

# GUARD R3VOLUTION 4.0

### by ComAp



## ONIS VISA® GUARD REVOLUTION 4.0

Guard Revolution 4.0 control panel, developed in cooperation with Comap, allow the complete control and management of the Onis Visa genset.

- The simple and intuitive interface helps the user to better manage events and performances.
- The user can monitor the generator and interact through the control unit via APP or WEB page via internet.
- Stand-by (AMF) and prime-power (MRS) application in one unit.
- All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely
- Easy to configure and use

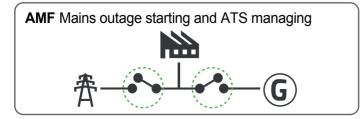
#### **KEY FEATURES**

- Stand-by (AMF) and prime-power (MRS) application in one unit.
- 3.2" Backlit LCD
- 8 binary outputs, 8 + 1 binary inputs, 4 analog inputs (U/I/R) +5 V output reference for analog inputs
- 2 high-current E-Stop binary outputs USB Host
- Inbuild RS485
- 2 slots for extension plug-in modules (Modbus, Internet, SMS, inputs/outputs)
- Extension CAN modules
- ECU support (Tier 4 Final, Stage V)
- RTC with battery back-up (full calendar)
- · Power over USB for controller configuration
- Zero power mode
- · True RMS measurement
- In-built PLC, complemented with a PLC monitoring tool (InteliConfig)
- Full remote communications support (AirGate 2.0, WSV)
- Internet access using Ethernet / 4G, Modbus TCP/RTU, SNMP v1/v2c
- · Active SMS and emails
- Detailed history log with up to 350 records
- Dual Mutual Standby application support
- · Remote display
- User setpoints and protections
- 5 languages in the controller & Translator functionality
- · User Access Management
- · Cyber security improvement
- · Alternative configurations
- · Multi-purpose schedulers
- Modbus register mapping possibility
- · Load shedding, dummy load management User buttons
- · Cloud-based monitoring and control via Onis Visa WebSupervisor

## PANORAMICA APPLICAZIONI

#### SINGLE MODULE (AMF + MRS)

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









**CURRENT MEASUREMENT** 

Operating temperature

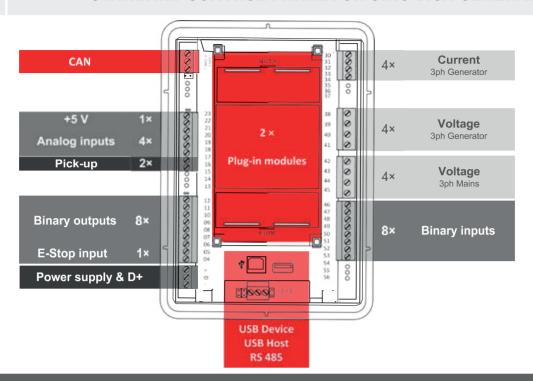
**CURRENT MEASUREMENT** 

Measurement inputs Measurement range

Max. allowed current

Operating humidity

Protection degree (front panel)



#### Technical data

|  |  |  |  |  | • |
|--|--|--|--|--|---|
|  |  |  |  |  |   |
|  |  |  |  |  |   |

Resolution

**USB** Device

**USB Host** 

RS485

CAN 1

**COMMUNICATIONS** 

| POWER SUPPLY            |                                |
|-------------------------|--------------------------------|
| Power supply range      | 8-36 VDC                       |
| Power consumption       | 3.5 W                          |
| (without modules)       |                                |
| RTC battery             | Replaceable (3 V)              |
| Fusing power            | 4 A                            |
|                         | w/o BOUT consumption           |
| E-Stop fusing           | 10 A                           |
|                         | 0.147                          |
| Max. Power Dissipation  | 9 W                            |
| Max. corrente di uscita | 250 mA                         |
| VOLTAGE MEASUREMENT     |                                |
| Measurement inputs      | 3ph-n Gen voltage              |
|                         | 3ph-n Mains                    |
| Measurement range       | 10-277 V AC / 10-480 V AC (EU) |
|                         | 10-346 V AC / 10-600 V AC(US)  |
| Accuracy                | 1%                             |
| DISPLAY                 |                                |
| Туре                    | Build-in monochromatic 3.2"    |

132 × 64 px

connector

connector

Isolated

Non-isolated type B

Non-isolated type A

Non-isolated, 250/50 kbps,

Terminator imped. 120  $\Omega$ 

| Dh | voic | al. | <b>.</b> | nn |
|----|------|-----|----------|----|

E-STOP

Accuracy

Dedicated terminal for safe E-Stop input. Physical supply for binary outputs 1 & 2.

