

**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	<b>APD300C-6</b>	Frequency / PF	<b>60Hz, 1800 rpm, 0.8pf</b>
Engine Make & Model	<b>Cummins 6LTAA8.9G2</b>	Alternator Make	<b>Stamford</b>
Control Panel Model	<b>DSE 7320</b>	Base Frame / Enclosure	<b>AKSA ASM6A</b>

**Genset Rating – 60Hz, 1800rpm, 0.8pf**

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
6LTAA8.9G2	UCDI274J	480 / 277V	300kVA	275kVA	360A
	UCDI274J (Wnd 14)	380 / 222V	300kVA	275kVA	455A
	UCDI274J	220 / 127V	300kVA	275kVA	787A
	UCDI274K	208 / 120V	300kVA	275kVA	832A

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**



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**Engine Data**

Manufacturer	Cummins
Model	6LTAA8.9G2
Displacement & Cylinders	8.9L / 6 Cylinders
Engine Speed	1800rpm
Engine Standby Power	240 kW / 322 HP
Engine Prime Power	220 kW / 295 HP
Aspiration	Turbocharged and Charge Air Cooled
Compression Ratio	16.6 : 1
Bore / Stroke	114 mm / 145 mm
Governor Regulation	≤ 3%
Piston Speed	7.3 m/s
Friction Horsepower	26 kW
Engine Water Flow	3.3 litre/sec.
Intake Air Flow	254 litre/sec.
Exhaust Gas Flow	634 litre/sec.
Exhaust Gas Temperature	470 °C

**Electric System**

Engine Cranking Motor	24V
Engine Battery Charge System	40A, Negative Ground
Battery Qty, Rating, CCA	2 x 80Ah

**Cooling System**

Coolant Capacity	41.1 L
Max Coolant Friction Head External to Engine -1500rpm	28 kPa
Thermostat Range	82 – 93 °C
Min Pressure Cap	103 kPa
Max Top Tank Temperature	110 °C

**Exhaust System**

Max Back Pressure	10 kPa
Exhaust Pipe Size	
Manifold Insulation	Not Acceptable
Turbocharger Insulation	Not Acceptable

**Fuel System**

Type of Injection	BYC P7100 Direct Injection
Max Restriction @ Lift Pump	20.3 kPa
Max Fuel Flow of the Supply	83 litre/hr
Max Fuel Inlet Temperature	70 °C

**Air Intake System**

Max Intake Air Restriction	6 kPa (Dirty Element) 4 kPa (Clean Element)
Min Dirt Holding Capacity	NA
Max Temp Rise from Ambient to Inlet of Turbo	NA

**Fuel Consumption**

Standby Power (110%)	66 L/h
Prime Power (100%)	59 L/h
Prime Power (75%)	44 L/h
Prime Power (50%)	30 L/h
Prime Power (25%)	17 L/h

**Lubrication System**

Max Oil Temperature	121 °C
Oil Capacity : High - Low	-
Min Required Lube Capacity	27.6 L

**Alternator Data**

Manufacturer	Stamford
Standards	BS EN 60034
Control System	Self Excited
A.V.R.	SX460
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	AKSA
Model	SmartGen BAC06A
Input Voltage	100V ~ 250V AC
Output Voltage / Current	27,6V DC / 3A

**Jacket Water Heater Data**

Manufacturer	AKSA
Model	HTR1500W 100-120F
Input Voltage	1 ph, based on gen voltage
Power	1500W

**Controller Data**

Manufacturer	DSE
Model	7320
Type	Auto Mains Failure Control

**Controller Features & Benefits**

- Microprocessor controlled
- License free PC 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
- 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
- kW & kVAR protection
- Reverse power (kW & kVAR) protection
- Power monitoring (kWh, kVAR, kVAh, kVARh)
- Load switching (load shedding and dummy load outputs)
- Unbalanced load protection
- Independent Earth Fault trip
- Fully configurable via DSE Configuration Suite PC Software
- SCADA monitoring via DSE Configuration Suite PC Software

