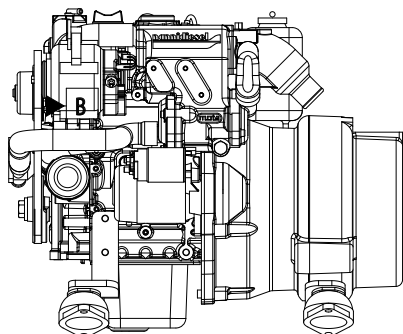


## Q500 Series



### GENSET WEIGHT AND DIMENSIONS

|                  | Without     | With Soundshield |
|------------------|-------------|------------------|
| Weight, kg [lbs] | 130 [287]   | 150 [330]        |
| Length, mm [in.] | 598 [23.5"] | 650 [25.6"]      |
| Width, mm [in.]  | 434 [17"]   | 480 [18.9"]      |
| Height, mm [in.] | 498 [19.6"] | 530 [20.9"]      |

### GENERATOR RATINGS

| Genset | Volts | Phase | Amps | kW prp | kW ltp |
|--------|-------|-------|------|--------|--------|
| 5CM50  | 230   | 1     | 20   | 4,7    | 5      |
| 5WM50  | 230   | 1     | 20   | 4,7    | 5      |

PRP = Prime Running Power

LTP = Limited Time Power

### Engine features

- Kubota Base
- Cast-iron motor block
- Diesel engine 4 strokes, 2 cylinders, 479 cm<sup>3</sup>
- Gear driven valve train
- Indirect mechanical injection - E-TVCS Bosch MD Mini
- Automatic preheating system
- Lifting eyelets

### Generator features

- Zanardi C60
- Protection class: IP23
- Insulation class: H
- Voltage regulation
- Interference suppression

### SI-2 Digital Control panel

- Start & stop buttons
- Illustrated menu
- Display and management of engine parameters
- Displaying and managing of generator parameters
- Generator status indicator
- Display of alerts and fault codes
- Option button GCB (Generator Circuit Breaker)
- History log (150 records)
- 5 languages available
- Dimensions : 172 x 112 mm
- 7 meters extension for panel connexion

### Standard equipment

- Unipolar 12 V Electrical system
- Wet exhaust
- Heat exchanger
- Raw water pump with Neoprene rotor
- Safeguards on the main parameters

### Optional Equipment

- Siphon breaker
- Fuel pre-filter
- Bipolar electrical System

## MARINE GENERATOR

### ENGINE GENERAL DATA

|                                    |                     |     |
|------------------------------------|---------------------|-----|
| Air intake                         | Natural             |     |
| Compression ratio                  | 23,5 :1             |     |
| Valves per cylinder                | 2                   |     |
| Firing order                       | 1-2                 |     |
| Rotational direction flywheel side | CCW                 |     |
| Rated speed rpm                    | 3000                |     |
| Injection pressure                 | MPa                 | 140 |
| Governor regulation                | +/- 5 %             |     |
| Injection timing                   | 15,5 to 17,5        |     |
| Fuel consumption                   | l/ h                | 2,8 |
| Oil pan capacity                   | l                   | 2,1 |
| Oil pump type                      | Tronchoid           |     |
| Oil filter type                    | Full-flow cartridge |     |
| Pressure at rated rpm              | 1 to 3,5 bar        |     |
| Lubrication system                 | Forced              |     |
| Engine operating angle             | 10° continuous      |     |

### ENGINE COOLING SYSTEM

|                             |                              |       |
|-----------------------------|------------------------------|-------|
| Seawater pump               | Bronze, Neoprene rotor       |       |
| Seawater pump flow          | l/min : 8                    |       |
| Coolant pump type           | Belt-driven centrifugal pump |       |
| Coolant capacity            | l                            | 2,7   |
| Exhaust manifold            | Fresh water cooled           |       |
| Max allowable back pressure | bar                          | 0,127 |
| Max exhaust gas temperature | °C                           | 550   |

### AIR REQUIREMENTS

|                        |         |       |
|------------------------|---------|-------|
| Combustion air at 25°C | m³/min  | 0,5   |
|                        | ft³/min | 17,7  |
| Genset - Coolant air   | m³/min  | 0,63  |
|                        | ft³/min | 235,6 |

### ENGINE ELECTRICAL SYSTEM

|                          |              |
|--------------------------|--------------|
| Engine Alternator        | V 12 / 40 A  |
| Battery recommended      | 50 A/h       |
| Electrical Starter Motor | 12 V/ 0,8 kW |
| Command Panel supplied   | SI-2         |

### ALTERNATOR GENERAL CHARACTERISTICS

|                     |         |
|---------------------|---------|
| Brand               | Zanardi |
| Model               | C60     |
| Insulation Class    | H       |
| Frequency           | 50 Hz   |
| Standard protection | IP23    |
| Voltage regulation  | +/- 5 % |

### POWER CLASS According to ISO 8528-1.

**Limited Time Power** - Limited number of hours is of 500hrs per year. Non-Variable Load. Applications not to exceed 100 % of the Prime Power rating (no overload is allowed).

