

**shindaiwa®**

# **SPECIFICATIONS**

Diesel Engine Generator  
**DG50MK-P/ANZ**

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# **CHAPTER 1: GENERAL**

## **1. Standard**

Design and production are in conformity with:

- (1) Japan Industrial Standards (JIS)
- (2) Low Noise Type Construction Machinery Standard
- (3) Voluntary Emission Regulations for non-road engines in Japan by MLIT. (Tier 3)

\*MLIT : Ministry of Land, Infrastructure, Transport and Tourism.

## **2. Design Condition**

- (1) Installation Place: Outside Only.
- (2) Ambient Temperature: 5 to 104° F (-15 to 40°C)
- (3) Humidity: Less than 80%
- (4) Altitude: Less than 984 ft. (300 m) above sea level

## **3. Test and Check**

Test shall be conducted with a complete workable unit of the diesel engine unit.

Check Items:

- (1) Insulation and Dielectric Test
- (2) Starting
- (3) Protection Device Working Test
- (4) Voltage Deviation and Speed Variation: 0-4/4 Load
- (5) Load Test: Welding and Generating 4/4 Load

## **4. Painting**

Painting and color specifications are as per manufacturer's standard.

## **5. Structure**

- (1) Bed and Vibration Proof Device  
Alternator is directly coupled with engine and both are installed on the bed through the vibration proof device.
- (2) Low Noise  
Low noise structure is put in the inside of the bonnet.  
Sound Level: 57 dB(A) @7m distance under no load.
- (3) Fuel Tank  
A steel fuel tank is equipped and incorporated with the electrical level gauge.

## CHAPTER 2: SPECIFICATIONS

Model		Unit	DG50MK-P/ANZ
Alternator	Generating Type	-	Rotating Filed, Brushless 3-Phase Synchronous Alternator
	Rated Output	kVA	50
		kW	40
	Rated Voltage	V	415
	Rated Current	A	69.6
	Rated Frequency	Hz	50
	Winding	-	3-Phase, 4-Wire
	Power factor	%	80
	Insulation class	-	F
	Excitation	-	Self-Excitation (Brushless)
No. of poles	-	4	
Engine	Types	-	Vertical Water-Cooled 4-Cycle Diesel Engine
	Model (Manufacturer)	-	V3800DI-TI (KUBOTA)
	No. of Cylinders (bore x stroke)	mm	4 (100 X 120)
	Continuous rated output	kW	49.2
		PS	66.9
	Rated speed	min <sup>-1</sup>	1500
	Displacement	L	3.769
	Combustion system	-	Direct Fuel Injection with Turbo Charger
	Cooling method	-	Radiator
	Lubricating method	-	Forced Lubrication
	Starting method	-	Electric Start
	Fuel	-	Diesel Fuel (ASTM No. 2-D)
	Lubricant oil	-	CD class
	Fuel tank capacity	L	420
	Lubricant volume (Full)	L	13.2
	Cooling water volume	L	12.5
	Starting motor capacity	V-kW	12 - 3.0
Charging dynamo capacity	V-A	12 - 80	
Battery	-	130E41R	
Unit	Length	mm	1970
	Width	mm	880
	Height	mm	1665
	Dry Weight	kg	1315
	Installed Weight	kg	1705

\*Specifications are subject to change without notice.

# CHAPTER 3: EQUIPMENT AND FEATURE

## 1. Equipment

### (1) Generator

Voltage Meter .....	1 pc.
Ampere Meter .....	1 pc.
Frequency Meter .....	1 pc.

3-Phase Receptacle (50A) .....	1 pcs.
3-Phase Receptacle (32A) .....	1 pcs.
3-Phase Receptacle (20A) .....	1 pc.
1-Phase Receptacle (15A) .....	3 pcs.

### (2) Safety Device

Emergency Stop Button .....	1 pc.
Battery Isolator .....	1 pc.
Main Breaker - with leakage shut off device .....	1 pc.
ELCB (3-Phase) .....	3 pcs.
ELCB (1-Phase) .....	3 pcs.
3-Phase Breaker (50A) .....	3 pcs.
3-Phase Breaker (32A) .....	3 pcs.
3-Phase Breaker (20A) .....	3 pcs.
1-Phase Breaker (15A) .....	3 pcs.

Protective Monitor ..... 1 set

- Engine (Engine Malfunction)
- Battery Charge (with auto engine shutdown feature)
- Oil Pressure (with auto engine shutdown feature)
- Over Heat (with auto engine shutdown feature)
- Over Speed (with auto engine shutdown feature)
- Air Filter
- Spill Containment

Fuel "Keyed" Cover .....	1 pc.
Panel//Right Doors (w/ locking feature) .....	1 pc ea.

