2212222 10 2123

AJD110





DIESEL GENERATING SET 400/230V- 3phase -50HZ

| MODEL | | | AJD110 |
|------------------|---------|-----|--------|
| Power Pf. 0.8 | Standby | kVA | 110 |
| | | kW | 88 |
| | Prime | kVA | 100 |
| | | kW | 80 |

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 off-road trailer











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



ENGINE



| JOHN DEERE | | | | | | |
|-------------------------------|--------|---------------------|--|--|--|--|
| Model | | 4045HF120 | | | | |
| Engine Power Output | kWm | 102 | | | | |
| at rated rpm | HP | 137 | | | | |
| Aspiration and Cooling | | Turbocharged | | | | |
| Total Displacement | Litre | 4.5 | | | | |
| No. of Cylinders and Build | | 4,In-line | | | | |
| Engine Speed | rpm | 1500 | | | | |
| Bore and Stroke | mmxmm | 106 x 127 | | | | |
| Compression Ratio | | 17.0:1 | | | | |
| Governor | | Mechanical | | | | |
| Fuel Consumption at 100% load | L/hr | 27.65 | | | | |
| Fuel Tank Capacity | Litre | Open:240/Canopy:240 | | | | |
| Oil Capacity | Litre | 17 | | | | |
| Coolant Capacity | Litre | 8.5 | | | | |
| Radiator Cooling Air | m³/min | 159 | | | | |
| Air Intake – Engine | m³/min | 7 | | | | |
| Exhaust Gas Flow | m³/min | 18.7 | | | | |

- √ Heavy duty John Deere diesel engine
- ✓ Four stroke, water cooled, Turbocharged
- ✓ Direct injection fuel system
- ✓ Mechanical Governor system
- √ 12 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
- ✓ 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 IP23
- ✓ Self-exciting and self-regulating

- \checkmark All wound components are impregnated with materials and processes designed specifically
- ✓ Solid state Automatic Voltage Regulator
- ✓ Stator winding with 2/3 pitch for improved harmonics

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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 DSE6120 features:

- √ The module is used to monitor main supply and starts and stops of a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of main and generator contactors
- Monitors engine performance and AC power output LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- √ 4 configurable analogue/digital inputs, 8 configurable digital inputs
- √ 6 configurable DC outputs
- ✓ Easy push button control

STOP/RESET - MANUAL - AUTO - TEST - START

b) Metering via LCD 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 Generator kW
- Generator Cos (σ)



DSE 6120

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

d) LED indications

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

2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

OPTIONAL EQUIPMENTS

Diesel Engine

√Oil heater

Alternator

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

Panel

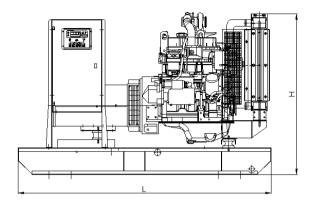
- ✓ Charge ammeter
- ✓ Transfer Switch 3Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault ,single set

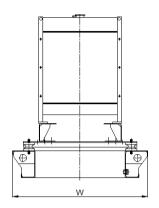
Accessories

- ✓ 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

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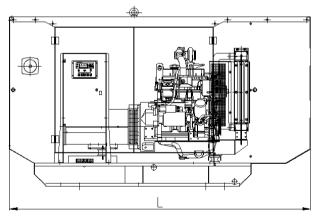


- √ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 1000 kVA)
- ✓ The generating set can be lifted or carefully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

DIMENSIONS

| OPEN TYPE | | | | | | | |
|-----------------------|----|----------------|--|--|--|--|--|
| DIMENSIONS (LxWxH) | mm | 2150x1050x1452 | | | | | |
| DRY WEIGHT | kg | 950 | | | | | |
| SOUND ATTENUATED TYPE | | | | | | | |
| DIMENSIONS (LxWxH) | mm | 3100x1104x1741 | | | | | |
| DRY WEIGHT | kg | 1480 | | | | | |

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