STANDARD CONTROL PANELS

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GUARD REVOLUTION
by **ComAp**

### ONIS VISA® GUARD REVOLUTION

The experience we gained in the development and design of Guard Evolution control panel has allowed us to deeply understand the specific market needs: efficiency and versatility to optimize time and operating.

That process led us to start the cooperation with Comap, in order to develop an even more efficient device that can be applied in whole our range, a synergy of expertise to create a NEW and modern solution in generating sets applications: Guard Revolution. Based on Comap Inteli NTC hardware platform and on a dedicated firmware with new features specifically designed for the Onis Visa generating sets.
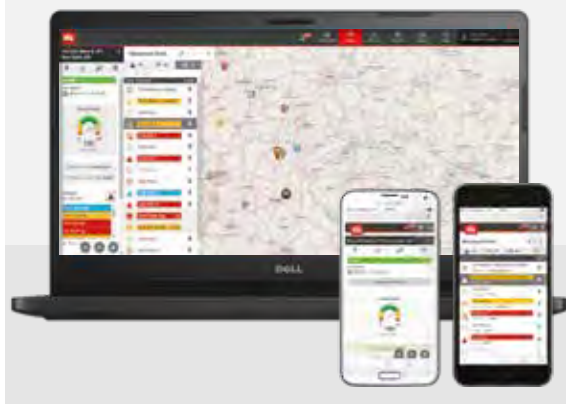
KEY FEATURES

SINGLE MODULE (AMF + MRS)
Changing from AMF to MRS by changing the setpoint "OPERATION MODE" (on the same unit):

AMF
Mains & Generator Circuit Breaker

MRS
Generator Circuit Breaker
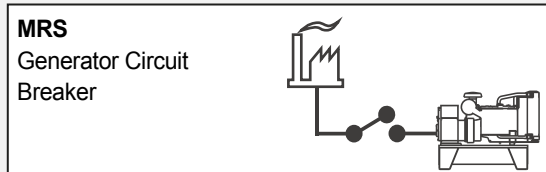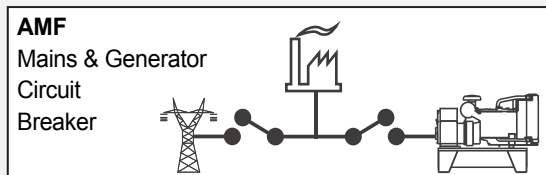
- Easy to install, configure and use
- Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN and on board USB
  - internet access using Ethernet, GPRS or 4G
  - support for Modbus or SNMP protocols
- Internal PLC support with PLC editor and monitor included in LiteEdit
- Cloud-based monitoring and control via **Onis Visa WebSupervisor**
- Active SMS and emails in different languages
- SNMP traps
- Geofencing and tracking via Onis Visa WebSupervisor
- Option for up to 16 additional binary inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Automatic temperature based cooling/heating
- Comprehensive gen-set protections
- Multipurpose flexible timers
- True RMS measurement
- FREE Lite Edition Software

GUARD REVOLUTION WebSupervisor

Guard Revolution WebSupervisor is cloud-based system designed for monitoring and controlling ComAp controllers via the internet.

This system offers a number of beneficial features that help optimize revenue for machinery fleets, as each piece of equipment can be individually monitored for all important operation values.

Guard Revolution WebSupervisor offers equipment owners a number of powerful reporting tools allowing monthly summaries of availability and optimizes the maintenance scheduling and asset utilization from the individual equipment to the whole fleet. The information generated from each controller can be archived on the central server for future analysis and trend evaluation.

What is it used for?
- REAL TIME CHECKING OR REMOTE CONTROLLING
- GEOLOCALIZATION AND FLEET TRACKING
- GENSET FUNCTION MONITORING AND DATA RECORDING

MAIN TECHNICAL FEATURES

Operating temperature	-20 ˚C to +70˚C
Input/Output	Up to 8 binary input / 8 binary output /4 analog input
Communication ports on board	USB, Canbus
Slot for Expansion/Communication card	2, plug-in card

Synergy of people producing Energy

STANDARD CONTROL PANELS - OPTIONALS

UPGRADE YOUR GUARD REVOLUTION WITH THE PLUG AND PLAY OPTIONS

A plug and play Solution for the additional extension modules to meet all customer needs.

**PRESS THE FINS
TO OPEN THE LID**

**INSERT THE PLUG&PLAY
EXPANSION MODULE
INTO ONE OF THE TWO SLOTS**

**CHANGE THE LID COVER
AND CONNECT!**

IN/OUT Expansion Module

BIO8-EFCP

Binary I/O plug-in module with earth fault current protection measurment:
- Extension module with 8 configurable binary terminals for inputs or outputs
- Possibility to connect a current transformer for earth fault current measurement and protection

COMMUNICATION Expansion Module

RS232/RS485

RTU Modbus: all data read by the board are available in the modbus map
- RS232: PC direct connection through LiteEdit software for programming, parameters displaying and/or modifying, full genset control, history reading
- RS485: customer's direct connection for Modbus RTU protocol communication

Ethernet/Internet

- Local card control in customer's company network via IP address, through LiteEdit software or Internet browser (SCADA)
- Remote control if the card has access to the Internet through the Web Supervisor.
- Data request from a device in the local network with TCP-Modbus protocol or alternatively SNMP.

4G Modem + GPS

- Fast connectivity 4G (up to 100 Mbps) + GPS Tracking
- Receiving SMS and email in case of alarms or genset status change (e.g. started engine)
- Sending SMS messages to control the genset (e.g. manual starting)
- Remote control through Airgate Software or Web Supervisor
- Genset locating and tracking via GPS

2G Modem GSM/GPRS

- Connectivity 2G (Up to 128Kbps)
- Receiving SMS and email in case of alarms or genset status change (e.g. started engine)
- Sending SMS messages to control the genset (e.g. manual starting)
- Remote control through Airgate Software or Web Supervisor