

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	380/220	3	200/250	220/275	417.8
		TPA314M3 LSA46.2L6 UCDI274K	416/240	3	200/250	220/275	381.7
		TPA314S2 LSA46.2L6 UCDI274J	440-460	3	200/250	220/275	360.9 (440V) 345.2 (460V)
		TPA274L10 LSA46.2L6					
		UCDI274J	480/277	3	200/250	220/275	330.8
		TPA274L9					

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.

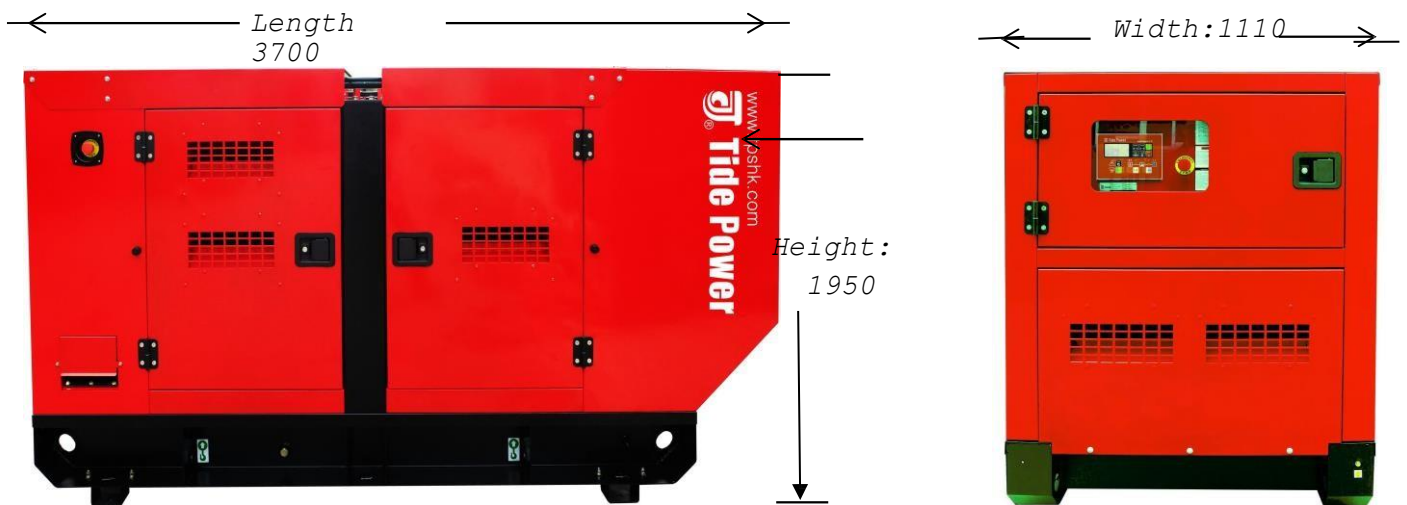
Prime Power:

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 	<ul style="list-style-type: none"> ○ Antifreeze ○ Water jacket heater
Exhaust System	<ul style="list-style-type: none"> ● Discharge valve ● Stainless steel bellow ● Residential silencer ● Complete exhaust pipe 	<ul style="list-style-type: none"> ○ Stainless steel silencer ○ Stainless steel exhaust pipe
Fuel System	<ul style="list-style-type: none"> ● Rain cap ● 8 Hours integrated base fuel tank ● Standard fuel filter ● Fuel level gauge ● Fuel filling cap 	<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"> ● Fuel hose ● Standard oil filter ● Manual oil pump and drain 	<ul style="list-style-type: none"> ○ Oil heater ○ Lube oil level indicator
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"> ○ 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	<ul style="list-style-type: none"> ● Intelligent 1.0 for 4 cylinders engine ● Intelligent 3.0 for 6 cylinders engine 	<ul style="list-style-type: none"> ○ Panel lighting
Silent / Base	<ul style="list-style-type: none"> ● Intelligent 5.0 for ECU engine ● 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 	<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"> ● canopy ● Standard color: Ral 3020 ● Battery with bracket and cables ● Engine battery charger 	<ul style="list-style-type: none"> ○ Low temperature starting batteries ○ Battery switch ○ High current charger (10A, 20A)
Remark:	<ul style="list-style-type: none"> ● 3A Mains charger 	

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	DCEC Cummins
Engine model	6LTAA8.9-G2
Engine type	4 cycle, in-line
Engine speed	1800 r.p.m
Prime power	235kW/315hp
Standby power	258kW/346hp
Governor type	Electronic
Governor make / model	BYC P7100
Aspiration:	Turbocharged and Charge Air Cooled
Displacement	8.3 L
Bore * Stroke	114mm x 135mm
NO. of cylinders	6
Compression ratio	16.6:1
Engine idle speed	800-1000 rpm
Piston speed	8.1 m/s
Air cleaner type	Dry
Exhaust System	
Maximum back pressure	10 kPa
Exhaust pipe size normally acceptable	75
mm Exhaust gas temperature	500-
520 °C Exhaust gas flow	726
Litres/sec. Air Intake System	
Maximum intake air restriction with heavy duty air cleaner	
- Dirty element	6 kPa
- Clean element	4 kPa
Recommended intake piping size	75 mm
Intake air flow	280 Litres/sec.

Lubrication System	
Oil capacity (high - low)	N/A
Maximum oil temperature	121 °C
Minimum required lube system capacity	
- Sump plus filters	27.6 Litres
Fuel System	
Type injection system	BYC P7100 direct injection
Total drain flow (constant for all loads)	30 Litres/hou
Fuel consumption at 100% standby power	66 Litres/hou
Fuel consumption at 100% prime power	59 Litres/hou
Fuel consumption at 75% prime power	44 Litres/hou
Fuel consumption at 50% prime power	30 Litres/hou
Fuel consumption at 25% prime power	17 Litres/hou
Fuel tank capacity	8 hours
Cooling System	
Coolant capacity - engine only	11.1 Litre
Standard thermostat (modulating) range	82 - 93 °C
Maximum top tank temperature	
- Standby power	110 °C
- Prime power	104 °C
Electric System	
Electrical system voltage	
24V Battery	
Maintenance-free Connecting cables	
Available Thermal Data	
Radiated heat to ambient	26-30 kW
Heat rejection to coolant	102-110 kW
Heat rejection to exhaust	N/A

Alternator

60Hz/1800R.P.M

General Data	
Power factor	Cos φ = 0.8

Insulation class	H
Bearing	Single

Excitation Shunt / Brushless

Altitude ≤ 1000 m

						Prime Power	Standby Power
Brand	Alternator	Number of wires	AVR Model	PH	Voltage (V)	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



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	x		B	x
63		A	B	B
80		x	x	B
100		A	B	B
125		x	B	B
160		B	B	B
200		x	B	x
250		C	B	B
300		x	x	x
315		x	C	x
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	x	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 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