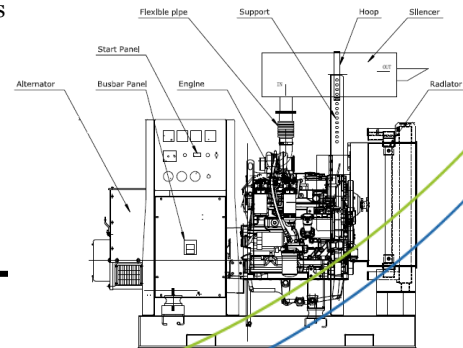


**AKSA Power Generation** has been producing industrial generator sets with an innovative compact design and excellence in quality for over 30 years. AKSA has been providing reliable power through three main production plants and over 15 branch offices worldwide.



Alternator (125 °C Rise)	Voltage	Ph	Pf	Hz	Stand-by Ratings		Prime Ratings	
					kW/kVA	Amp	kW/kVA	Amp
UCI274D/ AK474M	240/120V	1	1	60	100/100	417	90/90	375

## 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 / AKSA** 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>4045HF285</b>
Cylinders	4, In-line
Max. power @ rated rpm; kWm (BHP)	118 (158)
Brake mean effective pressure; kPa	1748
Aspiration & Cooling	Turbocharged
Total displacement; L (in <sup>3</sup> )	4.5 (275)
Bore; in. (mm)	4.19 (106)
Stroke; in. (mm)	5.0 (127)
Compression ratio	19:1
Governor type	Electronic
Engine crankcase vent system	Open

## Engine Electrical System

Charging alternator	12V, Negative Ground
Starter rolling current @32 °F; (amp)	920
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 60Ah, 800

## Fuel System

ECU Description	L16 Controller
Fuel injection pump	Denso HP3
Governor Type	Electronic
Total fuel flow; lb/hr	140
Fuel temp rise, inlet to return; °C	49
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 Consumption (gal/hr)

110% Load	8.21
100% Load	7.55
75% Load	6.02
50% Load	4.30

## Exhaust System

Exhaust gas flow; (m <sup>3</sup> /min)	22.8
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	8.5
Min. coolant fill rate; L/min (gal/min)	11 (3)
Thermostat operation range; °C	82-95
Max top tank temp; °C	110
Min. air to boil temp; °C	47
Cooling fan type	Pusher
Min. pressure cap; (psi)	14.5
Combustion air flow; m <sup>3</sup> /min	8.16
Intake manifold pressure; (psi)	24
Engine coolant flow; L/min (gal/min)	180 (48)
Engine heat rejection; BTU/min	3544
Air cleaner efficiency	99.9%

## Lubrication System

Oil pressure @rated speed; psi	46
Oil pressure at low idle; psi	15
Max. oil carryover in blow by; lb/hr	0.002
Max. air flow in blow by; gal/min	26
Max. crankcase pressure; in. H <sub>2</sub> O (kPa)	2 (0.5)

## Alternator Data

Manufacturer	<b>Stamford/AKSA</b>
Model	
Stamford	<b>UCI274D</b>
Aksa	<b>AK474M</b>
Design	4 Pole, drip proof rotating field
Exciter type	Brushless, self excited P.M.G. 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%
Sustained short circuit current 10sec with EBS fitted; (amp)	
Stamford – w/PMG	1750

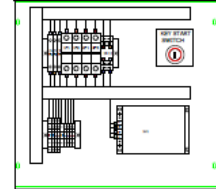
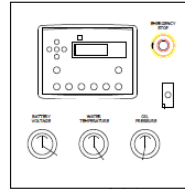
## Locked rotor kVA (skVA) @30% voltage dip

	Self Excited	PMG Excited
240/120V - 1ph	290	360

## Gen-set Dimension & Weight

L (in.)	96
W (in.)	40
H (in.)	100
Weight (lb)	3200

## Control System



**Aksa** digital control panel with DSE7320 manual and auto controller offering an excellent range of engine monitoring and protection features plus a temper proof engine hours counter.

- Off/Auto/Manual key start switches
- 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
- Engine oil pressure and water temperature gauges
- Emergency stop button
- Additional key start in panel for emergency manual run

## 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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\*Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.