

DCA-100SSJU — SPECIFICATIONS

Table 7. Specifications		
Generator Specifications		
Model	DCA-100SSJU	
Type	Revolving field, self ventilated, drip proof single bearing	
Armature Connection	Star with Neutral/ Zig Zag	
Voltage-3 phase	208, 220, 240, 416, 440, 480V switchable	
Voltage-single phase	120, 127, 139, 240, 254, 277V switchable	
Standby Output	110 KVA (88 KW)	
Prime Output	100 KVA (80 KW)	
Frequency	60 Hz	
Speed	1800 rpm	
Power Factor	0.8	
Sound Level dB(A) Full Load at 23 feet	67	
Insulation	Class F	
Engine Specifications		
Model	JOHN DEERE 6068TF150	
Type	4 Cycle, water-cooled, direct injection, turbo-charged	
No. of Cylinders	6 cylinders	
Bore x Stroke	(106 mm x 127 mm)	
Rated Output	129 HP/1800 rpm	
Displacement	410 cu. in. (6724 cc)	
Starting	Electric	
Coolant Capacity	10.3 gal. (39 liters)	
Lube Oil Capacity	4.5 gal. (17 liters)	
Fuel Consumption	6.6 gal(25.1L)/hr at full load	5.0 gal(19.0L)/hr at 3/4 load
	3.5 gal(13.3L)/hr at 1/2 load	2.1gal(8.0L)/hr at 1/4 load
Battery	12V- 150 AH x1	
Fuel	#2 Diesel Fuel	

DCA-100SSJU FAMILIARIZATION

Generator

The MQ Power Model DCA-100SSJU is a 80 kW **generator** that is designed as a high quality portable (requires a trailer for transport) power source for telecom sites, lighting facilities, power tools, submersible pumps and other industrial and construction machinery.

Engine Operating Panel

The "Engine Operating Panel" is provided with the following:

- Tachometer
- Water Temperature Gauge
- Oil Pressure Gauge
- Charging Ammeter Gauge
- Fuel level gauge
- Engine Speed Switch
- Pre-Heat Button
- Emergency Stop Button
- Battery Switch
- Panel Light
- Panel Light Switch
- Auto Start/Stop Controller

Generator Control Panel

The "Generator Control Panel" is provided with the following:

- Output Voltage Adjustment Knob
- Frequency Meter (Hz)
- AC Ammeter (Amps)
- AC Voltmeter (Volts)
- Ammeter Change-Over Switch
- Voltmeter Change-Over Switch
- Pilot Lamp

Output Terminal Panel

The "Output Terminal Panel" is provided with the following:

- Three 120/240V output receptacles, 50 amp
- Two 120V input receptacles, 20 amp
- 3 Load Circuit Breakers 250V @50 amps
- 2 Load GFCI Circuit Breakers 120V@ 20amps

Control Box

The "Control Box" is provided with the following:

- Main Circuit Breaker 250 amps
- Over-Current Relay

Open Delta Excitation System

The DCA-100SSJU generator is equipped with the state of the art "**Open-Delta**" excitation system. The open delta system consist of an electrically independent winding wound among stationary windings of the AC output section.

There are four leads: A, B, C and D. During light loads, the power to the **Automatic Voltage Regulator (AVR)** is supplied from the leads parallel connections of B&C. When loads increase, the AVR switches and accepts power from leads A&D. The output of leads A&D increase proportionally with load. This of adding the voltages to each phase provides better voltage response during heavy loads.

The connections of the AVR to the AC output windings are for sensing only. No power is required from these windings.

The open-delta design provides virtually unlimited excitation current, offering maximum motor starting capabilities. The excitation does not have a "**fixed ceiling**" and responds according the demands of the required load.

Engine

The **DCA-100SSJU** is powered by a 4 cycle, water cooled, turbocharged JOHN DEERE 6068 TF 150 **diesel** engine. This engine is designed to meet every performance requirement for the generator. Reference Table 1, page 13 for engine specifications.

In keeping with Multiquip's policy of constantly improving its products, the specifications quoted herein are subject to change without prior notice.

