





**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-NG30

Engine Make PSI

Engine Model 2.4L

Alternator Make Stamford

Control Panel Make & Model DSE 7320

Frequency & Speed 60Hz, 1800rpm

Enclosure Make & Model AKSA AUL 31/32



#### **Genset Rating**

Engine	Alternator	Voltage	PF	NG Standby Power	NG Standby Current	LP Gas Standby Power	LP Gas Standby Current
PSI 2.4L	PI144H (Wnd-311)	480/277V	0.8	25kW	37.5A	25kW	37.5A
	PI144H (Wnd-311)	240/120V,1ph	1	25kW	104A	25kW	104A
	PI144H (Wnd-311)	208/120V	0.8	25kW	86.8A	25kW	86.8A
	PI144E (Wnd-17)	600/347V	0.8	25kW	30A	25kW	30A

## \*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.



















Engine Data			Electric System			
Manufacturer	PSI		System Voltage (dc)	12V		
Model	2.4L		Battery Qty, Rating	1 x 54Ah,		
Displacement & Cylinders	2.4L / 40	Cylinders	<b>Cooling System</b>			
Engine Type	In-Line, 4	ł Cycle	Radiator Cooling System Type	Closed Circuit		
Engine Speed	1800rpm		Heat rejected to cooling system	1520 btu/min		
Engine Standby Power NG	31.92 Kw		Cranking Temperature	160°F		
Engine Standby Power PG	34.69 kW		Full Open Temperature	185 °F		
Aspiration Naturally Aspired						
Compression Ratio	9.5:1		Exnaust System	Exhaust System		
Bore / Stroke	86.5 mm	/ 100 mm	Туре	Air cooled manifold		
Governor type	Electronic	С	Max. allowable back pressure	10.2 kPa		
Fuel System			Cont. rating catalyst configuration	No Catalyst		
Fuel Type	NG, LP G	as/Dual Fuel	Exhaust Gas Flow at Rated Power @ 1350 °F	248.22 cfm		
Min NG Supply pipe size	1-1/4" NP	TF	Air Intake System			
Min LPG Supply pipe size	3/4"		Combustion Air Required	74.74 cfm		
Maximum EPR Rated Pressure Max Pressure to EPR		1.0 psi 11.0 inH2O	Max Intake Air Restriction (Clean Element)	1.49 kPa / 3 inH2O		
Min Pressure to EPR	1.7 kPA /	7.0 inH2O	Air Filter Type	Dry Paper Element		
Fuel Consumption		Lubrication System				
	Natural Gas	LP Gas	Oil Specifications	SAE 5W-30 API Rating SM or Newer		
Standby Power (100%)	$435 \text{ cfh} \\ 12.3 \text{ m}^3/\text{hr}$	180 cfh 5.1 m³/hr	Oil Pan Canacity			
Standby Power (75%)	340 cfh 9.6 m <sup>3</sup> /hr	140 cfh 3.9 m³/hr	Oil Pan Capacity	4.5 Qts		
Standby Power (50%)	250 ofb 150 ofb		Oil filter; qt, type	1, Cartridge		
			Max allowable oil temp	<b>250</b> °F		





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Manufacturer	Stamford
Standards	BS EN 60034
Control System	EBS
A.V.R.	AS480
Voltage Regulation	± 1 %
Insulation System	Class H
Protection	IP23
Rated Power Factor	0.8
Stator Winding	Double Layer Concentric
Winding Pitch	Two Thirds
Winding Leads	12
Telephone Interference	THF < 2 %
Waveform Distortion	No Load < 1.5 %
Maximum Over speed	2250 rev/min

# **Battery Charger & Electrical System Data**

Manufacturer	ComAp
Model	InteliCharger
Input Voltage	85V ~ 264V AC
Output Voltage / Current	13.8V Float / 4A pk

#### Jacket Water Heater Data

Jacket Water Heater Data			
Manufacturer	Hotstart		
Model	TPS101GT10-000		
Input Voltage	120V		
Power	1000W		

