

shindaiwa®

SPECIFICATIONS

Diesel Engine Generator
DG20MK-P/ANZ

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CHAPTER 1: GENERAL

1. Standards

Design and production are in conformity with:

- (1) Japan Industrial Standards: JIS C 9300-1
- (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 Conditions

- (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: 62 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	DG20MK-P/ANZ
Alternator	Generating Type	-	Rotating Field, Brushless 3-Phase Synchronous Alternator
	Rated Output	kVA	20
		kW	16
	Rated Voltage	V	415
	Rated Current	A	27.8
	Rated Frequency	Hz	50
	Winding	-	3-phase, 4-wire
	Power Factor	%	80
	Insulation Class	-	F
	Excitation	-	Self-Excitation (Brushless)
	No. of Pole	-	4
Engine	Type	-	Vertical Water-cooled 4-cycle Diesel Engine
	Model (Manufacturer)	-	V2403-K3A (KUBOTA)
	No. of Cylinder (bore x stroke)	mm	4 (87 X 102.4)
	Rated Output (Continuous)	kW	19.1
		PS	26.0
	Rated Speed	min ⁻¹	1500
	Displacement	L	2.434
	Combustion System	-	Direct Fuel Injection
	Cooling	-	Radiator
	Lubricating	-	Forced Lubrication
	Starting	-	Electric Start
	Fuel	-	Diesel Fuel (ASTM No. 2-D)
	Lubricant Oil	-	CD Class
	Fuel Tank Capacity	L	198
	Lubricant volume (Full)	L	9.7
	Cooling Water Volume	L	9.7
	Starting Motor Capacity	V-kW	12 - 1.4
Charging Dynamo Capacity	V-A	12 - 30	
Battery	-	80D26R	
Unit	Length	mm	1500
	Width	mm	700
	Height	mm	1310
	Dry Weight	kg	720
	Installed Weight	kg	908

*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.
AC Voltage Adjusting Dial.....	2 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)	1 pc.
ELCB (1-Phase)	3 pcs.
3-Phase Breaker (20A)	1 pc.
1-Phase Breaker (15A)	3 pcs.
Protective Monitor	1 set
●Battery Charge (with auto engine shutdown feature)	
●Oil Pressure (with auto engine shutdown feature)	
●Water Temp. (with auto engine shutdown feature)	
●Over Speed (with auto engine shutdown feature)	
●Air Filter	
●Spill Containment	
Fuel "Keyed" Cover	1 pc.
Front Panel/Right Doors (w/ locking feature)	1 pc ea.

Automatic Engine Shut-Down Feature (responding to some protective issues.)

(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 62B(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 52 gal. (198 Liters)
- Dry Weight 1587 lbs. (720 kg)
- Dimensions (LxWxH) 59.0” x 27.6” x 51.6” (1500 x 700 x 1310 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	5.3 gal./20 liters	No

(3) Fuel Economy

Criteria	Fuel Consumption
Full load	2.5 gal./hr (9.3L/hr.)
3/4 load	1.9 gal./hr (7.0L/hr.)
1/2 load	0.8 gal./hr (3.0L/hr.)
1/4 load	0.6 gal./hr. (2.3L/hr.)
No Load	n/a