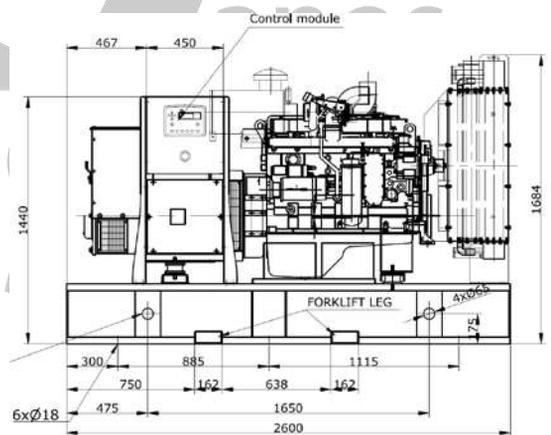
**Enclosure Features**

- ✓ Heavy Duty Steel Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Control Panel Window
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges
- ✓ Internally Mounted Exhaust System with Rain Cap
- ✓ Coolant Fill Cap
- ✓ Base Frame Lifting Hooks
- ✓ Base Fuel Tank and Forklift Pockets
- ✓ Easy Access for Maintenance
- ✓ Sound Absorb High Density Foam



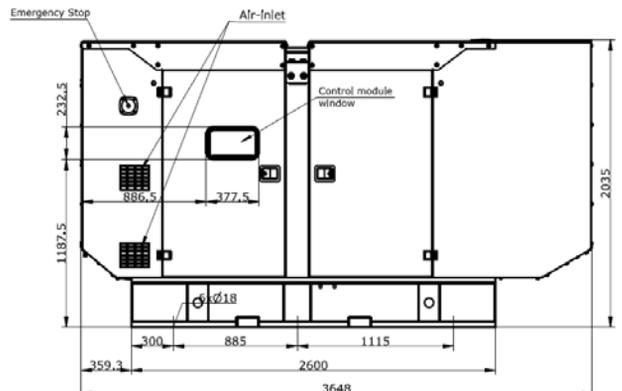
**Open Skid Gen-Set Dimensions**

Length	2600 mm
Width	1250 mm
Height	1684 mm
Dry Weight	1950 kg
Tank Capacity	473 L



**Enclosed Gen-Set Dimensions**

Length	3650 mm
Width	1313 mm
Height	2035 mm
Dry Weight	2600 kg
Tank Capacity	473 L
Sound Pressure @ 7 meters	79 dB(A)



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**Standard Features & Accessories**

- ✓ Heavy Duty Steel Base Frame
- ✓ Integral Fuel Tank
- ✓ Fuel Drain Plug
- ✓ Control Panel Window
- ✓ Engine Jacket Water Heater
- ✓ Battery and Battery Rack
- ✓ Battery Charger
- ✓ Radiator fill cap on enclosure
- ✓ Anti Vibration Pads between Engine/Alternator & Base Frame
- ✓ Residential Grade Silencer Inside Enclosure
- ✓ Industrial Grade Silencer Set for Open Skid Sets
- ✓ Sound Absorb Foam for Enclosure
- ✓ Air Inlet & Outlet Rodent Guards
- ✓ Oil Drain Valve
- ✓ Coolant Drain Valve
- ✓ Flex Fuel Lines
- ✓ Air Filter Restriction Gauge
- ✓ Engine Manifold Cover
- ✓ Turbocharger Cover
- ✓ Protection Covers for Rotating Parts
- ✓ Exhaust Insulation Cover
- ✓ Control Panel Window
- ✓ Operations Manual
- ✓ 24 Months / 2000 hours Limited Standby Warranty

**Optional Accessories**

- Main Line CB (3 / 4 Poles)
- PMG
- Voltage Regulation  $\pm 0.5\%$  w/MX321 AVR
- Anti-condensation Heater
- Double Wall Base Fuel Tank
- 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
- 10A Battery Charger
- Battery Charge Ammeter
- Tool Kit for Maintenance
- Power Plug Outlet Kit
- Automatic Transfer Panel (ATS) – Contactor Design
- Automatic Transfer Panel (ATS) – Changeover Design

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**SEDE PRINCIPAL:**

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