

BOP Gen #1



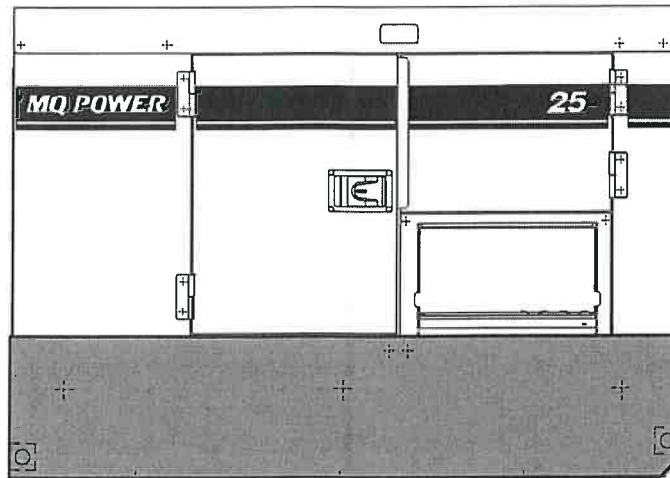
DCA25SSIU4F
MQ POWER Series Generator

WhisperWatt™

Prime Rating — 20 kW (25 kVA)

Standby Rating — 22 kW (27.5 kVA)

Three-Phase, 60 Hertz, 0.8 PF



STANDARD FEATURES

- Heavy duty, 4-cycle, direct injection, turbocharged diesel engine provides maximum reliability.
- Brushless alternator reduces service and maintenance requirements and meets temperature rise standards for Class F insulation systems.
 - Open delta excitation design provides virtually unlimited excitation for maximum motor starting capability.
 - Automatic voltage regulator (AVR) provides precise regulation.
- Electronic Governor Control — isochronous control, maintains frequency to within $\pm 0.25\%$ from no load to full load.
- Full load acceptance of standby nameplate rating in one step (NFPA 110, para 5-13.2.6).
- Sound attenuated, weather resistant, steel housing provides operation at 65 dB(A) at 23 feet. Fully lockable enclosure allows safe unattended operation.
- Internal fuel tank with direct reading of fuel gauge.
- E-coat and powder coat paint provides durability and weather protection.
- Fuel/water separator removes condensation from fuel for extended engine life. Panel mounted alarm light included.
- ECU750 — automatic CANBUS engine control with LED status indicator lights.
- Automatic start/stop control — automatically starts the generator set during a commercial power failure when used in conjunction with a transfer switch.
- Complete engine analog instrumentation includes DC ammeter, oil pressure gauge, water temp. gauge, fuel level gauge, tachometer/hour meter, preheat indicator, and emergency shutdown monitors.
- Complete generator analog instrumentation includes voltage regulator control, ammeter phase selector switch, voltmeter phase selector switch, AC voltmeter, AC ammeter, frequency meter, panel light, and circuit breaker.
- Automatic safety shutdown system monitors the water temperature, engine oil pressure, overspeed and overcrank. Warning lights indicate abnormal conditions.
- Complete power panel. Fully covered; three-phase terminals and single phase receptacles allow fast and convenient hookup for most applications including temporary power boxes, tools and lighting equipment. All are NEMA standard.
- Voltage selector switch allows easy to change voltages as your applications require.
- EPA emissions certified - Tier 4 final emissions compliant.
- Spill containment — Bunded design protects environment by capturing up to 124% of engine fluids.



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SPECIFICATIONS

Generator Specifications		
Design	Revolving field, self-ventilated Drip-proof, single bearing	
Armature Connection	Star with Neutral	Zig Zag
Phase	3	Single
Standby Output	22 KW (27.5 KVA)	15.8 KW
Prime Output	20 KW (25 KVA)	14.4 KW
3Ø Voltage (L-L/L-N) Voltage Selector Switch at 3Ø 240/139	208Y/120, 220Y/127, 240Y/139	N/A
3Ø Voltage (L-L/L-N) Voltage Selector Switch at 3Ø 480/277	416Y/240, 440Y/254, 480Y/277	N/A
1Ø Voltage (L-L/L-N) (Voltage Selector Switch at 1Ø 240/120)	N/A	240/120
Power Factor	0.8	1.0
Voltage Regulation (No load to full load)	±0.5%	
Generator RPM	1800	
Frequency	60 Hz	
No. of Poles	4	
Excitation	Brushless with AVR	
Frequency Regulation: No Load to Full Load	Isochronous under varying loads from no load to 100% rated load	
Frequency Regulation: Steady State	±0.25% of mean value for constant loads from no load to full load.	
Insulation	Class F	
Sound Level dB(A) Full load at 23 feet	65	

