

## PGDLS268

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
FC313X-K	P126TI	LSA46.2VL12 HCI 444D FPA31-2403	<b>380/220</b>	3	250/313	268/335	474.8
		LSA46.2L9 HCI 444D FPA31-2202	<b>208/120</b>	3	250/313	268/335	867.4
		LSA46.2L9 HCI 444D FPA31-2202	<b>220/127</b>	3	250/313	268/335	820.1
		LSA46.2L9 HCI 444C FPA31-2202	<b>230/132</b>	3	250/313	268/335	784.5
		LSA46.2L9 UCDI 274K FPA31-2202	<b>480/277</b>	3	250/313	268/335	375.9

**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)**

← Length: 4200 →

Width: 1400



Height:  
1950

**Weight (kg) : 3650**

## 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> </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>● Discharge valve</li> <li>● Stainless steel bellow</li> <li>● Residential silencer</li> <li>● Complete exhaust pipe</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>● Rain cap</li> <li>● 8 Hours integrated base fuel tank</li> <li>● Standard fuel filter</li> <li>● Fuel level gauge</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> </ul>
<b>Lubrication System</b>	<ul style="list-style-type: none"> <li>● Fuel filling cap</li> <li>● Fuel hose</li> <li>● Standard oil filter</li> <li>● Manual oil pump and drain</li> </ul>	<ul style="list-style-type: none"> <li>○ Automatic fuel top up system ①</li> <li>○ Oil heater</li> <li>○ Lube oil level indicator</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>○ Oil temperature indicator ①</li> <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 <ul style="list-style-type: none"> <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> </ul> </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>○ MCCB auxiliary contact and shunt tripping device</li> <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> </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>● Standard color: Ral 3020</li> <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	DOOSAN DAEWOO	Oil Capacity (Max.- Min.)	23-20 Litre
Engine Model	<b>P126TI</b>	Lubrication Method	Fully forced pressure feed type
Engine Type	4 cycle, in-line	Oil Pump	Gear Type Driven by Crank-shaft Gear
Engine Speed	1800 r.p.m	Maximum oil temperature	120°C
Prime Power	278kW	Fuel System	
Standby Power	298kW	Type Injection System	Direct Injection
Governor Type	Electronic	Fuel Feed Pump Capacity	230 liters / h
Aspiration	Turbo charged & intercooled	Fuel Consumption at 100% Standby Power	77.3 Litres/hour
Displacement	11.051 L	Fuel Consumption at 100% Prime Power	70.3 Litres/hour
Bore * Stroke	123mm x 155mm	Fuel Consumption at 75% Prime Power	52.3 Litres/hour
NO. of Cylinders	6	Fuel Consumption at 50% Prime Power	36.2 Litres/hour
Compression Ratio	17.1:1	Fuel Consumption at 25% Prime Power	20.3 Litres/hour
Intake Air Flow	26.53 m3/min	Fuel Tank Capacity	8 hours
Rotation	Counter clockwise viewed from flywheel	Cooling System	
Mean Piston Speed	9.3 m/s	Coolant Capacity- Engine Only	19 Litre
Noise Level @3m	67-72 dBA	Coolant Capacity - with Radiator	51 Litre
Exhaust System		Standard Thermostat (Modulating) Range	71-85°C
Exhaust Gas Flow	58.1 m3/min	Maximum for Standby and Prime	103°C
Exhaust Gas Temperature	510°C	Before Start of Full Load	40°C
Maximum Back Pressure	5.9 kPa	Electric System	
Exhaust Pipe Size	N/A	Electrical System Voltage	24V
Air Intake System		Battery	Maintenance-free
Max. static pressure after Radiator	0.125 kPa	Connecting Cables	Available
Maximum Intake Air Restriction		Thermal Data	
. With Clean Filter Element	2.16 kPa	Radiated Heat to Ambient	25.1-27.3 kW
. With Dirty Filter Element	6.23 kPa	Heat Rejection to Coolant	107.7-117.2 kW
		Heat Rejection to Exhaust	247.7-269.6 kW

## Alternator

General Data	
Power Factor	Cos φ = 0.8
Excitation	Shunt / Brushless

**60Hz/1800R.P.M**

Insulation Class	H
Bearing	Single
Altitude	≤ 1000 m

## Ratings

Brand	Alternator	Number of wires	AVR Model	PH	Voltage (V)	Prime Power	Standby Power
						kW/kVA	kW/kVA
Leroy-Somer	LSA46.2VL12	12	R250	3	380/220	266/333	296/370
Stamford	HCI444D		AS440			280/350	308/385
Tide	FPA31-2403		SX440			264/330	290/362.5
Leroy-Somer	<b>LSA46.2L9</b>	12	R250	3	208/120	253/316	278/348
Stamford	HCI444D		AS440			275/344	300/375
Tide	<b>FPA31-2202</b>		SX440			264/330	290/362.5
Leroy-Somer	LSA46.2L9	12	R250	3	220/127	262/328	293/366
Stamford	HCI444D		AS440			288/360	316/395
Tide	FPA31-2202		SX440			264/330	290/362.5
Leroy-Somer	<b>LSA46.2L9</b>	12	R250	3	230/132	268/335	296/370
Stamford	<b>HCI444C</b>		AS440			252/315	276/345
Tide	FPA31-2202		SX440			264/330	290/362.5
Leroy-Somer	LSA46.2L9	12	R250	3	480/277	275/344	300/375
Stamford	UCDI 274K		AS440			250/313	275/344



# ControlSystem



Comap Nano Plus

Comap IntelliLite AMF20

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	●	●	● 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	×	●	●
<b>Remark:</b>	● Standard	○ Optional	×	

## (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 TIDE POWER 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 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