

AVP376-6



40 IPESA

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	AVP376-6	Frequency / PF	60Hz, 1800 rpm, 0.8pf
Engine Make & Model	Volvo TAD1341GE	Alternator Make	Stamford
Control Panel Model	DSE 7320	Base Frame / Enclosure	AKSA MS70

Genset Rating - 60Hz, 1800rpm, 0.8pf

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
TAD1341GE	HCI444D (Wnd-311)	480 / 277V	376kVA	342kVA	452A
	HCI444D (Wnd-14)	380 / 222V	376kVA	342kVA	571A
	HCI444D (Wnd-311)	220 / 127V	376kVA	342kVA	987A
	HCI444D (Wnd-311)	208 / 120V	375kVA	340kVA	1041A

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	Volvo Penta		
Model	TAD1341GE		
Displacement & Cylinders	12.78 L / 6 Cylinders		
Engine Speed	1800rpm		
Engine Standby Power	335 Kw		
Engine Prime Power	305 kW		
Aspiration	Turbocharged		
Compression Ratio	18.1:1		
Bore / Stroke	131 mm / 158 mm		
Effective Mean Pressure	1.7 Mpa		
Max Combustion Pressure	16.7 Mpa		
Total Mass Moment of Inertia	3.43 kgm²		
Friction Power	44 Kw		

Electric System

Engine Cranking Motor 24V

Engine Battery Charge System Negative Ground

Battery Qty, Rating, CCA 2 x 120Ah

Cooling System

Standard Radiator Core Area 0.8 m²

Pressure Cap Setting 70 kPa

Coolant Capacity 24 L

Max Top Tank Temperature 107 °C

Thermostat Range 82–92 °C

Exhaust System

Exhaust Gas Temp 403 °C

Max Allowable Back Pressure 10 kPa

Exhaust Gas Flow 62 m³/min

Fuel System

Wet Weight - Engine Only

Wet Weight - w/Cooling System

Sound Pressure at Rated Power

Injector Pump Type

Delphi E3

System Supply Flow

100 L/h

System Return Flow

18 L/h

Max Allowable Inlet Fuel Temp

50 °C

1325 kg

1790 kg

119.1 dB(A)

Air Intake System

Air Consuption $29 \text{ m}^3/\text{min}$ Max Intake Air Restriction 5 kPaAir Filter Type Dry Paper Element

Fuel Consumption

 Standby Power (110%)
 78.8 L/h

 Prime Power (100%)
 71.8 L/h

 Prime Power (75%)
 54.4 L/h

 Prime Power (50%)
 37.9 L/h

 Prime Power (25%)
 21.3 L/h

Lubrication System

Total System Capacity 36 LSump Capacity Max / Min 30 L / 19 LMax Oil Temp 130 °COil Pressure at Rated Speed 370 - 520 kPaOil Consumption 0.04 L/h



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Alternator Data

Manufacturer Stamford

Standards BS EN 60034

Control System Self Excited

A.V.R. SX440

Voltage Regulation \pm 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 BACo6A

Input Voltage 100V ~ 250V AC

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

Jacket Water Heater Data

Manufacturer AKSA

Model HTR4000

Input Voltage Based on Genset Voltage

Power 4000W

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

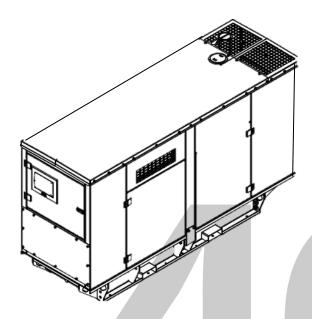




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- ✓ Heavy Duty Steel Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Control Panel Window
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges
- ✓ Internally Mounted Exhaust System with Rain Cap
- ✓ Coolant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



Open Skid Gen-Set Dimensions

Length 2900 mm

Width 1550 mm

Height 1923 mm

Dry Weight 2940 kg

Tank Capacity 700 L

Enclosed Gen-Set Dimensions

Length 4460 mm

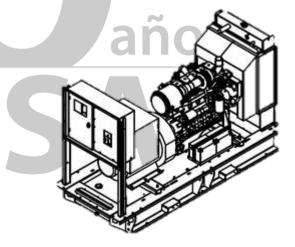
Width 1606 mm

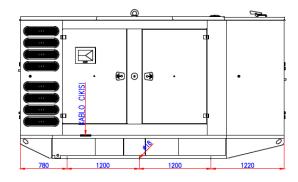
Height 2477 mm

Dry Weight 3970 kg

Tank Capacity 700 L

Sound Pressure @ 7 meters 76.2 dB(A)





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





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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**
- 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 ±0.5% w/MX321AVR
- 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

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