



Perkins Engine: 4006-23TAG3A	Alternator Leroy-somer : LSA49.1M75	Generator Model:	TPE844X (Open)
	Optioanl: Stamford LVI634D		TPE844XC (Silent)
<i>Electronic Governor</i>	<i>Tide TPA404S2</i>		

60Hz <i>1800 r.p.m</i>	3 Phase <i>4 Wires</i>	Power Factor: <i>Cos ϕ = 0.8</i>	Emissions Certification:	<i>N/A</i>
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RATINGS	Prime Power		Standby Power		Rated Current
	<i>(PRP)</i>		<i>(LTP)</i>		
Voltage (V)	kW	kVA	kW	kVA	Amps
480/277	675	844	750	938	1014.9
440/254	675	844	750	938	1107.2
416/240	675	844	750	938	1171.0
240/138	675	844	750	938	2029.8
220/127	675	844	750	938	2214.3

RATINGS:

All three Phase generator sets are rated at 0.8 power factor. All single-phase generator sets are rated at 0.8 or 1.0 power factor. **POWERGEN** reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Prime Power:

Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year in accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

Standby Power:

Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure. No overload available for this service as relevant alternators are peak continuous rated at 27°C.

Standard Features

- ▲ High efficient water cooled diesel engine
- ▲ Brushless alternators (Class H, with AVR.)
- ▲ Heavy duty rubber anti-vibration mountings
- ▲ 12/24V starter batteries and connecting cables
- ▲ Separate engine-drive battery charging alternator
- ▲ Industrial silencer for open type generator sets
- ▲ Residential silencer for open type generator sets
- ▲ Auto start / Digital POWERGEN Easycon Control
- ▲ Wiring with IEC standard
- ▲ Factory Test Certificate
- ▲ Operation & Maintenance Manual & Diagrams
- ▲ Worldwide Product / Technical Support
- ▲ Radiator with cap and drain point.
- ▲ Fully guarded engine driven fan
- ▲ No MCCB
- ▲ Oil filter - Diesel filter - Air filter
- ▲ Fully welded steel baseframe with lifting and fork-lifting facilities.
- ▲ Sound proof & Weather protective enclosures for silent type generator sets.

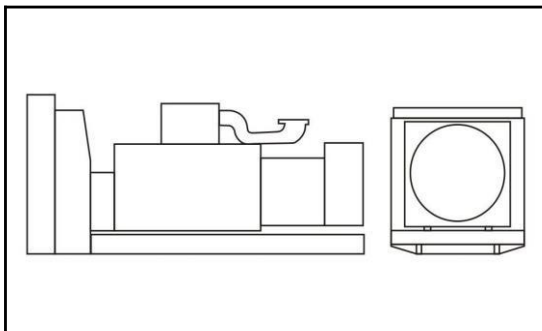
Optional

- △ Automatic Transfer Switch (ATS)
- △ Water - fuel separator
- △ Water heater for severe cold weather
- △ Lub-oil heater for severe cold weather
- △ 50°C-60°C Radiator
- △ Dual wall fuel tank base
- △ Fuel level sensor
- △ Maintenance free battery
- △ Additional **CE Features** Selection
- △ Extra air filters for time-maintenance
- △ Extra diesel filters for time-maintenance
- △ Extra oil filters for time-maintenance
- △ Separated standing fuel tank
- △ Low coolant level sensor
- △ Full range of attachments and options available for alternator
- △ ACB

Overall Dimensions (mm) & Weight (k g)

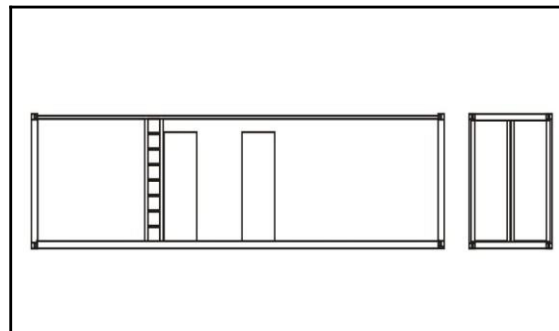
Open Type

Length:
4300
Width:
1710
Height:
2200
Weight:
5300



Silent Type

Length:
5800
Width:
2000
Height:
2450
Weight:
7100



Dimension and design are subject to change without notice.