Automatic Shut-Down Feature (when some protective problems are detected.)

### (3) Equipment

Fuel Meter .....	1 pc.
Water Temp. Meter .....	1 pc.
Monitor Lamp .....	1 set
Preheat Lamp .....	1 pc.

Panel Light.....	1 pc.
Throttle Switch .....	1 pc.
Starter Switch.....	1 pc.
Fuel Tank .....	1 pc.
Fuel Filter (w/ fuel strainer) .....	1 pc.
Air Cleaner.....	1 pc.
Fuel Drain Plug .....	1 pc.
Oil Drain Plug.....	1 pc.
Coolant Drain Plug.....	1 pc.
Hour Meter.....	1 pc.
Pilot Lamp .....	1 pc.
Low Noise Air Flow System	

## 2. Feature

### (1) Feature

- Sound Level 57B(A) at 7m distance under no load.
- Generating Performance 1-Phase & 3-Phase
- 2 Way Drive Control High/Low Speed
- Environmental Quiet Sound System
- Fuel Tank Capacity 111 gal. (420 Liters)
- Dry Weight 2899 lbs. (1315 kg)
- Dimensions (LxWxH) 77.5" x 34.6" x 65.5" (1970 x 880 x 1665 mm)

### (2) Protection Device

Item	Set Value	Engine Shut-Down
Water Temp.	230° F/110°C	✓
Low Battery Charge	8V	✓
Low Oil Pressure	7 psi/49kPa	✓
Air Filter	when clogged	No
Over Speed	2070 rpm	✓
Spill Containment	10.6 gal./40 liters	No

### (3) Fuel Economy

Criteria	Fuel Consumption
Full load	3.2 gal./hr (12.0L/hr.)
3/4 load	2.3 gal./hr (8.8L/hr.)
1/2 load	1.6 gal./hr (6.0L/hr.)
1/4 load	0.8 gal./hr (3.0L/hr.)
No Load	N/A

