

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
FC188X-K	DP086TA	LSA46.2M3 UCI 274G EPA27-1407	380/220	3	150/188	166/208	284.9
		LSA 46.2 M3 UCI 274G EPA27-1286	208/120	3	150/188	166/208	520.5
		LSA44.2L12 UCI 274F EPA27-1286	220/127	3	150/188	166/208	492.1
		LSA44.2L12 UCI 274F EPA27-1286	230/132	3	150/188	166/208	470.7
		LSA44.3L10 UCI 274F EPA27-1286	480/277	3	150/188	166/208	225.5

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.

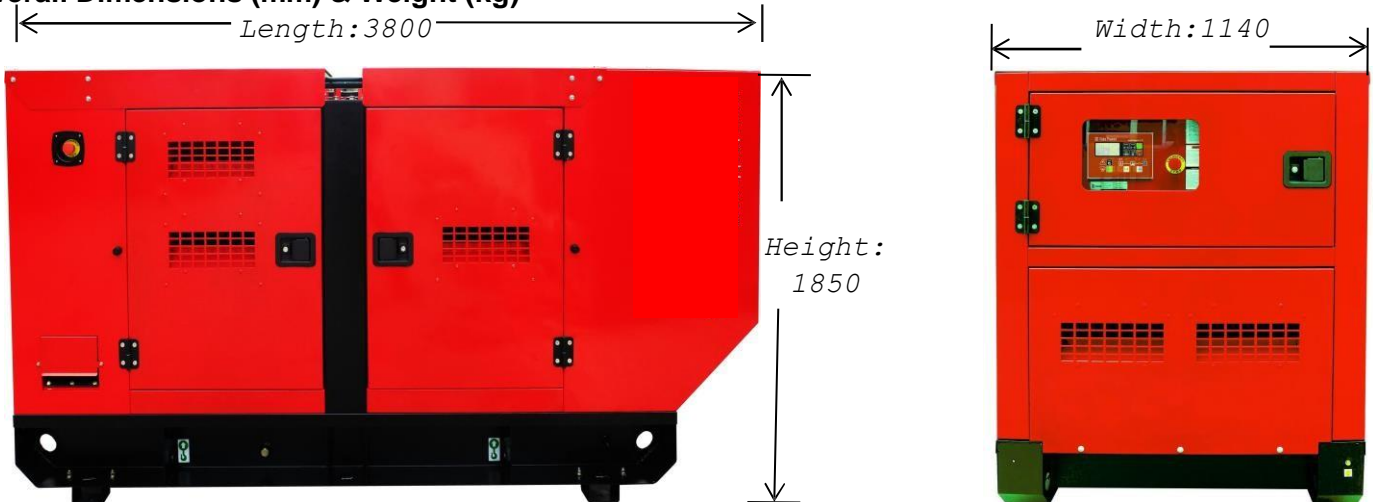
Prime Power:

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°C.

Overall Dimensions (mm) & Weight (kg)



Weight (kg) : 2450

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 ● 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 	<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 <ul style="list-style-type: none"> ○ F class temperature rise ○ 4 Pole circuit breaker with leakage protection ○ Circuit breaker - 4 pole <ul style="list-style-type: none"> ○ ABB MCCB ○ MCCB auxiliary contact and shunt tripping device
Control System	<ul style="list-style-type: none"> ● Comap Nano Plus for 4 cylinders engine ● Comap IntelliLite AMF20 for 6 cylinders or 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 	<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"> ● Standard color: Ral 3020 ● 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

Manufacture	DOOSAN DAEWOOD
Engine Model	DP086TA
Engine Type	4 cycle, in-line
Engine Speed	1800 r.p.m
Prime Power	168kW
Standby Power	187kW
Governor Type	Electronic
Aspiration	Turbo charged
Displacement	8.071
Bore * Stroke	111mm x 139mm
NO. of Cylinders	6
Compression Ratio	16.7:1
Intake Air Flow	20.19 m3/min
Rotation	Counter clockwise viewed from flywheel
Mean Piston Speed	8.34 m/s
Noise Level @3m	67-72 dBA

Exhaust System

Exhaust Gas Flow	40.9 m3/min
Exhaust Gas Temperature	543°C
Maximum Back Pressure	5.9 kPa
Exhaust Pipe Size	N/A

Air Intake System

Max. static pressure after Radiator	0.125 kPa
Maximum Intake Air Restriction	
. With Clean Filter Element	2.16 kPa
. With Dirty Filter Element	6.23 kPa

Alternator

General Data	
Power Factor	Cos φ = 0.8

Excitation Shunt / Brushless

Lubrication System

Oil Capacity (Max.- Min.)	15.5-12 Litre
Lubrication Method	Fully forced pressure feed type
Oil Pump	Gear Type Driven by Crank-shaft Gear
Maximum oil temperature	120°C

Fuel System

Type Injection System	Direct Injection
Fuel feed pump Capacity	175 liters / h
Fuel Consumption at 100% Standby Power	49.6 Litres/hour
Fuel Consumption at 100% Prime Power	41.3 Litres/hour
Fuel Consumption at 75% Prime Power	30.3 Litres/hour
Fuel Consumption at 50% Prime Power	21.0 Litres/hour
Fuel Consumption at 25% Prime Power	11.5 Litres/hour
Fuel Tank Capacity	8 hours

Cooling System

Coolant Capacity- Engine Only	14 Litre
Coolant Capacity - with Radiator	44 Litre
Standard Thermostat (Modulating) Range	71-85°C
Maximum for Standby and Prime	103°C
Coolant Flow Rate	166 liters / min

Electric System

Electrical System Voltage	24V
Battery	Maintenance-free
Connecting Cables	Available

Thermal Data

Radiated Heat to Ambient	14.8-16.4 kW
Heat Rejection to Coolant	63.3-70.4 kW
Heat Rejection to Exhaust	145.5-162 kW

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	LSA46.2M3	12	R250	3	380/220	154/192	169/211
Stamford	UCI 274G		AS440			160/200	170/212.5
Tide	FPA27-1407		SX440			155/194	170/213
Leroy-Somer	LSA 46.2 M3	12	R250	3	208/120	164/205	180/225
Stamford	UCI 274G		AS440			164/205	174.8/218.5
Tide	FPA27-1286		SX440			155/194	170/213
Leroy-Somer	LSA44.2L12	12	R250	3	220/127	152/190	167/209
Stamford	UCI 274F		AS440			152/190	165/206
Tide	FPA27-1286		SX440			155/194	170/213
Leroy-Somer	LSA44.2L12	12	R250	3	230/132	158/198	174/217
Stamford	UCI 274F		AS440			152/190	165/206
Tide	FPA27-1286		SX440			155/194	170/213
Leroy-Somer	LSA44.3L10	12	R250	3	480/277	150/188	165/206
Stamford	UCI 274F		AS440			165/206	175/218.8



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	×	●	●
Generator protection	Electric energy metering	×	×	●
	Abnormal voltage	●	●	●
	Over-current warning	×	●	● Over
	current protection	×	●	● Over
	Frequency protection	●	●	● Short
Engine figure	circuit protection	MCCB	MCCB+o	MCCB+o
	Oil pressure	●	●	●
	Water temperature	●	●	●
	Fuel level	○	○	○
	Speed	●	●	●
	Battery voltage	●	●	●
Engine protection	Elapsed time	●	●	● Low
	oil pressure warning	●	●	● Low oil
	pressure protection	●	●	● High
	temperature warning	●	●	●
	High temperature protection	●	●	●
	Overspeed warning	●	●	●
	Overspeed protection	●	●	●
Function	Charge fault	●	●	●
	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	×	

(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