

GENSET CONTROL UNIT



**MAGE
DSP II+**

GENSET AND POWER PLANT CONTROL UNIT

MAGE DSP II+ is dedicated to the genset's control. Emerging from the first generation of numerical automatism MAGE DSP and using the latest industrial numerical technologies, it gives new advantages:

- ✦ Ease of use thanks to color display,
- ✦ Compact, only one set to have information and interface user/machine,
- ✦ More functions with especially graphic records,
- ✦ More possibilities for connections (port Ethernet),
- ✦ Large reliability: less components and connections.

MAIN FUNCTIONS

- Genset start-up management,
- Faults monitoring and alarm,
- Change over management,
- Mains monitoring,
- Synchronization, coupling / load sharing,
- Power plant unit management (until 16 gensets),
- Genset state and measurement display,
- Display thanks to moving synoptics,
- Synchronoscope integrated.
- Graph display (such as galvanometers),
- Event log of the last 512 events,
- Historical display by graphic curves,
- Communication with others systems,
- More than 20 serial configurations basically available,
- Customized display and automatism (option),
- 4 language : F, GB, I, DE.
- Event log extraction in Excel™ format and screen hardcopy directly on SD Card.

TECHNOLOGIES

- Processor ARM : 32 bit (200MHz), this power allows more functions,
- Colors display: high definition allows a large comfort. High contrast thanks to TFT technology and white LED,
- Ports of communication: RS232, RS485, CAN, USB, Ethernet,
- Configuration, parameters, and events recorded on removable SD-Card memory,
- Current measurement with Hall effect sensor.



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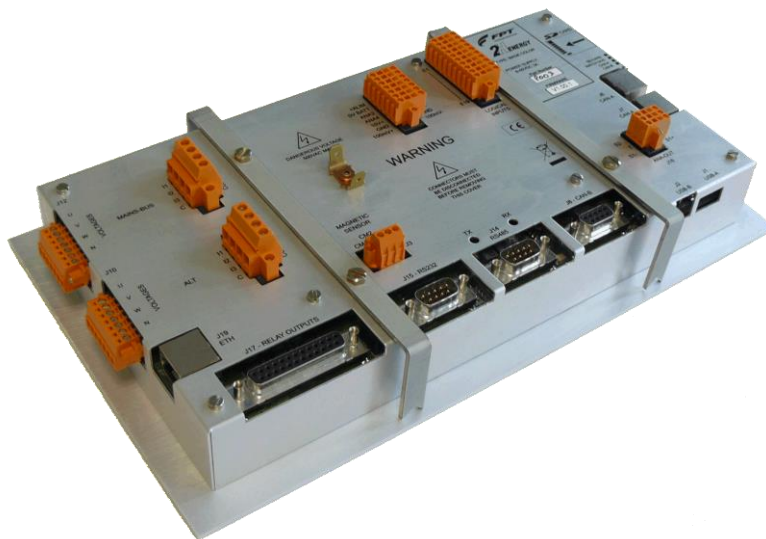
GENSET CONTROL UNIT

COMMUNICATIONS

- Bus Local CAN-A : CanOpen and SAE-J1939 protocol, this bus allows to increase Inputs / Outputs possibility with the optional ESD modules and also to communicate with the electronic engine controller (ECM).
- Bus Local CAN-B : This bus is designed to realize data exchange between the different gensets of a power station.
- Serial ports : 1 port RS232c, 1 port RS422/RS485, 1 port USB : communication MODBUS slave.
- Port Ethernet 10BT : supported functions and protocols:
 - MODBUS TCP server : communication with supervision systems.
 - SNTP : Simple Network Time Protocol : to set date time via internet
 - SNMP : Simple Network Management Protocol : Version V2c
 - SMTP : Simple Mail Transfer Protocol : mail sending on fault detection
 - HTTP : Embedded Web Serve allowing the display on a internet browser synoptic et main mesures, active alarms and the event log.
 - Display link : allows to have a second display on 12inches HMI MAGE3, on a second MAGE DSP II+, either on a computer (with Remote Display software).

