



GENUINE CUMMINS Engine: KTA38-G2 Electronic Governor	Alternator Leroy-somer LSA49.1M7	Generator Model:	TCN910X (Open)
	Optional: Stamford HCI634H Tide TPA404S3		TCN910XC (Silent)

60Hz 1800 r.p.m	3 Phase 4 Wires	Power Factor: Cos $\phi = 0.8$	Emissions Certification:	N/A
---------------------------	---------------------------	--	---------------------------------	-----

RATINGS	Prime Power		Standby Power		Rated Current
	(PRP)		(LTP)		
Voltage (V)	kW	kVA	kW	kVA	Amps
480/277	727	910	800	1000	1093.1
440/254	727	910	800	1000	1192.5
416/240	727	910	800	1000	1261.3
240/138	727	910	800	1000	2186.2
220/127	727	910	800	1000	2384.9

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
- ▲ 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 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
- ▲ Without Circuit breaker
- ▲ Without base fuel tank
- ▲ 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.

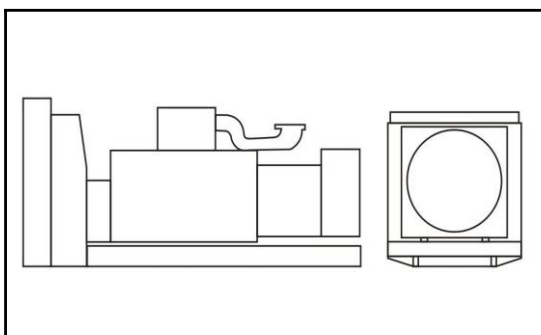
Optional

- △ 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

Overall Dimensions (mm) & Weight (kg)

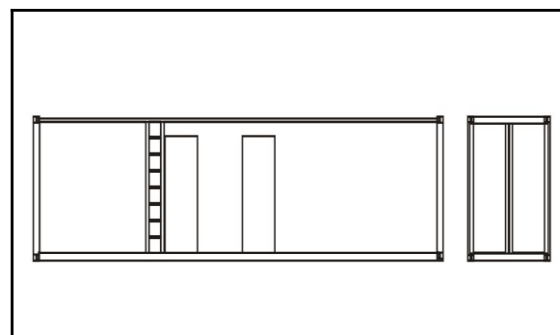
Open Type

Length:
4200
Width:
1700
Height:
2320
Weight:
9100



Silent Type

Length:
5900
Width:
2200
Height:
2360
Weight:
11600



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	Original Cummins	Oil Capacity (High - Low)	95-66 Litres
Engine Model	KTA38-G2	Maximum Oil Temperature	120°C
Engine Type	4 cycle, In-line, 6-cylinder	Total System Capacity	- Including Combo Filter 74-103 Litres
Engine Speed	1800 r.p.m	Fuel System	
Prime Power	809kW/1085hp	Type Injection System	Cummins HPI-PT
Standby Power	895kW/1200hp	Fuel Consumption at 100% Standby power	212 Litres/hour
Governor Type	Electronic	Fuel Consumption at 100% Prime power	189 Litres/hour
Aspiration	Turbocharged and Air to Air Aftercooled	Fuel Consumption at 75% Prime power	139 Litres/hour
Displacement	23.15L	Fuel Consumption at 50% Prime power	97 Litres/hour
Cylinder Bore * Stroke	170mm x 170mm	Fuel Consumption at 25% Prime power	56 Litres/hour
NO. of Cylinders	6	Fuel Tank Capacity	
Compression Ratio	16:1	- Open Type Genset	N/A
Engine Idle Speed	750 rpm	- Silent Type Gensets	N/A
Brake Mean Effective Pressure	2350 kPa	Cooling System	
Piston Speed	10.3 m/s	Coolant Capacity - Engine Only	46.5 Litres
Intake Air Flow	930 Litres/sec.	Standard Thermostat (Modulating) Range	76.5-90°C
Air Cleaner Type	Dry	Maximum Top Tank Temperature	
Exhaust System		- Standby Power	104°C
Exhaust Gas Flow	2773 Litres/sec.	- Prime Power	100°C
Exhaust Gas Temperature	467-514°C	Electric System	
Maximum Back Pressure	76.2 mm Hg	Electrical System Voltage	24V
Exhaust Pipe Size	N/A	Battery	Maintenance-free
Air Intake System		Connecting Cables	Available
Recommended intake piping size	N/A	Thermal	
Maximum Intake Air Restriction		Radiated Heat to Ambient	76-85 kW
- Dirty Element	635mm H ₂ O	Heat Rejection to Coolant	235-269 kW
- Clean Element	381mm H ₂ O	Heat Rejection to Exhaust	569-656 kW

Alternator Specification

General Data		60HZ/1800R.P.M	
Manufacture / Brand	Leroy-somer	Prime Output Power	749kW/936kVA
Model	LSA49.1M7	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	AREPorPMG	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 . 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.)

Circuit Breaker

3 Pole MCCB-Standard (4 Pole as optional)

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:

Extremely Rugged &

Highly Corrosion Resistant Construction

- ▲ Body made from 2.0mm sheet steel components with powder coating
- ▲ 8 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

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

Security and Safety

- ▲ 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 (Reduce Sound and Vibration)

Noice Level:

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