAS 111-809	EAS 170-809
3phase 400V power max	111 kVA	170 kVA
3phase 230V power max	64 kVA	100 kVA
1phase 230V power max	59 kVA	92 kVA
Ith. contactors current (≤ 40 °C)	160A	250A
Dimensions hxxwxd (mm)	1000 x 600 x 250	
Weight	61 Kg	65 Kg
IP protection degree	IP 54	
Working frequency	50 o 60 Hz	
Battery charger	12V c.c.-2A	
Working temperature	- 20°C ÷ + 70°C	
Relative humidity	< 90 %	
Storage temperature	- 40°C ÷ + 80°C	
<b>TECHNICAL DATA CONTROLLER TE 809A</b>		
Supply voltage	12 (24) V c.c.	
Supply range	6 ÷ 33 V c.c.	
Rated current	250 mA	
IP protection degree of the controller	IP 65	
Measures accuracy	± 0.2% - ± 1 digit	

### CONTROLS - READING AND SIGNALS - ALARMS

<p><b>KEYBOARD</b></p> <ul style="list-style-type: none"> <li>• RESET</li> <li>• AUT</li> <li>• MAN</li> <li>• TEST</li> <li>• START</li> </ul>	<ul style="list-style-type: none"> <li>• STOP</li> <li>• KG - generator contactor</li> <li>• KR - mains contactor</li> <li>• HELP</li> <li>• MENU</li> <li>• NAVIGATOR AND CONFIRMATION DRIVE (5 button)</li> </ul>	<p><b>DISPLAY: MEASURES</b></p> <p>Generator / Mains</p> <ul style="list-style-type: none"> <li>• Vac: L1/L2 - L2/L3 - L3/L1 - L1/N - L2/N - L3/N</li> <li>• I (A): L1- L2 - L3</li> <li>• kVA - kW - kVAR: L1- L2 - L3</li> <li>• kWh</li> <li>• Cos φ: L1- L2 - L3</li> <li>• Hz</li> </ul> <p>General</p> <ul style="list-style-type: none"> <li>• Date and time</li> <li>• Work hours</li> <li>• Hours left to service</li> <li>• Event log</li> </ul>
<p><b>ALARMS</b></p> <ul style="list-style-type: none"> <li>- High engine temperature</li> <li>- Low oil pressure</li> <li>- Pressure sensor fault</li> <li>- Low fuel level</li> <li>- High rpm (overspeed)</li> <li>- Low rpm</li> <li>- High battery voltage</li> <li>- Low battery voltage</li> <li>- Battery charger alternator fault</li> <li>- Starting failure</li> <li>- Emergency stop</li> <li>- Mechanical fault</li> <li>- Stop failure</li> <li>- Low coolant level</li> <li>- Service</li> <li>- High generator and mains frequency</li> <li>- Low generator and mains frequency</li> <li>- High generator and mains voltage</li> </ul>	<ul style="list-style-type: none"> <li>- Low generator and mains voltage</li> <li>- Asymmetry generator and mains</li> <li>- Wrong sequence phase generator and mains</li> <li>- System lockeed</li> </ul>	<p><b>INDICATION LED</b></p> <ul style="list-style-type: none"> <li>• Controller supplied</li> <li>• Reset - Aut - Man - Test</li> <li>• General alarm</li> <li>• Generator voltage OK</li> <li>• Generator contactor close</li> <li>• Mains voltage OK</li> <li>• Mains contactor close</li> </ul> <p><b>SPECIAL FUNCTIONS</b></p> <p>Functions enable only in Automatic mode.</p> <ul style="list-style-type: none"> <li>- REMOTE START: by mean an external signal is possible start and stop the generator also with mains present</li> <li>- REMOTE STOP: by mean an external signal is possible to block the generator. The generator will not start also when a mains failure happen. This function is useful when you want to start the generator automatically after a mains failure but only with a remote switch active, for example a signal of a level sensor or timer.</li> <li>- SCR: this function permits to start the generator and make the changeover switch on the load by an external signal also with mains present. When this signal disappears the generator will stop and a changeover switch on mains side happens.</li> <li>- START / STOP generator from threshold kW power mains.</li> </ul>

Mosa reserves the right to change this specification without notice. For further information please contact the sales department.