

**shindaiwa<sup>®</sup>**

# **SPECIFICATIONS**

## **DGA20E**

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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) EPA Interim Tier 4 Emission

## 2. Design Conditions

- (1) Installation Place: Outside Only.
- (2) Ambient Temperature: -15 to +40°C
- (3) Humidity: Less than 80%
- (4) Altitude: Less than 300 meters above sea level

## 3. Test and Check

Test shall be done 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: 51dB(A) @7m distance under no load, 1500 min<sup>-1</sup>.

- (3) Fuel Tank

A steel fuel tank is equipped and incorporated with the electrical level gauge.

## CHAPTER 2: SPECIFICATIONS

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		Unit	DGA20E
Generator	Generating Method	-	Rotating Filed, Brushless 3-Phase Synchronous Generator
	Rated Output	kVA	20
		kW	16
	Rated Voltage	V	415
	Rated Current	A	27.8
	Rated Frequency	Hz	50
	Rated Speed	min <sup>-1</sup>	1500
	Phase & Wiring	-	3-Phase 4-Wire
	Power Factor	%	80
	Insulation Class	-	F
	Exciting Method	-	Self Excitation(Brushless)
Poles	-	4	
Engine	Method	-	Vertical, Water-cooled 4-Cycle, Diesel Engine
	Model No.	-	Isuzu BV-4LE1
	Cylinder-bore x stroke	mm	4 - 85 x 96
	Continuous Rated Output	kW{PS}	19.1{26}
	Speed	min <sup>-1</sup>	1500
	Displacement	L	2.179
	Combustion Method	-	Swirl Chambered
	Cooling Method	-	Water-cooling radiator
	Lubricating	-	Trochoid pump, force-feed lubrication
	Starting	-	Starter Motor
	Fuel	-	Diesel
	Oil	-	SAE Class CD or higher
	Fuel Tank Capacity	L	78
	Lubricant Volume	L	8.8 (9.2: including filter)
	Coolant Volume	L	8.2 (9.1: including sub-tank)
	Starter Motor Cap.	V-kW	12-2.0
	Alternator Cap.	V-A	12-20
Battery	-	75D31R	
Dimension	Length	mm	1440
	Width	mm	780
	Height	mm	1140
	Dry Weight	kg	699
	Installed Weight	kg	789

Specifications subject to change without notice.

# CHAPTER 3: EQUIPMENT AND FEATURE

## 1. Equipment

(1) Generator	
Voltage Meter .....	1 pc.
AC Ampere Meter.....	1 pc.
Frequency Meter .....	1 pc.
1-phase Receptacle (15A) .....	3 pc.
3-phase Receptacle (20A) .....	1 pcs.
Main Circuit Breaker .....	1 pc.
1-phase Breaker .....	3 pcs.
3-phase Breaker .....	3 pcs.
1-Phase Earth Leakage Circuit Breaker (ELCB).....	3 pcs.
3-Phase Earth Leakage Circuit Breaker (ELCB).....	1 pc.
(2) Safety Device	
Emergency Stop Switch.....	1 pc.
Battery Isolator Switch .....	1 pc.
(3) Other	
Volt Meter Selector Switch .....	1 pc.
Ampere Selector Switch.....	1 pc.
Idle Control Switch .....	1 pc.
Water Temp. Meter.....	1 pc.
Oil Pressure Meter .....	1 pc.
Fuel Meter.....	1 pc.
Hour Meter.....	1 pc.
Grounding Terminal & Grounding Rod .....	1 set
Monitor Lamp.....	1 set
• Water Temp.	
• Battery Charge	
• Oil Pressure	

## 2. Feature

### (1) Feature

- Sound Level 51dB(A) at 7m distance under no load, 1500 min<sup>-1</sup>.
- Generating Performance 1-phase & 3-phase
- 2 Way Drive Control High/Auto
- Environmental EPA Emission Compliance Level and Low Noise Level
- Fuel Tank Capacity 78 Liters
- Dry Weight 699 kg
- Dimensions (LxWxH) 1440 x 786 x 1140 mm

### (2) Protection Device

Item	Set Value	Engine Shut-Down
Water Temp.	110°C	○
Battery Charge	-	-
Oil Pressure	98kPa	○

