

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

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

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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

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

Battery Charger & Electrical System Data

Manufacturer	AKSA
Model	SmartGen BAC06A
Input Voltage	100V ~ 250V AC
Output Voltage / Current	27,6V DC / 3A

- Integral PLC editor
- 'Protections disabled' feature
- kW & kVAr protection
- Reverse power (kW & kVAr) protection
- Power monitoring (kWh, kVAr, kVAh, kVArh)

Jacket Water Heater Data

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

- 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

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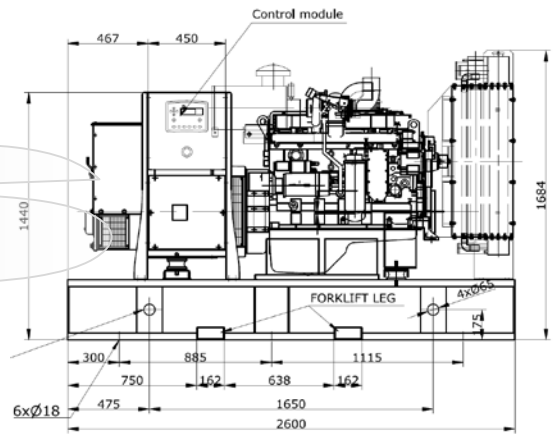
Enclosure Features



- ✓ 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

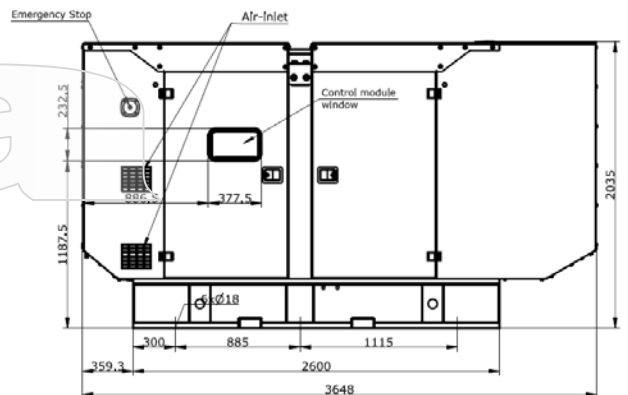
Open Skid Gen-Set Dimensions

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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