

Technical Specification PGPLS150

Generator Set Ratings

60Hz/1800 r.p.m-P.F.0.8					Prime Power	Standby Power	Rated Current
Genset	Engine	Alternator	Voltage (V)	PH	kW/kVA	kW/kVA	Amps
PGPLS150	1106A-70TAG2	LSA44.3L10 UCI274E TPA274S4	220/127	3	135/169	150/188	442.9
		LSA44.3L10 UCI274E TPA274S4	230/132	3	135/169	150/188	423.6

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.

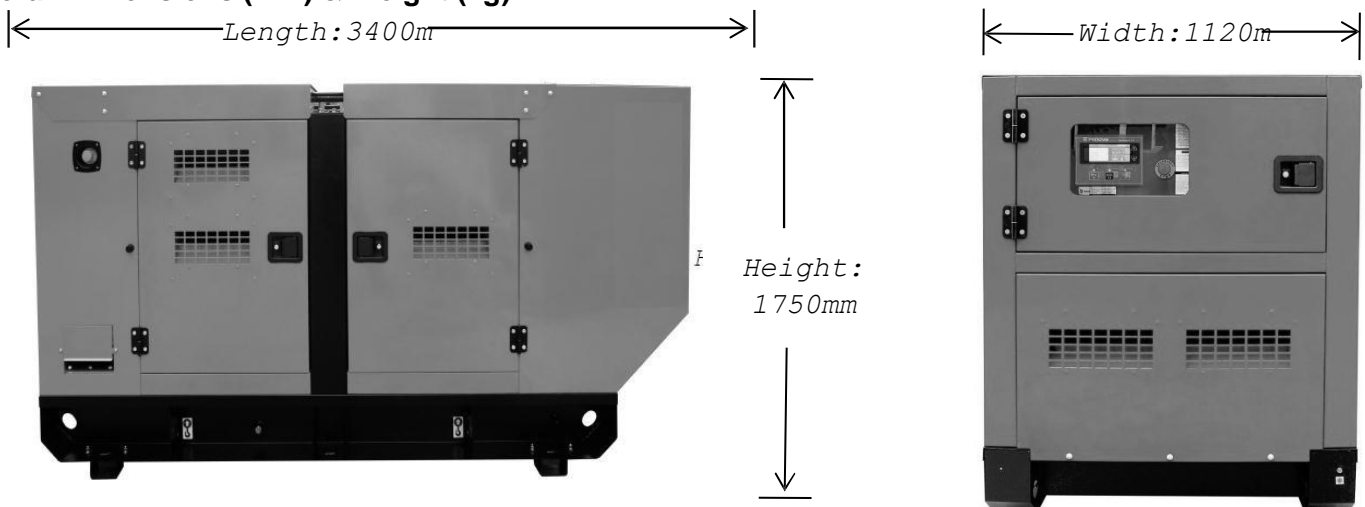
Prime Power:

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.

Overall Dimensions (mm) & Weight (kg)



Weight (kg) : 2450



Standard and Optional Accessories

Air Intake System	<ul style="list-style-type: none">● Standard air filter● Air filter overload alarm	<ul style="list-style-type: none">○ Air prefilter○ Heavy air filter
Cooling System	<ul style="list-style-type: none">● 50°C radiator● Low water level alarm ①● Fan and belt guard● Discharge valve	<ul style="list-style-type: none">○ Antifreeze○ Water jacket heater
Exhaust System	<ul style="list-style-type: none">● Stainless steel bellow● Residential silencer● Complete exhaust pipe● Rain cap	<ul style="list-style-type: none">○ Stainless steel silencer○ Stainless steel exhaust pipe
Fuel System	<ul style="list-style-type: none">● 8 Hours integrated base fuel tank● Standard fuel filter● Fuel level gauge● Fuel filling cap● Fuel hose	<ul style="list-style-type: none">○ 6 Hours double wall base fuel tank○ Fuel-water separator○ Oil level sensor ② ③○ Automatic fuel top up system ②
Lubrication System	<ul style="list-style-type: none">● Standard oil filter● Manual oil pump and drain	<ul style="list-style-type: none">○ Oil heater○ Lube oil level indicator○ Oil temperature indicator ②
Alternator and Electric Switch	<ul style="list-style-type: none">● Shunt or self excited● Class H insulation● H class temperature rise● DELIXI MCCB● Terminal connection lugs (L1, L2, L3, LN)	<ul style="list-style-type: none">○ PMG or AREP (Leroy-somer only)○ Alternator space heaters○ PT100 winding temperature sensors○ Weaver AVR○ Weaver prolapse transformer<ul style="list-style-type: none">○ F class temperature rise○ 4 Pole circuit breaker with leakage protection○ Circuit breaker - 4 pole<ul style="list-style-type: none">○ ABB MCCB○ MCCB auxiliary contact and shunt tripping device○ Panel lighting
Control System	<ul style="list-style-type: none">● Intelligent 1.0 for 4 cylinders engine● Intelligent 3.0 for 6 cylinders engine● Intelligent 5.0 for ECU engine	
Silent / Base	<ul style="list-style-type: none">● 67-72 db(A) @ 3 meters● 4mm -6mm Steel base● Transportation support leg● Single hook● Power coating enclosure● Anti-vibration mounting between engine /alternator and baseframe● Emergency stop mounted outside the canopy● Standard color: Ral 3020	<ul style="list-style-type: none">○ Forklift holes○ Enclosure color:○ Trailer for off road or on road
Start / Charge	<ul style="list-style-type: none">● Battery with bracket and cables● Engine battery charger	<ul style="list-style-type: none">● 3A Mains charger



