



## Generator Technical Data Sheet for

### Model: PHG880PeOS



### GENERATORS AND UPS



- Intelligent Auto-Start Controller with Generator
- Monitoring and Protection Systems Suitable for Remote Starting or Connection with shentongroup AMF Panel
- Battery Trickle Charger
- Thermostatically controlled Engine Heater
- Long Range Bunded Base Fuel Tank
- Ability to be Customised to Specific Requirements
- Output Circuit Breaker

### GENERAL

Shenton Group Generators range from 10 to 2500kVA, and are built to a world-class standard. These remarkably competitive standby generators provide the most cost-effective solution for 'standard package' requirements.

A first-class range of diesel-powered generators for prime and standby power application which feature reliable components from leading manufacturers, these are premium products upon which your company can build its reputation.

### Model PHG880PeOS

Standby Power	kVA	880
	kW	704
Prime Power	kVA	800
	kW	640
Rated Speed	r.p.m	1500
Voltage	V	400/230
Rated Power Factor	Cos Phi	0,8
Data Sheet Number	PHG880PeOS NS Rev 4	

**Prime:** This rating is for the supply of continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation on the annual hours of operation and 10% overload power can be supplied for one hour in twelve hours.

**Standby:** This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

**Note:** Standard reference conditions: 25deg C (77deg F) air inlet temperature, 152.4m (500feet) above sea level, 60% relative humidity. All engine performance data based on the above mentioned maximum continuous ratings. Fuel consumption data at full load for diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, class A2.

In line with our policy of continuous development, we reserve the right to change specification without notice.



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### ENGINE

Rated Output	kWm	756
Manufacturer		Perkins
Model		4006-23TAG3A
Engine Type		Diesel 4 Strokes-Cycle
Aspiration Type		Turbo charged & intercooled
Cylinders Arrangement		6 in line
Bore & Stroke	mm	160 x 190
Displacement	L	22.921
Cooling System		Water
Compression Ratio		13.6:1
Fuel Consumption 100% PRP	l/h	172
Fuel Consumption 75% PRP	l/h	130
Fuel Consumption 50% PRP	l/h	90
Total Oil Capacity	L	113.4
Total Coolant Capacity	L	120
Governor	Type	Electronic
Air Filter	Type	Dry Paper Cartridge
Battery Capacity	Ah	2 x 225
Battery Voltage	V	24

Perkins engines have a proven reputation within the generator industry, providing high levels of reliability and low cost of ownership. Perkins actively pursues product support excellence providing a consistent quality of support across the globe. shentongroup have used Perkins engines as our first choice product, for many years and found them to be solid, reliable and readily accepted products.

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## ALTERNATOR

Manufacturer		Mecc Alte
Model		ECO 43-1S/4
Poles		4
Frequency	Hz	50
Insulation Class		H
Efficiency at 75% load class H 400v	%	95.3
Reactance Xd'' Unsaturated	%	9.9
Reactance Xd' Unsaturated	%	19.2
Reactance Xo Unsaturated	%	3.3
Short Circuit Current Capacity	%	>300
Heat Dissipation 400v	W	30915
Radio Interference		EN50081-1, EN50082-1, VDE0875K
Waveform Distortion (THD) at Full Load	%	2.8
Enclosure (according IEC-34-5)		IP 21
Weight of Complete Generator	Kg	1870
Cooling Air Requirement	m3/min	90
Alternator Rating Overload	%	10% for 1 in 6 hours
Overload per 20 sec	%	300
Exciter System		Auxilliary Winding
Voltage Regulator		DER1
Voltage regulation Performance +/-	%	1
Coupling		Flexible Disk

Mecc Alte has sixty years of experience in the electromechanical field, and is today at its height in the world production of synchronous alternators. Committed daily to research, development and updating activities, Mecc Alte is a testimony to constant improvement in all areas such as technology, organisation and quality. The company has ISO 9001 certification, awarded in 1996 and ISO 14001 since 2010. With 54.000 square meters of factory area, almost 850 employees and a turnover of approximately 130 million euro, Mecc Alte is a well-established company ready to challenge the markets in every product sector.

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## APPLICATION DATA

### Exhaust System

Maximum Exhaust Temperature	°C	500
Exhaust Gas Flow	M3/min	193
Maximum Allowed Back Pressure	kPa	6

### Air Flows

Intake Air Flow	m3/h	4380
Cooling Air Flow	m3/s	14.5
Available Air Restriction	KPa	0.3

### Fuel System

Fuel Oil Spec		DIESEL
Fuel Tank Capacity	L	1600
Autonomy @ 75% load	Hrs	12

### Dimensions/Weight

Length	mm	4000
Width	mm	1800
Height	mm	2660
Weight excluding fuel	Kg	6250
Sound Pressure Level @ 7 mtrs	dB(A)	-

### Electrical

Output Circuit Breaker	Type	MCCB
	Model	ABB T7S PR231/P-LS/I 1600A
Max Load Current at 400V .8 p.f.	Amps	1270



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### SG7410DS GENERATOR CONTROLLER

The DSE7410 is an Auto Start Control Module and the DSE7420 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications. A sophisticated module monitoring an extensive number of engine parameters, the DSE74xx will annunciate warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LED, remote PC, and audible alarms. The module includes RS232, RS485 & Ethernet ports as well as dedicated terminals for system expansion. The DSE7400 Series modules are compatible with electronic (CAN) and non-electronic (magnetic pickup/alternator sensing) engines and offer a comprehensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet industry requirements. The modules can be easily configured using the DSE Configuration Suite Software. Selected front panel editing is also available.