The basic controls and indicators for the DCA-100SSJU generator are addressed on the following pages.

Mechanical Governor System

The mechanical governor system control the RPM of the engine. When the engine demands increase or decrease, the mechanical governor system regulates the frequency variation to $\pm 1.5\%$. The electronic governor option increases frequency variation to $\pm 0.25\%$.

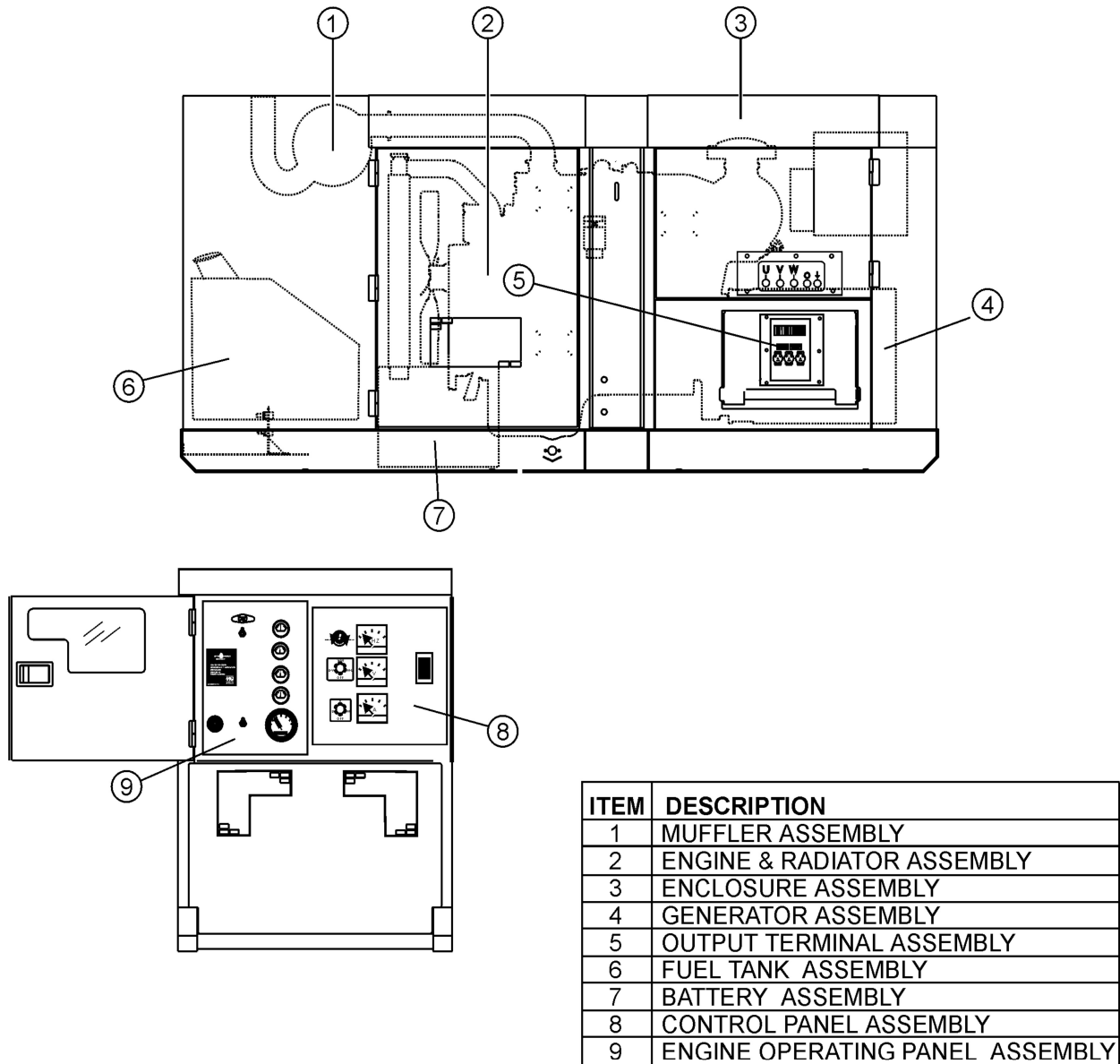


Figure 6. Major Components

DCA-100SSJU — DIMENSIONS (TOP, SIDE AND FRONT)

