

**shindaiwa®**

# **SPECIFICATIONS**

**Diesel Engine Generator**

**DGK100D**

**DGK100DU**

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# **CHAPTER 1: GENERAL**

## **1. Application**

- (1) Power Sourcing for light, electric tools and appliances.

## **2. Standard**

Design and production are in conformity with:

- (1) Japan Industrial Standards: JIS C 9300-1
- (2) Low Noise Type Construction Machinery Standard
- (3) EPA Tier 3 Emission

## **3. Design Condition**

- (1) Installation Place: Outside
- (2) Ambient Temperature: -15 to +40°C
- (3) Humidity: Less than 85%
- (4) Altitude: Less than 1000 meters above sea level

## **4. 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

## **5. Painting**

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

## **6. Structure**

- (1) 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: 58dB(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

			Unit	DGK100D/DU	
Generator	Generating Method		-	Revolving Filed, Brushless AC 3-Phase-120/240V, 1 Phase	
	Rated Output		kVA	100	
			kW	80	
	Rated Voltage	3-Phase	V	208, 240, 480	
		1-Phase		120, 139, 240, 277	
	Rated Current	1 Phase-120V	A	242 x 2 (Zigzag)	
		1-Phase-240V		242 (Zigzag)	
		3-Phase-240V		241	
		3-Phase-480V		120	
	Rated Frequency		Hz	60/50 ( $\pm$ less than 0.25%)	
	Rated Speed		min <sup>-1</sup>	1800/1500	
	Winding		-	Star with Neutral	
	Power Factor		%	80	
Insulation Class		-	Alternator: F		
Exciting Method		-	Self-Excitation (Brushless)		
No. of Poles		-	4		
Engine	Method		-	Vertical, Water-cooled 4-Cycle, Diesel Engine	
	Model No.		-	ISUZU BI-4HK1	
	No. of Cylinder (bore x stroke)		In./mm	4 (4.53 x 4.92/115 x 125)	
	Continuous Rated Output		kW{PS}	114.7{155.1}/1800 min <sup>-1</sup>	
	Rated Speed		min <sup>-1</sup>	1800/1500	
	Displacement		Liter	5,193	
	Combustion System		-	Direct Injection, Turbo-charged, Inter-cooler	
	Cooling Method		-	Water-cooling radiator	
	Lubricating		-	Forced lubrication	
	Starting		-	Electric	
	Fuel		-	AST No.2 Diesel	
	Fuel Consumption		Liter	23.4/h (@full load)	
	Lubricating Oil		-	SAE Class CD or higher	
	Fuel Tank Capacity		Liter	222	
	Lubricant Volume		Liter	22	
	Coolant Volume		Liter	23	
	Starting Motor Capacity		V-kW	12V – 2.5kW	
	Alternator Capacity		V-A	12V – 110A	
Battery Capacity		V-AH	12V – 150AH		
L x W x H		in/mm	102x49x71/2590x1240x1800		
Dry Weight		lbs./kg	4564/2070		

\*Specifications subject to change without notice.

# CHAPTER 3: EQUIPMENT AND FEATURE

## 1. Equipment

### (1) Generator

Voltage Meter .....	1 pc.
Amp. Meter .....	1 pc.
Freq. Meter .....	1 pc.
Volt Meter Selector.....	1 pc.
Amp. Meter Selector .....	1 pc.
GFCI Receptacle .....	2 pcs.
Twist & Lock Type Receptacle .....	3 pcs.

### (2) Safety Device

#### Breaker

● Main Circuit Breaker.....	1 pc.
● Circuit Breaker (3-phase) .....	3 pcs
● Circuit Breaker (1-phase) .....	2 pcs

Protection Monitor..... 1 pc.

- Diagnosis
- Air Filter
- Boost
- Battery Charge
- Oil Pressure (with auto engine shut down feature)
- Over Heat (with auto engine shut down feature)
- Over Speed (with auto engine shut down feature)

Terminal Cover/Fuel Cap Cover (with locking feature) ..... 1 pc. ea.

Front Panel/Right/Left Door (with locking feature)..... 1 pc. ea.

Door Stopper..... 1 pc. ea.

Auto Shut Down Feature (when some mechanical issue was detected.)

### (3) Equipment

Fuel Meter.....	1 pc.
Water Temp. Meter.....	1 pc.
Oil Pressure Meter .....	1 pc.
Monitor Lamp .....	1 pc.
Pilot Lamp .....	1 pc.
Glow Lamp (Preheat Lamp) .....	1 pc.
Starter Switch.....	1 pc.
Throttle Switch .....	1 pc.
Output Selector Switch.....	1 pc.
(3-phase: 480/277V, 208/120V, 1-phase:240/120V)	
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.
Cooling Water Drain Plug .....	1 pc.
Hour Meter .....	1 pc.
Low Noise Air Flow System .....	1 pc.
Starter Switch .....	1 pc.
Volt Meter Selector .....	1 pc.
Amp. Meter Selector .....	1 pc.
GFCI Receptacle .....	2 pcs.
Twist & Lock Type Receptacle .....	3 pcs.

