PGCLS400

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**
PGCLS400	KTA19-G2	SA47.2S4 HCI444F FPA31-3208	380/220	3	350/438	400/500	664.7
		LSA47.2VS2 HCI444FS FPA31-3007	208/120	3	350/438	400/500	1214.4
		LSA47.2VS2 HCI444FS FPA31-3007	220/127	3	350/438	400/500	1148.2
		LSA47.2VS2 HCI444E FPA31-3007	230/132	3	350/438	400/500	1098.3
		LSA47.2VS2 HCI444E FPA31-3007	480/277	3	350/438	400/500	526.2

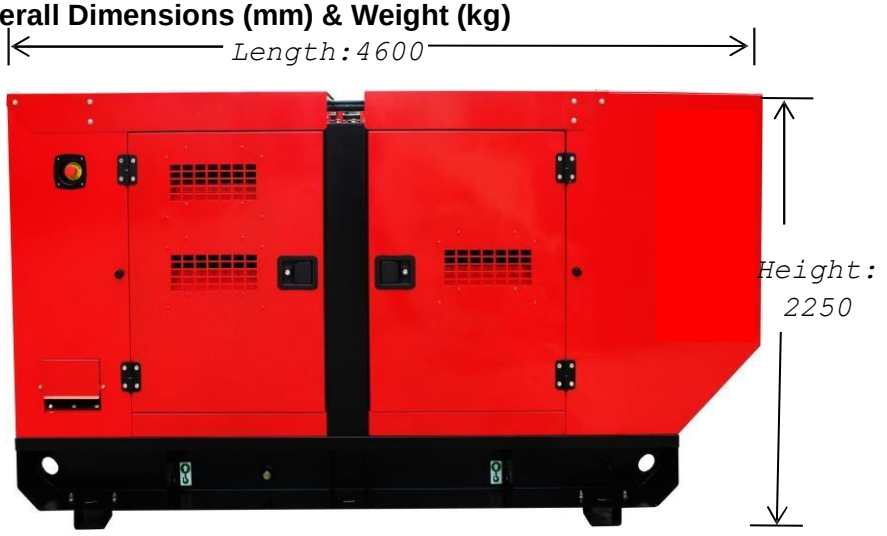
Ratings: All three Phase generator sets are rated at 0.8 power factor. All single-phase generator sets are rated at 0.8 or 1.0 power factor. POWERGEN reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

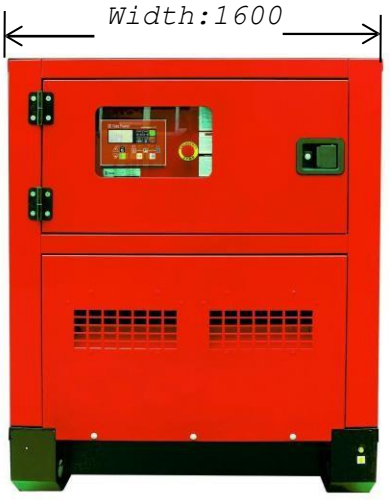
Prime Power:
Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year in accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

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) : ***5000***

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 ● Fan and belt guard	○ Antifreeze ○ Water jacket heater
Exhaust System	● Discharge valve ● 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 ① ② ○ Automatic fuel top-up system ①
Lubrication System	● Standard oil filter ● Manual oil pump and drain	○ Oil heater ○ Lube oil level indicator ○ Oil temperature indicator ①
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	● Comap Nano Plus for 4 cylinders engine ● Comap InteliLite AMF20 for 6 cylinders or 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	○ Forklift holes ○ Enclosure color: ○ Trailer for off road or on road
Start / Charge	● Standard color: Ral 3020 ● Battery with bracket and cables ● Engine battery charger ● 3A Mains charger	Low temperature starting batteries Battery swtich High current charger（10A，20A）

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

Manufacture	CCEC Cummins
Engine model	KTA19-G2
Engine type	4 cycle, in-line, 6-cylinder
Engine speed	1800 r.p.m
Prime power	392kW/525hp
Standby power	448kW/600hp
Governor type	Electronic
Aspiration:	Turbocharged & Aftercooled
Displacement	18.9 L
Bore * Stroke	159mm × 159mm
NO. of cylinders	6
Compression ratio	13.9:1
Brake mean effective pressure	675-775 r/min
Piston speed	9.5 m/s
Firing order	1- 5-3 -6 -2 -4
Noise level @7m	78 dBA

Exhaust System

Maximum back pressure	10 kPa
Exhaust pipe size normally acceptable	127 mm
Exhaust gas temperature	493-513 ℃
Exhaust gas flow	1543 Litres/sec.

