



<b>Perkins</b> Engine: <b>2806C-E18TAG1A</b> Electronic Governor	<b>Alternator</b> Leroy-somer : LSA47.2L9	<b>Generator Model:</b>	<b>TPE625X (Open)</b>
	<b>Optional</b> Stamford HCI544D Tide TPA354S4		<b>TPE625XC (Silent)</b>

<b>60Hz</b> 1800 r.p.m	<b>3 Phase</b> 4 Wires	<b>Power Factor:</b> Cos $\Phi$ = 0.8	<b>Emissions Certification:</b>	N/A
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<b>RATINGS</b>	<b>Prime Power</b>		<b>Standby Power</b>		<b>Rated Current</b>
	(PRP)		(LTP)		
Voltage (V)	kW	kVA	kW	kVA	Amps
480/277	500	625	550	687	751.8
440/254	500	625	550	687	820.1
<b>416/240</b>	<b>500</b>	<b>625</b>	<b>550</b>	<b>687</b>	<b>867.4</b>
240/138	500	625	550	687	1503.6
220/127	500	625	550	687	1640.2

**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.

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## ***Standard Features***

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- ▲ 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 Easycon Control Panel
  - ▲ 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
  - ▲ Circuit Breaker - 3 pole (MCCB)
  - ▲ Base fuel tank for 6 - 8 hours running at 100% load
  - ▲ 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***

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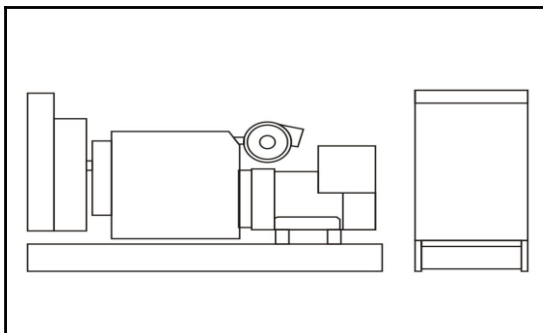
- △ Automatic Transfer Switch (ATS)
  - △ Water - fuel separator
  - △ Water heater for severe cold weather
  - △ Lub-oil heater for severe cold weather
  - △ 50°C-60°C Radiator
  - △ Dual wall fuel tank base
  - △ Fuel level sensor
  - △ Maintenance free battery
  - △ Additional **CE Features** Selection
- △ 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

## ***Overall Dimensions(mm)& Weight(kg)***

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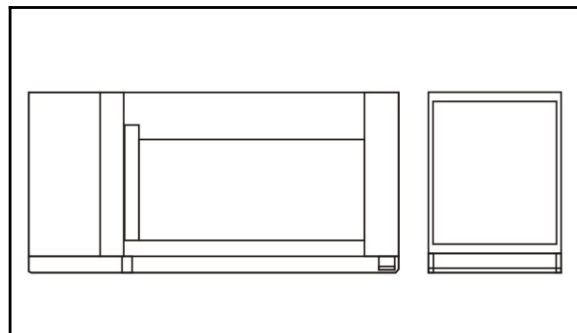
### ***Open Type***

**Length:**  
3450  
**Width:**  
1550  
**Height:**  
2100  
**Weight:**  
4200



### ***Silent Type***

**Length:**  
5000  
**Width:**  
1800  
**Height:**  
2550  
**Weight:**  
5500



Dimension and design are subject to change without notice.

## ***Warranty***

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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.

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## Engine Specification

60HZ

General Performance		Lubrication System	
Manufacture	Perkins	Total Lubrication system Capacity	62 Litres
Engine Model	2806C-E18TAG1A	Minimum Sump Capacity	45 Litres
Engine Type	4 stroke, Vertical, In-line, 6-cylinder	Maximum sump capacity	53 Litres
Engine Speed	1800 r.p.m	Max Continuous Oil Temperature	113°C
Prime Power	543kW/729hp	<b>Fuel System</b>	
Standby Power	598kW/802hp	Type Of Injection	MEUI Direct Injection
Governor Type	Electronic	Fuel Lift Pump-Delivery/hour	457 Litres/hour
Rotation	Anti-clockwise Viewed on Flywheel	Fuel Consumption at 100% Standby power	144 Litres/hour
Air Intake Way	Turbocharged, Air-to-air charge cooling	Fuel Consumption at 100% Prime power	130 Litres/hour
Displacement	18.13L	Fuel Consumption at 75% Prime power	100 Litres/hour
Cylinder Bore * Stroke	145mm × 183mm	Fuel Consumption at 50% Prime power	71 Litres/hour
NO. of Cylinders	6	Tank Capacity	
Compression Ratio	14.5:1 Fuel	- Open Type Genset	6 Hours at Full Load
Brake Mean Effective Pressure	2087-2290kPa	- Silent Type Gensets	780 Litres
Combustion Air Flow	45 m <sup>3</sup> /min	<b>Cooling System</b>	
Mean Piston Speed	11 m/s	Total System Coolant Capacity	61 Litres
Engine coolant flow	7.2 Litres/sec.	Nominal Jacket Water Pressure in Crankcase	280 kPa
		Pressure Cap Setting	70 kPa
		Thermostat Operation Range	88-98°C
		Maximum Top Tank Temperature	103°C

Exhaust System	
Exhaust Gas Flow	114 m <sup>3</sup> /min
Exhaust Gas Temperature	487-507°C
Maximum Back Pressure	6.9 kPa
Exhaust Outlet Size (Internal).	202 mm

Induction System	
Maximum Air Intake Restriction	
- Clean Filter	3.7 kPa
- Dirty Filter	6.35 kPa
- Air Filter Type	Paper

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

Energy balance	
Energy to Coolant and Lubricating Oil	166-190kW
Energy to Exhaust	441-482 kW
Energy to Radiation	40-44kW

## Alternator Specification

General Data		60HZ/1800R.P.M	
Manufacture / Brand	Leroy-somer	Prime Output Power	529kW/661kVA
Model	LSA47.2L9	Standby Output Power	582kW/728kVA
AVR Model	R250	Insulation Class	H
Coupling / Bearing	Direct / Single Bearing	Voltage Regulation	± 0,5 %
Phase	3 Phase	Total harmonic TGH / THC no load <1.5% - on load <2%	
Power Factor	Cos ϕ = 0.8	Wave Form : NEMA = TIF - (*)	< 50
Winding Pitch - Code	2/3 - (N°6)	Wave Form : I.E.C. = THF - (*)	< 2 %
Drip Proof	IP 23	Altitude	≤ 1000 m
Excitation	Shunt	Overspeed	2250min-1

**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
		.	Low Oil Pressure Pre-Alarm & shutdown -	Oil Pressure
	0	High Water Temp. Pre-alarm & shutdown -	Genset Running Hours	
L / H	H	L	Volts, Current, Frequency, Rpm (Instruments)-	Battery Voltage and Charging
		/	Fuel Sensor as optional -	
		H	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.

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

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.

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

## CircuitBreaker

3PoleMCCB-Standard(4Poleasoptional)

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

## AutomaticTransferSwitch

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&WeatherProtective)

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

**Features:**

### ExtremelyRugged&

#### HighlyCorrosionResistantConstruction

- ▲Body made from 2.0mm sheet steel components with powder coating
- ▲8-12 hours built-in fuel tank integrated into the skid-mount base
- ▲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

### EasyCommissioningandMaintenance

- ▲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

### SecurityandSafety

- ▲Earth leakage protection
- ▲40-50mm non-flammable 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)

### Transportability

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

### Quiet(ReduceSoundandVibration)

**Noice Level:**

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