AD825

825kVA / 750kW
POWERED by Doosan

DIESEL GENERATING SET  400/230 V - 50 Hz

<table>
<thead>
<tr>
<th>MODEL</th>
<th>AD825</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>kVA 825</td>
</tr>
<tr>
<td></td>
<td>kW 660</td>
</tr>
<tr>
<td>Prime</td>
<td>kVA 750</td>
</tr>
<tr>
<td></td>
<td>kW 600</td>
</tr>
</tbody>
</table>

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

### DOOSAN

<table>
<thead>
<tr>
<th>Model</th>
<th>DP222LC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td>kWm</td>
</tr>
<tr>
<td>at rated rpm</td>
<td>HP</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbocharged intercooled</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>12-Cylinder ,V-type</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mmxm</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>15:1</td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic control</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min</td>
</tr>
</tbody>
</table>

- Heavy duty DOOSAN diesel engine
- Four stroke, water cooled, Natural
- 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)

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

Diezel 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
✓ Trailer
✓ Manual oil drain pump
✓ Tool kit for maintenance
CHASSIS

- 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 750 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

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions (LxWxH)</th>
<th>DRY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPEN TYPE</td>
<td>mm</td>
<td>kg</td>
</tr>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>3630x1550x2300</td>
<td>4320</td>
</tr>
</tbody>
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<th>Type</th>
<th>Dimensions (LxWxH)</th>
<th>DRY WEIGHT</th>
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</thead>
<tbody>
<tr>
<td>SOUND ATTENUATED TYPE</td>
<td>mm</td>
<td>kg</td>
</tr>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>5300x1610x2660</td>
<td>5535</td>
</tr>
</tbody>
</table>

CANOPY

- 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