

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
FC30X-F	Y480BD2	LSA42.3S5 PI144H FPA16-1284	240 (220-240)	1	15/19	16.5/20.6	125.0
		LSA42.3VS2 PI144H FPA16-1284	380/220	3	15/19	16.5/20.6	45.6
		LSA42.3VS1 PI144F FPA16-1284	208/120	3	15/19	16.5/20.6	83.3
		LSA42.3VS1 PI144E FPA16-1284	220/127	3	15/19	16.5/20.6	78.7
		LSA42.3VS1 PI144E FPA16-1284	230/132	3	15/19	16.5/20.6	75.3
		LSA42.3VS1 PI144E FPA16-1284	480/277	3	15/19	16.5/20.6	36.1

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.

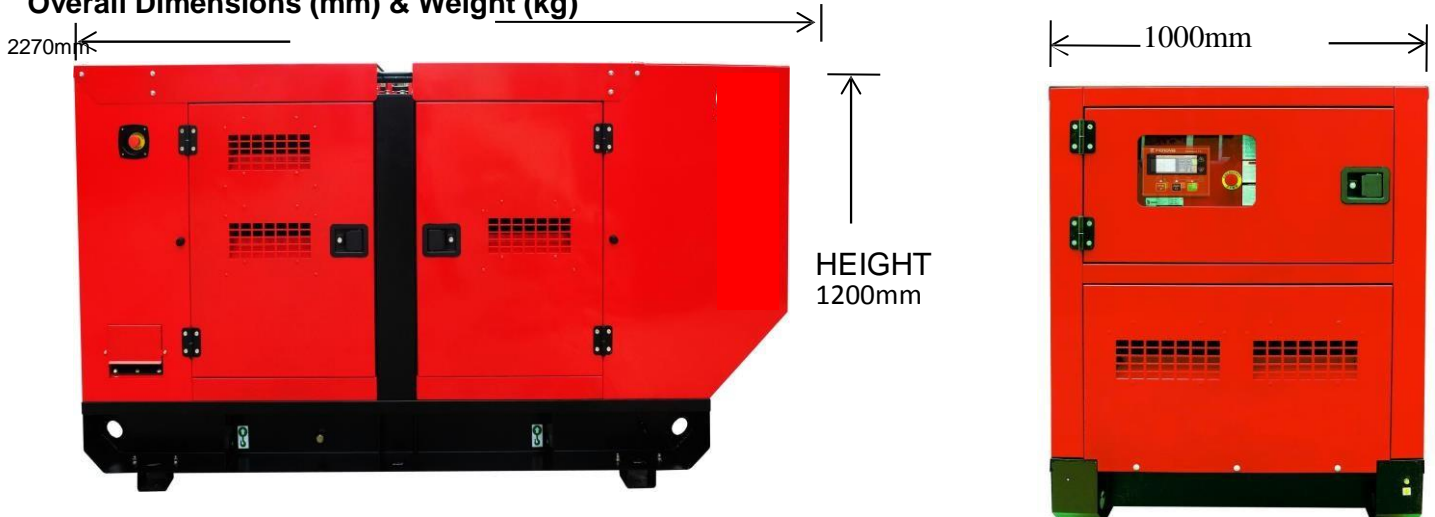
Prime Power:

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) : 1150

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"> ● Comap Nano Plus for 4 cylinders engine ● Comap Intelilite 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 	<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 	<ul style="list-style-type: none"> Low temperature starting batteries
Remark:	<ul style="list-style-type: none"> ● Engine battery charger ● 3A Mains charger 	<ul style="list-style-type: none"> Battery switch High current charger (10A, 20A)

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	KOFO
Engine model	Y480BD2
Engine type	4 cycle, in-
line Engine speed	1800
r.p.m Prime power	1
5 kW Standby power	1.6
5 kW Governor type	
Mechanical Steady speed adjusting ratio at rated condition	≤5
Aspiration:	Naturally aspirated
Displacement	3.26 L Bore
Stroke	95 x115 mm NO. of
cylinders	4
Compression ratio	19.0:1
Engine idle speed	≤650 rpm
Fring order	1-3-4-2
Flywheel ring gear teeth number	130
Noise level @7m	68 dBA
Exhaust system	
Exhaust gas temperature	<600℃
Exhaust outlet size	47 mm
Air intake system	
Maximum air intake restriction	≤1.20 kPa
- Standard filter	
- Air filter type	Dry

Fuel System	
Type injection system	Indirect Injection
Fuel consumption at 100% standby power	10.0 Litres/hour
Fuel consumption at 100% prime power	9.1 Litres/hour
Fuel consumption at 75% prime power	7.3 Litres/hour
Fuel consumption at 50% prime power	5.5 Litres/hour
Fuel consumption at 25% prime power	2.7 Litres/hour
Fuel tank capacity	8-12 hours
Lubrication System	
Oil sump capacity	13 Litres
Oil pressure	0.2-0.4 MPa
Oil pressure at idle speed	≥0.1 MPa
Lubricating method	Pressure lubrication
Oil consumption rate	2.04 g/kW.h
Max continuous oil temperature	100℃
Cooling system	
Total system capacity	13 Litre
Thermostat operation range	76-85 °C
Maximum top tank temperature	96℃
Electric System	
Starting method	Electric motor start
Electrical system voltage	12V
Battery	Maintenance-free
Connecting cables	Available

Alternator

60Hz/1800R.P.M

General Data	
factor	Cos φ = 0.8
Excitation	Shunt / Brushless

Insulation class	H Power
Bearing	Single
Altitude	≤ 1000 m

Ratings

Prime Power Standby Power

Brand	Alternator	Number of	AVR Model	PH	Voltage (V)	kW/kVA	kW/kVA
Tide	FPA18-2510	4	SX460	1	240 (220-240)	15/19	16.5/20.6
Tide	FPA16-1284	1	SX460	3	380/220	15/19	16.5/20.6
Tide	FPA18-208	2	SX460	3	208/120	15/19	16.5/20.6
Tide	FPA18-208	1	SX460	3	220/127	15/19	16.5/20.6
Tide	FPA18-208	2	SX460	3	230/132	15/19	16.5/20.6
Tide	FPA18-208	1	SX460	3	480/277	15/19	16.5/20.6

CONTROL SYSTEM



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

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