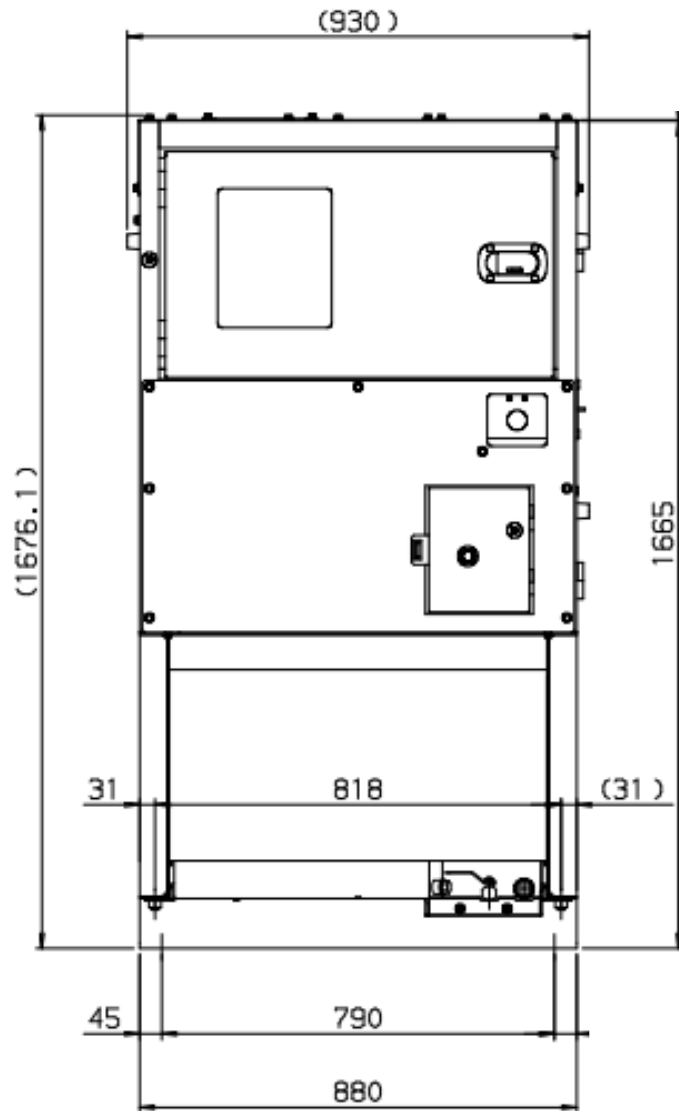
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