

**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.

#### **General Characteristics**

Model Name	APD-ULJ250
Engine Make	John Deere
Engine Model	6090HF484
Alternator Make	Stamford
Control Panel Make & Model	DSE 7320
Frequency & Speed	60Hz, 1800rpm
Enclosure Make & Model	AKSA AUL 61/62



UL2200

DIESEL

#### **Genset Rating**

Engine	Alternator	Voltage	Standby Power	Power Factor	Standby Current
	HCI434D (Wnd-311)	480 / 277V	250kW	0.8	375A
6090HF484	HCI434D (Wnd-311)	240 / 120V	250kW	0.8	752A
	HCI434D (Wnd-311)	208 / 120V	250kW	0.8	867A
	UCDI274J (Wnd-17)	600 / 347V	250kW	0.8	301A

#### \*EPA – Certified for Emergency Stationary Applications

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**

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

The Generator set is designed and manufactured in a facility certified to ISO14001:2015 standards.

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

The generator set, with its components, are **prototype tested** and **production tested** according to the UL test program.

The generator set meets **NFPA70**, **99**, **110**, **37** Level 1 when equipped with the necessary accessories and installed per NFPA standards.



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# APD-ULJ250





# **Engine Data**

# **Electric System**

Manufacturer	John Deere	System Voltage	12V / 24V
Model	6090HF484	Min Voltage at ECU during crank	6V for 12V system
Displacement & Cylinders	9 L / 6 Cylinders	will voltage at ECO during traik	10V for 24V system
Engine Type	In-line, 4 Cycle	Battery Qty, Rating	2 x 120Ah
Engine Speed	1800rpm	Cooling System	
Engine Prime Power w/Fan	258kW	Radiator Cooling System Type	Closed Circuit
Engine Standby Power w/Fan	287kW	Radiator Ambient Temp	> 50 °C
Aspiration	Turbocharged & Air to Air Aftercooled	Coolant Capacity, Engine Only	16.9 quart
Compression Ratio	16.0 : 1	Max Top Tank Temp	230 °F
Bore / Stroke	118.4 mm / 136 mm	Thermostat, Start – Fully Open	180–201 °F
Governor type	Electronic	Exhaust System	
Engine crankcase vent system	Open	Exhaust Temperature	1157°F
Fan Power	17.2 kW	Max Allowable Exhaust Restriction	7.5 kPa
BMEP, Standby Power	2126 kPa		1011 &3/
Friction Power	24kW	Exhaust Gas Flow	1911 ft <sup>3</sup> /min
Designed / Calibrated to Meet	EPA Tier 3	Air Intake System	
Fuel System		Engine Air Flow	812 ft <sup>3</sup> /min
ECU Description	L14 Controller	Max Intake Air Restriction (Clean Element)	3.75 kPa
Max Fuel Inlet Temp.	176 °F	Air Filter Type	Dry Paper Element
Total Fuel Flow	450 lb/hr	An Filter Type	Dry raper Element
Fuel Consumption		Lubrication System	
- Standby Power (100%)	18.0 gal/h	Oil Pressure at Rated Speed	260 kPa
Standby Power (75%)	15.71 gal/h	Oil Pressure at low idle	190 kPa
Standby Power (50%)	11.14 gal/h	Max Oil Carryover in Blow-by	0.007 lb/hr
Standby Power (25%)	5.56 gal/h	Max Crankcase Pressure	0.5 kPa
	0		

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# APD-ULJ250

**Controller** Data



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Fully configurable via DSE Configuration Suite PC Software

SCADA monitoring via DSE Configuration Suite PC Software

✓ Engine Temp – low / high

✓ Loss of Speed Signal

#### Alternator Data

Alternator Data		Controller Data		
Manufacturer	Stamford	Manufacturer	DSE	
Standards	BS EN 60034	Model	7320 MK II	
Control System	PMG	Controller Features & B	enefits	
A.V.R.	MX341	Microprocessor controlled, UL & N	IFPA110 Compatible	
Voltage Regulation	$\pm$ 1 %	License free PC Software (Non-proprietary Software)		
Insulation System	Class H	IP65 rating offers increased resista	nce to water ingress	
Protection	Protection IP23	Modules can be integrated to building management systems		
riotection	11 23	Real time clock provides accurate event log		
Rated Power Factor	0.8	Four line back-lit LCD text display		
Stator Winding	Double Layer Concentric	Five key menu navigation, two wire	e start/stop at Auto mode	
Winding Pitch	Two Thirds	Front panel editing with PIN prote	ction	
winding Fitch	iwo imitas	Support up to three remote display	modules	
Winding Leads	12	Configurable timers and alarms		
Telephone Interference	THF < 2 %	Multiple date and timer scheduler		
Waveform Distortion	No Load < 1.5 %	Integral PLC editor		
		'Protections disabled' feature		
Maximum Over speed	2250 rev/min	Load switching (load shedding and	l dummy load outputs)	

#### **Battery Charger & Electrical System Data**

Manufacturer	ComAp	Protection	Instruments		
Model	InteliCharger	✓ Gen. Voltage – under / over	✓ Gen. Voltage (L-L/L-N)		
Input Voltage	$85V \sim 264V AC$	✓ Gen. Freq. – under / over	✓ Gen. Frequency		
Output Voltage / Current	27.2V Float / 2.5A pk	✓ Engine Speed – under / over	✓ Engine speed		
		✓ Engine Oil Pressure – low	✓ Oil Pressure		