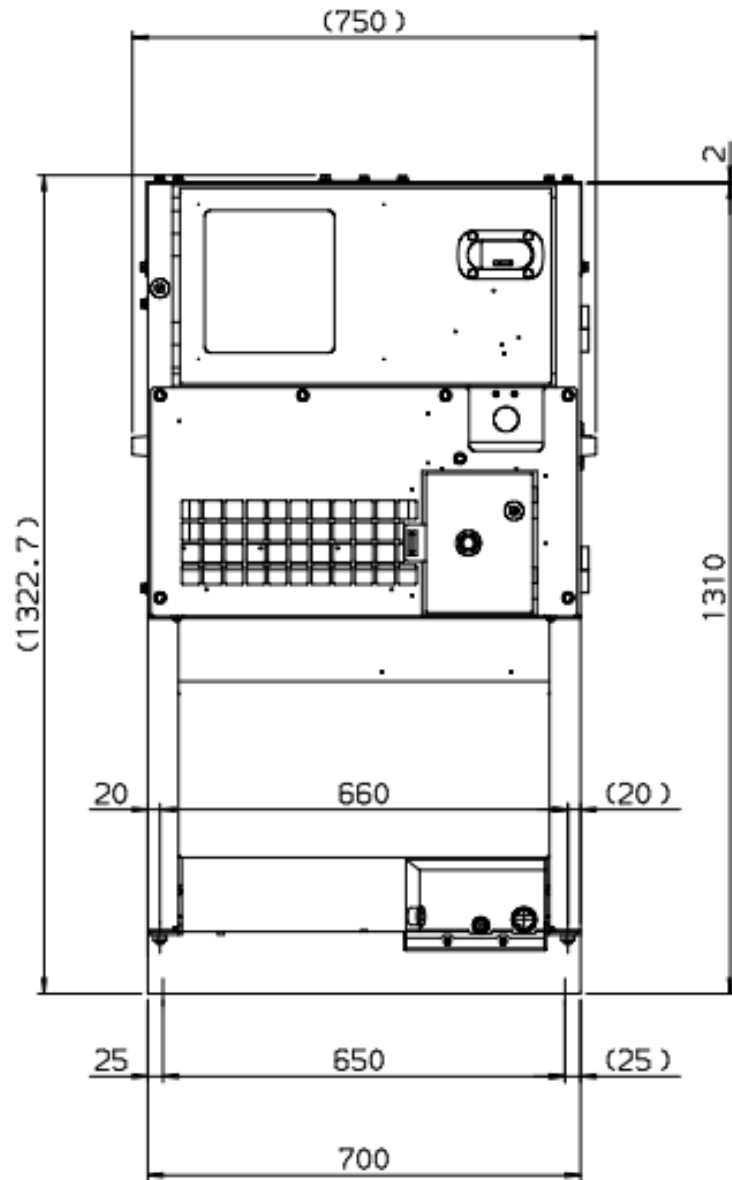
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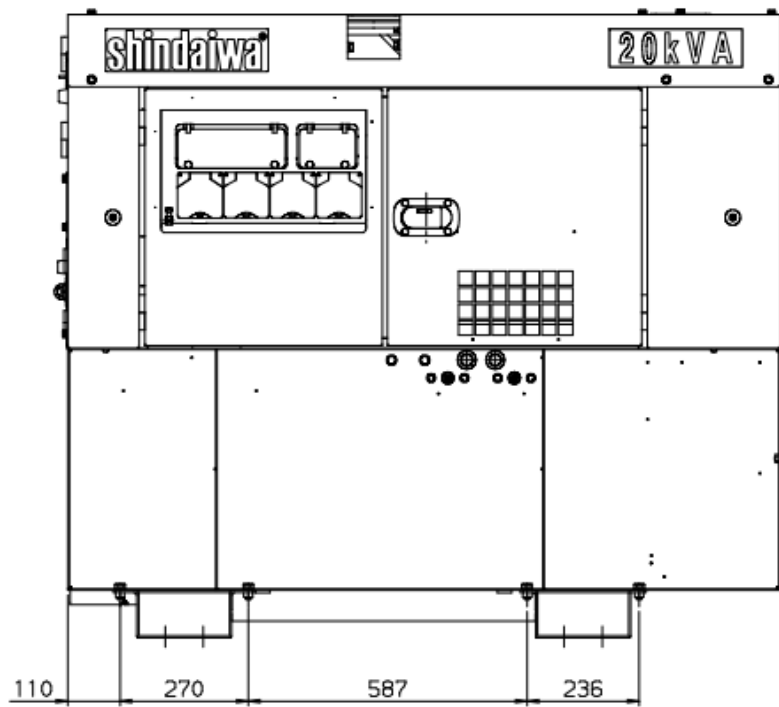
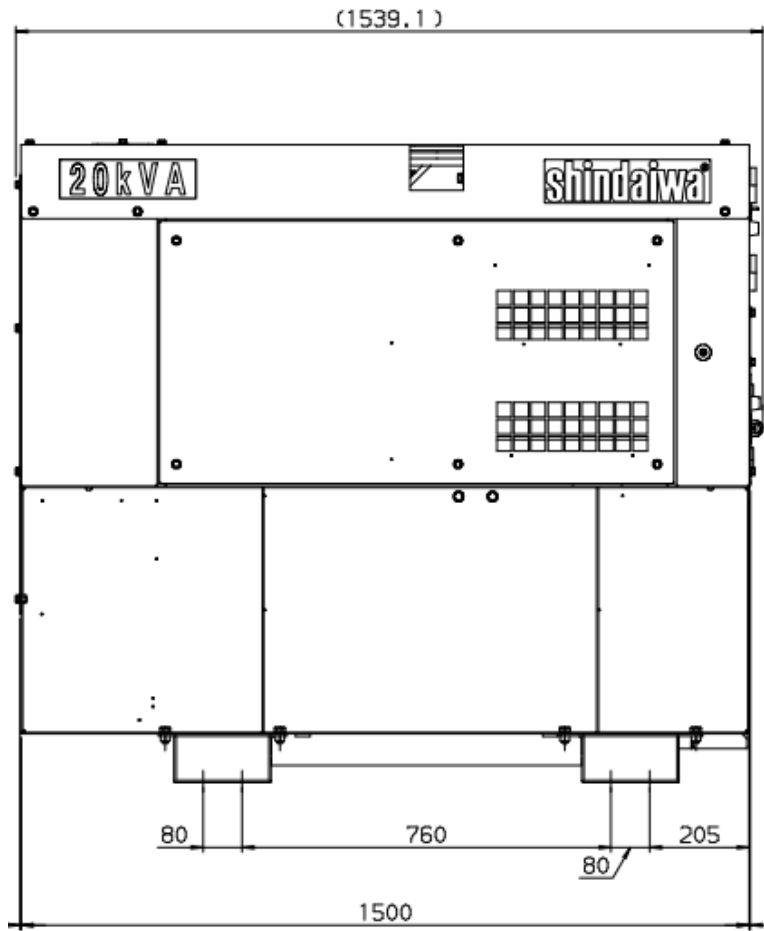