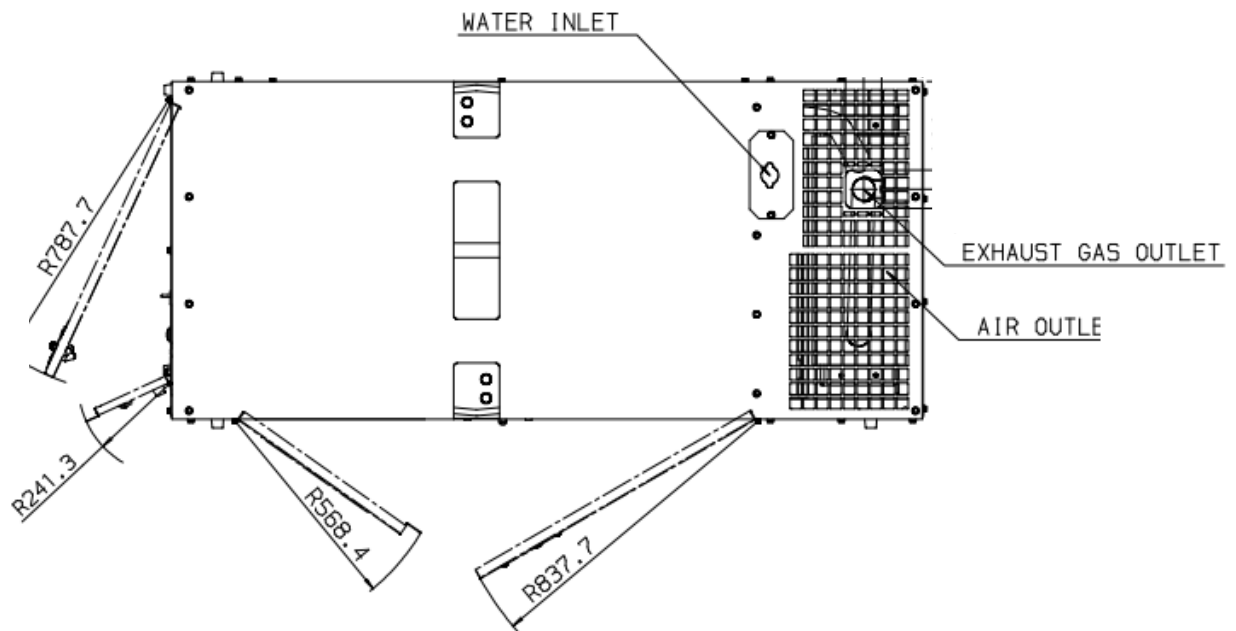
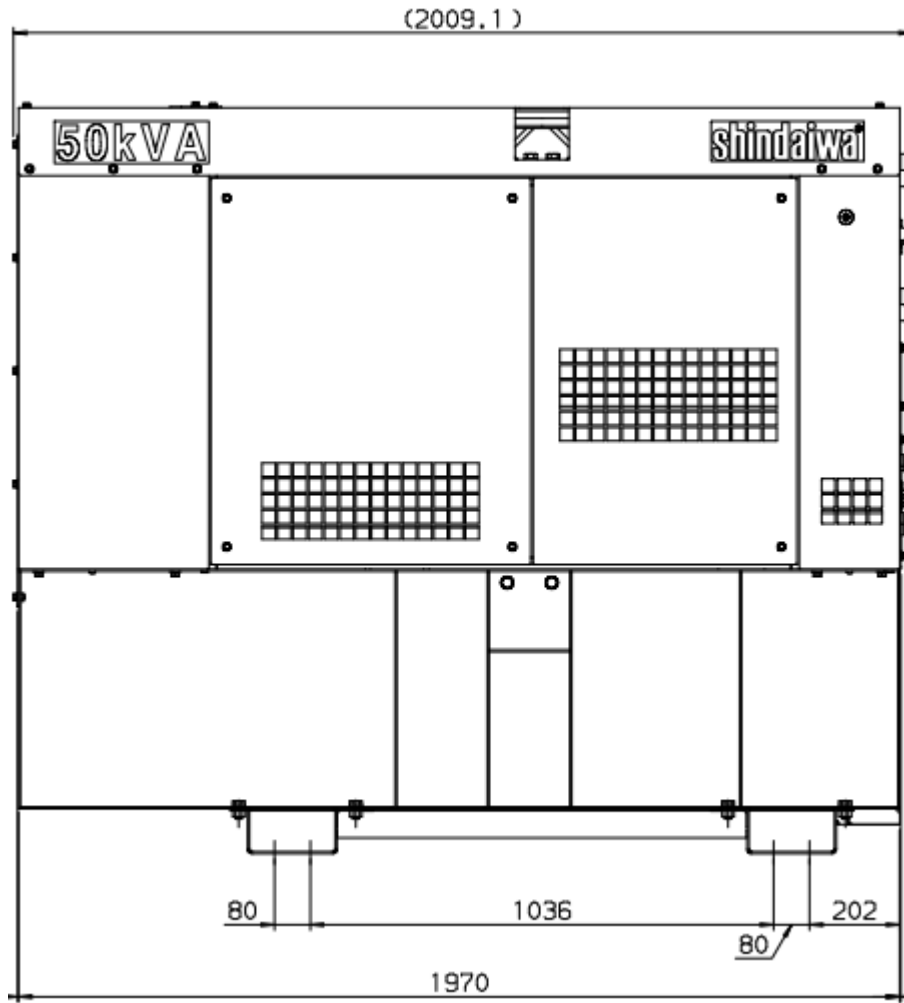
(4) Accessories

