

General Characteristics

Model Name	APD-ULP9
Engine Make	Perkins
Engine Model	403D-11G
Alternator Make	Stamford
Control Panel Make & Model	DSE 7320
Frequency & Speed	60Hz, 1800rpm
Enclosure Make & Model	AKSA AUL 21



Genset Rating

Engine	Alternator	Voltage	Standby Power	Power Factor	Standby Current
403D-11G	PI044E (Wnd-311)	480 / 277V	9kW	0.8	13.5A
	PI044E (Wnd-06)	240 / 120V, 1ph	9kW	1	21.7A
	PI044E (Wnd-311)	208 / 120V	9kW	0.8	31.3A
	PI044E (Wnd-17)	600 / 347V	9kW	0.8	10.8A

*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.



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

Engine Data

Manufacturer	Perkins
Model	403D-11G
Displacement & Cylinders	1.131 L / 3 Cylinders
Engine Speed	1800rpm
Engine Standby Power	11.8 kW
Engine Prime Power	10.7 kW
Aspiration	Naturally aspirated
Compression Ratio	23 : 1
Bore / Stroke	77 mm / 81 mm
Break Mean Effective Pressure	TBA
Engine Coolant Flow	32.5 l/min
Combustion Air Flow	0.9 m ³ /min
Exhaust Gas Flow	2.4 m ³ /min
Exhaust Gas Temperature	515 °C
Overall Thermal Efficiency	31 %
Speed Variation at Constant Load	±0.75 %

Fuel System

Combustion System	Indirect Injection
Nozzle Opening Pressure	14.7 Mpa
Fuel Lift Pump Flow/hour	63 liters/hr

Fuel Consumption

Standby Power (100%)	0.95 gal/h
Prime Power (100%)	0.80 gal/h
Prime Power (75%)	0.60 gal/h
Prime Power (50%)	0.45 gal/h

Electric System

System Voltage	12V
Alternator	15A, 12V
Battery Qty, Rating	1 x 36Ah

Cooling System

Radiator Face Area	0.147 m ²
Fan Number of Plates/Material	7 / Plastic
Total System Capacity	5.2 L (1.4 gal)
Max Top Tank Temperature	112 °C
Thermostat Range	82 – 95 °C

Exhaust System

Exhaust Temperature	515 °C
Maximum Back Pressure	10.2 kPa
Exhaust Gas Flow	2.4 m ³ /min

Air Intake System

Combustion Air Flow	0.9 m ³ /min
Max Intake Air Restriction (Clean Element)	3 kPa
Air Filter Type	Dry Paper Element

Lubrication System

Total System Capacity	4.9 L (1.3 gal)
Normal Oil Temp	125 °C
Oil Pressure – relief valve opens	304 – 500 kPa

Alternator Data

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

Manufacturer	Hotstart
Model	TPS051GT10-000
Input Voltage	120V
Power	500W

Controller Data

Manufacturer	DSE
Model	7320 MK II

Controller Features & Benefits

- 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

- ✓ Gen. Voltage – under / over
- ✓ Gen. Freq. – under / over
- ✓ Engine Speed – under / over
- ✓ Engine Oil Pressure – low
- ✓ Engine Temp – low / high
- ✓ Battery Voltage – low / high
- ✓ Weak Battery
- ✓ Fail to Start / Stop
- ✓ Charge Alternator Fail
- ✓ Over Current & Load (kW/kVAr)
- ✓ Unbalanced Load
- ✓ Independent Earth Fault
- ✓ Reverse Power
- ✓ Loss of Speed Signal

Instruments

- ✓ Gen. Voltage (L-L/L-N)
- ✓ Gen. Frequency
- ✓ Engine speed
- ✓ Oil Pressure
- ✓ Water Temperature
- ✓ Battery Voltage
- ✓ Run Time
- ✓ Phase Sequence
- ✓ Power monitoring (kWh/kVAh/kVArh)
- ✓ Power (kWh/kVAh/kVArh)
- ✓ Power Factor
- ✓ Generator Current
- ✓ Generator Load (%)
- ✓ Earth Current

Enclosure Features

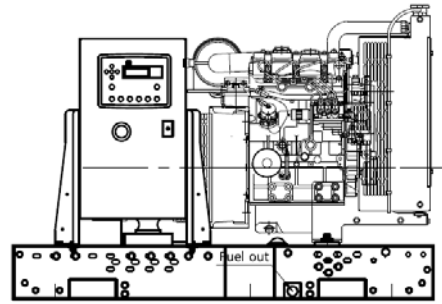
- ✓ Heavy Duty Steel / Aluminum Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Standard Sound Attenuation Foam
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges

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

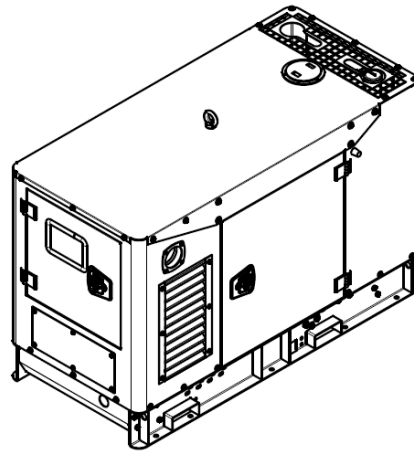
Enclosed Gen-Set Dimensions – Open

Length	66 in
Width w/o lift hooks	30 in
Height	32 in
Dry Weight	670 lb



Enclosed Gen-Set Dimensions

Length	66 in
Width w/o lift hooks	30 in
Height	41 in
Dry Weight	1050 lb
Sound Pressure @ 7 meters	68 dBA



Fuel Tank - UL142 Listed Base Design

Size	24hr (25gal)	48hr (50gal)	72hr (75gal)
Dimensions (L/W/H) (in)	80 / 30 / 8	80 / 30 / 12	80 / 30 / 18
Weight (lb)	525	625	750

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
- ✓ 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
- Anti-condensation Heater
- Sub Base Fuel Tank (UL142 / UL2085)
- Fuel Level Display on Controller
- Fuel Level 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