Low temperature
starting batteries
Battery switch
High current
charger (10A, 20A)



Engine

Engine specifications		Lubrication system	
Manufacture	Perkins	Total Lubrication system capacity	16.5 Litre
Engine model	1106A-70TAG2	Minimum sump capacity	12.4 Litre
Engine type	4 stroke, In-line, 6-cylinder	Maximum sump capacity	14.9 Litre
Engine speed	1800 r.p.m	Max continuous oil temperature	125°C
Prime power	147 kW	Fuel system	
Standby power	164 kW	Type of injection	Direct injection
Governor type	Mechanical	Fuel consumption at 100% standby power	41.7 Litres/hour
Air intake way	Turbocharged and air charge cooled	Fuel consumption at 100% prime power	38.2 Litres/hour
Displacement	7.01	Fuel consumption at 75% prime power	29.1 Litres/hour
Cylinder bore * stroke	105mm x 135mm	Fuel consumption at 50% prime power	19.1 Litres/hour
NO. of cylinders	6	Fuel consumption at 25% prime power	11 Litres/hour
Compression ratio	16:1	Fuel tank capacity	8 hours
Brake mean effective pressure	1477.9-1633.9 kPa	Cooling system	
Mean piston speed	8.1 m/s	Total system capacity	21 Litres
Combustion air flow	15.12 m ³ /min	- Engine capacity	9.5 Litre
Engine coolant flow	170 Litres/min	Thermostat operation range	82-93 °C
Exhaust system		Maximum top tank temperature	110°C
Exhaust gas flow	31.87 m ³ /min	Shutdown switch setting	118°C
Exhaust gas temperature	407 °C	Electric system	
Maximum back pressure	6 kPa	Electrical system voltage	12 V
Aftertreatment exhaust outlet connection	72 mm	Battery	Maintenance-free
Air intake system		Connecting cables	Available
Maximum air intake restriction		Energy balance	
- Clean filter	2 kPa	Energy to coolant and lubricating oil	75.3-81.6 kW
- Dirty filter	3 kPa	Energy to exhaust	113.9-123.2 kW
- Air filter type	Paper element	Energy to radiation	11.3-12.3 kW

Alternator

60Hz/1800R.P.M

General data		Insulation class		H
Power factor	Cos φ = 0.8	Bearing	Single	
Excitation	Shunt / Brushless	Altitude	≤	1000 m

Ratings						Prime Power	Standby Power
Brand	Alternator	Number of wires	AVR Model	PH	Voltage (V)	kW/kVA	kW/kVA
Leroy-somer	LSA44.3L10		R250			138/172	151/189
Stamford	UCI274E	12	AS440	3	220/127	134/167.5	
Leroy-somer	LSA44.3L10		R250			144/180	158/198
Stamford	UCI274E	12	AS440	3	230/132	134/167.5	



ControlSystem



Intelligent
1.0



Intelligent
3.0



Intelligent
5.0

Viewable parameters	Phase voltage	3	3	3
	Wire voltage	3	3	3
	Current	Instrument	3	3
	Frequency	●	●	●
	Active power	×	●	●
	Reactive power	×	●	●
	Apparent power	×	●	●
	Power factor	×	●	●
Generator protection	Electric energy metering	×	×	●
	Abnormal voltage	●	●	●
	Over-current warning	×	●	● Over
	current protection	×	●	● Over
	Frequency protection	●	●	● Short
Engine figure	circuit protection	MCCB	MCCB+○	MCCB+○
	Oil pressure	●	●	●
	Water temperature	●	●	●
	Fuel level	○	○	○
	Speed	●	●	●
	Battery voltage	●	●	●
Engine protection	Elapsed time	●	●	● Low
	oil pressure warning	●	●	● Low oil
	pressure protection	●	●	● High
	temperature warning	●	●	●
	High temperature protection	●	●	●
	Overspeed warning	●	●	●
	Overspeed protection	●	●	●
Function	Charge fault	●	●	●
	Remote start-stop	●	●	●
	AMF	●	●	●
	Programmable input	3	7	7
	Programmable output	6	7	7
	Port extension	USB	○	○
	Remote monitoring	×	○	○
	Communication port	×	○	○ CAN
	● ○ ● Start/Stop time control			×
	×	● Maintenance tips	×	×

Controller

StandardParameters

- Gen phase voltage
- Generator frequency
- Engine speed
- Battery voltage
- Engine running hours cou
- Engine temperature
- Oil pressure



WarningandShutdownAlarms

- Low oil pressure
- High engine temperature
- Over speed
- Under speed
- Start failure
- Stop failure
- Emergency stop
 - High/low battery voltage
 - Aux. shutdown alarm
 - Aux. Warning