PGPLS80KW

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**
PGPLS80	1104A-44TG2	LSA 44.3 L10 UCI274E TPA274S4	240 （220-240）	1	72/90	80/100	375.0
		LSA44.3S4 UCI224G TPA224L6	380/220	3	72/90	80/100	136.7
		LSA44.3S4 UCI224G TPA224L5	208/120	3	72/90	80/100	249.8
		LSA44.3S3 UCI224G TPA224L5	220/127	3	72/90	80/100	236.2
		LSA44.3S3 UCI224G TPA224L5	230/132	3	72/90	80/100	225.9
		LSA44.3S3 UCI224F TPA224M4	480/277	3	72/90	80/100	108.3

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.

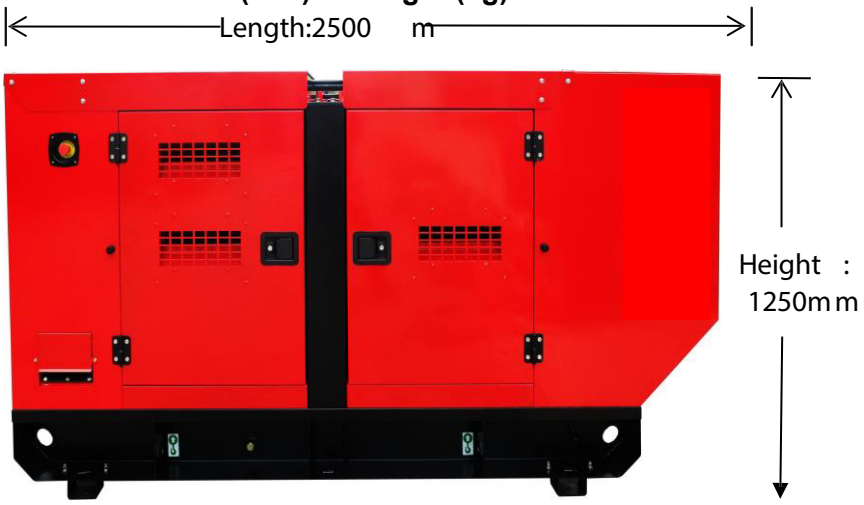
Prime Power:

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℃.

Overall Dimensions (mm) & Weight (kg)



Weight (kg)：1300

Standard and Optional Accessories

System	Standard ●	Optional ○
Air Intake System	● Standard air filter ● Air filter overload alarm	○ Air prefilter ○ Heavy air filter
Cooling System	● 50℃ radiator ● Low water level alarm ① ● Fan and belt guard ● Discharge valve	○ Antifreeze ○ Water jacket heater
Exhaust System	● Stainless steel bellow ● Residential silencer ● Complete exhaust pipe ● Rain cap	○ Stainless steel silencer ○ Stainless steel exhaust pipe
Fuel System	● 8 Hours integrated base fuel tank ● Standard fuel filter ● Fuel level gauge ● Fuel filling cap ● Fuel hose	○ 6 Hours double wall base fuel tank ○ Fuel-water separator ○ Oil level sensor ② ③ ○ Automatic fuel top up system ②
Lubrication System	● Standard oil filter ● Manual oil pump and drain	○ Oil heater ○ Lube oil level indicator ○ Oil temperature indicator ②
Alternator and Electric Switch	● Shunt or self excited ● Class H insulation ● H class temperature rise ● DELIXI MCCB ● Terminal connection lugs (L1, L2, L3, LN)	○ 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	● Intelligent 1.0 for 4 cylinders engine ● Intelligent 3.0 for 6 cylinders engine ● Intelligent 5.0 for ECU engine	○ Panel lighting
Silent / Base	● 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	○ Forklift holes ○ Enclosure color: ○ Trailer for off road or on road
Start / Charge	● Battery with bracket and cables ● Engine battery charger ● 3A Mains charger	Low temperature starting batteries Battery swtich 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	
Manufacture	Perkins
Engine model	1104A-44TG2
Engine type	4 stroke, Vertical in-line, 4-cylinder
Engine speed	1800 r.p.m
Prime power	82 kW
Standby power	90 kW
Governor type	Mechnical
Air intake way	Turbocharged
Displacement	4.4 L
Cylinder bore * stroke	105mm × 127mm
NO. of cylinders	4
Compression ratio	17.25:1
Brake mean effective pressure	1280-1409 kPa
Mean piston speed	7.62 m/s
Combustion air flow	6.5 m³/min
Engine coolant flow	170 Litres/min
Exhaust system	
Exhaust gas flow	15.85 m³/min
Exhaust gas temperature	535-560℃
Maximum back pressure	15 kPa
Exhaust outlet size	64 mm
Air intake system	
Maximum air intake restriction	
- Clean filter	5 kPa
- Dirty filter	8 kPa
- Air filter type	Dry

