

60Hz/1800 r.p.m-P.F.0.8					Prime Power	Standby Power	Standby Current
Genset	Engine	Alternator	Voltage (V)	PH	kW/kVA	kW/kVA	Amps
PGCLS600	KTAA19-G6A	LSA49.1M6 HCI544F FPA35-5006	380/220	3	N/A	600/750	1139.5
		LSA49.1M5 HCI544F FPA35-4805	208/120	3	N/A	600/750	2081.9
		LSA49.1M5 HCI544E FPA35-4805	220/127	3	N/A	600/750	1968.3
		LSA47.2L9 HCI544E FPA35-4805	230/132	3	N/A	600/750	1882.7
		LSA47.2L9 HCI544E FPA35-4805	480/277	3	N/A	600/750	902.1

**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.

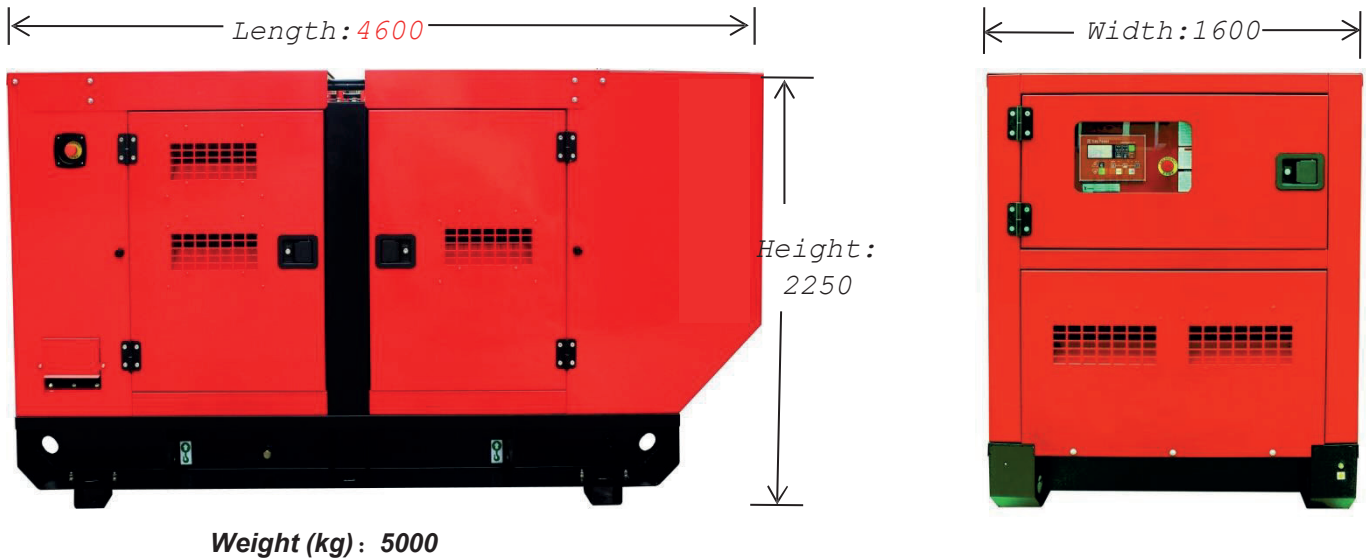
**Prime Power:**

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)**



## Standard and optional accessories

System	Standard ●	Optional ○
<b>Air Intake System</b>	<ul style="list-style-type: none"> <li>● Standard air filter</li> <li>● Air filter overload alarm</li> </ul>	<ul style="list-style-type: none"> <li>○ Air prefilter</li> <li>○ Heavy air filter</li> </ul>
<b>Cooling System</b>	<ul style="list-style-type: none"> <li>● 50°C radiator</li> <li>● Low water level alarm</li> <li>● Fan and belt guard</li> <li>● Discharge valve</li> </ul>	<ul style="list-style-type: none"> <li>○ Antifreeze</li> <li>○ Water jacket heater</li> </ul>
<b>Exhaust System</b>	<ul style="list-style-type: none"> <li>● Stainless steel bellow</li> <li>● Residential silencer</li> <li>● Complete exhaust pipe</li> <li>● Rain cap</li> </ul>	<ul style="list-style-type: none"> <li>○ Stainless steel silencer</li> <li>○ Stainless steel exhaust pipe</li> </ul>
<b>Fuel System</b>	<ul style="list-style-type: none"> <li>● 8 Hours integrated base fuel tank</li> <li>● Standard fuel filter</li> <li>● Fuel level gauge</li> <li>● Fuel filling cap</li> <li>● Fuel hose</li> </ul>	<ul style="list-style-type: none"> <li>○ 6 Hours double wall base fuel tank</li> <li>○ Fuel-water separator</li> <li>○ Oil level sensor ① ②</li> <li>○ Automatic fuel top up system ①</li> </ul>
<b>Lubrication System</b>	<ul style="list-style-type: none"> <li>● Standard oil filter</li> <li>● Manual oil pump and drain</li> </ul>	<ul style="list-style-type: none"> <li>○ Oil heater</li> <li>○ Lube oil level indicator</li> <li>○ Oil temperature indicator ①</li> </ul>
<b>Alternator and Electric Switch</b>	<ul style="list-style-type: none"> <li>● Shunt or self excited</li> <li>● Class H insulation</li> <li>● H class temperature rise</li> <li>● DELIXI MCCB</li> <li>● Terminal connection lugs (L1, L2, L3, LN)</li> </ul>	<ul style="list-style-type: none"> <li>○ PMG or AREP (Leroy-Somer only)</li> <li>○ Alternator space heaters</li> <li>○ PT100 winding temperature sensors</li> <li>○ Weaver AVR</li> <li>○ Weaver prolapse transformer</li> <li>○ F class temperature rise</li> <li>○ 4 Pole circuit breaker with leakage protection</li> <li>○ Circuit breaker - 4 pole</li> <li>○ ABB MCCB</li> <li>○ MCCB auxiliary contact and shunt tripping device</li> </ul>
<b>Control System</b>	<ul style="list-style-type: none"> <li>● Comap Nano Plus for 4 cylinders engine</li> <li>● Comap IntelliLite AMF20 for 6 cylinders or ECU engine</li> </ul>	<ul style="list-style-type: none"> <li>○ Panel lighting</li> </ul>
<b>Silent / Base</b>	<ul style="list-style-type: none"> <li>● 67-72 db(A) @ 3 meters</li> <li>● 4mm -6mm Steel base</li> <li>● Transportation support leg</li> <li>● Single hook</li> <li>● Power coating enclosure</li> <li>● Anti-vibration mounting between engine /alternator and baseframe</li> <li>● Emergency stop mounted outside the canopy</li> <li>● Standard color: Ral 3020</li> </ul>	<ul style="list-style-type: none"> <li>○ Forklift holes</li> <li>○ Enclosure color:</li> <li>○ Trailer for off road or on road</li> </ul>
<b>Start / Charge</b>	<ul style="list-style-type: none"> <li>● Battery with bracket and cables</li> <li>● Engine battery charger</li> <li>● 3A Mains charger</li> </ul>	<ul style="list-style-type: none"> <li>Low temperature starting batteries</li> <li>Battery switch</li> <li>High current charger (10A, 20A)</li> </ul>

