# MARINE GENERATORS

# 115 GT/GTC TAC



# Three-Phase





| Zige | APPROVEDAR | buch |
|------|------------|------|
| ((   | DNV        | ))   |
|      | DNV.COM/AF | //   |

| General data    |                 |           |          |
|-----------------|-----------------|-----------|----------|
| Maximum power*: | 88 kW (110 kVA) | Voltage:  | 400 V    |
| Prime Power**:  | 80 kW           | Amperage: | 158,77 A |
| Frequency:      | 50 Hz           | Phases:   | 3        |

| Dimensions and weights       |         |                           |         |
|------------------------------|---------|---------------------------|---------|
| Total lenght without canopy: | 1771 mm | Total lenght with canopy: | 2148 mm |
| Total width without canopy:  | 899 mm  | Total width with canopy:  | 865 mm  |
| Total height without canopy: | 1010 mm | Total height with canopy: | 1048 mm |
| Dry weight without canopy:   | 1020 Kg | Dry weight with canopy:   | 1127 Kg |

| Engine                    |                            |                       |                                     |
|---------------------------|----------------------------|-----------------------|-------------------------------------|
| Base engine manufacturer: | Deutz                      | Diameter:             | 108 mm (4,25 in)                    |
| Model Solé Diesel:        | SDZ-165E                   | Stroke:               | 130 mm (5,12 in)                    |
| Type:                     | 4 No. of Strokes           | Compression ratio:    | 19:1                                |
| Engine RPM:               | 1500                       | Injection system:     | Electronic unit injector and direct |
| Number of cylinders:      | 4                          | Intake system:        | Turbocharged with intercooler       |
| Total displacement:       | 4764 cc                    | SAE Flywheel housing: | SAE 2                               |
| Oil:                      | SAE 15W40                  | Coolant capacity:     | 17,6 L (4,65 gal)                   |
| Oil capacity:             | 11 L (2,91 gal)            | Flywheel:             | SAE 11 1/2                          |
| Power:                    | 92,6 kW (125,94 CV)        | Coolant flow rate:    | 141,45 l/min (37,37 gal/m)          |
| Salt water flow rate:     | 107,43 l/min (28,38 gal/m) | Intake air flow rate: | 6,1 m3/m                            |
|                           |                            |                       |                                     |

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

<sup>\*</sup> 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%:    | 7,2 L/H (1,9 Gal/H)   | Fuel type:           | Diesel              |
| Consumption 50%:    | 13,1 L/H (3,46 Gal/H) | Fuel standards:      | Fueloil diesel ASTM |
| Consumption 75%:    | 19,3 L/H (5,1 Gal/H)  | Injection pump type: | Individual          |
| Consumption 100%:   | 25,8 L/H (6,82 Gal/H) | Governor type:       | Electronical        |

| Electrical system |          |                     |      |
|-------------------|----------|---------------------|------|
| Battery voltage:  | 24 V     | Stop solenoid type: | ETS  |
| Starter motor:    | 4 kW     | Alternator:         | 35 A |
| Earth isolated:   | Included |                     |      |

| Installation details              |                 |                                |                 |
|-----------------------------------|-----------------|--------------------------------|-----------------|
| Exhaust hose inner diameter:      | 90 mm (3,54 in) | Maximum fuel lift height:      | 1,3 m (4,27 ft) |
| Sea water hose inner diameter:    | 42 mm (1,65 in) | Maximum raw water lift height: | 4 m (157,48 in) |
| Fuel feeding hose inner diameter: | G3/8            | Maximum sea water temperature: | 32 °C (89,6 °F) |
| Fuel return hose inner diameter:  | G3/8            | Maximum installation angle***: | 10 °            |
| Minimum battery capacity:         | 24 V 143 Ah     |                                |                 |

| Alternator details |            |                                |                        |
|--------------------|------------|--------------------------------|------------------------|
| Brand:             | Meccalte   | Cos φ:                         | 0,8                    |
| Model:             | ECP34-1L/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                            | Water Filters                                      |
|---|--|
| , <u>, , , , , , , , , , , , , , , , , , </u>   |  |
| Engine electrical system at 24 V  | Sea water cock                                     |
| Service/Cruise Kits: fuel and oil filters, raw water pump, impeller, alternator belt, | Welcome Kit  |
| Dry Exhaust system  | Fuel filter/water separator                        |
| Exhaust System  | Gas/Water Separator                                |
| Keel Cooling conversion for dry and wet exhaust                                       | Raw water hose                                     |
| Electronic regulator  | Paralel system                                     |
| Electronic actuator   | TAC certificate by serial number for generator set |
| Exhaust Hose  |  |

<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
- $\cdot$  RTC battery life-cycle 10 year
- $\cdot$  Operating temperature -10 to +70 °C
- · Storage temperature -30 to +80 °C
- · Humidity 95% Without condensation
- $\cdot$  Flash memory data retention time 10 years

#### **Standard Conformity**

- $\cdot \, \text{Low Voltage Directive} \\$ 
  - 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**

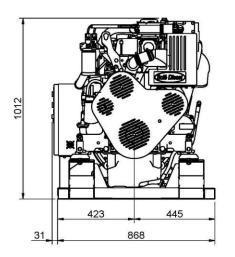
- · 180 x 120 mm front panel mounted case
- · Weight 800g
- $\cdot$  Graphic black-lit LCD display 128x64 pixel resolution with icons and bar graphs
- · LED status indicators / Lamp test
- · Protection front panel IP65

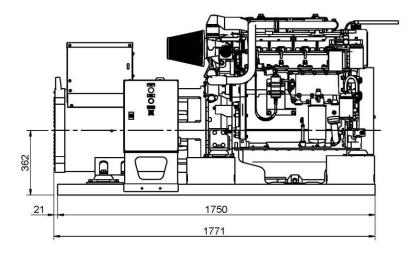
## **Display information**

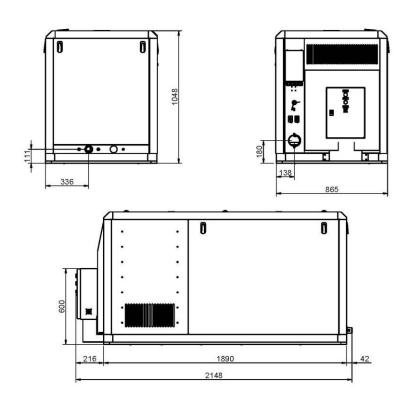
- · Oil Pressure (bar)
- · Oil Temperature (°C)
- · Coolant Temperature (°C)
- · Coolant Pressure (bar)
- · Battery Voltage (V)
- $\cdot \, \mathsf{RPM}$
- · History log

## **Alarm Management**

- · High coolant temperature
- · High oil temperature
- · Fuel leakages
- · Low oil pressure
- · Low coolant pressure
- $\cdot \, \text{Overspeed} \,$
- · Emergency stop
- · Low battery voltage
- · Maintenance request
- · Sensor Fails (FLS)







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TECHNICAL DETAILS REFERENCE: FA0775EN000001

www.solediesel.com info@solediesel.com

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