# **68 GT/GTC 230 V TAC PARALLEL**



# Three-Phase







| General data    |                     |           |         |
|-----------------|---------------------|-----------|---------|
| Maximum power*: | 54,56 kW (68,2 kVA) | Voltage:  | 230 V   |
| Prime Power**:  | 49,6 kW             | Amperage: | 171,2 A |
| Frequency:      | 50 Hz               | Phases:   | 3       |

| Dimensions and weights       |         |                           |         |
|------------------------------|---------|---------------------------|---------|
| Total lenght without canopy: | 1722 mm | Total lenght with canopy: | 1903 mm |
| Total width without canopy:  | 700 mm  | Total width with canopy:  | 840 mm  |
| Total height without canopy: | 822 mm  | Total height with canopy: | 848 mm  |
| Dry weight without canopy:   | 801 Kg  | Dry weight with canopy:   | 911 Kg  |

| Engine                    |                        |                       |                         |
|---------------------------|------------------------|-----------------------|-------------------------|
| Base engine manufacturer: | Mitsubishi             | Diameter:             | 94 mm (3,7 in)          |
| Model Solé Diesel:        | SM-81                  | Stroke:               | 120 mm (4,72 in)        |
| Туре:                     | 4 No. of Strokes       | Compression ratio:    | 17:1                    |
| Engine RPM:               | 1500                   | Injection system:     | Mechanical and indirect |
| Number of cylinders:      | 6                      | Intake system:        | Turbocharged            |
| Total displacement:       | 4996 cc                | SAE Flywheel housing: | SAE 3                   |
| Oil:                      | SAE 15W40              | Coolant capacity:     | 21 L (5,55 gal)         |
| Oil capacity:             | 12 L (3,17 gal)        | Flywheel:             | SAE 11 1/2              |
| Power:                    | 58,9 kW (80,1 CV)      | Coolant flow rate:    | 70 l/min (18,49 gal/m)  |
| Salt water flow rate:     | 38 l/min (10,04 gal/m) | Intake air flow rate: | 4,2 m3/m                |

Rating conditions according to ISO 3046 (100 kPa barometric pressure, 30 % relative humidity abd 25 °C (77 ° F))

 $<sup>\</sup>ensuremath{^{\star}}$  Maximum output power: maximum power supplied by the genset at full load

<sup>\*\*</sup> Prime Power: rated power according to ISO 3046 and ISO 8528-1. 10 % overload capacity one hour in twelve hours.

| Fuel system details |                       |                      |                     |
|---------------------|-----------------------|----------------------|---------------------|
| Consumption 25%:    | 4,6 L/H (1,22 Gal/H)  | Fuel type:           | Diesel              |
| Consumption 50%:    | 7,5 L/H (1,98 Gal/H)  | Fuel standards:      | Fueloil diesel ASTM |
| Consumption 75%:    | 10,5 L/H (2,77 Gal/H) | Injection pump type: | In line             |
| Consumption 100%:   | 14,8 L/H (3,91 Gal/H) |                      |                     |

| Electrical system |      |                         |
|-------------------|------|-------------------------|
| Battery voltage:  | 12 V | Stop solenoid type: ETR |
| Starter motor:    | 3 kW | Alternator: 50 A        |
| Earth isolated:   | No   |                         |

| Installation details              |                 |                                |                  |
|-----------------------------------|-----------------|--------------------------------|------------------|
| Exhaust hose inner diameter:      | 90 mm (3,54 in) | Maximum fuel lift height:      | 0,6 m (1,97 ft)  |
| Sea water hose inner diameter:    | 32 mm (1,26 in) | Maximum raw water lift height: | 2,5 m (98,43 in) |
| Fuel feeding hose inner diameter: | G3/8            | Maximum sea water temperature: | 32 °C (89,6 °F)  |
| Fuel return hose inner diameter:  | G1/8            | Maximum installation angle***: | 15 °             |
| Minimum battery capacity:         | 12 V 120 Ah     |                                |                  |