#### **Jacket Water Heater Data**

		✓ Battery Voltage – low / high	√	Battery Voltage
Manufacturer	Hotstart	✓ Weak Battery	✓	Run Time
Model	TPS181GT10-000	✓ Fail to Start / Stop	✓	Phase Sequence
Input Voltage	120V	✓ Charge Alternator Fail	~	Power monitoring (kWh/kVAh/kVArh)
r U		<ul> <li>✓ Over Current &amp; Load (kW/kVAr)</li> </ul>	~	Power (kWh/kVAh/kVArh)
Power	1800W	✓ Unbalanced Load	✓	Power Factor
		✓ Independent Earth Fault	✓	Generator Current
		✓ Reverse Power	✓	Generator Load (%)

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✓ Water Temperature

✓ Earth Current

# APD-ULJ250

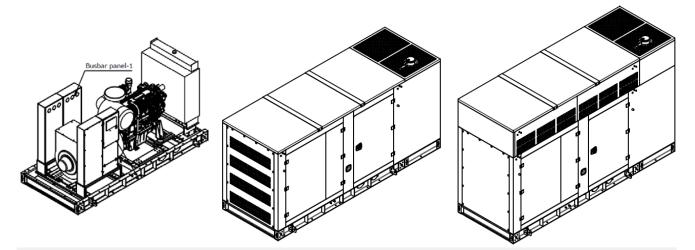




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Enclosure Features	Enclosure Features
✓ Heavy Duty Steel / Aluminum Structure	✓ Internally Mounted Exhaust System with Rain Cap
✓ E-Stop on Enclosure	✓ Coolant Fill Cap
$\checkmark$ Control Panel Eliminated from Engine Vibrations	✓ Removable Base Frame Lifting Hooks
✓ Standard Sound Attenuation Foam	✓ Oil & Coolant Drain Ports
✓ Plastic Covered Corrosion Resistant Locks & Hinges	✓ Easy Access for Maintenance

Open Skid Gen		Level 1 Enclosure		Level 2 Enclosure	
Length	126 in	Length	161.7 in	Length	161.7 in
Width w/o lift hooks	55.1 in	Width w/o lift hooks	57.6 in	Width w/o lift hooks	57.6 in
Height	63.1 in	Height	79.8 in	Height	101.6 in
Dry Weight	5225 lb	Dry Weight	7200 lb	Dry Weight	8260 lb
		Sound Pressure @ 7 meters	78 dB(A)	Sound Pressure @ 7 meters	73 dB(A)



## Fuel Tank - UL142 Listed Base Design

Size	24hr (425gal)	48hr (900gal)	72hr (1300gal)
Dimensions (L/W/H) (in)	182 / 55.1 / 16.5	182 / 55.1 / 32	222 / 55.1 / 36
Weight (lb)	2100	2800	3490

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### Standard Features & Accessories

- ✓ UL2200 Certification
- ✓ Heavy Duty Steel Base Frame
- ✓ PMG w/MX341 AVR
- ✓ Engine Jacket Water Heater
- ✓ Battery and Battery Rack
- ✓ Battery Charger
- ✓ Anti Vibration Pads between Engine/Alternator & Base Frame
- ✓ Critical Grade Silencer Inside Enclosure
- ✓ Residential Grade Silencer Set for Open Skid Sets
- $\checkmark~$  Exhaust outlet rain cap and radiator fill cap
- ✓ Sound Absorb Foam Material for Enclosure
- ✓ Emergency Stop Button
- ✓ Oil Drain Valve
- ✓ Coolant Drain Valve
- ✓ Jacket Water Heater Isolation Valves
- ✓ Flex Fuel Lines
- ✓ Air Filter Restriction Gauge
- ✓ Engine Manifold Cover
- ✓ Turbocharger Cover
- ✓ Protection Covers for Rotating Parts
- ✓ Exhaust Insulation Cover
- ✓ Enclosure DC Light
- ✓ Operations Manual
- ✓ 24 Months / 2000 hours Limited Standby Warranty



#### **Optional Accessories**

- □ Main Line CB (3 / 4 Poles 80% / 100% rated)
- □ Upsize Alternator
- □ Voltage Regulation ±0.5% w/MX321 AVR
- □ Anti-condensation Heater
- □ Sub Base Fuel Tank (UL142 / UL2085)
- □ Fuel Level Display & Alarm on Controller
- □ Low / High Fuel Alarms
- Fuel Water Separator Filter
- Auto Fuel Fill Control System
- □ Oil Temperature Display on Controller
- Manual Speed Adjust Rheostat
- Manual Voltage Adjust Rheostat
- Remote Annunciator Panel
- □ Remote Control & Monitoring Panel
- Advanced SMS Messaging
- Control Panel Heater
- Battery Disconnect Switch
- Battery Heater
- □ Battery Charger 10/20 Amp
- □ Shunt Trip / Aux Contacts
- □ Spring Anti-vibration Isolators
- □ Automatic Transfer Panel (ATS)
- □ 5 Years / 2000 hours Limited Comprehensive Warranty

### DISTRIBUTED BY:

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