Operator's Manual  
Starter Key

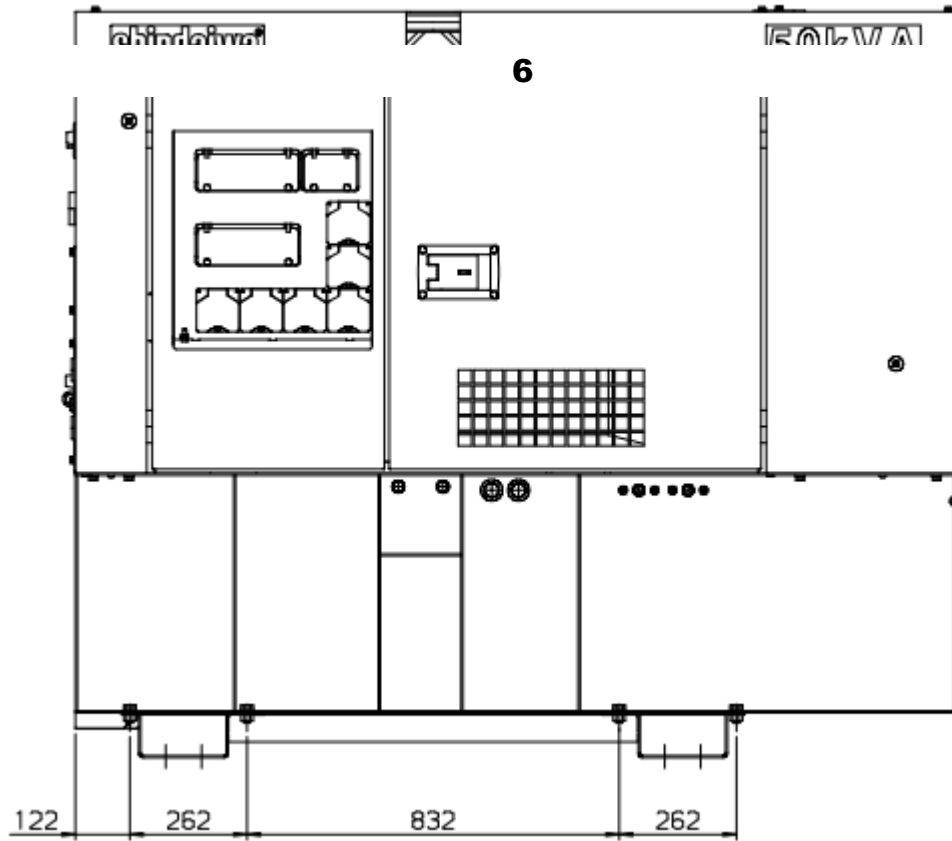
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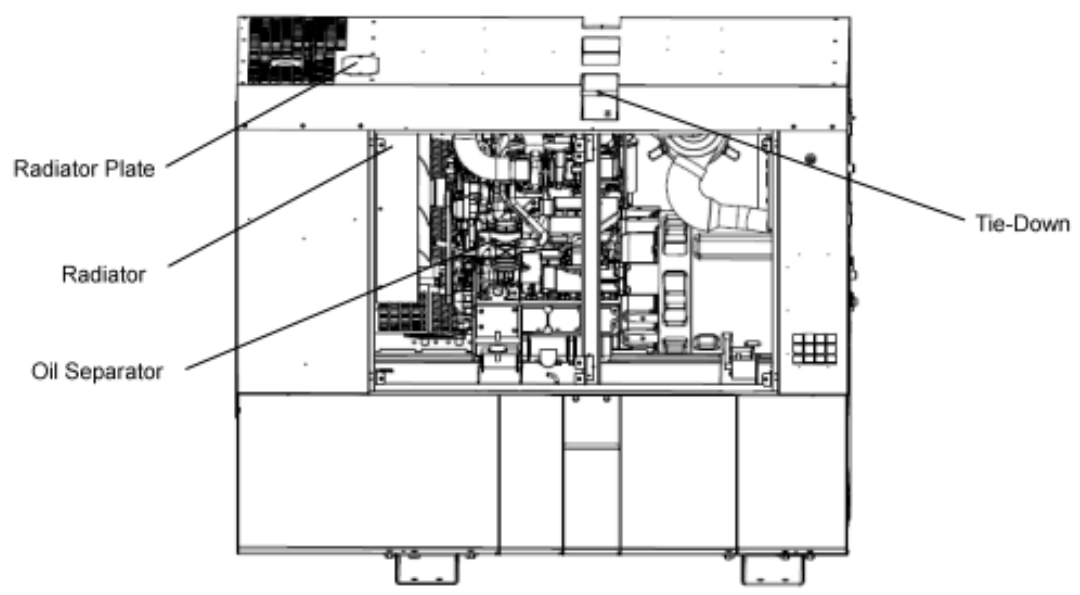
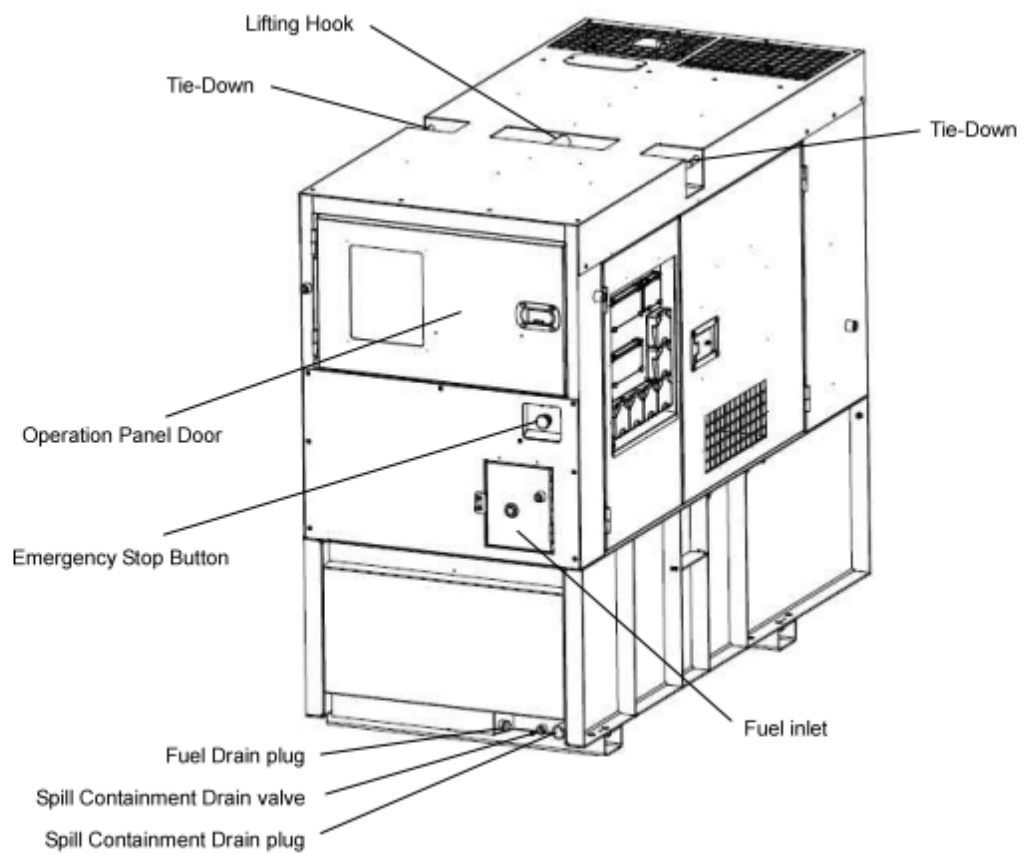
## CHAPTER 4: APPEARANCE











\* Shown with side-plate removed.

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