Engine Specifications	
Make / Model	Isuzu / 4LE2T
Emissions	EPA Tier 4 Final Certified
Starting System	Electric
Design	4-cycle, water cooled, direct injection, turbocharged, EGR
Displacement	133.0 in ³ (2179 cc)
No. cylinders	4
Bore x Stroke (mm)	85 x 96
Rated Engine Power Output	33.5 hp (25 kW)
BMEP	133 psi (918 kPa)
Piston Speed	1133.9 ft./min. (5.76 m/s)
Compression Ratio	17.6:1
Engine Speed	1800 rpm
Overspeed Limit	2070 rpm
Oil Capacity	2.8 gallons (10.5 liters)
Battery	12V 53Ah x 1

Fuel System		
Recommended Fuel	ASTM-D975-No.1 & No.2-D	
Maximum Fuel Flow (per hour)	2.3 gallons (8.8 liters)	
Maximum Inlet Restriction (Hg)	6.8 in. (173 mm)	
Fuel Tank Capacity	41.7 gallons (158 liters)	
Fuel Consumption	gph	lph
At full load	1.62	6.12
At 3/4 load	1.26	4.77
At 1/2 load	0.94	3.57
At 1/4 load	0.67	2.52

Cooling System	
Fan Load	0.67 hp (0.5 kW)
Coolant Capacity (with radiator)	2.3 gallons (8.8 liters)
Coolant Flow Rate (per minute)	20.1 gallons (76.0 liters)
Heat Rejection to Coolant (per minute)	1479 Btu (1.56 MJ)
Maximum Coolant Friction Head	14.5 psi (100 kPa)
Maximum Coolant Static Head	3.35 feet (1.04 meters)
Ambient Temperature Rating	104°F (40°C)

Air	
Combustion Air	109 cfm (3.10 m ³ /min)
Maximum Air Cleaner Restriction	25 in. H ₂ O (6.23 kPa)
Alternator Cooling Air	388 cfm (11.0 m ³ /min)
Radiator Cooling Air	1420 cfm (40.2 m ³ /min)
Minimum Air Opening to Room	2.6 ft ² (0.24 m ²)
Minimum Discharge Opening	0.84 ft ² (0.08 m ²)

Exhaust System	
Gas Flow (full load)	148 cfm (4.2 m ³ /min)
Gas Temperature	847°F (453°C)
Maximum Back Pressure	30.1 in. H ₂ O (7.5 kPa)

Amperage	
Rated Voltage	Maximum Amps
1Ø 120 Volt	55.6 Amps (4 wire)
1Ø 240 Volt	27.8 Amps (4 wire)
3Ø 240 Volt	60 Amps
3Ø 480 Volt	30 Amps
Main Line Circuit Breaker Rating	60 Amps
Over Current Relay Trip Set Point	30 Amps

WARRANTY*

Isuzu Engine

12 months from date of purchase with unlimited hours or 60 months from date of purchase with 5000 hours (whichever comes first).

Generator

24 months from date of purchase or 2000 hours (whichever occurs first).

Trailer

12 months excluding normal wear items.

*Refer to the express written, one-year limited warranty sheet for additional information.

NOTICE

Generator is not intended for use in enclosed areas or where free flow of air is restricted.

Backfeed to a utility system can cause electrocution, shock and/ or property damage. **DO NOT** connect to any building's electrical system except through an approved device.

Specifications are subject to change without notice.





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MQ POWER Series Generator

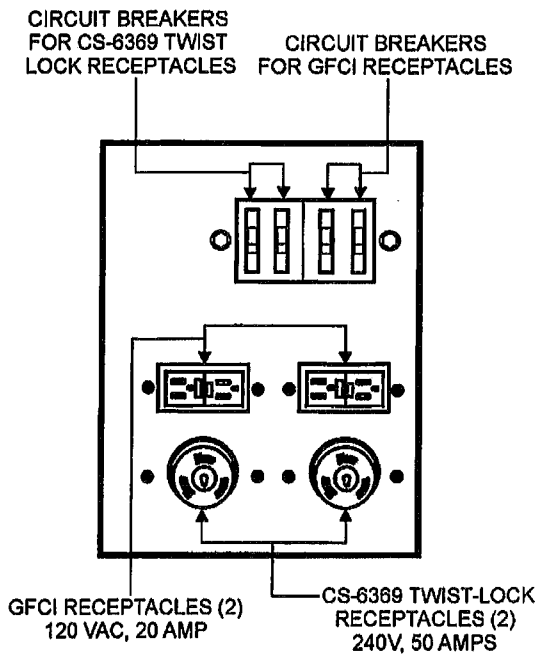
MQ POWER DECIBEL LEVELS

Our soundproof housing allows substantially lower operating noise levels than competitive design. WhisperWatts™ are at home on construction sites, in residential neighborhoods, and at hospitals — just about anywhere.