### Remark:

- ① When you need the automatic oil top up system, you have to use the electrical oil level sensor.
- ② You can choose either electrical oil level sensor or oil temperature sensor.

## Engine

Engine specifications		Lubrication System	
Manufacture	CCEC Cummins	Oil capacity (high - low)	38-32 Litres
Engine model	KTAA19-G6A	Maximum allowable oil temperature	121 °C
Engine type	4 cycle, in-line, 6-cylinder	Total System Capacity	
Engine speed	1800 r.p.m	- Sump plus filters	50 Litres
Prime power	N/A	Fuel System	
Standby power	664kW/890hp	Type injection system	Direct injection cummins PT
Governor type	Electronic	Minimum Allowable Fuel Tank Vent Capabili	425 Litres/hour
Aspiration:	Turbocharged and air to air aftercooled	Fuel consumption at 100% standby power	161 Litres/hour
Displacement	19 L	Fuel consumption at 100% prime power	140 Litres/hour
Bore * Stroke	159mm x 159mm	Fuel consumption at 75% prime power	106.5 Litres/hour
NO. of cylinders	6	Fuel consumption at 50% prime power	73.3 Litres/hour
Compression ratio	13.9:1	Fuel consumption at 25% prime power	41.2 Litres/hour
Brake mean effective pressure	725-775 r/min	Fuel tank capacity	6 hours
Piston speed	9.5 m/s	Cooling System	
Firing order	1- 5-3 -6 -2 -4	Coolant capacity - engine only	30 Litres
Noise level @7m	78 dBA	Standard thermostat (modulating) range	82 - 93 °C
Exhaust System		Maximum allowable top tank temperature	
Maximum back pressure	10 kPa	- Standby power	104 °C
Exhaust pipe size normally acceptable	127 mm	- Prime power	100 °C
Exhaust gas temperature	502 °C	Electric System	
Exhaust gas flow	2657 Litres/sec.	Electrical system voltage	24V
Air Intake System		Battery	Maintenance-free
Maximum intake air restriction with heavy duty air cleaner		Connecting cables	Available
- Dirty element	6.23 kPa	Thermal Data	
- Clean element	3.73 kPa	Radiated heat to ambient	76 kW
Recommended intake piping size	N/A	Heat rejection to coolant	479 kW
Intake air flow	968 Litres/sec.	Heat rejection to exhaust	376 kW

## Alternator

60Hz/1800R.P.M

General Data		Insulation class	
Power factor	Cos $\phi$ = 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	LSA49.1M6	6	R450			624/780	655/819
Stamford	HCI544F	12	AS440	3	380/220	660/825	700/875
Tide	FPA35-5006	6	SX440			550/688	605/756
Leroy-Somer	LSA49.1M5		R450			632/790	664/830
Stamford	HCI544F	12	AS440	3	208/120	590/738	625/781
Tide	FPA35-4805		SX440			576/720	634/793
Leroy-Somer	LSA49.1M5		R450			664/830	698/872
Stamford	HCI544E	12	AS440	3	220/127	570/713	600/750
Tide	FPA35-4805		SX440			576/720	634/793
Leroy-Somer	LSA47.2L9		R250			574/717	600/750
Stamford	HCI544E	12	AS440	3	230/132	585/731	624/780
Tide	FPA35-4805		SX440			576/720	634/793
Leroy-Somer	LSA47.2L9	6	R250			600/750	624/780
Stamford	HCI544E	12	AS440	3	480/277	600/750	640/800
Tide	FPA35-4805	6	SX440			576/720	634/793



Comap Nano Plus

Comap IntelliLite

Comap IntelliLite AMF25

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+O	MCCB+O
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, airport, 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
80	x		x	B
100		A		B
125	x		B	B
160		B		B
200	x		B	x
250		C		B
300	x		x	x
315	x		C	x
400		C		C
630		C		D
800		D		D
1000		D		D
1250		D		D
1600		D		E
2000		E		E
2500		E		E
3200		E		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 count
- 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