Lubrication system	
Total Lubrication system capacity	8.0 Litres
Minimum sump capacity	5.5 Litres
Maximum sump capacity	7.0 Litres
Max continuous oil temperature	125℃
Fuel system	
Type of injection	Direct injection
Fuel lift pump-flow/hour	120 - 150 Litres/hour
Fuel consumption at 100% standby power	24.4 Litres/hour
Fuel consumption at 100% prime power	22.3 Litres/hour
Fuel consumption at 75% prime power	16.9 Litres/hour
Fuel consumption at 50% prime power	11.9 Litres/hour
Fuel tank capacity	8-12 hours
Cooling system	
Total system capacity	
- With radiator	13.0 Litres
- Without radiator	7.0 Litres
Thermostat operation range	82-93 ℃
Maximum top tank temperature	110℃
Electric system	
Electrical system voltage	12 V
Battery	Maintenance-free
Connecting cables	Auailable
Energy balance	
Energy to coolant and lubricating oil	53-57 kW
Energy to exhaust	68-71 kW
Energy to radiation	14-15kW

Alternator

60Hz/1800R.P.M

General data	
Power factor	Cosϕ = 0.8
Excitation	Shunt / Brushless

Insulation class	H
Bearing	Single
Altitude	⩽ 1000 m

Ratings

Brand	Alternator	Number of wires	AVR Model	PH	Voltage（V）	***Prime Power*** kW/kVA	***Standby Power*** kW/kVA
Leroy-somer	LSA 44.3 L10	12	R250	1	240（220-240）	76/95	84/105
Stamford	UCI274E		AS440			76.8/96	N/A
Tide	TPA274S4		SX460			78.4/98	86/107.5
Leroy-somer	LSA44.3S4	12	R250	3	380/220	71/89	78/98
Stamford	UCI224G		AS440			80/100	85/106.3
Tide	TPA224L6		SX460			72/90	79/99
Leroy-somer	LSA44.3S4	12	R250	3	208/120	78/98	86/107
Stamford	UCI224G		AS440			75/93.8	81/101.3
Tide	TPA224L5		SX460			71/89	77/96
Leroy-somer	LSA44.3S3	12	R250	3	220/127	74/92	81/101
Stamford	UCI224G		AS440			78/97.5	85/106.3
Tide	TPA224L5		SX460			75/94	80/100
Leroy-somer	LSA44.3S3	12	R250	3	230/132	77/96	84/105
Stamford	UCI224G		AS440			80/100	85/106.3
Tide	TPA224L5		SX460			75/94	80/100
Leroy-somer	LSA44.3S3	12	R250	3	480/277	80/100	88/110
Stamford	UCI224F		AS440			75/93.8	82/102.5
Tide	TPA224M4		SX460			75/94	80/100

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	×	●	●
	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

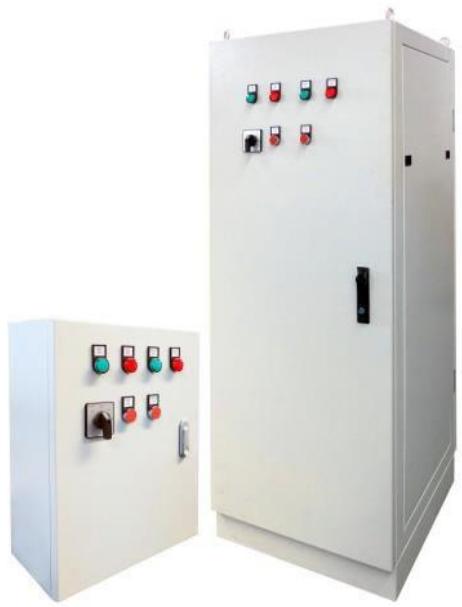
Automatic Transfer Switch *A.T.S - 4 Poles*

(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	×	B	×
63	A	B	B
80	×	×	B
100	A	B	B
125	×	B	B
160	B	B	B
200	×	B	×
250	C	B	B
300	×	×	×
315	×	C	×
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	×	E

Dimensions : mm

A：400×200×500　　B：500×300×650
C：600×400×1200　　D：800×600×1400
E：1000×800×1600

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