

20 GS/GSC 230 V TAC PARALLEL

Single-Phase

**General data**

| | | | |
|------------------------|----------------------|------------------|--------|
| Maximum power*: | 19,25 kW (19,25 kVA) | Voltage: | 230 V |
| Prime Power**: | 17,5 kW | Amperage: | 83,7 A |
| Frequency: | 50 Hz | Phases: | 1 |

Dimensions and weights

| | | | |
|-------------------------------------|---------|----------------------------------|---------|
| Total length without canopy: | 1140 mm | Total length with canopy: | 1310 mm |
| Total width without canopy: | 610 mm | Total width with canopy: | 610 mm |
| Total height without canopy: | 662 mm | Total height with canopy: | 698 mm |
| Dry weight without canopy: | 402 Kg | Dry weight with canopy: | 426 Kg |

Engine

| | | | |
|----------------------------------|------------------------|------------------------------|-------------------------|
| Base engine manufacturer: | Mitsubishi | Diameter: | 88 mm (3,46 in) |
| Model Solé Diesel: | MINI-63 | Stroke: | 103 mm (4,06 in) |
| Type: | 4 No. of Strokes | Compression ratio: | 22:1 |
| Engine RPM: | 1500 | Injection system: | Mechanical and indirect |
| Number of cylinders: | 4 | Intake system: | Naturally aspirated |
| Total displacement: | 2505 cc | SAE Flywheel housing: | SAE 4 |
| Oil: | SAE 15W40 | Coolant capacity: | 9,5 L (2,51 gal) |
| Oil capacity: | 6,5 L (1,72 gal) | Flywheel: | SAE 7 1/2 |
| Power: | 20,8 kW (28,29 CV) | Coolant flow rate: | 52 l/min (13,74 gal/m) |
| Salt water flow rate: | 38 l/min (10,04 gal/m) | Intake air flow rate: | 1,65 m ³ /m |

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

* Maximum output power: maximum power supplied by the genset at full load

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

1 kW \cong 1,36 CV 1 kW \cong 1,36 HP (metric) 1 kW \cong 1,36 CH

Fuel system details

| | | | |
|--------------------------|----------------------|-----------------------------|---------------------|
| Consumption 25%: | 2,3 L/H (0,61 Gal/H) | Fuel type: | Diesel |
| Consumption 50%: | 3,4 L/H (0,9 Gal/H) | Fuel standards: | Fueloil diesel ASTM |
| Consumption 75%: | 4,6 L/H (1,22 Gal/H) | Injection pump type: | In line |
| Consumption 100%: | 6,1 L/H (1,61 Gal/H) | | |

Electrical system

| | | | |
|-------------------------|------|----------------------------|------|
| Battery voltage: | 12 V | Stop solenoid type: | ETR |
| Starter motor: | 2 kW | Alternator: | 50 A |
| Earth isolated: | No | | |

Installation details

| | | | |
|--|-----------------|---------------------------------------|-----------------|
| Exhaust hose inner diameter: | 60 mm (2,36 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: | 3 m (118,11 in) |
| Fuel feeding hose inner diameter: | G1/8 | Maximum sea water temperature: | 32 °C (89,6 °F) |
| Fuel return hose inner diameter: | - | Maximum installation angle***: | 15 ° |
| Minimum battery capacity: | 12 V 95 Ah | | |

Alternator details

| | | | |
|-------------------------|-------------|---------------------------------------|-------------------------------------|
| Brand: | Sincro | Cos φ: | 1 |
| Model: | SK 160 LA 1 | Tropicalized: | Yes |
| Regulator type: | BL4 | Excitation system: | BRUSHLESS |
| Number of poles: | 4 | Voltage regulation accuracy**: | 1% |
| Isolation type*: | H | Standards: | EN 60034-1, IEC 60034-1, ISO 8528-3 |
| 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 |

Optional accessories

| | |
|---|--|
| 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 |
| Water Filters | |

* Other protections available

** 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.



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
- 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