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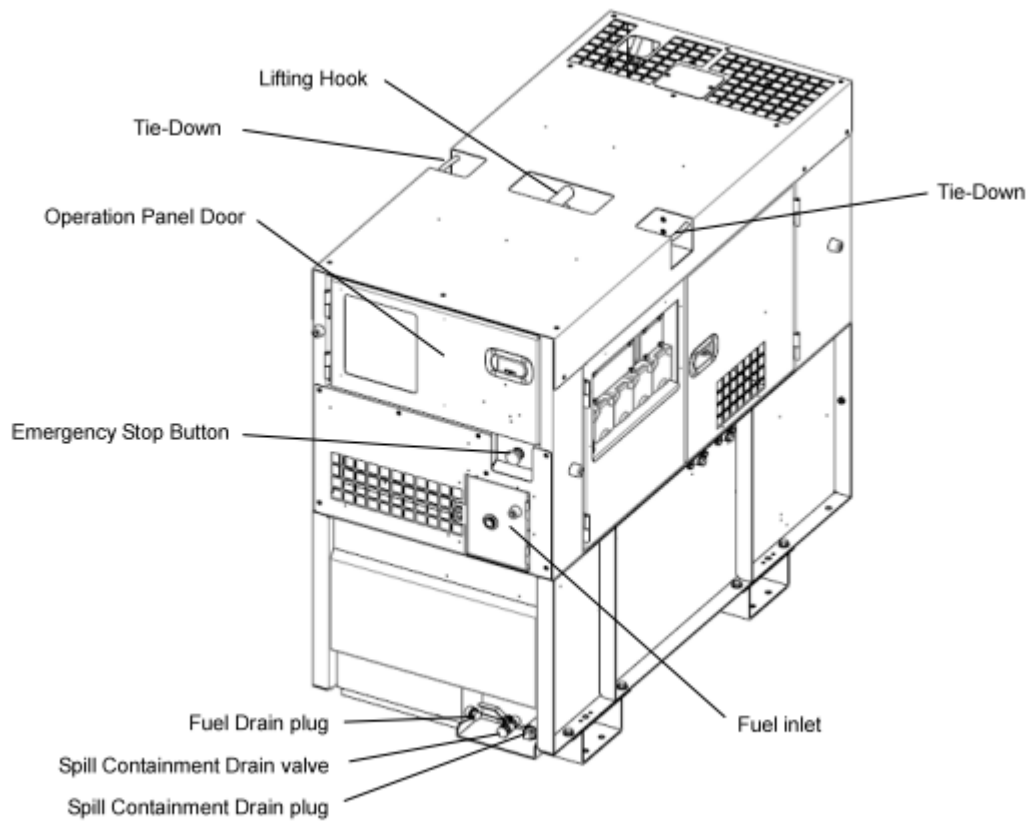
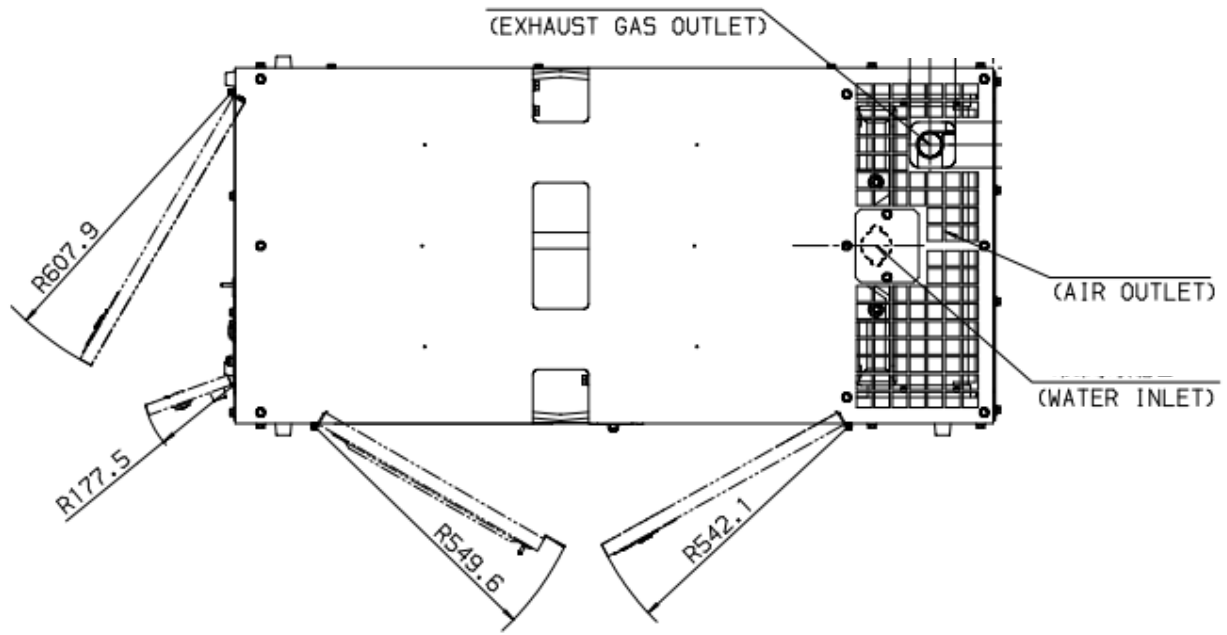
Operator's Manual
Starter Key