| Alternator details |            |                                |                        |
|--------------------|------------|--------------------------------|------------------------|
| Brand:             | Meccalte   | Cos φ:                         | 0,8                    |
| Model:             | ECP32-3L/4 | Tropicalized:                  | Yes                    |
| Regulator type:    | DSR        | Excitation system:             | BRUSHLESS              |
| Number of poles:   | 4          | Voltage regulation accuracy**: | 1%                     |
| Isolation type*:   | Н          | Standards:                     | EN60034-1, IEC 60034-1 |
| IP protection*:    | 23         | Alternator type:               | Synchronous            |

| Standard equipment                                     |   |
|--|---|
| Earth isolated   | Belt protection                         |
| Double wall injection pipes and fuel leak alarm        | Spray stop kit                          |
| Double fuel filter kit                                 | Sensors certified by the rating company |
| Control panel for CO-40 engine                         | Reinforced bed and silentblocks         |
| Electronic regulator                                   | 6 m wiring extension                    |
| Electronic actuator                                    | Packaging                               |
| Documentation: manual, test, declaration of conformity | Oil extraction pump                     |

| Siphon break kit mandatory if generator is below waterline                            | Sea water cock                                     |
|---|--|
| Engine electrical system at 24 V  | Welcome Kit  |
| Service/Cruise Kits: fuel and oil filters, raw water pump, impeller, alternator belt, | Fuel filter/water separator                        |
| Dry Exhaust system  | Gas/Water Separator                                |
| Exhaust System  | Raw water hose                                     |
| Keel Cooling conversion for dry and wet exhaust                                       | Paralel system                                     |
| Exhaust Hose  | TAC certificate by serial number for generator set |



<sup>\*</sup> Other protections available

 $<sup>\</sup>star\star$  With load from 0 to 100%, speed variation from -2% up to +5%, power factor 0,8 linear and balanced load.

<sup>\*\*\*</sup> In all directions

# **COMAP PANEL CO 40**

# **General Description**

- · Control, monitoring and protection for marine engines (signal alternator not included)
- · For Emergency, Auxiliary, Harbor and Propulsion engines
- · Redundant module ID-RPU with hardwired safety functions activated in backup mode
- · Switching between primary and secondary battery (with ID-RPU module)
- · Connection to engine via primary J1939 and backup J1587 buses
- · Event driven History record
- $\cdot$  14 binary inputs, 14 binary outputs, 8 analog inputs
- $\cdot\,\text{Slave}$  panels for remote control
- · Type approval from major certification societies
- · Configuration protected by password
- · Running hour indication
- · Multilanguage

# ID - RPU Redundant Protection Unit

- · 1 Emergency stop input
- · 5 Shutdown inputs
- · 1 RPM input
- · Common warning and common shutdown output terminals
- · Stop solenoid, fuel solenoid outputs
- · Redundant power supply
- · I/O broken wire detection

# Technical data

- · Power supply: Nominal power supply 24 VDC
- · Power supply range 6 36 VDC
- · Current consumption (depends on supply voltage)

0,34 A at 8 VDC 0,12 A at 24 VDC 0,09 A at 36 VDC

- · Battery voltage measurement tolerance 2% at 24 V
- · RTC battery life-cycle 10 year
- $\cdot$  Operating temperature -10 to +70 °C
- · Storage temperature -30 to +80 °C
- · Humidity 95% Without condensation
- · Flash memory data retention time 10 years

# Standard Conformity

- · Low Voltage Directive
  - EN 61010-1:95 +A1:97
- · Electromagnetic Compatibility

EN 61000-6-2, October 2001

EN 61000-6-4. October 2001 IEC 60533, Ed. 2; 1999-11



# **Physical**

- · 180 x 120 mm front panel mounted case
- · Weight 800g
- · Graphic black-lit LCD display 128x64 pixel resolution with icons and bar graphs
- · LED status indicators / Lamp test
- · Protection front panel IP65

# **Display information**

- · Oil Pressure (bar)
- · Oil Temperature (°C)
- · Coolant Temperature (°C)
- · Coolant Pressure (bar)
- · Battery Voltage (V)
- · RPM
- · History log

