



Perkins Engine: 4012-46TAG3A Electronic Governor	Alternator Leroy-somer LSA50.2VL10	Generator Model:	TPE1700X (Open)
	Optional Stamford PI734C Tide TPA480GS1		TPE1700XC (Silent)

60Hz 1800 r.p.m	3 Phase 4 Wires	Power Factor: Cos $\Phi = 0.8$	Emissions Certification:	N/A
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RATINGS	Prime Power (PRP)		Standby Power (LTP)		Rated Current (A)
	kW	kVA	kW	kVA	Amps
Voltage (V)					
480/277	1360	1700	1500	1875	2044.8
440/254	1360	1700	1500	1875	2230.7
416/240	1360	1700	1500	1875	2359.4
240/138	1360	1700	1500	1875	4089.7
220/127	1360	1700	1500	1875	4461.5

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 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
- ▲ 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.

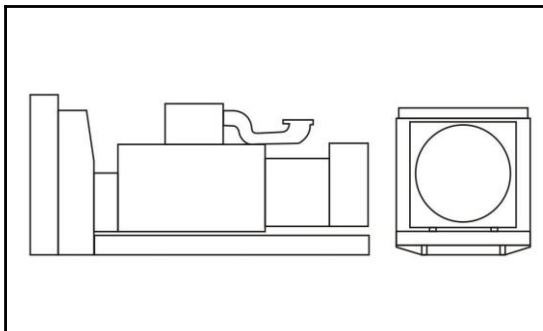
Optional

- △ 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 (kg)

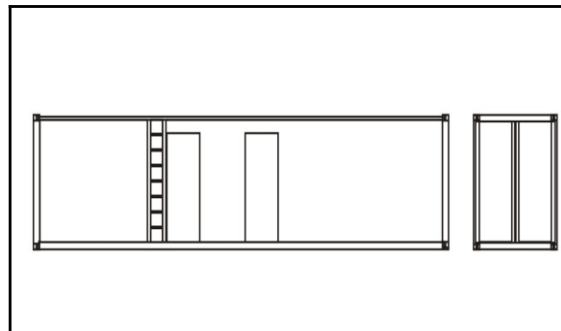
Open Type

Length:
4950
Width:
2150
Height:
2400
Weight:
10050



Silent Type

Length:
12192
Width:
2438
Height:
2896
Weight:
16500



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	177 Litres
Engine Model	4012-46TAG3A	Minimum Sump Capacity	136 Litres
Engine Type	4 stroke, Vee, 60°, 12-cylinder	Maximum sump capacity	159 Litres
Engine Speed	1800 r.p.m	Oil Temperature Max. Continuous Operation	105°C
Prime Power	1440kW/1931hp		
Standby Power	1583kW/2123hp		
Governor Type	Electronic		
Rotation	Anti-clockwise when Viewed on Flywheel		
Air Intake Way	Turbocharged		
Displacement	45.842L		
Cylinder Bore * Stroke	160mm × 190mm		
NO. of Cylinders	12		
Compression Ratio	13:1 Fuel		
Brake Mean Effective Pressure	2175-2383 kPa		
Combustion Air Flow	145 m ³ /min		
Engine coolant flow	1200 Litres/min		
Mean piston speed	9.5 m/s		

Exhaust System	
Exhaust Gas Flow	336 m ³ /min
Exhaust Gas Temperature	417-434°C
Maximum Back Pressure	5 kPa
Exhaust outlet flange size	2 × 254 mm Table D flanges

Induction System	
Maximum Air Intake Restriction	
- Clean Filter	2 kPa
- Dirty Filter	5 kPa
- Air Filter Type	Paper

Fuel System	
Type Of Injection	Direct Injection
Fuel Lift Pump-Delivery/hour	1224 Litres/hour
Fuel Consumption at 100% Standby power	405 Litres/hour
Fuel Consumption at 100% Prime power	370 Litres/hour
Fuel Consumption at 75% Prime power	275 Litres/hour
Fuel Consumption at 50% Prime power	187 Litres/hour
Tank Capacity	
- Open Type Genset	N/A
- Silent Type Gensets	N/A

Cooling System	
Total System Coolant Capacity	209 Litres
Engine Only	73 Litres
Maximum Pressure in Cooling Circuit	170 kPa
Thermostat Operation Range	71-85°C
Maximum Top Tank Temperature (Standby)	98 °C

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

Energy balance	
Energy to Coolant and Lubricating Oil	554-586kW
Energy to Exhaust	1160-1287 kW
Energy to Radiation	97-108kW

Alternator Specification

General Data		60HZ/1800R.P.M	
Manufacture / Brand	Leroy-somer	Prime Output Power	1428kW/1785kVA
Model	LSA50.2VL10	Standby Output Power	1572kW/1965kVA
AVR Model	R450	Insulation Class	H
Coupling / Bearing	Direct / Single Bearing	Voltage Regulation	± 0,5 %
Phase	3 Phase	Total harmonic TGH / THC	<3,5%
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	AREP or PMG	Overspeed	2250 min -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 L / H	L / H	0	High Water Temp. Pre-alarm & shutdown -	Genset Running Hours
		L	Volts, Current, Frequency, Rpm (Instruments)-	Battery Voltage and Charging
/	/	H	Fuel Sensor as optional -	
			AMF Module as optional -	
H	H		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

No MCCB - (A CB 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.



Containerized Enclosure / Canopy

(Sound-attenuated & Weather Protective)

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

Features:

Robust Container Design

- ▲ 20ft 40ft (HC also available) ISO footprint
- ▲ Container made from steel components with durable paint system
- ▲ Full banded steel floor and steel louvres
- ▲ Rugged surface - excellent corrosion & rust protection
- ▲ Long service life

Excellent Access for Maintenance

- ▲ Separate & Standing control cabinet at one side
- ▲ Walk around interior with access doors
- ▲ Fully bounded steel floor
- ▲ Anti-explosive light bulb

Transportability

- ▲ ISO shipping dimensioned container
- ▲ Lifting capability

Quiet (Reduce Sound and Vibration)

Noise Level:

≤ 85-88dBA at 1m

Security and Safety

- ▲ 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
- ▲ Fire extinguisher
- ▲ Exhaust silencing system enclosed for operator safety (residential silencer included)
- ▲ Excellent cooling system to avoid high water temp., reliable operation under harshest conditions.
- ▲ (Ambient temp. upto 40-52°C and altitudes up to 1000M)

Optional

- △ Sockets
 - △ Floor Standing MCCB/ACB (> 1250Amp)
 - △ Interior Separate fuel tank volume (100–2000L/depends)
 - △ Automatic fuel fill-in & cut off system
 - △ Exterior Separate fuel tank volume
- (No limitation, shipped by separate container.)

Please consult actual dimension & weight & freight cost.