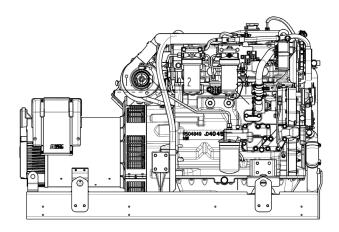


# Q4500 Series



### **GENSET WEIGHT & DIMENSIONS**

	Without	With Soundshield
Weight, kg [lbs]	990 [2182]	1100 [2425]
Length, mm [in.]	1590 [62,59"]	1740 [68,50"]
Width, mm [in.]	770 [30,31"]	850 [33,46"]
Height, mm [in.]	965 [37,99"]	1045 [41,14"]

# **GENERATOR RATINGS**]

Genset	Volts	Phase	Amps	kW/kVA prp	kW/kVA ltp
60ST50	230/400	3	102	57.5/71.8	622/70
60WT50	230/400	3	103	37,3/71,8	03,3/79
70ST60	120/208		242	607/07	76.0706
70WT60	240/416	3	121	69,7/87	76,8/96

PRP = Prime Running Power LTP = Limited Time Power

# **Engine features**

- John Deere Engine Base EPA Tier III 50/60 Hz
- IMO Marpol Annex VI exempt (<130kW) SCR not required</p>
- Cast-iron motor block
- Diesel engine 4 strokes, 4 cylinders, 4500 cm3 [275 in<sup>3</sup>]
- Gear driven valve train
- Common-rail fuel injection
- Automatic preheating system
- Lifting eyelets

## **Generator features**

- Leroy Somer alternator
- 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
- History log (150 records)
- 5 languages available
- Dimensions: 172 x 112 mm.

# Standard equipement

- Bipolar 24 V Electric System
- Wet exhaust
- Heat exchanger
- Raw water pump with Neoprene rotor
- Safeguards on the main parameters

# **Optional Equipement**

- Siphon break
- Fuel pre-filter





#### **ENGINE GENERAL DATA**

Air intake: Turbocharged			
Compression ratio:	19:1		
Valves per cylinder:	2		
Firing order:	1-3-4-2		
Rotational direction flywheel sid	de: CCW		
Rated speed rpm:	1500 [50Hz] -1800 [60 Hz]		
Fuel injection pump:	HPCR		
Governor type:	Electronic		
Oil pressure at 1500-1800 rpm:	290 kpa		
Max crankcase pressure:	2 kPa 8in.H20		
Primary fuel filter:	10 microns		
Secondary fuel filter:	2 microns		
Engine operating angle:	30° Continuous 45° Intermittent		

#### **ENGINE COOLING SYSTEM**

Aftercooling system:	Engine coolant	
Seawater pump:	Bronze, Neoprene rotor	
Seawater pump flow:	50 Hz: 79 l/min - 21 gal/min 60 Hz: 90 l/min - 24 gal/min	
Coolant pump type:	Belt-driven centrifugal pump	
Exhaust manifold:	Fresh water cooled	
Max exhaust gas temperatur	re: 473°C	
	-	

# **AIR INTAKE SYSTEM**

Engine air flow:	50 Hz: 4,4 m <sup>3</sup> /min		154 ft <sup>3</sup> /min	
Eligille all flow.	60 Hz: 6,1m <sup>3</sup> /min		215 ft <sup>3</sup> /min	
Intake manifold p	ressure:		67 kPa - 9,7 psi 116 kPa - 16,9 psi	
		00 112.	110 KFa - 10,9 psi	
Manifold air temp:			: 97°C/207°F :: 132°C/270°F	

## **ENGINE ELECTRICAL SYSTEM**

Battery recommended:	100 Ah / 925 CCA
Electrical Starter Motor:	24 V/600 A
Command Panel provided:	SI-2

## **ALTERNATOR GENERAL CHARACTERISTICS**

Brand: Leroy Somer		
Model:	LSAM 44.3 S3 / S4	
Insulation Class:	Н	
Frequency:	50-60 Hz	
Standard protection:	IP23	
Voltage regulation:	+/- 0,5 %	