Air Intake System

Maximum intake air restriction with heavy duty air cleaner	
- Dirty element	6.23 kPa
- Clean element	3.73 kPa
Recommended intake piping size	N/A
Intake air flow	581 Litres/sec.

Lubrication System

Oil capacity （high - low)	38-32 Litre
Maximum allowable oil temperature	121℃
Total System Capacity	
- Sump plus filters	50 Litres

Fuel System

Type injection system	Direct injection cummins PT
Maximum Fuel Flow to Injection Pump	394 Litres/hou
Fuel consumption at 100% standby power	113 Litres/hou
Fuel consumption at 100% prime power	98 Litres/hou
Fuel consumption at 75% prime power	76 Litres/hou
Fuel consumption at 50% prime power	55 Litres/hou
Fuel consumption at 25% prime power	35 Litres/hour
Fuel tank capacity	6 hours

Cooling System

Coolant capacity - engine only	30 Litre
Standard thermostat (modulating) range	82 - 93℃
Maximum allowable top tank temperature	
- Standby power	104 ℃
- Prime power	100 ℃

Electric System

Electrical system voltage	24V
Battery	Maintenance-free
Connecting cables	Auailable

Thermal Data

Radiated heat to ambient	59-68kW
Heat rejection to coolant	240-274kW
Heat rejection to exhaust	299-344kW

Alternator

60Hz/1800R.P.M

General Data

H Power factor	Cos ¢ = 0.8
Single Excitation	Shunt / Brushless
1000 m	

Insulation class	H
Bearing	
Altitude	≤

Ratings

Brand	Alternator	Number of wires	AVR Model	PH	Voltage（V）	*Prime Power* kW/kVA	*Standby Power* kW/kVA
Leroy-Somer	LSA47.2S4	12	R250	3	380/220	360/450	400/500
Stamford	HCI444F		AS440			400/500	440/550
Tide	FPA31-3208		SX440			350/438	385/481
Leroy-Somer	LSA47.2VS2	12	R250	3	208/120	363/454	400/500
Stamford	HCI444FS		AS440			355/444	390/488
Tide	FPA31-3007		SX440			360/450	400/500
Leroy-Somer	LSA47.2VS2	12	R250	3	220/127	365/456	414/518
Stamford	HCI444FS		AS440			365/456	400/500
Tide	FPA31-3007		SX440			360/450	400/500
Leroy-Somer	LSA47.2VS2	12	R250	3	230/132	365/456	419/524
Stamford	HCI444E		AS440			352/440	380/475
Tide	FPA31-3007		SX440			360/450	400/500

Leroy-Somer	LSA47.2VS2		R250			365/456	424/530
Stamford	HCI444E	12	AS440	3	480/277	352/440	380/475
Tide	FPA31-3007		SX440			360/450	400/500

ControlSystem



		Comap Nano Plus	Comap InteliLite	Comap InteliLite 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+○	MCCB+○
Engine figure	Oil pressure	●	●	●
	Water temperature	●	●	●
	Fuel level	○	○	○
	Speed	●	●	●
	Battery voltage	●	●	●
	Elapsed time	●	●	● Low
Engine protection	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			

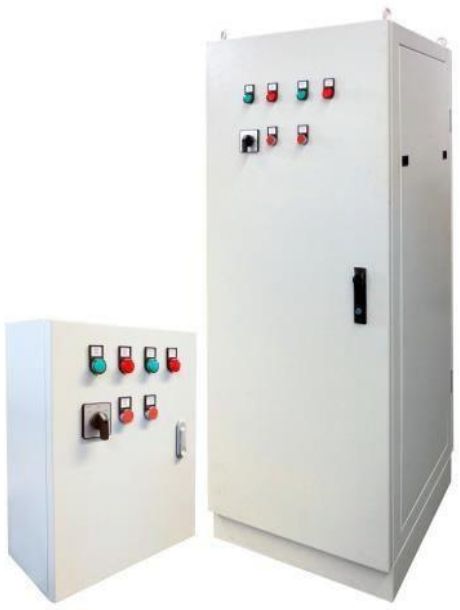
Automatic Transfer Switch *A.T.S - 4 Poles*

(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, 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	Breakey 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 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