

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
FC350X-C	WT12D-330	LSA47.2VS1 HCI444D FPA31-2605	380/220	3	280/350	308/385	531.8
		LSA46.2VL12 HCI444ES FPA31-2403	208/120	3	280/350	308/385	971.5
		LSA46.2VL12 HCI444D FPA31-2403	220/127	3	280/350	308/385	918.5
		LSA46.2VL12 HCI444D FPA31-2403	230/132	3	280/350	308/385	878.6
		LSA46.2VL12 HCI444D FPA31-2403	480/277	3	280/350	308/385	421.0

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.

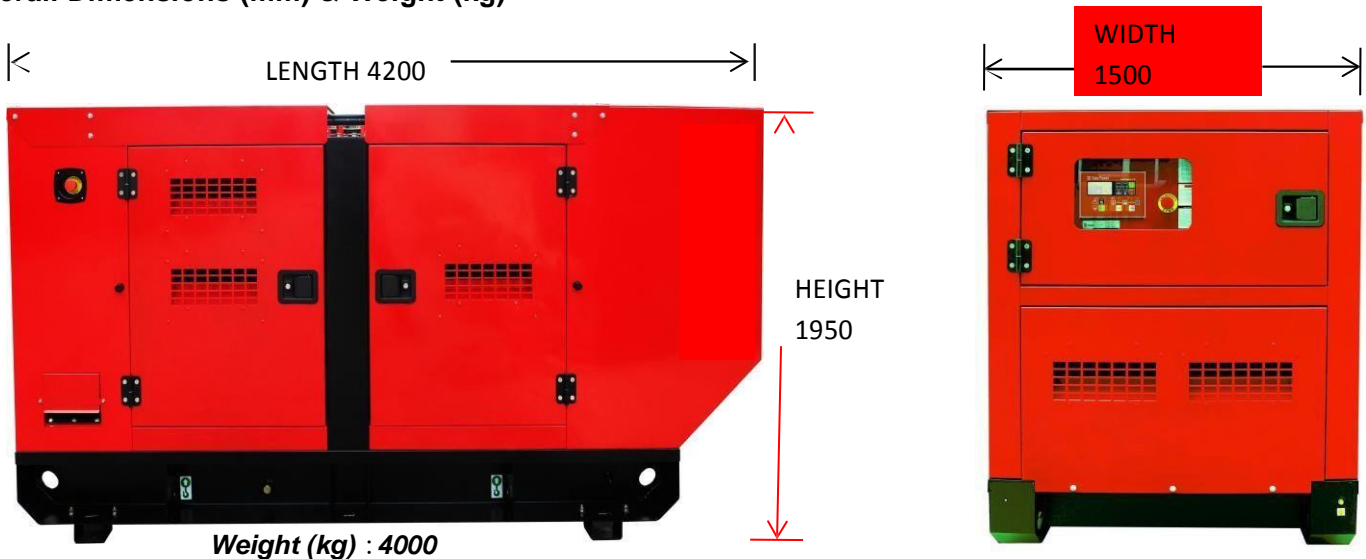
Prime Power:

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)



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 ①② ○ 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 ○ PMG or AREP (Leroy-Somer only)
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"> ○ 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 ○ Panel lighting
Control System	<ul style="list-style-type: none"> ● Comap Nano Plus for 4 cylinders engine ● Comap IntelliLite AMF20 for 6 cylinders 	
	<ul style="list-style-type: none"> ● or ECU engine 	
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 ● Battery with bracket and cables ● Engine battery charger ● 3A Mains charger 	<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"> ○ Low temperature starting batteries ○ Battery switch
Remark:		<ul style="list-style-type: none"> ○ 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	WT12D-330
Engine type	4 cycle, in-
line Engine speed	1800
r.p.m Prime power	
320 kW Standby power	
352 kW Governor type	
Mechanical Steady speed adjusting ratio at rated condition	
≤5	
Aspiration:	Turbocharged, air-to-air charge cooling
Displacement	11.6 L
Bore * Stroke	126 x155 mm
NO. of cylinders	6
Compression ratio	17.0:1
Engine idle speed	≤650 rpm
Fring order	1-5-3-6-2-4
Flywheel ring gear teeth number	136
Noise level @7m	78 dBA
Exhaust system	
Exhaust gas temperature	≤600°C
Exhaust outlet size	75 mm
Air intake system	
Maximum air intake restriction	
- Standard filter	≤2.5 kPa
- Air filter type	Dry

Alternator

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

Fuel System	
Type injection system	Indirect
Injection Fuel consumption at 100% standby power	89.1
Litres/hou Fuel consumption at 100% prime power	81.0
Litres/hou Fuel consumption at 75% prime power	64.8
Litres/hou Fuel consumption at 50% prime power	48.6
Litres/hou Fuel consumption at 25% prime power	24.3
Litres/hour Fuel tank capacity	
Lubrication System	
Oil sump capacity	30 Litres
Oil pressure	0.35-0.55 Mpa
Oil pressure at idle speed	≥0.08 Mpa
Lubricating method	Pressure lubrication
Oil consumption rate	1.63 g/kW.h
Max continuous oil temperature	105°C
Cooling system	
Total system capacity	45 Litre
Thermostat operation range	76-85 °C
Maximum top tank temperature	96°C
Electric System	
Starting method	Electric motor start
Electrical system voltage	
24V Battery	
Maintenance-free Connecting cables	
Available	

60Hz/1800R.P.M

Insulation class	H
Bearing	Single
Altitude	≤ 1000 m

Ratings
Prime Power Standby Power

Brand	Alternator	Number of wires	AVR Model	PH	Voltage (V)	kW/kVA	kW/kVA
Leroy-Somer Stamford Tide	LSA47.2VS1 HCI444D FPA31-2605	12	R230 AS440 SX440	3	380/220	308/385 280/350 285/356	341/426 300/375 314/392.5
Leroy-Somer Stamford Tide	LSA46.2VL12 HCI444ES FPA31-2403	12	R250 AS440 SX440	3	208/120	286/357 305/381 288/360	319/399 325/406 310/388
Leroy-Somer Stamford Tide	LSA46.2VL12 HCI444D FPA31-2403	12	R250 AS440 SX440	3	220/127	298/372 288/360 288/360	332/415 308/385 310/388
Leroy-Somer Stamford Tide	LSA46.2VL12 HCI444D FPA31-2403	12	R250 AS440 SX440	3	230/132	302/378 300/375 288/360	338/423 320/400 310/388
Leroy-Somer Stamford Tide	LSA46.2VL12 HCI444D FPA31-2403	12	R250 AS440 SX440	3	480/277	305/381 300/375 288/360	343/429 320/400 310/388

Control System



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	●	●	●
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	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