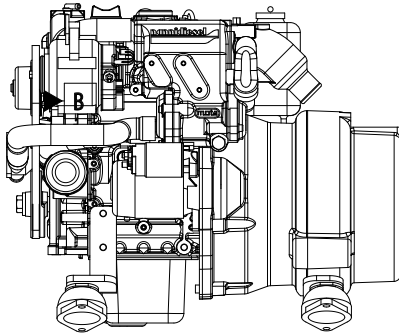


MARINE GENERATOR

Q500 Series



Engine features

- Kubota Base
- Cast-iron motor block
- Diesel engine 4 strokes, 2 cylinders, 479 cm³
- 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

GENSET WEIGHT AND DIMENSIONS

	Without	With Soundshield
Weight, kg [lbs]	-	150 [330]
Length, mm [in.]	-	650 [25,6"]
Width, mm [in.]	-	480 [18,9"]
Height, mm [in.]	-	530 [20,9"]

GENERATOR RATINGS

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

PRP = Prime Running Power

LTP = Limited Time Power

SI-1 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 (10 events)
- 5 languages available
- Dimensions : 172 x 112 mm.

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	m ³ /min	0,5
	ft ³ /min	17,7
Genset - Coolant air	m ³ /min	0,63
	ft ³ /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-1

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.

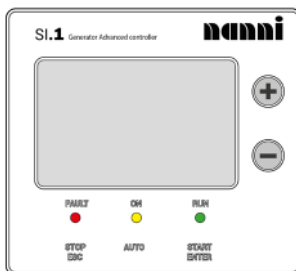
FUEL CONSUMPTION vs. LOAD [l/h]

Load	25 %	50 %	75 %	100 %
50 Hz	0,37	0,74	1,1	1,48

MARINE GENERATOR

ADVANCED SI-1 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

- Dedicated for Standby & prime-power in one unit
- All setpoints and I/Os configurable via front panel
- Over/Under frequency measurement
- Over/Under voltage measurement
- True RMS voltage measurement
- Engine protection [Over/Under speed, High temp, Oil pres, Low fuel warning, Battery flat detection]
- Power supply and programming via USB cable
- Zero power consumption mode
- Automatic detection of connection type and voltage
- Phase generator current measurement
- Phase mains voltage measurement
- Indication of battery voltage, operating time & operating hours
- 10 events warnings or shutdown
- 5 languages in the controller & Translator functionality
- ECU support (CAN J1939)

POWER SUPPLY & OPERATING CONDITIONS

- Power supply range: 5-36 V D.C
- Voltage drops shorter than 50 ms do not affect operation
- Protection degree: IP 65
- Operating temperature: -20 to + 70° C
- Operative humidity: 95 % non-condensing [EN 60068-2-30]
- Dash board foot-print: 118 x 108 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

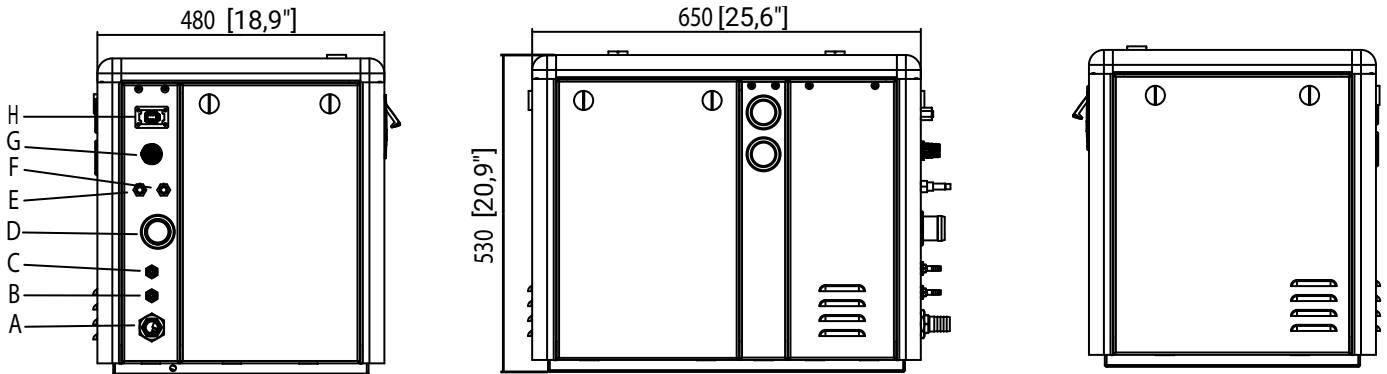
- Fuel pre-filter and/or fuel-water separators are highly recommended in view to avoid consequences of depleted or not complying fuel.
- Depending of requirements and needs, do not hesitate to consult the Nanni Catalog of Accessories to find the best suited prefilter or water-fuel separator.

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 show non standard equipments. All combination of equipment & accessory are not available.

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