



**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	APD345C-6	Frequency / PF	60Hz, 1800 rpm, 0.8pf
Engine Make & Model	Cummins 6LTAA9.5G1	Alternator Make	Stamford / Aksa
Control Panel Model	DSE 7320	Base Frame / Enclosure	AKSA MS60

## Genset Rating - 60Hz, 1800rpm, 0.8pf

Engine	Stamford Alternator	Aksa Alternator	Voltage	Standby Power	Prime Power	Standby Current
	HCI444D	AK5240	480 / 277V	344kVA	312.5kVA	414A
6LTAA9.5G1	HCI444D	AK5240	220 / 127V	344kVA	312.5kVA	902A
	HCI444D	AK5240	208 / 120V	344kVA	312.5kVA	954A

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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Manufacturer Cummins

Model 6LTAA9.5-G1

Displacement & Cylinders 9.5L / 6 Cylinders

Engine Speed 1800rpm

Engine Standby Power 310 kW / 416 HP

Engine Prime Power 280 kW / 375 HP

Aspiration Turbocharged and Charge Air Cooled

Compression Ratio 16.6:1

Bore / Stroke 114 mm / 145 mm

Governor Regulation ≤ 3%

Torque 1645 N.m

Max Overspeed Capability 2900 rpm

Max No Load Speed 1890  $\pm$ 20 rpm

Low Idle Speed 800  $\pm$ 50 rpm

Exhaust Gas Flow 28 kg/min

Turbo Comp. Outlet Pressure 235 kPa

## **Fuel System**

**Exhaust Gas Temperature** 

Type of Pump Mechanical Fuel Pump

495 °C

Governor Electronic Governor

Max Fuel Inlet Temperature 298 °C

## **Electric System**

Engine Cranking Motor 24V

Cold Start Capability without

Start Add Device

Battery Qty, Rating, CCA 2 x 80Ah

## **Cooling System**

Coolant Capacity 34 L

Inlet Air Flow 339 L/s

Charge Air Flow 27 kg/min

Radiator Coolant Flow 5 L/min

Heat Rejection to CAC 95 kW

### **Exhaust System**

Exhaust Gas Temperature 495 °C

Exhaust Restriction 10 kPa

Manifold Insulation Not Acceptable

Turbocharger Insulation Not Acceptable

## **Air Intake System**

Max Intake Air Restriction 3.7 kPa (Clean Element)

Temperature 199 °C

## **Fuel Consumption**

Standby Power 76 L/h

Prime Power (100%) 68 L/h

Prime Power (75%) 50 L/h

Prime Power (50%) 34 L/h

Prime Power (25%) 19 L/h

## **Lubrication System**

Recommended Oil 5W40

Oil Capacity : High - Low -

Min Required Lube Capacity TBA





## **Alternator Data**

Manufacturer Stamford / Aksa

Standards BS EN 60034

Control System Self Excited

A.V.R. SX460

Voltage Regulation  $\pm$  1 %

Insulation System Class H

Protection IP21

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 BACo6A

Input Voltage 100V ~ 250V AC

Output Voltage / Current 27,6V DC / 3A

## **Jacket Water Heater Data**

Manufacturer AKSA

Model HTR1800W 100-120F

Input Voltage 1 ph, Based on gen voltage

Power 1800W

## **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

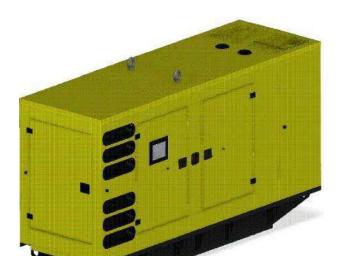
Independent Earth Fault trip

Fully configurable via DSE Configuration Suite PC Software

SCADA monitoring via DSE Configuration Suite PC Software





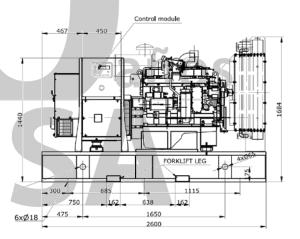


## **Enclosure Features**

- ✓ 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
- ✓ Top Lifting Hooks
- ✓ Sound Absorb High Density Foam
- ✓ Enclosure DC Light
- ✓ Easy Access Doors for Maintenance

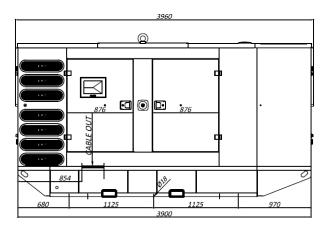
## **Open Skid Gen-Set Dimensions**

Length	2600 mm
Width	 1250 mm
Height	1684 mm
Dry Weight	2200 kg
Tank Capacity	470 L



## **Enclosed Gen-Set Dimensions**

Length	3960 mm
Width	1300 mm
Height	2167 mm
Dry Weight	2850 kg
Tank Capacity	470 L
Sound Pressure @ 7 meters	8odBA







## Standard Features & Accessories **Optional Accessories** Heavy Duty Steel Base Frame ☐ Main Line CB (3 / 4 Poles) Integral Fuel Tank □ PMG ■ Anti-condensation Heater Fuel Drain Plug Control Panel Window ■ Bulk fuel tank ☐ Double wall fuel tank Engine Jacket Water Heater Battery and Battery Rack ☐ Fuel Level Display & Alarm on Controller **Battery Charger** ☐ Low / High Fuel Alarms Radiator fill cap on enclosure ☐ Fuel Water Separator Filter Anti Vibration Pads between Engine/Alternator & Base Frame ☐ Auto Fuel Fill Control System Residential Grade Silencer Inside Enclosure ☐ Oil Temperature Display on Controller Industrial Grade Silencer Set for Open Skid Sets ☐ Manual Speed Adjust Rheostat Sound Absorb Foam for Enclosure ☐ Manual Voltage Adjust Rheostat Air Inlet & Outlet Rodent Guards ☐ Remote Annunciator Panel Oil Drain Valve ☐ Remote Control & Monitoring Panel ☐ Advanced SMS Messaging Coolant Drain Valve Flex Fuel Lines ☐ Control Panel Heater Air Filter Restriction Gauge ☐ Battery Disconnect Switch Engine Manifold Cover □ Battery Heater **Protection Covers for Rotating Parts** ■ 10A Battery Charger **Exhaust Insulation Cover** ■ Battery Charge Ammeter Control Panel Window □ Tool Kit for Maintenance

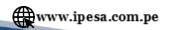
\*Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

### SEDE PRINCIPAL:

24 Months / 2000 hours Limited Standby Warranty

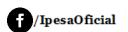
Av. Nicolás Ayllón N° 2241 – Ate – Lima – Perú Telf.: (51-1) 748-3333 / 326-0411 / Anexo 1152





Operations Manual





☐ Automatic Transfer Panel (ATS)

□ \*\*Please consult with factory for more options.