Warranty

The goods of POWERGEN System are under warranty against defects in materials and workmanship for a period of 12 months or 1000 hours whichever comes first from the date of delivery to the end user (except the damageable spare parts of genset caused by incorrect man-made operation), and that the aforementioned warranty for the same token is back up by the engine & alternator manufactures and their global distributors.

Engine Specification**60HZ**

General Performance		Lubrication System	
Manufacture	Perkins	Total Lubrication system Capacity	113.4 Litres
Engine Model	4006-23TAG3A	Minimum Sump Capacity	90.7 Litres
Engine Type	4 stroke, Vertical, In-line, 6-cylinder	Maximum sump capacity	113.4 Litres
Engine Speed	1800 r.p.m	Oil Pump Flow	4.4 litres/sec.
Prime Power	715kW/959hp	Fuel System	
Standby Power	795kW/1066hp	Type Of Injection	Direct Injection
Governor Type	Electronic	Fuel Lift Pump-Delivery/hour	810 Litres/hour
Rotation	Anti-clockwise Viewed on Flywheel	Fuel Consumption at 100% Standby power	224 Litres/hour
Air Intake Way	Turbocharged	Fuel Consumption at 100% Prime power	200 Litres/hour
Displacement	22.921L	Fuel Consumption at 75% Prime power	144 Litres/hour
Cylinder Bore * Stroke	160mm × 190mm	Fuel Consumption at 50% Prime power	96 Litres/hour
NO. of Cylinders	6	Tank Capacity	
Compression Ratio	13.6:1 Fuel	- Open Type Genset	N/A
Brake Mean Effective Pressure	2200-2432kPa	- Silent Type Gensets	N/A
Combustion Air Flow	78 m ³ /min	Cooling System	
Mean Piston Speed	11.4 m/s	Total System Coolant Capacity	105 Litres
Engine coolant flow	12 Litres/sec.	Nominal Jacket Water Pressure in Crankcase	170 kPa

Exhaust System	
Exhaust Gas Flow	209 m ³ /min
Exhaust Gas Temperature	500°C
Maximum Back Pressure	610 mm H ₂ O
Exhaust Outlet Size (Internal).	2 × 152.4 mm

Induction System	
Maximum Air Intake Restriction	
- Clean Filter	127 mm H ₂ O
- Dirty Filter	380 mm H ₂ O
- Air Filter Type	Dry-paper

Pressure Cap Setting	70 kPa
Thermostat Operation Range	71-85°C
Maximum Top Tank Temperature	98°C

Electric System	
Electrical System Voltage	24V
Battery	Maintenance-free
Connecting Cables	Available

Energy balance	
Energy to Coolant and Lubricating Oil	309-330kW
Energy to Exhaust	635-759 kW
Energy to Radiation	80-90kW

Alt er nat orSp ecificat ion

GeneralData		60HZ/1800R.P.M	
Manufacture / Brand	Leroy-somer	Prime Output Power	749kW/936kVA
Model	LSA49.1M75	Standby Output Power	824kW/1030kVA
AVR Model	R450	Insulation Class	H
Coupling / Bearing	Direct / Single Bearing	Voltage Regulation	± 0,5 %
Phase	3 Phase	Total harmonic TGH / THC	no load <4% - on load <4%
Power Factor	Cos φ = 0.8	Wave Form : NEMA = TIF - (*)	< 50
Winding Pitch - Code	2/3 - (N°6S)	Wave Form : I.E.C. = THF - (*)	< 2 %
Drip Proof	IP 23	Altitude	≤ 1000 m
Excitation	<u>AREPorPMG</u>	Overspeed	<u>2250min-1</u>

POWERGEN Control Systems

"Let your Generator always in Control"

POWERGEN comprehensive Easycon range control panels are compact, versatile and easy to use.

Easycon 2.0L/H (GU601A / Deepsea DSE3110) panel is a key-start auto control panel, it's a basic control panel fits for generators up to 100kVA to provide basic operating parameters display and protection.



