PGCLS300

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**
FC344X-C	NTA855-G2	LSA47.2VS1 HCI444D FPA31-2504	380/220	3	275/344	300/375	522.3
		LSA46.2VL12 HCI444D FPA31-2403	208/120	3	275/344	300/375	954.2
		LSA46.2VL12 HCI444D FPA31-2403	220/127	3	275/344	300/375	902.1
		LSA46.2VL12 HCI444D FPA31-2403	230/132	3	275/344	300/375	862.9
		LSA46.2L9 HCI444D FPA31-2403	480/277	3	275/344	300/375	413.5

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.

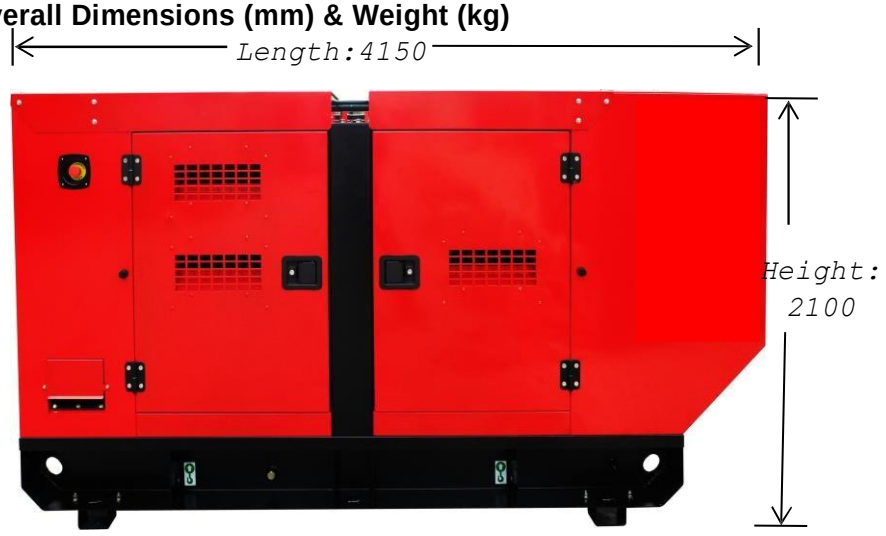
Prime Power:

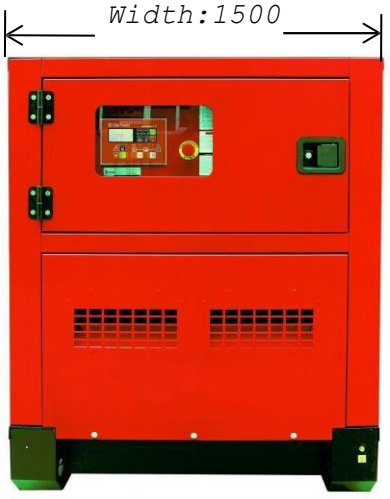
Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year in accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

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) : ***4150***

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	○ 6 Hours double wall base fuel tank ○ Fuel-water separator ○ Oil level sensor ① ② ○ Automatic fuel top up system ①
Lubrication System	● Fuel hose ● Standard oil filter ● Manual oil pump and drain	○ Oil heater ○ Lube oil level indicator
Alternator and Electric Switch	● Shunt or self excited ● Class H insulation ● H class temperature rise ● DELIXI MCCB ● Terminal connection lugs (L1, L2, L3, LN)	○ Oil temperature indicator ① ○ 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 ● 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 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	NTA855-G2
Engine type	4 cycle, in-line
Engine speed	1800 r.p.m
Prime power	313kW/420hp
Standby power	347kW/465hp
Governor type	Electronic
Aspiration:	Turbocharged & Aftercooled
Displacement	14 L
Bore * Stroke	140mm × 152mm
NO. of cylinders	6
Compression ratio	14.0:1
Brake mean effective pressure	1490-1652 kPa
Piston speed	9.14 m/s
Firing order	1- 5-3 -6 -2 -4
Noise level @7m	77 dBA

Exhaust System	
Maximum back pressure	10 kPa
Exhaust pipe size normally acceptable	127 mm
Exhaust gas temperature	466-482 ℃
Exhaust gas flow	1149 Litres/sec.

Air Intake System	
Maximum intake air restriction with heavy duty air cleaner	
- Dirty element	3.74 kPa
- Clean element	6.22 kPa
Recommended intake piping size	N/A
Intake air flow	448 Litres/sec.

Lubrication System	
Oil capacity (high - low)	36-28.4 Litre
Maximum allowable oil temperature	121℃
Total System Capacity	
- Including filter	38.6 Litres

Fuel System	
Type injection system	Direct injection cummins PT
Maximum fuel temperature	71 ℃
Fuel consumption at 100% standby power	89.2 Litres/hou
Fuel consumption at 100% prime power	80.5 Litres/hou
Fuel consumption at 75% prime power	61.7 Litres/hou
Fuel consumption at 50% prime power	44.0 Litres/hou
Fuel consumption at 25% prime power	25.1 Litres/hou
Fuel tank capacity	6 hours

Cooling System	
Coolant capacity - engine only	20.8 Litre
Standard thermostat (modulating) range	82 - 94℃
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	39-43 kW
Heat rejection to coolant	235-260 kW
Heat rejection to exhaust	196-217 kW

Alternator

60Hz/1800R.P.M

General Data			
Power factor	Cos ¢ = 0.8	Insulation class	H
Excitation	Shunt / Brushless	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	LSA47.2VS1	12	R230	3	380/220	308/385	341/426
Stamford	HCI444D		AS440			280/350	308/385
Tide	FPA31-2504		SX440			275/344	302/378
Leroy-somer	LSA46.2VL12	12	R250	3	208/120	286/357	319/399
Stamford	HCI444D		AS440			275/344	300/375
Tide	FPA31-2403		SX440			288/360	310/388
Leroy-somer	LSA46.2VL12	12	R250	3	220/127	298/372	332/415
Stamford	HCI444D		AS440			288/360	316/395
Tide	FPA31-2403		SX440			288/360	310/388
Leroy-somer	LSA46.2VL12	12	R250	3	230/132	302/378	338/423
Stamford	HCI444D		AS440			300/375	320/400
Tide	FPA31-2403		SX440			288/360	310/388
Leroy-somer	LSA46.2L9	12	R250	3	480/277	275/344	300/375
Stamford	HCI444D		AS440			300/375	320/400
Tide	FPA31-2403		SX440			288/360	310/388

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	●	●	●
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

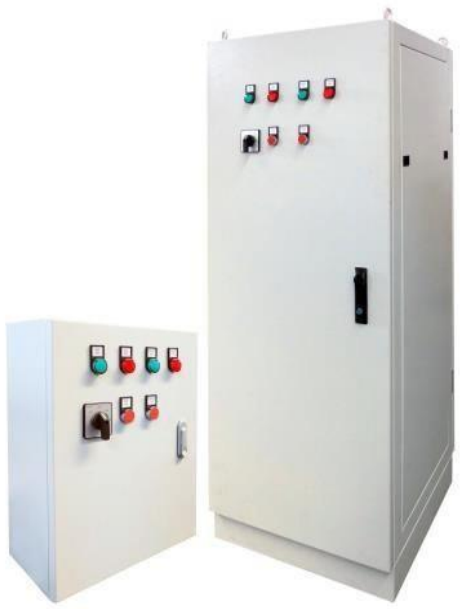
Automatic Transfer Switch — *A.T.S - 4 Poles*

(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	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