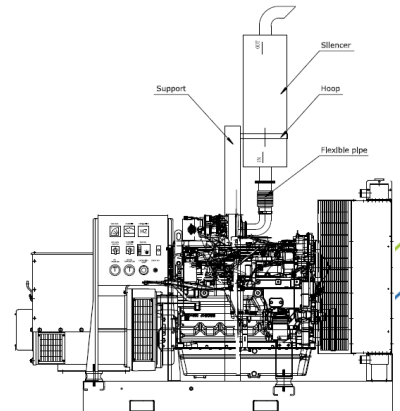


**AKSA Power Generation** has been producing industrial generator sets with an innovative compact design and excellence in quality for over 30 years. AKSA has been providing reliable power through three main production plants and over 15 branch offices worldwide.



Alternator (125 °C Rise)	Voltage	Ph	Pf	Hz	Stand-by Ratings		Prime Ratings	
					kW/kVA	Amp	kW/kVA	Amp
PI144F/ AK220M	240/120V	1	1	60	30/30	125	27/27	113

## Rating Definition

**Stand-by Power (Maximum):** Power available at variable load in the event of main power network failure. **No over load is permitted.**

**Prime Power:** Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours of operation.

The above ratings represent the engine performance capabilities to conditions specified in accordance with ISO 8528/5 & ISO3046.

**Derating may be required for conditions outside of the test conditions.**

## Codes, Standards & Standard Features

**EPA Certified Tier3** engine powered generator set for Emergency Stationary Applications.

The Generator set is designed and manufactured in a facility certified to **ISO9001:2008** standards.

**John Deere heavy duty** four cycle industrial diesel engine delivers low emission, reliable power, fuel efficiency and fast response to load changes.

**Analog control system** provides total gen-set system integrated control, protections, metering, automatic starting/stopping with additional key start switch for easy operation.

**Aksa Power Generation** provides **single source responsibility** for the generator set & accessories.

The generator set, with its components, are **prototype tested** and **production tested**.

**Newage Stamford** industrial generators meet the requirements of BS EN 60034 and the relevant sections of other international standards such as BS5000, VDE0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

**Heavy duty base frame** with integral pad **vibration isolators** eliminates the need for under unit spring vibration isolators.

# POWER YOUR FUTURE

## Engine Data

Manufacturer	<b>John Deere</b>
Model	<b>3029TFG89</b>
Cylinders	3, In-line
Max. power @ rated rpm; kWm (BHP)	35 (47)
Brake mean effective pressure; kPa	714
Aspiration & Cooling	Turbo charged
Total displacement; L (in <sup>3</sup> )	2.9 (177)
Bore; in. (mm)	4.2 (106)
Stroke; in. (mm)	4.3 (110)
Compression ratio	17.2:1
Governor type	Mechanical
Engine crankcase vent system	Open

## Engine Electrical System

Charging alternator	12V, Negative Ground
Starter rolling current @32 °F; (amp)	640
Min. voltage at ECU during cranking; (dc)	6
Max. allowable start circuit resistance; (Ohm)	0.0012
Starter motor rated voltage; (dc)	12
Battery quantity x rating & CCA	1 x 54Ah, 410

## Fuel System

Combustion system	Direct injection
Fuel injection pump	Stanadyne DB2
Governor Type	Mechanical
Total fuel flow; lb/hr	209
Fuel temp rise, inlet to return; °C	17.8
Max fuel inlet temp; °C	80
Max fuel inlet restriction; in.H <sub>2</sub> O (kPA)	80 (20)
Max. fuel return pressure; in.H <sub>2</sub> O (kPA)	80 (20)
Fuel filter @98% efficiency	8 mic

## Fuel Consumption (gal/hr)

110% Load	2.60
100% Load	2.37
75% Load	1.83
50% Load	1.27

## Exhaust System

Exhaust gas flow; (m <sup>3</sup> /min)	8.3
Max. exhaust restriction; (kPa)	7.5
Max. exhaust gas temp; (°C)	580
Max. bending moment on turbo outlet; (lb-ft)	5.2

## Cooling System

Radiator ambient temp; °C (°F)	50 (122)
Engine coolant capacity; L	5.7
Min. coolant fill rate; L/min (gal/min)	11 (2.9)
Thermostat operation range; °C	82-94
Max top tank temp; °C	105
Min. limiting ambient temp; °C	47
Cooling fan type	Pusher
Min. pressure cap; (psi)	10
Combustion air flow; m <sup>3</sup> /min	3.6
Intake manifold pressure; (psi)	10.8
Engine coolant flow; L/min (gal/min)	110(29)
Engine heat rejection; BTU/min	1144
Air cleaner efficiency	99.9%

## Lubrication System

Oil pressure @rated speed; psi	48
Max. crankcase pressure; in. H <sub>2</sub> O (kPa)	2 (0.5)

## Alternator Data

Manufacturer	<b>Stamford/AKSA</b>
Model	
Stamford	<b>PI144F</b>
Aksa	<b>AK220M</b>
Design	4 Pole, drip proof rotating field
Exciter type	Brushless, self excited EBS option is available
Stator	2/3 winding pitch
Rotor	Single bearing, flexible disc
Leads	4
Voltage regulator	Solid state, Volts/Hz
Voltage regulation	Self excited 1.5%
Insulation	Class H
Temp. rise @ 40°C ambient	125°C Prime 150°C Standby
Alternator Cooling	Direct drive Centrifugal Blower
Cooling air; m <sup>3</sup> /min	0.108
Waveform distortion	No load < 1.5%
	Non-distorting balanced linear load < 5%
Max. over-speed; rev/min	2250
Telephone influence factor (TIF)	< 50
Telephone harmonic factor (THF)	< 2%

## Gen-set Dimension & Weight

L (in.)	65
W (in.)	35
H (in.)	90
Weight (lb)	1400

## Control System



**Aksa** analog control panel with DSE702 manual and auto controller offering an excellent range of engine monitoring and protection features plus a temper proof engine hours counter.

- Manual and auto start selector
- Remote start input
- Engine monitoring and protection
- Oil pressure protection
- Water temperature protection
- Battery voltage alarm
- Charge alternator failure alarm
- Engine over speed protection
- Engine hours counter
- AC ampermeter, voltmeter and frequencymeter
- Engine oil pressure and water temperature gauges
- Emergency stop button

## Standard Features & Accessories

- Heavy Duty Steel Base-frame
- Anti-vibration pads
- Residential Grade Silencer w/flex connector
- Flex Fuel Line Set -15ft
- Battery, Battery Rack & Cables
- Battery Charger (6 Amp)
- Jacket Water Heater (120V/1000W)
- Operations Manual
- 2 Years / 2000hours Limited Warranty


## Optional Accessories

- Main Line CB
- PMG Excitation system
- ATS Panel
- Fuel Tank

### **AKSA POWER GENERATION USA LLC**

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