Easycon 3.0 L/H (GU641B / Deepsea DSE7210) panel is an auto & digital control panel, it's an entry level control panel which provides full power monitoring and protection facilities. All operating parameters are with LCD display. (Auto Main Failure Version DSE7220 also Available.)



Easycon 4.0L/H (GU620A / Deepsea DSE7310) panel is an auto & digital & Remote control panel which includes all the features of Easycon 3.0, and plus data communication of full telemetry via the RS232/RS485 interfaces, CANBus is also included. (Auto Main Failure Version DSE7320 also Available.)



Specifications

4 . 0 L / H	3 . 0 L / H	2	Over Speed pre-alarm & shutdown -	Auto Start
		0	Low Oil Pressure Pre-Alarm & shutdown -	Oil Pressure
4 . 0 L / H	3 . 0 L / H	L	High Water Temp. Pre-alarm & shutdown -	Genset Running Hours
		/	Volts, Current, Frequency, Rpm (Instruments)-	Battery Voltage and Charging
4 . 0 L / H	3 . 0 L / H	H	Fuel Sensor as optional -	
		AMF Module as optional -		
			Digital Control Panel -	Switch Opening as Optional
			Overcurrent Pre-alarm -	AMF Module as optional
			Overcurrent Shutdown -	Power Factor
			Prefix Start, Service Indicate, Fault History for Deepsea Module.	
			Remote Start (Data communication of full telemetry via the RS232/RS485)	
			CANBus	

Options

Easycon 5.0H (Deepsea DSE8610) panel fits for Gen-Gen automatic Synchronising and load sharing.

Deepsea DSE7560 Synchronising Controller for Multi gen – Mains Synchronising. This is a separate control unit which enables multiple Easycon 5.0 equipped Gens to be synchronised with the Mains supply.

~~Easycon 6.0H (Deepsea DSE8620) panel fits for Single Gen - Mains automatic Synchronising.~~

(For details specifications of Control Panels, please consult our sale department.)

Circuit Breaker

NoM CCB-(ACBasoptional)

The generators are supplied together with a circuit breaker that permits a thermal protection against overloads and magnetic protection against short-circuit.

Automatic Transfer Switch

A.T.S-4Poles

POWERGEN offers not only a changeover switch but also an integrated mains detection and switch system for your 24 Hour Power Protection. The system enables automatic start-up and operation of the generating set in the event of a mains power failure, overvoltage or loss of phase; and also mains automatic re-transfer once it come back.

ATS: Automatically transfer and re-transfer load from main power to gen-power without operator intervention. (Both Automatic and manual operation.)

Please consult our sales department for specifications.



Enclosure/Canopy

(Sound-attenuated & Weather Protective)

“Ensure a quieter life with our sound attenuation system.”

Features:

- ▲ Earth leakage protection
- ▲ 40-50mm non-inflammable sponge inside
- ▲ Control panel viewing window in a lockable access door
- ▲ Emergency stop button mounted on canopy exterior
- ▲ Fuel fill and battery can only be reached via lockable access doors
- ▲ Exhaust silencing system enclosed for operator safety
- ▲ Excellent cooling system to avoid high water temp., reliable operation under harshest conditions.
- ▲ (Ambient temp. upto 40-52°C and altitudes up to 1000M)

Easy Commissioning and Maintenance

- ▲ Separate & Standing control cabinet at one side, quick fix electrical power connections.
- ▲ Lube oil drain and radiator drain
- ▲ Side doors allowing 180° opening rotation
- ▲ Radiator fill access through cover in canopy roof.
- ▲ Sockets and Lifting shelf as Optional

Extremely Rugged & Security and Safety

Highly Corrosion Resistant Construction

- ▲ Body made from 2.0mm sheet steel components with powder coating
- ▲ Excellent design and craftsmanship
- ▲ Zinc alloy with black powder coated or Bright polished stainless steel hinges tested and proven to withstand corrosive conditions.
- ▲ Compact structure and longer service life

Transportability

- ▲ Lifting points on baseframe
- ▲ Lifting shelf as optional

Quiet (Reduce Sound and Vibration)

Noise Level:

77-88dBA at 1m & 67-78dBA at 7m