



#### **MARINE GENERATORS**

# 20 GTA/GTAC 240V TAC ELECTRONIC GOV.

Three-Phase

# **General data**

| Maximum power* | 14.96 kW (18.7 kVA) | Voltage  | 240 V   |
|----------------|---------------------|----------|---------|
| Prime Power**  | 13.6 kW             | Amperage | 44.99 A |
| Frequency      | 60 Hz               | Phases   | 3       |

# **Dimensions and weights**

| Total length without canopy | 1036 mm | Total length with canopy | 1181 mm |
|-----------------------------|---------|--------------------------|---------|
| Total width without canopy  | 580 mm  | Total width with canopy  | 580 mm  |
| Total height without canopy | 612 mm  | Total height with canopy | 668 mm  |
| Dry weight without canopy   | 282 Kg  | Dry weight with canopy   | 344 Kg  |

#### **Engine**

| Base engine manufacturer | Mitsubishi            | Diameter             | 78 mm (3.07 in)         |
|--------------------------|-----------------------|----------------------|-------------------------|
| Model                    | MINI-44               | Stroke               | 92 mm (3.62 in)         |
| Туре                     | Diesel, 4 stroke      | Compression ratio    | 22:1                    |
| Engine RPM               | 1800                  | Injection system     | Mechanical and indirect |
| Number of cylinders      | 4                     | Intake system        | Naturally aspirated     |
| Total displacement       | 1758 cc               | SAE Flywheel housing | SAE 5                   |
| Oil                      | SAE 15W40             | Coolant capacity     | 8 L (2.11 gal)          |
| Oil capacity             | 6 L (1.59 gal)        | Flywheel             | SAE 7 1/2               |
| Power                    | 17.7 kW (24.07 CV)    | Coolant flow rate    | 100 l/min (26.42 gal/m) |
| Salt water flow rate     | 33 l/min (8.72 gal/m) | Intake air flow rate | 2.2 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%  | 2.1 l/h (0.55 gal) | Fuel type           | Diesel              |
|------------------|--------------------|---------------------|---------------------|
| Consumption 50%  | 2.9 l/h (0.77 gal) | Fuel standards      | Fueloil diesel ASTM |
| Consumption 75%  | 4 l/h (1.06 gal)   | Injection pump type | In line             |
| Consumption 100% | 5.3 l/h (1.4 gal)  | Governor type       | Mechanical          |

**Electrical system** 

| Battery voltage     | 12 V     | Stop solenoid type   | ETR      |
|---------------------|----------|----------------------|----------|
| Starter motor       | 1.7 kW   | Alternator           | 120 A    |
| Earth isolated      | Included | IP 65 box kit        | Optional |
| SCO 11 double panel | Optional | Current transformers | Optional |

**Installation details** 

| Exhaust hose inner diameter      | 50 mm (1.97 in) | Maximum fuel lift height      | 0.3 m (0.98 ft) |
|----------------------------------|-----------------|-------------------------------|-----------------|
| Sea water hose inner diameter    | 20 mm (0.79 in) | Maximum raw water lift height | 3 m (118.11 in) |
| Fuel feeding hose inner diameter | G3/8            | Maximum sea water temperature | 32 ° (89.6 °F)  |
| Fuel return hose inner diameter  | 1/4 BSPT        | Maximum installation angle*** | 15 °            |
| Minimum battery capacity         | 12 V 80 Ah      |                               |                 |

**Alternator details** 

| Brand           | Sincro    | Cos Phi                       | 0,8                                 |
|-----------------|-----------|-------------------------------|-------------------------------------|
| Model           | SK 160 MB | Tropicalized                  | Yes                                 |
| Regulator type  | BL4       | Excitation system             | Brushless                           |
| Number of poles | 4         | Voltage regulation accuracy** | 1%                                  |
| Isolation type* | Н         | Alternator type               | Synchronous                         |
| IP protection   | 23        | Standards                     | EN 60034-1, IEC 60034-1, ISO 8528-3 |

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

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

# **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

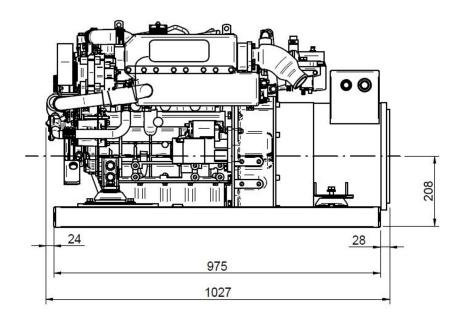
Maintenance request

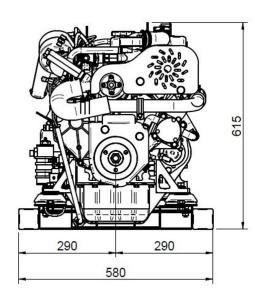
Sensor Fails (FLS)

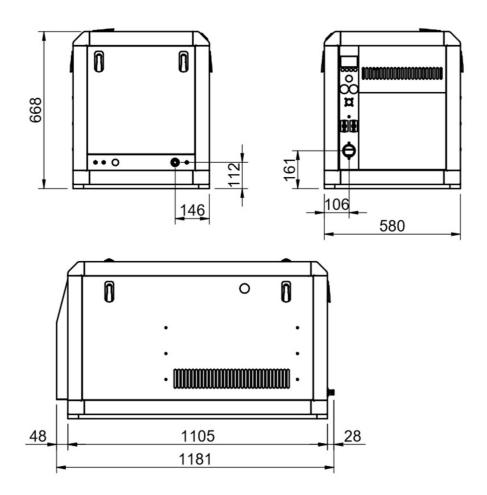
# **Operating modes**

| 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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