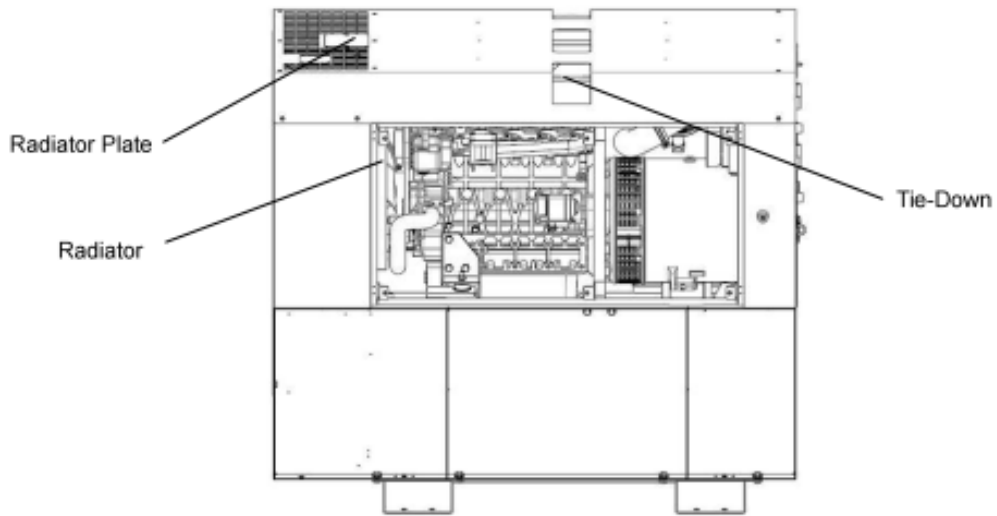
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CHAPTER 4: APPEARANCE

