

# GUARD EVOLUTION "AUTO"

## MAIN FEATURES

The GUARD EVOLUTION automatic device allows automated management of a Mains failure. When the Mains fail GEVO starts the genset according to a pre-set logic, it switches from mains/genset and feeds the User system. When the Mains come back on GEVO switches from genset/mains and proceeds with cooling down the genset and ultimately shutting it down. Main characteristics: clear communication via a large backlit display screen; generating set event analysis through sophisticated algorithms; complete engine and electrical parameters; ; possibility of integrating additional modules and programme extensions; customisation for dealers (optional).



DESCRIPTION	PICTURE	FUNCTIONS
<p>The large backlit display screen gives a lot of information about the gen set. Each time the genset is started the first screen shows all the useful information regarding the genset including telephone numbers to call in case assistance is needed.</p>		<p>The automatic version has the following standard functions:</p> <ul style="list-style-type: none"> <li>-Language selection (Italian, English, French, German, Spanish)</li> <li>-Stop active function</li> <li>-Crank engine speed function</li> <li>-Password-protected user menu via password to change parameters</li> <li>-Programmable maintenance countdown</li> <li>-LED signal status of: genset operating normally, genset pre-alarm, genset alarm, genset alarm/block</li> <li>-Display selected operating mode</li> <li>-Acoustic alarm</li> <li>-PC communication with standard RS 485 serial port</li> <li>-Last 16 alarms memorised in the archives</li> <li>-Programmable analogue and digital outputs upon request: fuel reserve, engine maintenance required, system blocked, stop engine activated, engine overspeed, engine underspeed, high engine temperature, low oil pressure, low oil level, low water level, isolated oil pressure sensor wire, failed start, failed engine stop, mechanical arrest, alternator not energised, D+ wire isolated, low battery voltage, high battery voltage, emergency stop button pressed, low generating set voltage, high generating set voltage, genset voltage asymmetry, general system error, electro-ventilator blocked, high generating set current, high oil temperature, high alternator temperature, memory corrupted, low fuel level, high fuel level, genset not in automatic mode.</li> </ul>
<p>Relays and fuses are placed next to the control panel making them very visible and accessible.</p>		<h3>STANDARD MEASUREMENTS</h3>
<p>The emergency stop button is found on the control panel; in case of emergency, it immediately shuts the unit down.</p>		<ul style="list-style-type: none"> <li>-T-Voltage (R-S, S-T, T-R, R-N, S-N, T-N)</li> <li>-Current on all 3 phases</li> <li>Frequency</li> <li>-Engine speed indicator</li> <li>-Engine cooling temperature</li> <li>-Engine oil pressure</li> <li>-Battery voltage</li> <li>-Alternator battery charger pick up voltage</li> <li>-Operating hour counter</li> <li>-Starting attempts counter</li> <li>-Maintenance countdown (selectable)</li> </ul>
<p>Fully configurable inputs and outputs are available guaranteeing good data communication with the PLC or BMS. Serial connections and Ethernet are also available to control the unit remotely.</p>		<h3>EXTENSIONS</h3>
<p>Besides the many parameters available, there are also additional modules and programme extensions that increase G.EVO's applications.</p>		<p>-Device A.SPA20 (20-alarm board) allows the customer to signal from remote: alarm signals, pre-alarm signals and operating status signals for the generating set. Through the controls of the 20 relays, with suitable cabling and system, the lights and sounds can be controlled or the customer can interface with supervision systems such as a PLC, depending on the needs of the final user.</p>
<p>The automatic version has all of the parts that interface with the changeover switch panel or the user system installed on board.</p>		