**Prime Running Power** - Unrestricted running time. Time at full load ≤ 500 hrs/year. Load variation ≤ 75 % of rated power. 10 % overload is allowed for 1hr every 12 hrs.

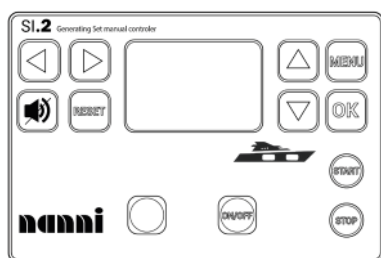
### FUEL CONSUMPTION vs. LOAD [l/h]

| Load  | 25 % | 50 % | 75 % | 100 % |
|-------|------|------|------|-------|
| 50 Hz | 0.37 | 0,74 | 1,1  | 1,48  |

### MARINE GENERATOR

#### ADVANCED SI-2 DIGITAL CONTROL PANEL

- Genset controller for stand-by and prime-power
- All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely
- Easy to install, configure and use



#### KEY FUNCTIONS AND PROTECTIONS

- Stand-by and prime-power application in one unit
- Backlit symbols
- Inbuild RS485
- RTC with battery back-up (full calendar)
- Zero power mode
- True RMS measurement
- Detailed history log with up to 350 records
- Dual Mutual Standby application support
- Remote display
- User setpoints and protections
- 5 languages in the controller & Translator functionality
- User Access Management
- Ready for alternative configurations

#### POWER SUPPLY & OPERATING CONDITIONS

- Power supply range: 8-36 V D.C
- Power consumption: 2.5W
- RTC Battery: 3 Volts replaceable
- E-Stop Fusing: 10 A
- Max Power Dissipation: 7W
- Protection degree: IP 65
- Operating temperature: -20 to + 70°C
- Operative humidity: 95 % non-condensing [EN 60068-2-30]
- Dash board foot-print: 172 x 112 mm.

#### ACCESSORIES

##### Soundshield enclosure

Designed for highly effective soundproofing, an ease of access for internal components maintenance or servicing. Brings lower service in maintaining components tidy at all times. Enclosure body is sturdy and is ensuring yet best safety available. Side connection panel includes connections for the following items:

- Battery (positive and negative)
- Ground binding post
- Fuel inlet and return lines
- Seawater inlet
- Water-cooled exhaust outlet
- Wiring power outlet easy access
- Circuit-breaker on front
- Digital control panel surface mounted
- Emergency switch
- Easy to open cover panels by levers.

##### Siphon break

- Siphon break is mandatory on Gensets installed below the vessel waterline. This device prevents direct siphoning of seawater into the engine via exhaust line.
- To this, provision is made at the bottom of the genset to fit inlet and outlet hoses lines.

##### Output power protection

- A heavy duty circuit breaker [C.E & U.L approved], protects the generator against extreme and adverse external overloads.

