

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
PGPLS132	1106A-70TG1	LSA 46.2 L6 UCDI274J TPA274L9	240 (220-240)	1	120/150	132/165	625.0
		LSA44.3L10 UCI274E TPA274S4	380/220	3	120/150	132/165	227.9
		LSA44.3L10 UCI274E TPA274S4	208/120	3	120/150	132/165	416.4
		LSA44.3M8 UCI274E TPA274S4	220/127	3	120/150	132/165	393.7
		LSA44.3M6 UCI274E TPA274S4	230/132	3	120/150	132/165	376.5
		LSA44.3M6 UCI274E TPA274VS3	480/277	3	120/150	132/165	180.4

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.

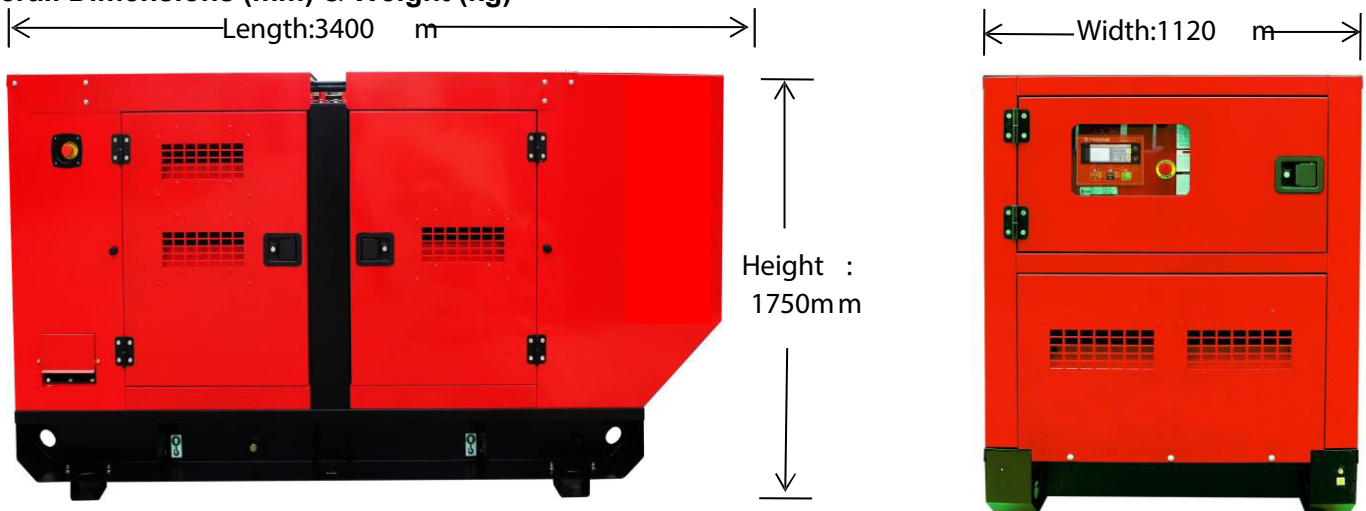
Prime Power:

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

System	Standard ●	Optional ○
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 ○ F class temperature rise ○ 4 Pole circuit breaker with leakage protection ○ Circuit breaker - 4 pole ○ ABB MCCB ○ MCCB auxiliary contact and shunt tripping device
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 	<ul style="list-style-type: none"> ○ Panel lighting
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 ● 3A Mains charger 	<ul style="list-style-type: none"> Low temperature starting batteries Battery switch High current charger (10A, 20A)

Remark:

- ① Not available for Perkins 400 series engines
- ② When you need the automatic oil top up system, you have to use the electrical oil level sensor.
- ③ You can choose either electrical oil level sensor or oil temperature sensor.

Engine

Engine specifications		Lubrication system	
Manufacture	Perkins	Total Lubrication system capacity	16.5 Litres
Engine model	1106A-70TG1	Minimum sump capacity	12.4 Litres
Engine type	4 stroke, In-line, 6-cylinder	Maximum sump capacity	14.9 Litres
Engine speed	1800 r.p.m	Max continuous oil temperature	125°C
Prime power	134 kW	Fuel system	
Standby power	148 kW	Type of injection	Direct injection
Governor type	Mechanical	Fuel consumption at 100% standby power	38.8 Litres/hour
Air intake way	Turbocharged	Fuel consumption at 100% prime power	35.2 Litres/hour
Displacement	7.01L	Fuel consumption at 75% prime power	26.0 Litres/hour
Cylinder bore * stroke	105mm x 135mm	Fuel consumption at 50% prime power	17.5 Litres/hour
NO. of cylinders	6	Fuel consumption at 25% prime power	10.3 Litres/hour
Compression ratio	18.2: 1	Fuel tank capacity	8 hours
Brake mean effective pressure	1336.2-1477.9 kPa	Cooling system	
Mean piston speed	8.1 m/s	Total system capacity	21 Litres
Combustion air flow	10.95 m ³ /min	- Engine capacity	9.5 Litres
Engine coolant flow	170 Litres/min	Thermostat operation range	82-93 °C
Exhaust system		Maximum top tank temperature	110°C
Exhaust gas flow	27.16 m ³ /min	Shutdown switch setting	118°C
Exhaust gas temperature	526 °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	5 kPa	Energy to coolant and lubricating oil	84.2—92 kW
- Dirty filter	8 kPa	Energy to exhaust	113.6-124.5 kW
- Air filter type	Paper element	Energy to radiation	13.7-14.9 kW