## 2. Feature

### (1) Feature

- Sound Level 58B(A) at 7m distance under no load
- Generating Performance Single Phase & Three Phase
- 2 Way Drive Control High/Auto
- Environmental EPA Emission 3 Compliance and Low Noise Level
- Fuel Tank Capacity 222 Liters
- Dry Weight 2070 kg
- Dimensions (LxWxH) 2590 x 1240 x 1800 mm
- Made in Japan

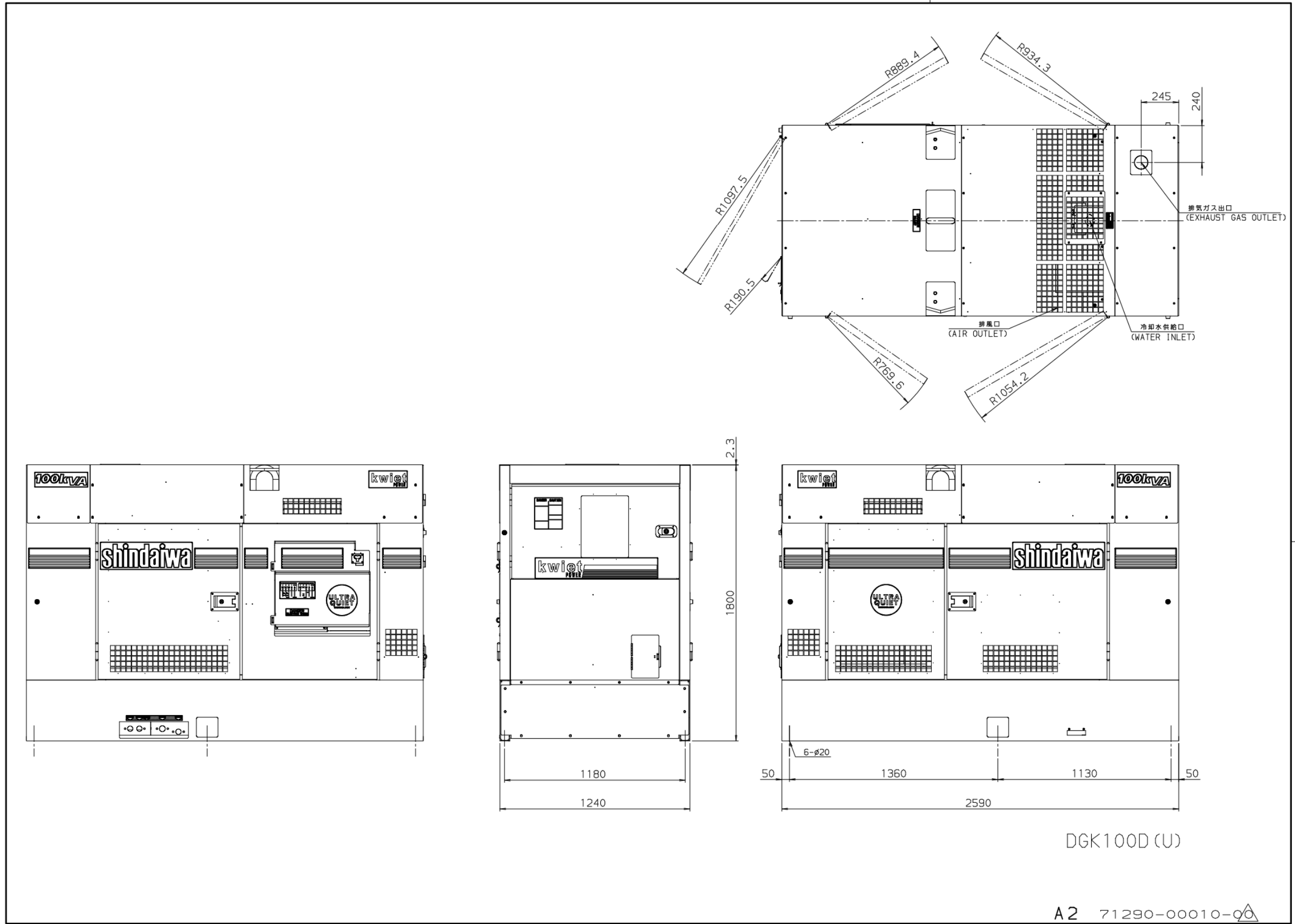
### (2) Protection Device

Item	Set Value	Monitor Lamp	Auto Engine Shut-Down
Diagnosis		✓	-
Boost Temp.	185° F/85°C	✓	-
Over Speed	2070min <sup>-1</sup>	✓	✓
Air Filter	when clogged	✓	-
Over Heat	221° F/105°C	✓	✓
Battery Charge	-	✓	
Oil Pressure	14.5psi/100kPa	✓	✓

### (3)Accessories

Owner's & Operator's Manual	1 copy
Engine Instruction Manual	1 copy
Tool Set	1 set
• Spanner	3 pcs
• Screw Driver	1 pc
• Plug Wrench	1 pc
Starter Key	2 pcs.

# CHAPTER 4: APPEARANCE





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