



#### **MARINE GENERATORS**

# 54 GTA/GTAC TAC ELECTRONIC GOVERNOR

Three-Phase

#### **General data**

| Maximum power* | 42.24 kW (52.8 kVA) | Voltage  | 480 V   |
|----------------|---------------------|----------|---------|
| Prime Power**  | 38.4 kW             | Amperage | 63.51 A |
| Frequency      | 60 Hz               | Phases   | 3       |

#### **Dimensions and weights**

| Total length without canopy | 1423 mm | Total length with canopy | 1605 mm |
|-----------------------------|---------|--------------------------|---------|
| Total width without canopy  | 740 mm  | Total width with canopy  | 740 mm  |
| Total height without canopy | 788 mm  | Total height with canopy | 841 mm  |
| Dry weight without canopy   | 560 Kg  | Dry weight with canopy   | 598 Kg  |

#### **Engine**

| - Ingilio                |                        |                      |                         |
|--------------------------|------------------------|----------------------|-------------------------|
| Base engine manufacturer | Mitsubishi             | Diameter             | 94 mm (3.7 in)          |
| Model                    | SM-56                  | Stroke               | 120 mm (4.72 in)        |
| Туре                     | Diesel, 4 stroke       | Compression ratio    | 17:1                    |
| Engine RPM               | 1800                   | Injection system     | Mechanical and direct   |
| Number of cylinders      | 4                      | Intake system        | Turbocharged            |
| Total displacement       | 3331 cc                | SAE Flywheel housing | SAE 3                   |
| Oil                      | SAE 15W40              | Coolant capacity     | 13 L (3.43 gal)         |
| Oil capacity             | 10 L (2.64 gal)        | Flywheel             | SAE 11 1/2              |
| Power                    | 45.4 kW (61.74 CV)     | Coolant flow rate    | 105 l/min (27.74 gal/m) |
| Salt water flow rate     | 38 l/min (10.04 gal/m) | Intake air flow rate | 2.9 m3/m                |
| Exhaust type             | Wet exhaust elbow      | V-Belt Protection    | Included                |
|                          |                        |                      |                         |

Rating conditions according to ISO 3046 (100 kPa barometric pressure, 30 % relative humidity abd 25 °C (77 °F)) \* 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%  | 3.9 l/h (1.03 gal)  | Fuel type           | Diesel              |
|------------------|---------------------|---------------------|---------------------|
| Consumption 50%  | 5.9 l/h (1.56 gal)  | Fuel standards      | Fueloil diesel ASTM |
| Consumption 75%  | 8.5 l/h (2.25 gal)  | Injection pump type | In line             |
| Consumption 100% | 11.5 l/h (3.04 gal) | Governor type       | Mechanical          |

**Electrical system** 

| Battery voltage     | 12 V     | Stop solenoid type   | ETR      |
|---------------------|----------|----------------------|----------|
| Starter motor       | 2.2 kW   | Alternator           | 50 A     |
| Earth isolated      | Included | IP 65 box kit        | Optional |
| SCO 11 double panel | Optional | Current transformers | Optional |

**Installation details** 

| Exhaust hose inner diameter      | 75 mm (2.95 in) | Maximum fuel lift height      | 0.3 m (0.98 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 ° (89.6 °F)   |
| Fuel return hose inner diameter  | G1/8            | Maximum installation angle*** | 15 °             |
| Minimum battery capacity         | 12 V 95 Ah      |                               |                  |

**Alternator details** 

| Brand           | Meccalte     | Cos Phi                       | 0,8                    |
|-----------------|--------------|-------------------------------|------------------------|
| Model           | ECP32 1M 4 C | Tropicalized                  | Yes                    |
| Regulator type  | DSR          | <b>Excitation system</b>      | Brushless              |
| Number of poles | 4            | Voltage regulation accuracy** | 0,01                   |
| Isolation type* | Н            | Alternator type               | Synchronous            |
| IP protection   | 23           | Standards                     | EN60034-1, IEC 60034-1 |

Standard equipment

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

**Optional accessories** 

| Siphon break kit mandatory if generator is below waterline                            | Exhaust System                                  |
|---|---|
| Engine electrical system at 24 V  | Keel Cooling conversion for dry and wet exhaust |
| Service/Cruise Kits: fuel and oil filters, raw water pump, impeller, alternator belt, | Exhaust Hose                                    |
| Dry Exhaust system  | Water Filters                                   |

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

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

\*\*\* In all directions

For other requirements please contact the Sales Dept.

# CO 40 panel



### **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                                   |
| 14 binary inputs, 14 binary outputs, 8 analog inputs          |
| Slave panels for remote control                               |
| Type approval from major certification societies              |
| Configuration protected by password                           |
| Running hour indication                                       |
| Multilanguage   |
| D+ pre-excitation Terminal                                    |

| Alarm Management                                    |
|---|
| 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                           |
| 1 117   |

### **Power Supply**

| 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                                      |

## **Operating Conditions**

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

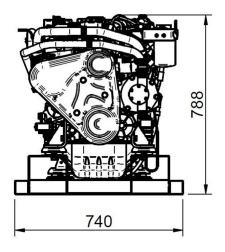
## **Display Information**

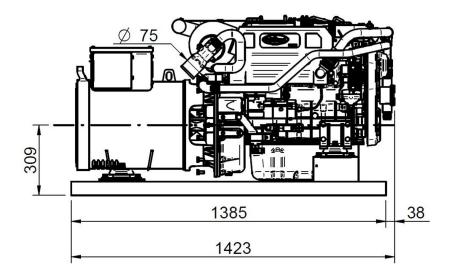
| High coolant temperature |  |
|--------------------------|--|
| High oil temperature     |  |
| Fuel leakages            |  |
| Low oil pressure         |  |
| Low coolant pressure     |  |
| Overspeed                |  |
| Emergency stop           |  |
| Low battery voltage      |  |
| Maintenance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

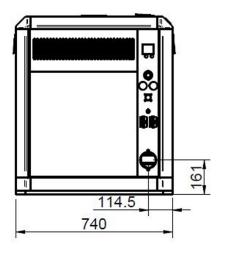
## **Operating modes**

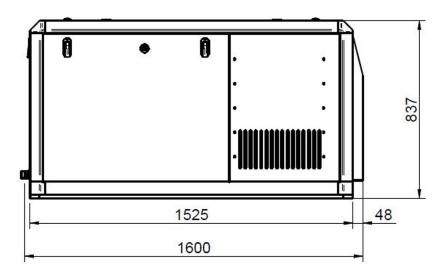
| Power supply: Nominal power supply 24 VDC         | Flash memory data retention time 10 years |
|---|---|
| Power supply range 6 - 36 VDC                     | Standard Conformity                       |
| Current consumption (depends on supply voltage)   | Low Voltage Directive                     |
| 0,34 A at 8 VDC 0,12 A at 24 VDC 0,09 A at 36 VDC | EN 61010-1:95 +A1:97                      |
| Battery voltage measurement tolerance 2% at 24 V  | Electromagnetic Compatibility             |
| RTC battery life-cycle 10 year                    | EN 61000-6-2, October 2001                |
| Operating temperature -10 to +70 °C               | EN 61000-6-4, October 2001                |
| Storage temperature -30 to +80 °C                 | IEC 60533, Ed. 2; 1999-11                 |
| Humidity 95% Without condensation                 |   |

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