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
- 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 Intelligen NTC BB + IntelliVision 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
- 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
- Over speed
- Overload
- Short circuit
- Battery charge failure
- High/low voltage
- High/Low Frequency
- Emergency stop button
- Remote alarms

Warnings (WRN)

- High engine coolant temperature
- Low oil pressure
- High/low battery voltage
- Maintenance warning

Lisävarusteet

Remote Double Panel

- It allows the same operation and functionality as main IntelliDrive
- 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

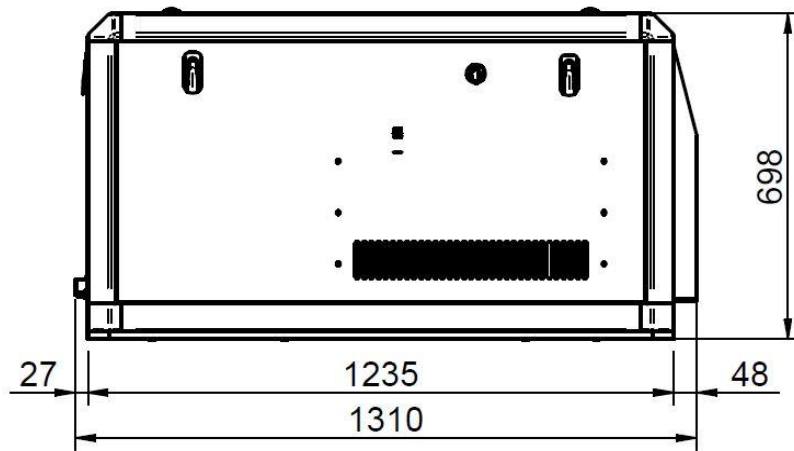
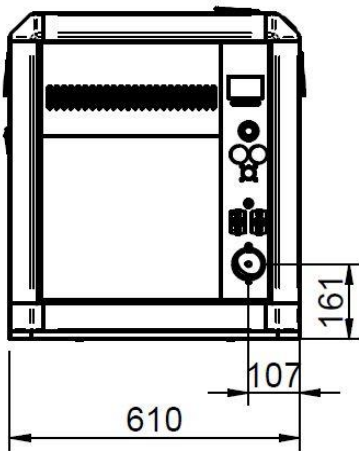
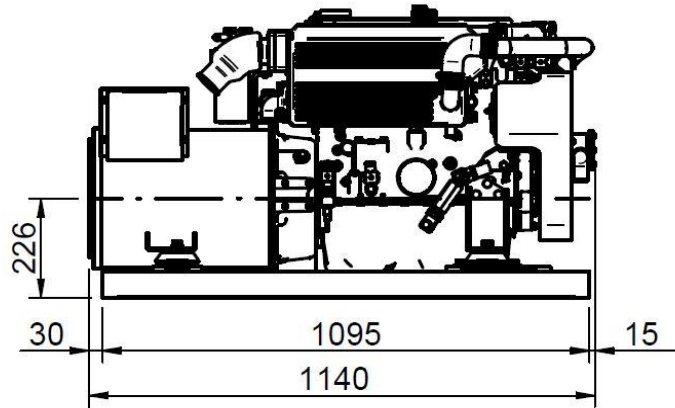
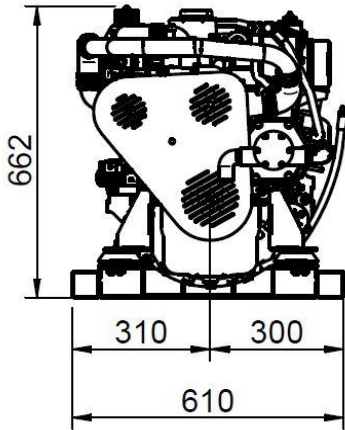
Extension

- 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)

Intelligen NTC BB + IntelliVision 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

Dimensions



| |
|-------------------|
| Authorized dealer |
| |

TECHNICAL DETAILS REFERENCE: FA1707EN000001

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