Alternator

60Hz/1800R.P.M

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

Ratings

Brand	Alternator	Number of wires	AVR Model	PH	Voltage (V)	Prime Power	Standby Power
						kW/kVA	kW/kVA
Leroy-somer	LSA 46.2 L6	12	R250	1	240 (220-240)	138/173	154/192
Stamford	UCDI274J		AS440			128.8/161	N/A
Tide	TPA274L9		SX460			125.6/157	135/169
Leroy-somer	LSA44.3L10	12	R250	3	380/220	118/148	130/163
Stamford	UCI274E		AS440			128/160	140/175
Tide	TPA274S4		SX460			120/150	132/165
Leroy-somer	LSA44.3L10	12	R250	3	208/120	130/163	143/179
Stamford	UCI274E		AS440			128/160	140/175
Tide	TPA274S4		SX460			128//160	138/172.5
Leroy-somer	LSA44.3M8	12	R250	3	220/127	124/155	136/170
Stamford	UCI274E		AS440			134/167.5	145/181.3
Tide	TPA274S4		SX460			134/167.5	143/179
Leroy-somer	LSA44.3M6	12	R250	3	230/132	120/150	132/165
Stamford	UCI274E		AS440			134/167.5	145/181.3
Tide	TPA274S4		SX460			134/167.5	143/179
Leroy-somer	LSA44.3M6	12	R250	3	480/277	125/156	138/172
Stamford	UCI274E		AS440			143/178.8	155/193.8
Tide	TPA274VS3		SX460			124/155	133/166

ControlSystem



Intelligent

Intelligent

Intelligent

1.0

3.0

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	×	●	●
	Electric energy metering	×	×	●
Generator protection	Abnormal voltage	●	●	●
	Over-current warning	×	●	●
	Over current protection	×	●	●
	Over Frequency protection	●	●	●
	Short circuit protection	MCCB	MCCB+○	MCCB+○
Engine figure	Oil pressure	●	●	●
	Water temperature	●	●	●
	Fuel level	○	○	○
	Speed	●	●	●
	Battery voltage	●	●	●
	Elapsed time	●	●	●
Engine protection	Low oil pressure warning	●	●	●
	Low oil pressure protection	●	●	●
	High temperature warning	●	●	●
	High temperature protection	●	●	●
	Overspeed warning	●	●	●
	Overspeed protection	●	●	●
	Charge fault	●	●	●
Function	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	×	×	●
	Fault record	×	×	●
Multi-language function	×	●	●	

Remark: ● Standard

○ Optional

× NA

(Safety Installation: Detect - Control – Switch System)

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. The system has a wide application such as hospital, bank, telecom, air port, broadcasting station and hotels.

System Advantages

- Automatically transfer and re-transfer load from main power to gen-power without operator intervention.operation. (Both automatic and manual)
- ATS Controller (AMF function), seamless integration with Intelligent 5.0
- Available from 32 – 3200A, better protection for 4 pole switch.
- Available in standard, bypass isolation and service-entrance configurations.
- Configurable in open, closed and programmed transition operating modes.
- Designed to interface seamlessly with POWERGEN generators and switchgear.
- Drip Proof IP23 Enclosure.
- Easy Installation: Wall-mounted & Floor standing
- Comes fully loaded with the technology to do the job.



Rated Current	Breaker Type			
	A	Chinese	ABB	Socomec
32	x		B	x
63	A		B	B
80	x		x	B
100	A		B	B
125	x		B	B
160	B		B	B
200	x		B	x
250	C		B	B
300	x		x	x
315	x		C	x
400	C		C	C
630	C		D	D
800	D		D	D
1000	D		D	D
1250	D		D	D
1600	D		D	E
2000	E		E	E
2500	E		E	E
3200	E		x	E

Dimensions : mm

A: 400x200x500

B: 500x300x650

C: 600x400x1200

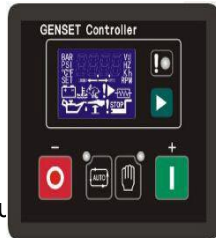
D: 800x600x1400

E: 1000x800x1600

Controller

StandardParameters

- Gen phase voltage
- Generator frequency
- Engine speed
- Battery voltage
- Engine running hours counter
- 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