### CONTROL PANEL DISPLAY FEATURES

Engine RPM	Generator Output Current
Engine Oil Pressure	Earth current
Coolant temperature	Output kW
Battery Volts	Load level %
Run Hours/ No of starts	Output kVA
Fuel level	Power factor
Generator output Voltage	Load kVAR
Frequency	kWh/kVAh/kVArh

SG7410DS is a branded Deep Sea Electronics controller, customized to Shenton Group's specific requirements. Shenton Group has a long history of collaboration with Deep Sea Electronics, and endorse their products with confidence. Our experience has proved this is the market-leading controller having a perfect mix of complex capability and user simplicity.



**shentonggroup**

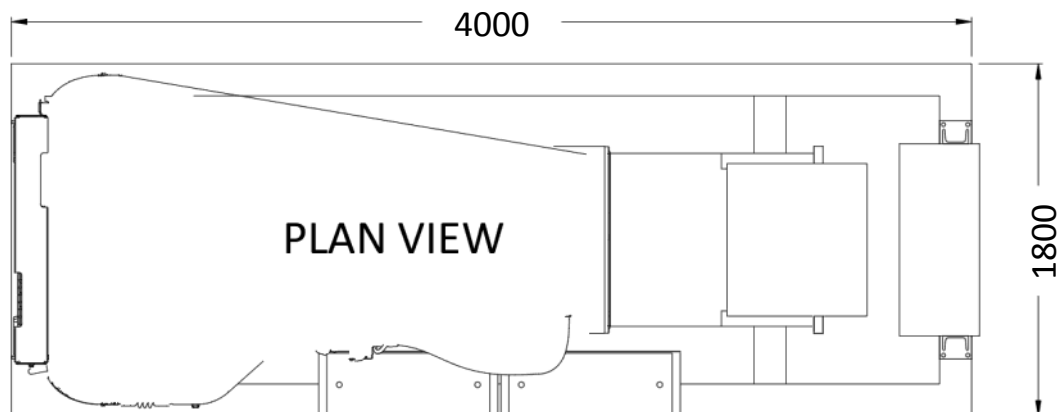
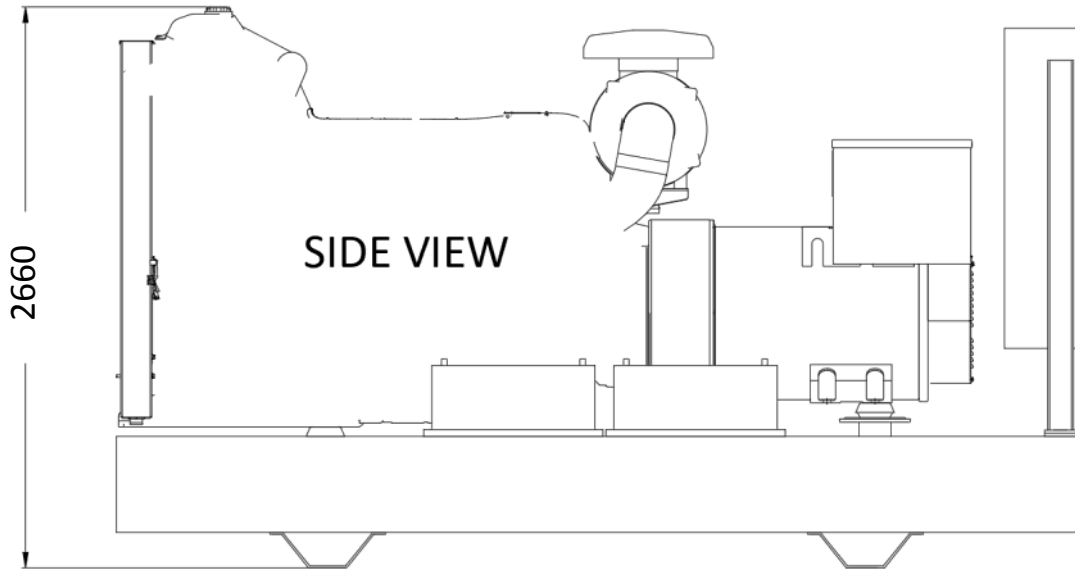
power with responsibility

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**The above illustration is a representation only for preliminary planning. Specific detailed drawings are available on request. In line with our policy of continuous development, we reserve the right to change specifications without notice.**