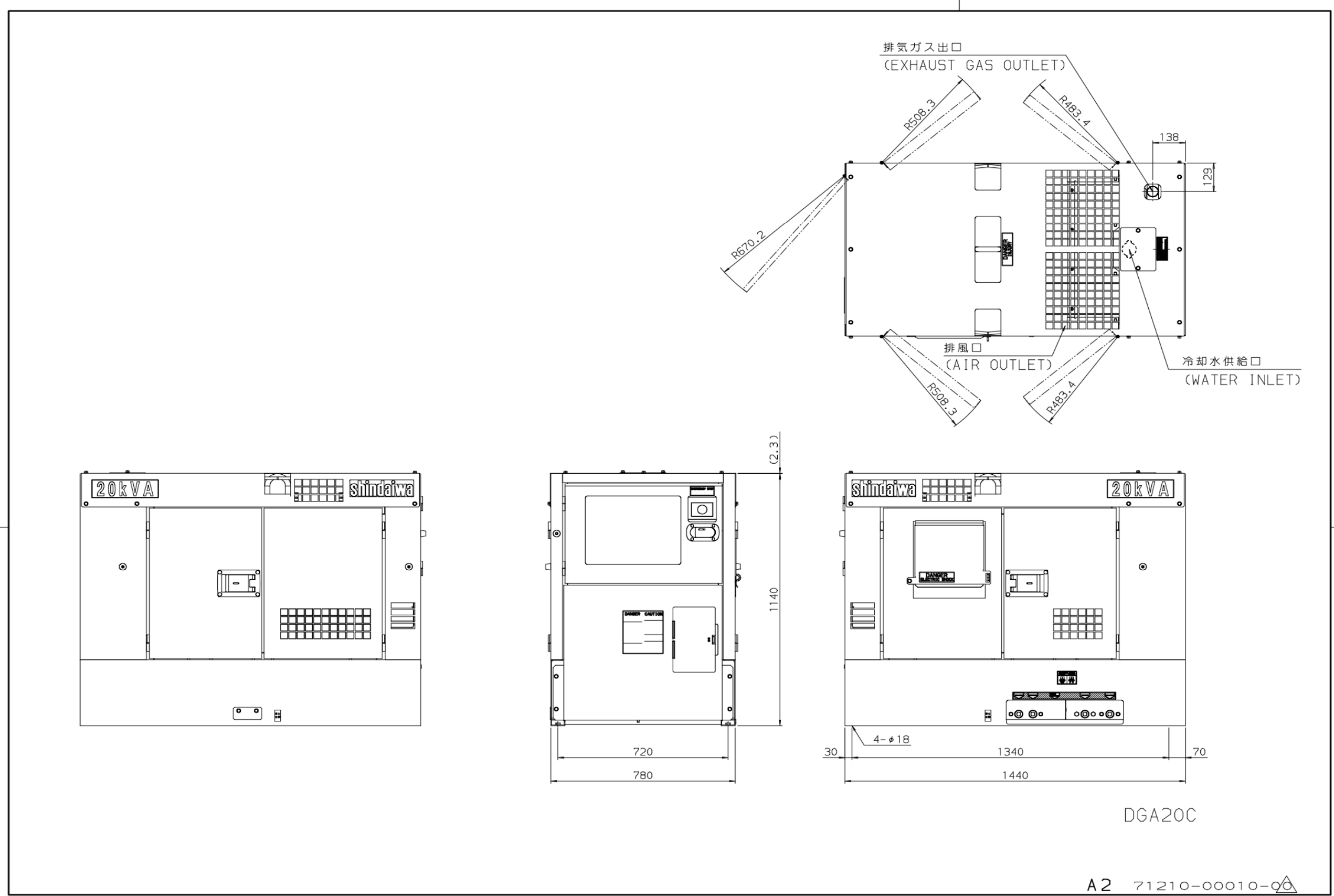
### (3) Fuel Economy

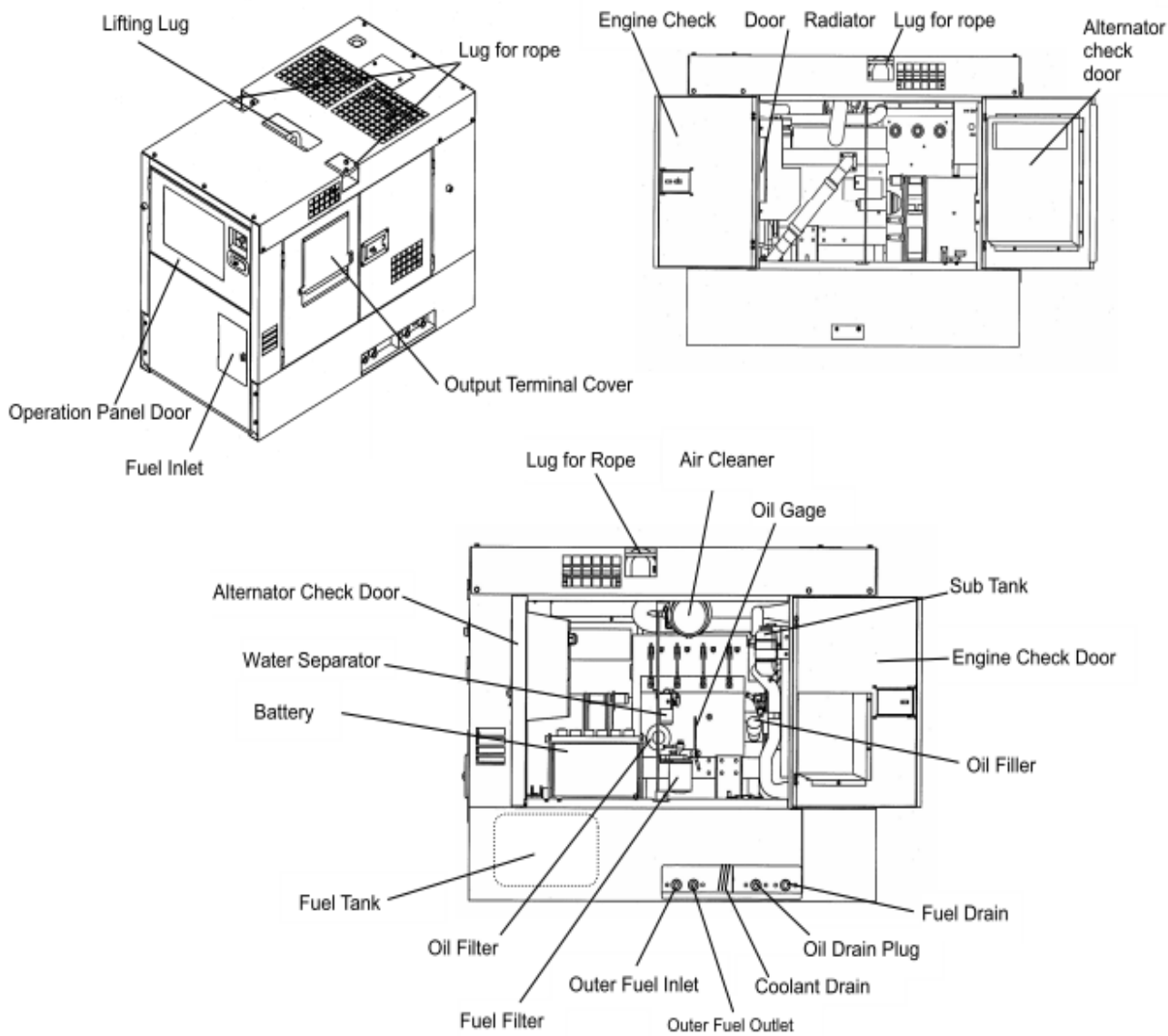
Load	Fuel Consumption
Full load	5.2 Liters/hr. (1.4 Gallons/hr.)
3/4 load	3.9 Liters/hr. (1.0 Gallons/hr.)
1/2 load	2.6 Liters/hr. (0.7 Gallons/hr.)
1/4 load	1.3 Liters/hr. (0.3 Gallons/hr.)

### (3) Accessories

Owner's & Operator's Manual	1 copy
Tool Set	1 set
• Spanner	3 pcs
• Screw Driver	1 pc
• Plug Wrench	1 pc
• Tool Bag	1 pc
Starter Key	1 set
Door Key	1 set
Grounding Rod	1 pc

# CHAPTER 4: APPEARANCE







# **YAMABIKO CORPORATION**

**35 SHIN-UJIGAMI, KITA-HIROSHIMA-CHO,  
YAMAGATA-GUN, HIROSHIMA 731-1597 JAPAN**

**Telephone: (81)826-72-5140**

**Fax: (81) 826-72-7004**

**[www.yamabiko-corp.co.jp](http://www.yamabiko-corp.co.jp)**