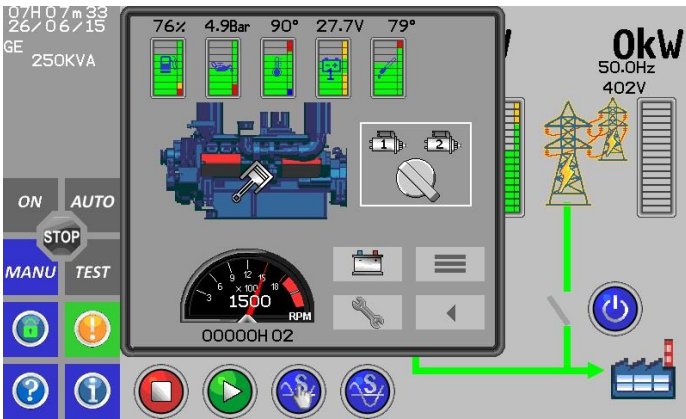
CHARACTERISTICS

- Power supply DC 8-36V, 12W typical, 21W max
- 20 inputs on/off
- 16 outputs for relay command
- 8 analogical inputs :
 - 5 resistance measurements (engine sensor)
 - Battery voltage measurement
 - +/- 10V measurement
 - +/- 100mV measurement
- 2 isolated analogical outputs :
 - +/- 5V or 0-10V
 - Speed regulator monitoring
 - Voltage regulator monitoring
- Magnetic sensor input
- 2 alternative circuits measurement :
 - Alternator and mains circuit (bus-bar)
 - 3 phases voltage measurement with or without neutral
 - Frequency measurement: 10 to 500Hz
 - Intensity 3 phases (CT 5A) measurement
 - Active, reactive, apparent power, power factor
 - Phase displacement and harmonic content calculation
- Display :
 - LCD TFT 7 inches
 - 800 X 480 pixels
 - Lighting with white Leds
 - Touch screen
- Dimensions: 300 X 170 X 49mm
- Operating temperature : -33°C to +70°C
- Storage temperature : -40°C to +80°C
- Vibration carriage : 2g from 2Hz to 100Hz
- IP65 protection of front face
- CEM : conformity CE N°89/336
 - Emission: EN 50081-1 et EN 55022 class B
 - Immunity : EN 50082-2, EN 610003 10V/m, EN 61000-4-6 (10V), EN 61000-4-4, EN 61000-4-2 and EN61000-4-8 (30A/m)

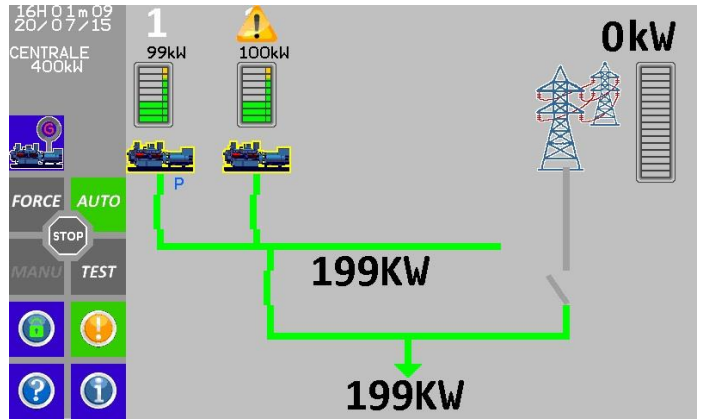


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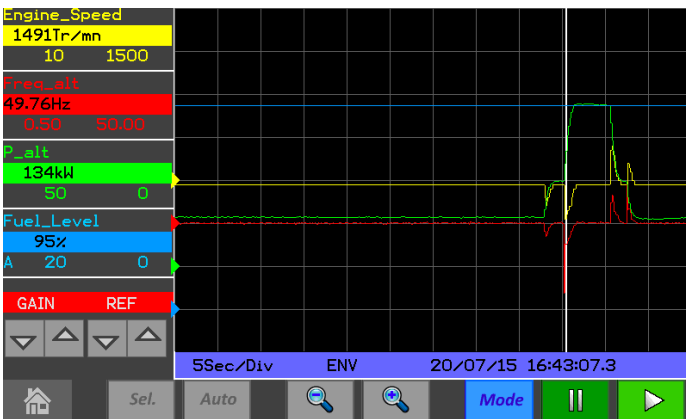
DISPLAY EXEMPLES



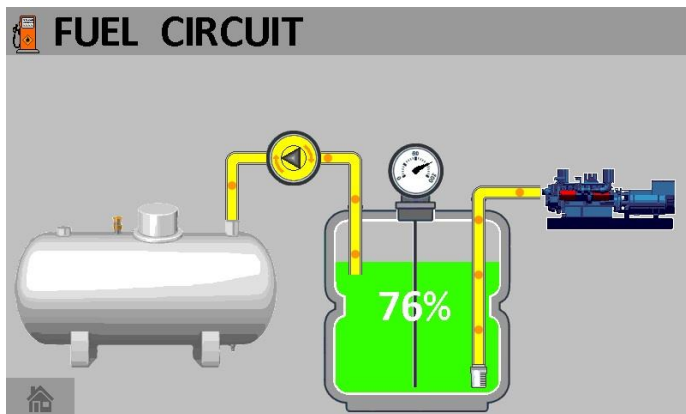
Engine informations



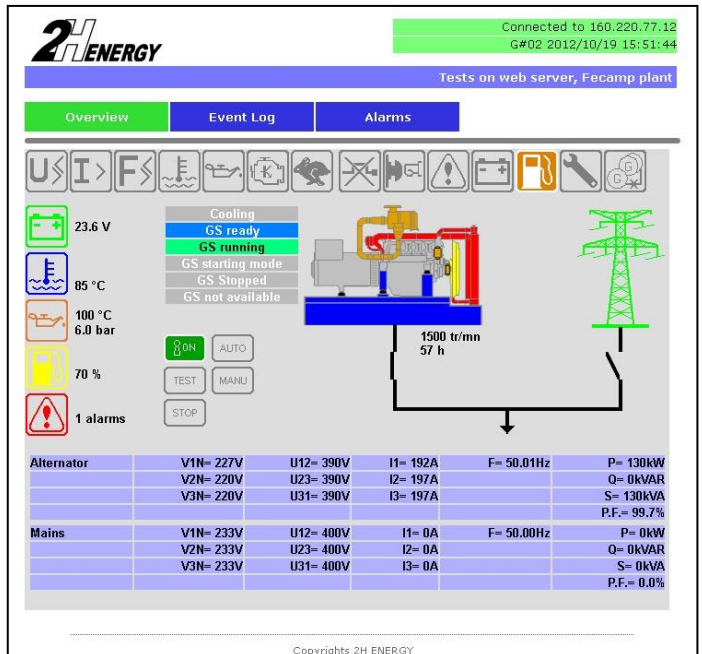
2 gensets power station synoptic



Measures graphical display



Gasoil circuit representation



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