# **Alarm Management**

- · High coolant temperature
- · High oil temperature
- · Fuel leakages
- · Low oil pressure
- · Low coolant pressure
- · Overspeed
- · Emergency stop
- · Low battery voltage
- · Maintenance request
- · Sensor Fails (FLS)

# **Opcional: TAC Parallel Kit Electrical Cabinet**



#### **General Description**

- · Control and Power TAC box for parallel operation
- · Comap Inteligen NTC BB + InteliVision 5 (See Panel Features)
- · Current Transformers (See Alternator Measurements)
- · Power Isolating Switch
- · Automatic Synchronism
- · Marine Generator Set Protections (See Alarm Management)
- · Power and Control Electrical Protection
- · Communication TAC Control Cable Extensions (See Extensions)
- · Power inputs and outputs
- · Automatic or manual control switch
- · Audible and visual alarm
- $\cdot$  Can BUS communication with the control unit and the parallel box
- · Emergency Stop button
- · IP 65 Protection

# Hälytysten järjestely

#### Shut-down (SD)

- · High engine coolant temperature
- · Low oil pressure
- $\cdot \, \text{Over speed} \,$
- · Overload
- · Short circuit
- $\cdot \, \text{Battery charge failure} \\$
- · High/low voltage
- · High/Low Frequency
- · Emergency stop button
- $\cdot \, \text{Remote alarms} \,$

# Warnings (WRN)

- $\cdot \, \text{High engine coolant temperature} \\$
- $\cdot \, \text{Low oil pressure} \,$
- · High/low battery voltage
- · Maintenance warning

# Lisävarusteet

# Remote Double Panel

- $\cdot\,\text{It}$  allows the same operation and functionality as main InteliDrive
- · They are connected with an RS485 port
- · Remote panel extension (12/24/36 m)

# Binary and Communication Input/Output Extension Module

#### **Alternator Measurements**

#### **Current transformers**

# Allows the following readings:

· Current (A), Active Power (kW), Apparent Power (kVA) and PF

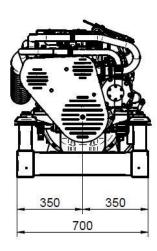
#### Earth isolated transformers

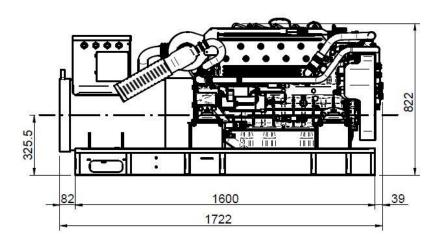
# **Extension**

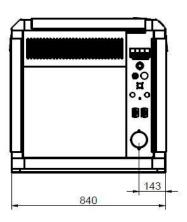
- · Control wiring. TAC Box-Group (6/12/24 m)
- · Wiring for communication between boxes (3/6/12 m)
- · Remote panel extension (12/24/36 m)

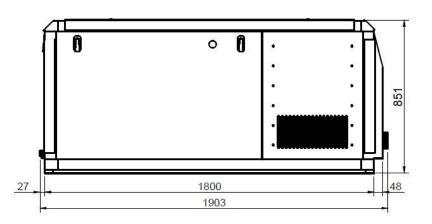
# Inteligen NTC BB + InteliVision 5 Panel Features

- · Group and load Synchronization
- · Marine generator set measures
- · L1-L3 Voltage (V), frequency (Hz), Oil pressure (bar)
- · Coolant temperature (°C), battery voltage (V), RPM
- · Power\* (kW), Apparent Power\* (kVA), Current\* (A), PF\*
- · Remote panel
- · 2 x 10 A Binary outputs
- · History log
- · Running hour indicator
- · Multilanguage
- · Configuration protected by password
- · Integrated PLC
- · Communication and Extension Module Plug-in
- · 4G/LTE communication standard
- ·GPS









Authorized dealer

TECHNICAL DETAILS REFERENCE: FA1728EN000001

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