##### Fuel prefilter

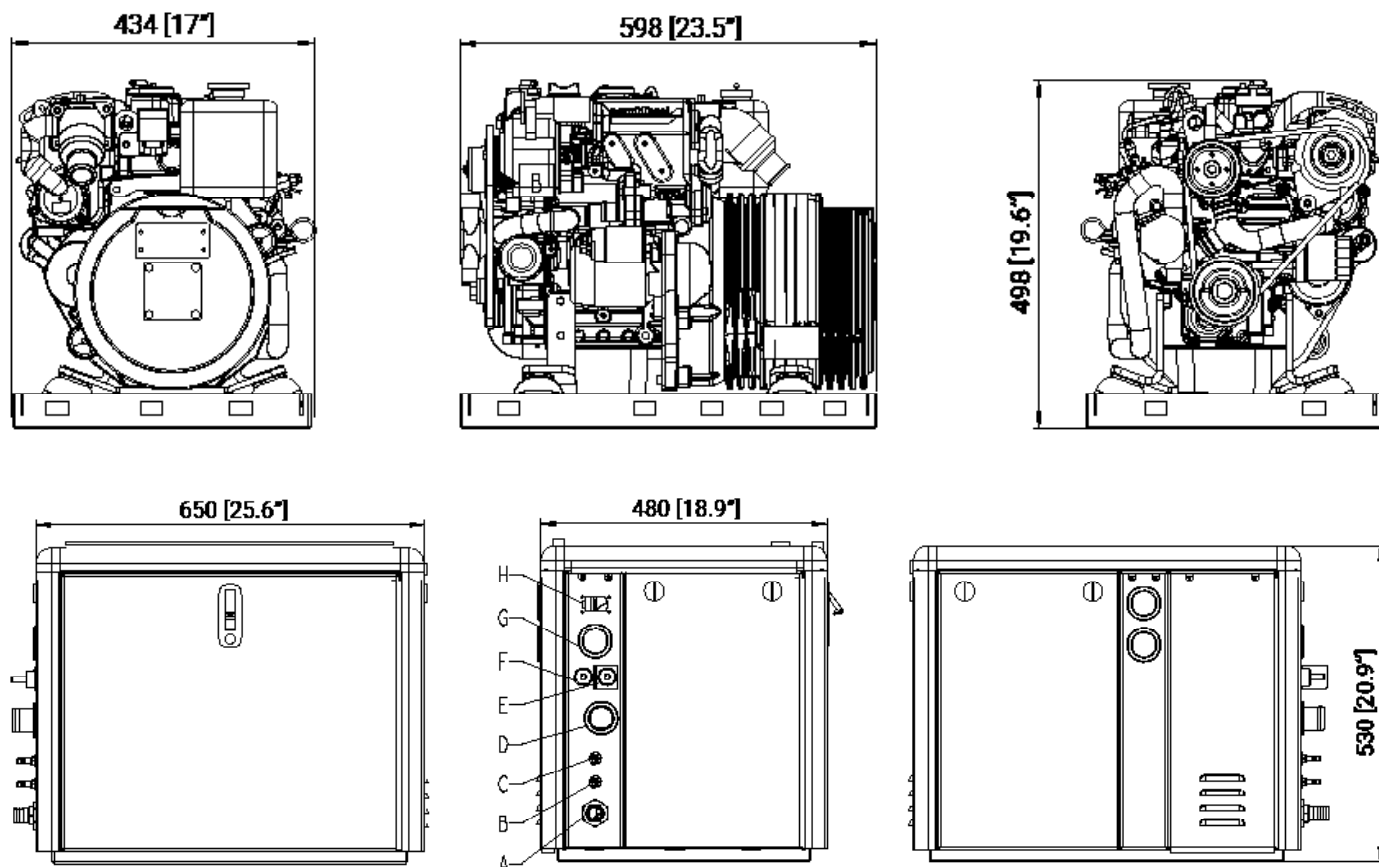
- Fuel pre-filter and/or fuel-water separators are highly recommended in view to avoid consequences of depleted or not complying fuel.
- Depending of requirements and needs, do not hesitate to consult the Nanni Catalog of Accessories to find the best suited prefilter or water-fuel separator.

##### Raw water system

- A sturdy sea water filter prevents debris from entering the cooling system and to cause damage to your Genset cooling system.
- Do not hesitate to consult the Nanni Catalog of Accessories to find the best suited raw water system to ensure long life trouble free to your equipment.

### MARINE GENERATOR

#### ■ SOUNDPROOF DIMENSIONS



#### GENSET CONNECTIONS

|     |                                     |         |              |
|-----|-------------------------------------|---------|--------------|
| A   | Raw water inlet line Int diam:      | mm [in] | 25 [1"]      |
| B-C | Min Fuel line Int diam:             | mm [in] | 8 [0.31"]    |
| D   | Exhaust connexion:                  | mm [in] | 40 [1.57"]   |
| E-F | Battery connexion                   |         |              |
| G-H | Electrical connector                |         |              |
|     | Fuel Std pump max suction lift:     | m [in]  | 0,5 [19,68"] |
|     | Fuel Eletric pump max suction lift: | m [in]  | 1,8 [70,9"]  |

NOTE 1: Dimensions are shown in mm & [in.].

NOTE 2: This drawing is for reference only. Please do not use as installation planning. Refer to your nearest NANNI local distributor for more detailed information.

#### AUTHORIZED DEALER

Technical data according to ISO 8528-1. This document is not contractual. Nanni reserves the right to modify any of the characteristics stated in this document without notice, in a constant effort to improve the quality of its products. Images and illustrations may shown non standard equipments. All combination of equipment & accessory are not available.

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