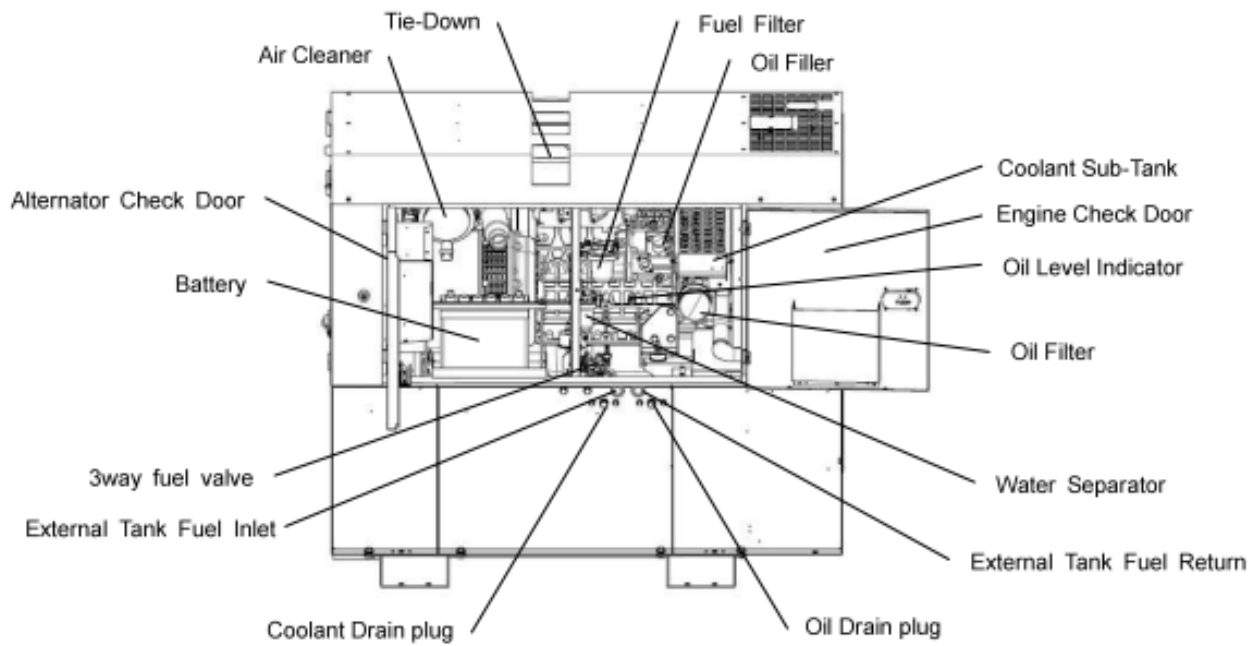








* Shown with side-plate removed.



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