



APD276V-6





276 kVA / 220.8 kW POWERED by VOLVO

DIESEL GENERATING SET 480/277 V,380/220V,220/127V- 60 Hz

| MODEL | | | APD276V-6 |
|------------------|---------|-----|-----------|
| Power Pf. 0.8 | Standby | kVA | 276 |
| | | kW | 220.8 |
| | Prime | kVA | 251 |
| | | kW | 200.8 |

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.

Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.

- ✓ High quality, reliable and complete power unit
- √ Compact design
- ✓ Easy start and maintenance possibility
- ✓ Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
- ✓ Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer











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



ENGINE

| VOLVO PENTA | | | | | | |
|-------------------------------|--------|--------------------------|--|--|--|--|
| Model | | TAD734GE | | | | |
| Engine Power Output | kWm | 263 | | | | |
| at rated rpm | HP | 357 | | | | |
| Aspiration and Cooling | | Turbocharged intercooled | | | | |
| Total Displacement | Litre | 7.15 | | | | |
| No. of Cylinders and Build | | 6 Cylinder, In-Line | | | | |
| Engine Speed | rpm | 1800 | | | | |
| Bore and Stroke | mmxmm | 108 x 130 | | | | |
| Compression Ratio | | 17:1 | | | | |
| Governor | | EMS II | | | | |
| Fuel Consumption at full load | L/hr | 56.9 | | | | |
| Fuel Tank Capacity | Litre | Open:470/Canopy:470 | | | | |
| Oil Capacity | Litre | 29 | | | | |
| Coolant Capacity | Litre | 32 | | | | |
| Radiator Cooling Air | m³/min | 301.6 | | | | |
| Air Intake – Engine | m³/min | 18.9 | | | | |
| Exhaust Gas Flow | m³/min | 37.9 | | | | |

- ✓ Heavy duty Volvo Penta diesel engine
- ✓ Four stroke, water cooled
- ✓ Direct injection fuel system
- ✓ Electronic Governor system
- ✓ 12/24 V D.C. starter and charge alternator
- ✓ Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- ✓ Jacket water heater(at automatic models)
- ✓ Operation manuals and circuit diagram documents

ALTERNATOR

| Design | Brushless single bearing, revolving field |
|---------------------------------------|--|
| Stator | 2/3 pitch |
| Rotor | Single bearing, flexible disc |
| Insulation System | Class H |
| Standard Temperature Rise | 125 - 163°C Continuous |
| Exciter Type | Self Excited |
| Phase Rotation | A (U), B (V), C (W) |
| Alternator Cooling | Direct drive centrifugal blower fan |
| AC Waveform Total Harmonic Distortion | No load < 1.5%. Non distorting balanced linear load < 5% |
| Telephone Influence Factor (TIF) | <50 per NEMA MG1-22.43 |
| Telephone Harmonic Factor (THF) | <2% |

- ✓ Brushless, single bearing system, flexible disc, 4 poles
- ✓ Insulation class H
- ✓ Standard degree of protection IP21 (*IP22/IP23 is available.)
- ✓ Self-exciting and self-regulating

- ✓ Impregnation with tropicalised epoxy varnish✓ Solid state Automatic Voltage Regulator
- ✓ Stator winding with 2/3 pitch for improved harmonics

CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1. Auto Mains Failure Control Panel

Panel equipments:

- ✓ Control with AMF module
- ✓ Static battery charger
- ✓ Emergency stop push button

a) Generating set control module DSE 7320 features:

- √ The module is used to monitor a mains supply and starts and stops a standby generating set
- √ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ Easy push button control STOP/RESET - MANUAL -TEST- AUTO - MUTE ALARM - START

b) Metering via LED display:

- ✓ Generator Volts (L-L / L-N)
- √ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C&° F)
- ✓ Generator Frequency (Hz)✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos (σ)



DSE 7320

c) Alarms:

- ✓ Over and Under Speed
- ✓ Low and High Battery Volt.
- ✓ Start and Stop Failure
- ✓ Charge fail
- ✓ Over Current
- ✓ Under / Over Generator Voltage
- √ Low Oil Pressure
- ✓ Emergency stop
- √ High engine temperature
- √ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

d) LED indications

Four configurable LED's like:

- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load

2. Power Outlet Terminal Board Mounted on the Genset Base Frame

OPTIONAL EQUIPMENTS

Diesel Engine

✓ Oil heater

Alternator

- ✓ 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater

Panel

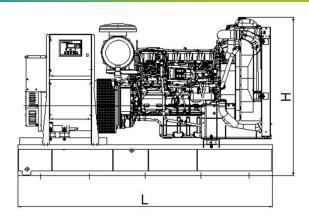
- ✓ Charge ammeter
- ✓ Transfer Switch 3 Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault ,single set

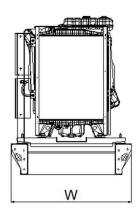
Accessories

- ✓ Bulk fuel tank
- ✓ Automatic filling system
- √ Fuel-water separator filter
- ✓ Low fuel level alarm
- √ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Traile
- ✓ Manual oil drain pump
- √ Tool kit for maintenance



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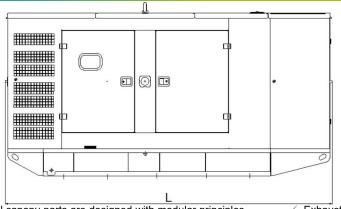


- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 1000 kVA)
- The generating set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)

DIMENSIONS

| OPEN TYPE | | | | | | | |
|-----------------------|----|----------------|--|--|--|--|--|
| DIMENSIONS (LxWxH) | mm | 2750x1300x1779 | | | | | |
| DRY WEIGHT | kg | 2290 | | | | | |
| SOUND ATTENUATED TYPE | | | | | | | |
| DIMENSIONS (LxWxH) | mm | 3963x1356x2171 | | | | | |
| DRY WEIGHT | kg | 2890 | | | | | |

CANOPY



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- All canopy parts are designed with modular principles
- Without welding assembly
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- Exhaust silencer is protected against environment influences
- Thermally insulated engine exhaust system
- Emergency stop push button is installed outside of the canopy
- Easy lifting and moving
- Easy maintenance and operation

Aksa Power Generation

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