

**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>AP396-6</b>	Frequency / PF	<b>60Hz, 1800 rpm, 0.8pf</b>
Engine Make & Model	<b>Perkins 1506A-E88TAG5</b>	Alternator Make	<b>Stamford</b>
Control Panel Model	<b>DSE 7320</b>	Base Frame / Enclosure	<b>AKSA MS60</b>

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

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
1506A-E88TAG5	HCI444D	480 / 277V	396kVA	360kVA	476A
	HCI444E	380 / 222V	396kVA	360kVA	601A
	HCI444D	220 / 127V	396kVA	360kVA	1039A
	HCI444E	208 / 120V	396kVA	360kVA	1099A

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**



**Engine Data**

Manufacturer	Perkins
Model	1506A-E88TAG5
Displacement & Cylinders	8.8 L / 6 Cylinders
Engine Speed	1800rpm
Engine Standby Power	333 Kw
Engine Prime Power	300 Kw
Aspiration	Air to Air Aftercooled, Turbocharged
Compression Ratio	16.1 : 1
Bore / Stroke	112 mm / 149 mm
Break Mean Effective Pressure	2712 kPa
Engine Coolant Flow	190 l/min
Combustion Air Flow	23.6 m <sup>3</sup> /min
Exhaust Gas Flow	59.6 m <sup>3</sup> /min
Exhaust Gas Temperature	512 °C
Overall Thermal Efficiency	41 %
Speed Variation at Constant Load	± 0.25 %

**Fuel System**

Injection System	Direct
Governor Type	Electronic
Lift Pump Type	Gear
Fuel Filter Spacing	4 microns

**Fuel Consumption**

Standby Power (110%)	85.7 L/h
Prime Power (100%)	77.1 L/h
Prime Power (75%)	56.8 L/h
Prime Power (50%)	38.9 L/h

**Electric System**

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

**Cooling System**

Radiator Face Area	0.62 m <sup>2</sup>
Fan Number of Plates/Material	9 / Plastic
Total System Capacity	33.2 L
Max Top Tank Temperature	107 °C
Thermostat Range	87 – 98 °C

**Exhaust System**

Maximum Back Pressure	10 kPa
Exhaust Outlet Size	TBA

**Lubrication System**

Total System Capacity	41 L
Minimum Capacity	36 L
Max Oil Temp	120 °C
Oil Pressure – relief valve opens	662 kPa
Oil Consumption at full load as a % of fuel consumption	0.1 %

**Energy Balance**

Energy in fuel	857 Kw
Energy in power output – gross	358 kW
Energy to cooling fan	13 kW
Energy to coolant and oil	138 kW
Energy to exhaust	259 kW

## Alternator Data

Manufacturer	Stamford
Standards	BS EN 60034
Control System	Self Excited
A.V.R.	AS440
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	HTR3000
Input Voltage	Based on Gen Voltage
Power	3000W

## 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

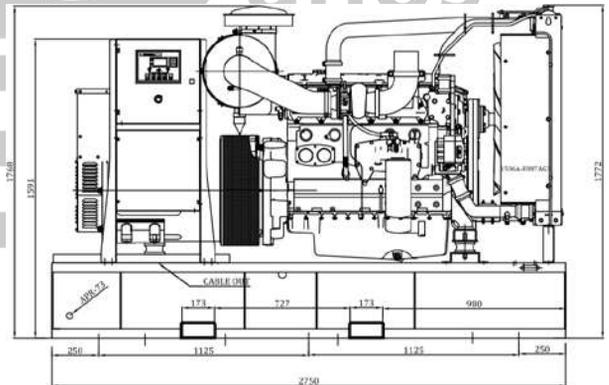


**Enclosure Features**

- ✓ 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 Feature
- ✓ Base Fuel Tank
- ✓ Easy Access for Maintenance
- ✓ Sound Absorb High Density Foam

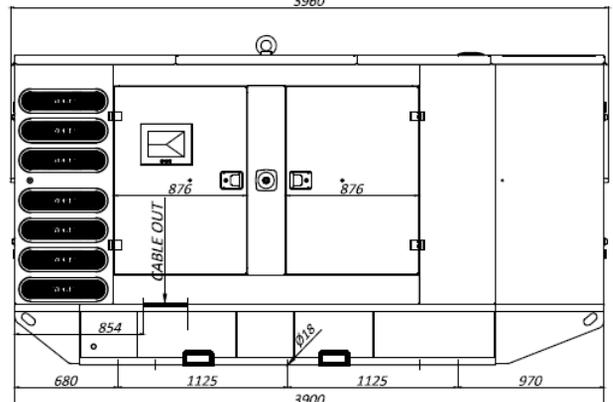
**Open Skid Gen-Set Dimensions**

Length	2750 mm
Width	1300 mm
Height	1777 mm
Dry Weight	2400 kg
Tank Capacity	470 L



**Enclosed Gen-Set Dimensions**

Length	3960 mm
Width	1356 mm
Height	2167 mm
Dry Weight	3100 kg
Tank Capacity	470 L
Sound Pressure @ 7 meters	TBA



**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
- ✓ Anti Vibration Pads between Engine/Alternator & Base Frame
- ✓ Residential Grade Silencer Inside Enclosure
- ✓ Industrial Grade Silencer Set for Open Skid Sets
- ✓ Exhaust pipe rain cap and radiator fill cap
- ✓ 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
- Automatic Transfer Panel (ATS) – Contactor Design
- Automatic Transfer Panel (ATS) – Changeover Design

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

**SEDE PRINCIPAL:**

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