

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
FC250X-C	6LTAA8.9-G2	HCI544E	240 (220-240)	1	200/250	220/275	1145.8
		LSA46.2L9 UCDI274J TPA314M3	380/220	3	200/250	220/275	417.8
		LSA46.2L6 UCDI274K TPA314S2	416/240	3	200/250	220/275	381.7
		LSA46.2L6 UCDI274J TPA274L10	440-460	3	200/250	220/275	360.9 (440V) 345.2 (460V)
		LSA46.2L6 UCDI274J TPA274L9	480/277	3	200/250	220/275	330.8

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.

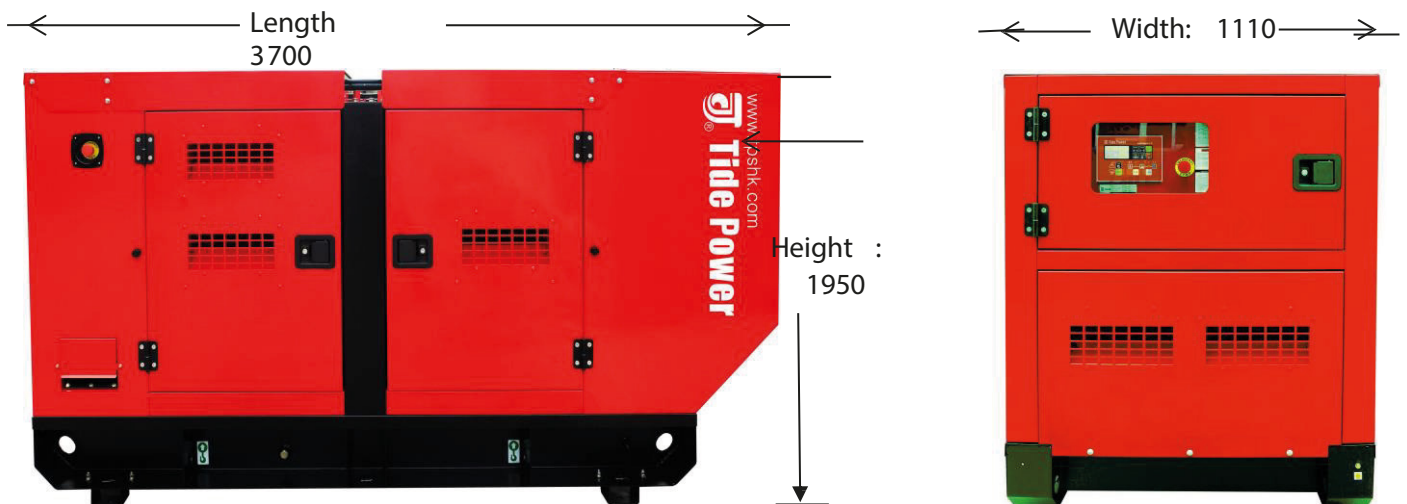
Prime Power:

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): 2425

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 ● 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 ① ② ○ Automatic fuel top up system ①
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 ①
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 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	DCEC Cummins	Oil capacity (high - low)	N/A
Engine model	6LTAA8.9-G2	Maximum oil temperature	121°C
Engine type	4 cycle, in-line	Minimum required lube system capacity	
Engine speed	1800 r.p.m	- Sump plus filters	27.6 Litres
Prime power	235kW/315hp	Fuel System	
Standby power	258kW/346hp	Type injection system	BYC P7100 direct injection
Governor type	Electronic	Total drain flow (constant for all loads)	30 Litres/hour
Governor make / model	BYC P7100	Fuel consumption at 100% standby power	66 Litres/hour
Aspiration:	Turbocharged and Charge Air Cooled	Fuel consumption at 100% prime power	59 Litres/hour
Displacement	8.3 L	Fuel consumption at 75% prime power	44 Litres/hour
Bore * Stroke	114mm × 135mm	Fuel consumption at 50% prime power	30 Litres/hour
NO. of cylinders	6	Fuel consumption at 25% prime power	17 Litres/hour
Compression ratio	16.6:1	Fuel tank capacity	8 hours
Engine idle speed	800-1000 rpm	Cooling System	
Piston speed	8.1 m/s	Coolant capacity - engine only	11.1 Litres
Air cleaner type	Dry	Standard thermostat (modulating) range	82 - 93°C
Exhaust System		Maximum top tank temperature	
Maximum back pressure	10 kPa	- Standby power	110 °C
Exhaust pipe size normally acceptable	75 mm	- Prime power	104 °C
Exhaust gas temperature	500-520 °C	Electric System	
Exhaust gas flow	726 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 kPa	Thermal Data	
- Clean element	4 kPa	Radiated heat to ambient	26-30 kW
Recommended intake piping size	75 mm	Heat rejection to coolant	102-110 kW
Intake air flow	280 Litres/sec.	Heat rejection to exhaust	N/A

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
Stamford	HCI544E	12	AS440	1	240 (220-240)	218/273	N/A
Leroy-somer	LSA46.2L9	12	R250			237/296	261/326
Stamford	UCDI274J	12	AS440	3	380/220	240/300	260/325
Tide	TPA314M3	12	SX440			225/281	248/310
Leroy-somer	LSA46.2L6	12	R250			221/276	243/304
Stamford	UCDI274K	12	AS440	3	416/240	232.8/291	349.6/312
Tide	TPA314S2	12	SX440			200/250	220/275
Leroy-somer	LSA46.2L6	12	R220			231/289	254/317
Stamford	UCDI274J	12	AS440	3	440-460	239.2/299	244.8/306
Tide	TPA274L10	12	SX460			224/280	240/300
Leroy-somer	LSA46.2L6	12	R220			240/300	270/337
Stamford	UCDI274J	12	AS440	3	480/277	240/300	260/325
Tide	TPA274L9	12	SX460			218/272.5	233/291

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

(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

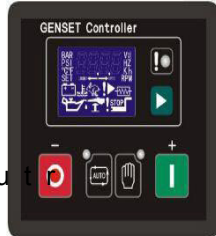
D: 800×600×1400

E: 1000×800×1600

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