- 90 — Subway / truck traffic
- 80 — Average city traffic
- 70 — Inside car at 60 mph
— WhisperWatt™ at 23 feet
- 60 — Air conditioner at 20 feet
- 50 — Normal conversation



GENERATOR OUTPUT PANEL



OPTIONAL GENERATOR FEATURES

- **Battery Charger** — provides fully automatic and self-adjusting charging to the generator's battery system.
- **Jacket Water Heater** — for easy starting in cold weather climates.
- **Special Batteries** — long life batteries provide extra engine cranking power.
- **Low Coolant Level Shutdown** — provides protection from critically low coolant levels. Includes control panel warning light.
- **Spring Isolators** — provides extra vibration protection for standby applications.
- **Trailer Mounted Package** — meets National Highway Traffic Safety Administration (NHTSA) regulations. Trailer is equipped with electronic or surge brakes with single or tandem axle configuration.

OPTIONAL CONTROL FEATURES

- **Emergency Stop Switch** — when manually activated shuts down generator in the event of an emergency.
- **Audible alarm** — alerts operator of abnormal conditions.

OPTIONAL OUTPUT CONNECTIONS

- **Cam-Lok Connectors** — provides quick disconnect alternative to bolt-on connectors.
- **Pin and Sleeve Connectors** — provides industry standard connectors for all voltage requirements.
- **Output Cable** — available in any custom length and size configuration.

OPTIONAL DISTRIBUTION DEVICES

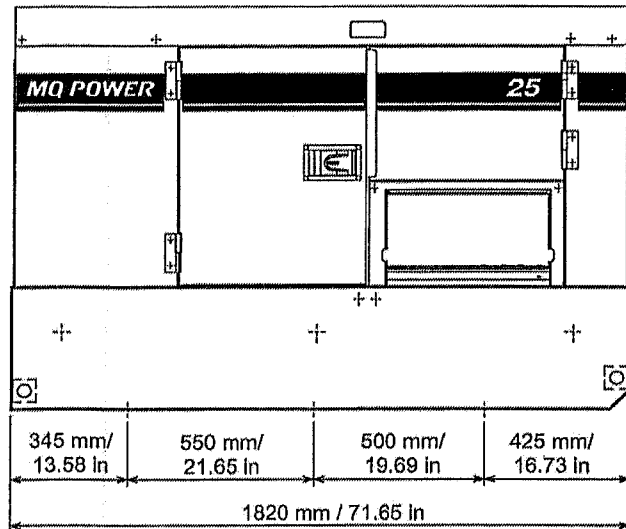
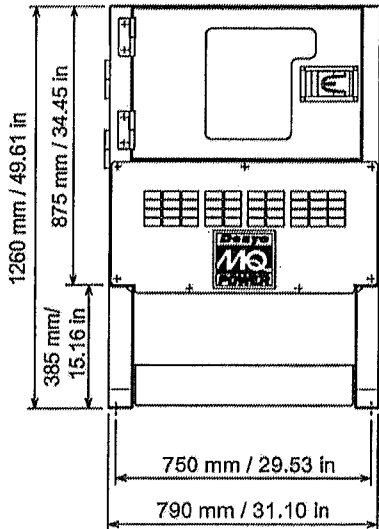
- **Pin and Sleeve Connectors**
- **AC Output Cable**



