

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	AP563-6	Frequency / PF	60Hz, 1800 rpm, 0.8pf
Engine Make & Model	Perkins 2506A-E15TAG1	Alternator Make	Stamford
Control Panel Model	DSE 7320	Base Frame / Enclosure	AKSA MS80 / AK90

Genset Rating – 60Hz, 1800rpm, 0.8pf

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
2506A-E15TAG1	HCI544C	480 / 277V	563kVA	512.5kVA	677A
	HCI544D	380 / 222V	563kVA	512.5kVA	855A
	HCI544C	220 / 127V	563kVA	512.5kVA	1477A
	HCI544C	208 / 120V	563kVA	512.5kVA	1562A

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	Perkins
Model	2506A-E15TAG1
Displacement & Cylinders	15.2 L / 6 Cylinders
Engine Speed	1800rpm
Engine Standby Power - Net	490 Kw
Engine Prime Power - Net	435 Kw
Aspiration	Air to Air Aftercooled, Turbocharged
Compression Ratio	16 : 1
Bore / Stroke	137 mm / 171 mm
Break Mean Effective Pressure	2284 kPa
Engine Coolant Flow	7.2 l/sec
Combustion Air Flow	38 m ³ /min
Exhaust Gas Flow	105.3 m ³ /min
Exhaust Gas Temperature	550 °C
Overall Thermal Efficiency	43 %
Speed Variation at Constant Load	± 0.25 %

Fuel System

Injection System	MEUI
Governor Type	Electronic
Lift Pump Type	Gear
Fuel Filter Spacing Primary/Secondary	10 microns / 2 microns

Fuel Consumption

Standby Power (110%)	116 L/h
Prime Power (100%)	102 L/h
Prime Power (75%)	78 L/h
Prime Power (50%)	53 L/h

Electric System

Engine Cranking Motor	24V
Engine Battery Charge System	Negative Ground
Battery Qty, Rating, CCA	2 x 120Ah

Cooling System

Radiator Face Area	1,238 m ²
Fan Number of Plates/Material	9 / B3WG6 or PA6GF30
Total System Capacity	58 L
Max Top Tank Temperature	107 °C
Thermostat Range	88 – 98 °C

Exhaust System

Maximum Back Pressure	6.8 kPa
Exhaust Outlet Size	127 mm

Lubrication System

Total System Capacity	62 L
Minimum Capacity	45 L
Max Oil Temp	114 °C
Lubricating Oil Specifications	API-CH4 / SAE 15W-40
Oil Consumption at full load as a % of fuel consumption	0.1 %

Energy Balance

Energy in fuel	1175 Kw
Energy in power output – gross	514 kW
Energy to cooling fan & restrictions	24.4 kW
Energy to coolant and oil	156 kW
Energy to exhaust	350 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

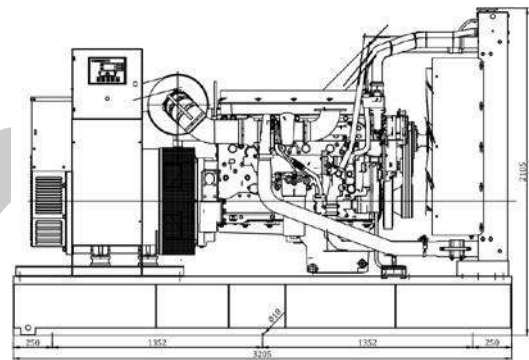
- ✓ Heavy Duty Steel Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Control Panel Window
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges

Enclosure Features

- ✓ Internally Mounted Exhaust System with Rain Cap
- ✓ Coolant Fill Cap
- ✓ Top Lifting Feature
- ✓ Base Fuel Tank
- ✓ Easy Access for Maintenance

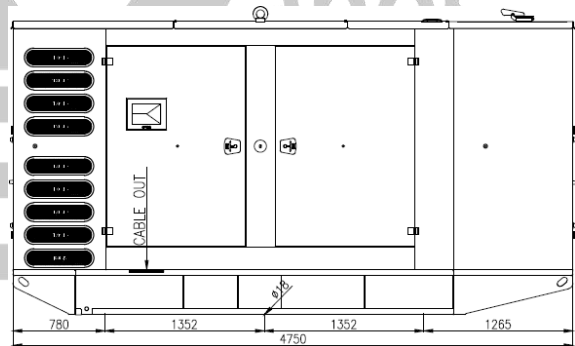
Open Skid Gen-Set Dimensions

Length	3265 mm
Width	1550 mm
Height	2105 mm
Dry Weight	3650 kg
Tank Capacity	850 L



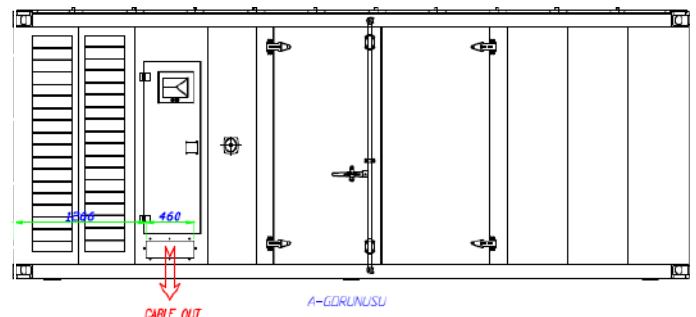
Enclosed Gen-Set Dimensions @480/380v Conf.

Length	4810 mm
Width	1610 mm
Height	2620 mm
Dry Weight	4800 kg
Tank Capacity	850 L
Sound Pressure @ 7 meters	TBA



Enclosed Gen-Set Dimensions @208/220v Conf.

Length	6500 mm
Width	2200 mm
Height	2353 mm
Dry Weight	7600 kg
Tank Capacity	1500 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
- Stand Alone Bulk 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

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