# FUEL CONSUMPTION vs. LOAD [I/h]

Load	25 %	50 %	75 %	100 %	110 %
50 Hz	5,2	8.9	12.9	17	18,7
60 Hz	6.5	10.8	16.4	20.8	22.4

# FUEL CONSUMPTION vs. LOAD [U.S G/h]

Load	25 %	50 %	75 %	100 %	110 %
50 Hz	1,3	2.4	3.9	4.5	4,9
60 Hz	1,7	2,9	4,3	5,5	5,9

## **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  $\leq$  500hrs/year. Load variation  $\leq$  75 % of rated power. 10 % overload is allowed for1hr every 12hrs.

## **SHORE POWER 60Hz-ONE PHASE**

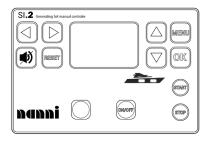
Complying with Ocean Going Vessels, the outputs of the NANNI Gensets are in accordance with the Shore Power 101 at disposal on U.S marina docks, (and associated waters, Carribean, Pacific and other countries such as N.Z).

Under this scheme, output delivered by Gensets is "Split Phase" 120/240 V-60 Hz [L1-N-L2]. The One Phase NANNI Genset range is set on this basis. Need for 120 V-60Hz/one phase-2 wires [L-N] voltage, must be forwarded to NANNI prior to placing an order. This paragraph does not apply to Star/Delta Gensets.



#### 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.CPower consumption: 2.5WRTC Battery: 3 Volts replaceable

E-Stop Fusing: 10 AMax Power Dissipation: 7WProtection 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, for an easy access of internal components maintenance or servicing. Brings lower service in maintaining components tidy at all times. Enclosure body is robust 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**

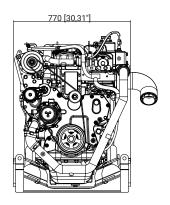
- Fuel pre-filter and/or fuel-water separators are highly recommended in view to avoid consequences of depleted or not complying fuel.
- Depending of requirements and needs, do not hesitate to consult the Nanni Catalog of Accessories to find the best suited prefilter or water-fuel separator.

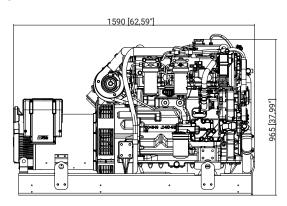
#### Raw water system

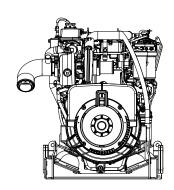
- A sturdy sea water filter prevents debris from entering the cooling system and to cause damage to your Genset cooling system.
- Do not hesitate to consult the Nanni Catalog of Accessories to find the best suited raw water system to ensure long life trouble free to your equipment.



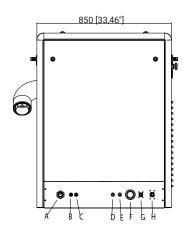
#### **STANDALONE DIMENSIONS**

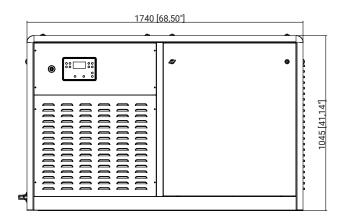


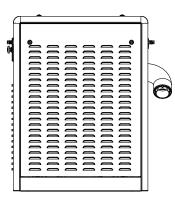




## **■ SOUNDPROOF DIMENSIONS**







# **GENSET CONNECTIONS**

Α	Raw water inlet line Int diam:	mm [in]	33 [1.30"]
B-C	Min Fuel line Int diam:	mm [in]	10 [0.39"]
F	Exhaust connexion:	mm [in]	100 [4"]
D-E	Battery connexion		
G-H	Electrical connector		
	Fuel std eletric pump max suction lift:	m [in]	2,4 [94,5"]

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.

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 equipements. All combination of equipment & accessory are not available.

DGBXXC01193

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