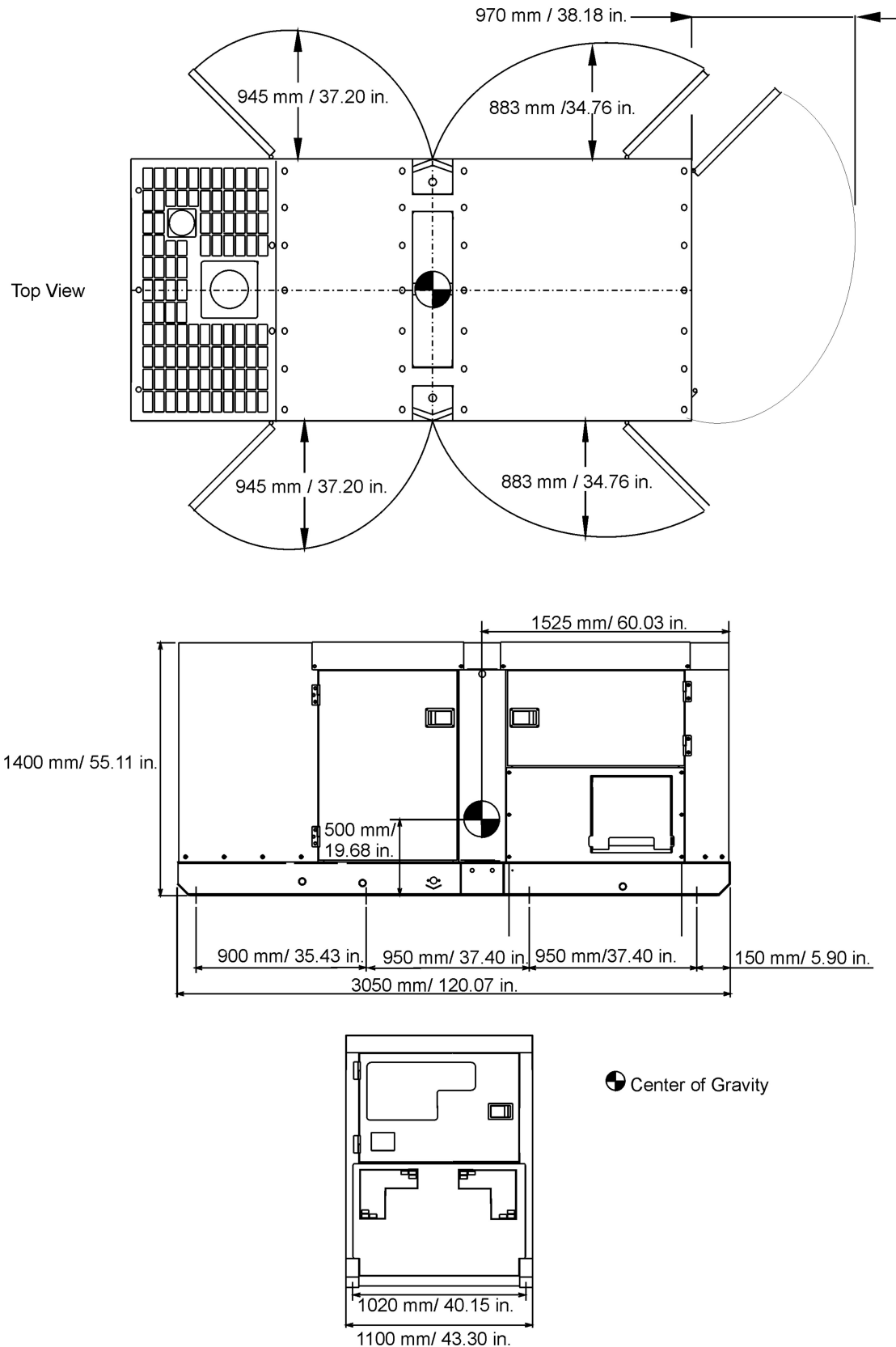


Figure 7. Dimensions