#### **BINARY INPUTS**

Input impedance

| Number          | 8                     |
|-----------------|-----------------------|
| Close           | 0-2 VDC close contact |
| Open indication | 6-36VDC open contact  |

**IP 65** 

5 A 10 A

<0.1Ω

Surrounding air temperature rating 70 °C - Suitable for pollution degree 2

-20 °C to +70 °C

(EN 60068-2-30)

95 % non-condensing

3F corrente generatore

±20 mA for 0-2 A; 1% of

value for 2-5 A

#### **BINARY OUTPUTS**

| number       | 0                          |
|--------------|----------------------------|
| Max. current | BO1,2 = 5 A; BO3-8 = 0.5 A |
| Switching to | positive supply terminal   |

#### ANALOG INDLITE

| ANALOG INFOTS |  |
|---------------|--|
| Number        | 4, switchable (R/U/I)  |
| Range         | $R = 0-2500 \Omega$ ; $U = 0-10 V$ ; $I = 0-20 mA$               |
| Accuracy      | R: $\pm 2$ % from value $\pm 5$ $\Omega$ in range 0-250 $\Omega$ |
|               | R: ±4 % from value in range 250 $\Omega$ -2500 $\Omega$          |
|               | U: 1 % from value ±100 mV  |
|               | I: 1 % from value ±0.2 mA  |
|               |  |



## **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.











**CHANGE THE LID COVER** AND CONNECT!

#### PRESS THE FINS TO OPEN THE LID

## INTO ONE OF THE TWO SLOTS **AVAILABLE PLUG-IN MODULES (2 slots for plug-in modules**

| Product      | Description  | Order code |
|--------------|--|------------|
| CM2-4G-GPS   | 4G, SMS, Email e GPS communication module          | 108030138  |
| CM3-Ethernet | Ethernet, Email, Modbus, SNMP communication module | 108036130  |
| EM-BIO8-EFCP | 8 additional binary inputs/outputs                 | 108030085  |

## **AVAILABLE CAN MODULES**

| Product       | Description  | Order code |
|---------------|--|------------|
| IGL-RA15      | CAN remote annunciator with 15 LEDs                              | 108030103  |
| Inteli AIN8   | CAN module with 8 analog inputs                                  | 108030070  |
| Inteli IO8/8  | CAN module with 8 binary inputs and 8 binary outputs             | 108030065  |
| IGS-PTM       | CAN mod. 8 binary in, 8 binary out, 4 analog in and 1 analog out | 108030040  |
| Inteli AIN8TC | CAN mod. with 8 analog inputs for thermocouple sensors only.     | 108030071  |

#### **FUNCTIONS AND PROTECTIONS**

| Description                              | ANSI code | Descrizione                                 | ANSI<br>code |
|--|-----------|---|--------------|
| Master unit                              | 1         | Voltage unbalance / Negative sequence Volt. | 47           |
| Stopping device                          | 5         | Incomplete sequence relay                   | 48           |
| Multi-function device                    | 11        | Overcurrent                                 | 50/50TD      |
| Overspeed                                | 12        | Earth fault**                               | 50G          |
| Underspeed                               | 14        | Breaker failure                             | 50BF         |
| Starting-to-running transition contactor | 19        | Overcurrent IDMT                            | 51           |
| Thermal relay                            | 26        | Overvoltage                                 | 59           |
| Undervoltage                             | 27        | Aux Over Voltage                            | 59X          |
| Aux Battery Under Voltage                | 27X       | Pressure switch                             | 63           |
| Annunciator                              | 30        | Liquid level switch                         | 71           |
| Overload (real power)                    | 32P       | Alarm relay***                              | 74           |
| Reverse power                            | 32R       | Reclosing relay                             | 79           |
| Master sequence device                   | 34        | Overfrequency                               | 810          |
| Unit sequence starting*                  | 44        | Underfrequency                              | 81U          |
| Current unbalance                        | 46        | Auto selective control/transfer             | 83           |

## Certificazioni e normative



EN 61000-6-2 EN 61000-6-4 EN 61010-1 EN 60068-2-1 (-20 °C/16 h for std, -40 °C/16 h for LT version) EN 60068-2-2 (70 °C/16 h)

EN 60068-2-6 (2÷25 Hz / ±1.6 mm; 25÷100 Hz / 4.0 g)

EN 60068-2-27 (a=500 m/s; T=6 ms)

EN 60068-2-30:2005 25/55°C, RH 95%, 48h

EN 60529 (front panel IP65, back side IP20)

EN 60068-2-2 (70 °C/16 h)





## **MONITORAGGIO DA REMOTO**

## Onis Visa WebSupervisor



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

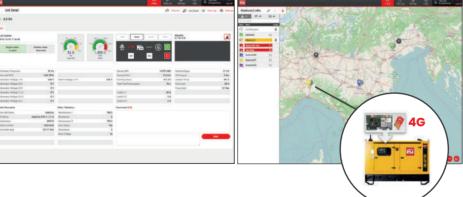
This system offers a number of beneficial features that help optimize revenue for machinery fleets, as each piece of equipment can be individually monitored for all important operation values.

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.

#### **Remote control**

## **Geolocation and Tracking**

# Monitoring, analysis, activity logging trend





ONIS VISA WEBSUPERVISOR IT IS A WEB PLATFORM DEDICATED TO THE MONITORING AND CONTROL OF THE GENERATING SETS.

IT ALLOWS THE MONITORING THROUGH DIFFERENT SUPPORTS: PC, NOTE BOOK, TABLET and TELEPHONE. INTUITIVE LAYOUT AND "CUSTOMER-FRIENDLY" LANGUAGE. EMAIL NOTIFICATIONS and/or via APP

Available via website: **visa.websupervisor.net**or via APP Store/Play Store by searching: **Websupervisor** 