#### **Controller Data**

Manufacturer	DSE
Model	7320 MK II

# **Controller Features & Benefits**

Controller reactives & Delicities
Microprocessor controlled, UL & NFPA110 Compatible
License free PC Software (Non-proprietary Software)
IP65 rating offers increased resistance to water ingress
Modules can be integrated to building management systems
Real time clock provides accurate event log
Four line back-lit LCD text display
Five key menu navigation, two wire start/stop at Auto mode
Front panel editing with PIN protection
Support up to three remote display modules
Configurable timers and alarms
Multiple date and timer scheduler
Integral PLC editor
'Protections disabled' feature
Load switching (load shedding and dummy load outputs)
Fully configurable via DSE Configuration Suite PC Software

#### SCADA monitoring via DSE Configuration Suite PC Software **Protection Instruments** Gen. Voltage – under / over Gen. Voltage (L-L/L-N) Gen. Freq. - under / over Gen. Frequency Engine Speed – under / over Engine speed Engine Oil Pressure - low Oil Pressure Engine Temp - low / high Water Temperature Battery Voltage - low / high **Battery Voltage Weak Battery** Run Time Fail to Start / Stop Phase Sequence Power monitoring **Charge Alternator Fail** (kWh/kVAh/kVArh) Over Current & Load Power (kW/kVAr) (kWh/kVAh/kVArh) **Unbalanced Load Power Factor Independent Earth Fault Generator Current**

**Reverse Power** 

Loss of Speed Signal

Generator Load (%)

✓ Earth Current





## **Enclosure Features**

- ✓ Heavy Duty Steel / Aluminum Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Standard Sound Attenuation Foam
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges

# **Open Skid Gen-Set Dimensions**

Length 72 in

Width w/o lift hooks 39 in

Height 38 in

Dry Weight 1300 lb

# **Enclosed Gen-Set Dimensions – Level 1**

Length 89 in

Width w/o lift hooks 39 in

Height 56 in

Dry Weight 2000 lb

Sound Pressure @ 7 meters 68 dBA

# **Enclosed Gen-Set Dimensions – Level 2**

Length 89 in

Width w/o lift hooks 39 in

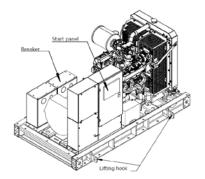
Height 69 in

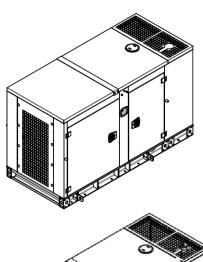
Dry Weight 2300 lb

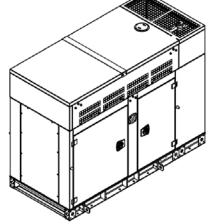
Sound Pressure @ 7 meters 64 dBA

# **Enclosure Features**

- ✓ Internally Mounted Exhaust System with Rain Cap
- ✓ Coolant Fill Cap
- ✓ Removable Base Frame Lifting Hooks
- ✓ Oil & Coolant Drain Ports
- ✓ Easy Access for Maintenance







# APD-NG30



## **Standard Features & Accessories**

- ✓ UL2200 Certification
- ✓ Heavy Duty Steel Base Frame
- ✓ EBS
- ✓ 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
- ✓ 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
- ✓ Secondary Lock-off Valve on Baseframe
- ✓ 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

#### AKSA POWER GENERATION USA LLC

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# **Optional Accessories**

- ☐ Main Line CB (3 / 4 Poles 80% / 100% rated)
- Upsize Alternator
- Anti-condensation Heater
- PMG w/upsize alternator
- □ Gas Regulator
- ☐ NG / LP Auto Changeover Control System
- ☐ Low Gas Pressure Alarm
- Low Coolant Level Alarm
- ☐ Oil Pan Heater
- ☐ 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

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