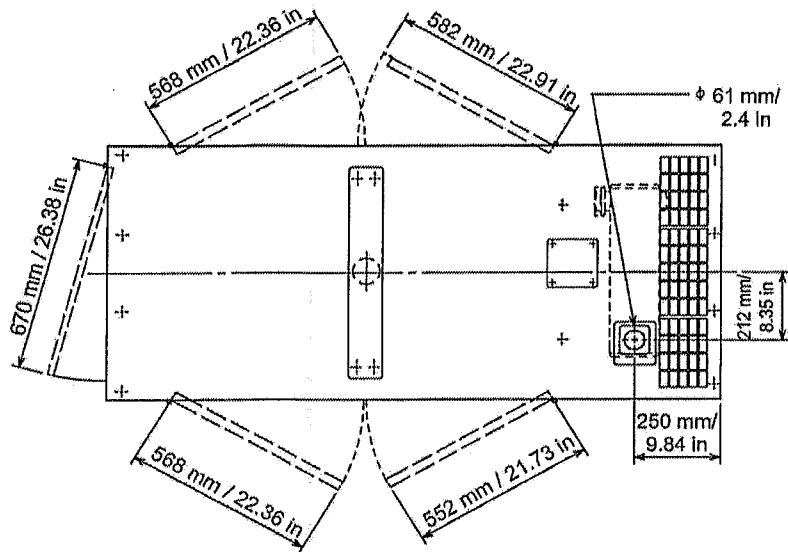
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DIMENSIONS



Weight	
Dry Weight	1,797 lbs. (815 kg)
Wet Weight	2,138 lbs. (970 kg)
Max. Lifting Point Capacity	5,150 lbs. (2,335 kg)



Generator can be placed on MQ Power Model TRLR25US Trailer.

Manufactured by Denyo Co.

Your Multiquip dealer is:

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DCA25SSIU4F Rev. #3 (02/22/17)



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Bop Gen #1

EXHAUST EMISSION DATA SHEET

MQ POWER GENERATOR SET


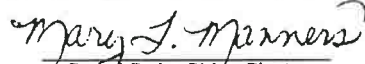
Model: DCA-25SSIU4F



The engine used in this generator set is certified to comply with United States EPA Tier 4 and CARB Mobile Off-Highway emission regulations.

<u>ENGINE DATA</u>		
Manufacturer: Isuzu	Bore: 3.35 in. (85 mm)	
Model: 4LE2T	Stroke: 3.78 in. (96 mm)	
Type: 4-Cycle, In-Line, 4-Cylinder, Diesel	Displacement: 133 cid (2.2 liters)	
Aspiration: Turbocharger, ECM, EGR, DOC Electronic Direct Injection	Compression Ratio: 17.6:1	
<u>PERFORMANCE DATA</u>		
SAE Gross HP @ 1800 RPM (60 Hz)	40.2	
Rated Load Fuel Consumption (gal/Hr)	1.62	
Rated Load Exhaust Gas Flow (cfm)	148	
Rated Load Exhaust Gas Temperature (°F)	847	
United States EPA - Mobile Off-Highway Tier 4 Limits - 25 ≤ ~ <50 BHP		
Criteria Pollutant	Emission Requirements	Certified Engine Emissions
NOx (Oxides of Nitrogen as NO2)	N/A gr/bhp-hr	N/A gr/bhp-hr
HC (Total Unburned Hydrocarbons)	N/A gr/bhp-hr	N/A gr/bhp-hr
NOx + HC (Combined)	N/A gr/bhp-hr	N/A gr/bhp-hr
CO (Carbon Monoxide)	4.10 gr/bhp-hr	0.022 gr/bhp-hr
PM (Particulate Matter)	0.022 gr/bhp-hr	0.022 gr/bhp-hr
NMHC (Non-Methane Hydrocarbons)	N/A gr/bhp-hr	N/A gr/bhp-hr
NMHC + NOx	3.50 gr/bhp-hr	2.75 gr/bhp-hr
EPA Engine Family:	HSZXL02.2ZTB	
EPA Certificate of Conformance:	HSZXL02.2ZTB-009	
ARB Executive Order:	U-R-006-0433	
Effective Date:	Model Year 2017	
<i>Note: Engine operation with excessive air intake or exhaust restriction beyond factory published maximum limits, or with improper service maintenance, may result in higher emission levels.</i>		



	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2017 MODEL YEAR CERTIFICATE OF CONFORMITY WITH THE CLEAN AIR ACT	OFFICE OF TRANSPORTATION AND AIR QUALITY ANN ARBOR, MICHIGAN 48105	
Certificate Issued To: Isuzu Motors Limited (U.S. Manufacturer or Importer) Certificate Number: HSZXL02.2ZTB-009	Effective Date: 06/10/2016 Expiration Date: 12/31/2017	 Mary J. Manners Byron A. Bunker, Division Director Compliance Division	Issue Date: 06/10/2016 Revision Date: N/A
Model Year: 2017 Manufacturer Type: Original Engine Manufacturer Engine Family: HSZXL02.2ZTB	Mobile/Stationary Indicator: Mobile Emissions Power Category: 19<=kW<37 Fuel Type: Diesel After Treatment Devices: Diesel Oxidation Catalyst Non-after Treatment Devices: Electronic Control, Electronic/Electric EGR - Cooled		
<p>Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 1039 and produced in the stated model year.</p> <p>This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 1039.</p> <p>It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void <i>ab initio</i> for other reasons specified in 40 CFR Part 1039.</p> <p>This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.</p>			

California Environmental Protection Agency CD Air Resources Board	ISUZU MOTORS LIMITED	EXECUTIVE ORDER U-R-006-0433 New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HSZXL02.2ZTB	2.179	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Turbocharger, Electronic Direction Injection			Generator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT	--	--	3.7	0.03	0.03	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 24th day of August 2016.


 Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division



EU7000is

- Electronic Fuel Injection (reduces maintenance associated with carburetors and fuel storage issues)
- 7000 Watts (45.8/22.9 A) 120/240 VAC of Honda inverter power
- Super Quiet - 60 dB(A)
- Large capacity fuel tank, 19.2 litres
- Eco-Throttle™ standard - Runs up to 12.1 hours at ½ load on 19.2 litres of fuel
- Convenient Electric Start with Push button Switch (battery included) and Recoil as back-up
- Parallel capability with another EU7000isC to double output (Optional parallel box kit required)
- Wheel Kit Standard with Positive Lock Folding Handle
- Optional Remote Start Kits
- Perfect for a variety of tasks at home, work or outdoor events and for cottage or home backup power



SPECIFICATIONS

GENERATOR TYPE	DUAL INVERTER	REMOTE START KIT PART NUMBER INFO	32380-Z37-800ZA (10 M) 32380-Z37-810ZA (20 M) 32380-Z37-820ZA (30 M) 06391-Z37-A30 (Wireless)
MAXIMUM AC OUTPUT (WATTS)	7000	FUEL TANK CAPACITY (LITRES)	19.2
VAC VOLTAGE AVAILABLE	120 / 240	TRANSPORT WHEELS	2-WHEEL KIT STD.
MAXIMUM CONTINUOUS AC OUTPUT (WATTS)	5500	LIFTING HOOK	OPTIONAL (P/N 06531-Z11-E00ZA)
MAX. RATED AC AMPERAGE @ 120 V / 240 V	45.8 / 22.9	BATTERY	STD. (P/N 31500-MCR-D02)
GROUND FAULT CIRCUIT INTERRUPTER (GFCI)	N/A	APPROXIMATE RUNNING TIME / TANKFUL (HRS.)	6.6**/18 ***
FREQUENCY (HERTZ)	60	RATED FUEL CONSUMPTION (LITRES / HOUR)	2.9**
VOLTAGE REGULATION SYSTEM	PWM (Pulse Width Modulation)	NOISE LEVEL dB(A) (1.5 METRES TO 7 METRES)	60**
DC OUTPUT (VOLTS / AMPS)	N/A	LENGTH	N/A
Honda ENGINE	GX390T2	LENGTH - WITH HANDLES FOLDED	848 mm (33.4 in.)
TYPE	OHV; 4-STROKE; AIR-COOLED	LENGTH - WITH HANDLES	1,198 mm (47.2 in.)
DISPLACEMENT	389 cc	WIDTH - WITHOUT HANDLES AND WHEELS	539 mm (21.2 in.)
STARTING SYSTEM	ELECTRIC / RECOIL	WIDTH - WITH WHEELS	700 mm (27.6 in.)
LOW LEVEL OIL ALERT™ SYSTEM	STD. (LED DISPLAY)	HEIGHT - WITHOUT LIFT-HOOK	721 mm (28.4 in.)
AUTO THROTTLE	ECO-THROTTLE™ STD.	HEIGHT - WITH LIFT-HOOK	821 mm (32.3 in.)
REMOTE START CAPABILITY	OPTIONAL	DRY WEIGHT	118.1 kg (260.4 lb) (INCLUDING BATTERY)
		COLD CLIMATE TECHNOLOGY	YES

Models and/or colours may not be exactly as shown. Errors and omissions excepted. Specifications are subject to change without notice.

See your Honda Power Equipment dealer for details.

For optimum performance and safety, please read your owner's manual before operating your Honda product. Always wear the appropriate safety gear when operating your Honda.

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Honda EU3000is Super Quiet Portable Inverter Generator

**Super Quiet Portable Generator
Great for RV / Camping Use!**



Generator Features & Benefits

- Honda Overhead Valve Engine
- Lightweight and Compact
- High Quality, Stable and High Power Output
- Quiet Operation
- Low Fuel Consumption
- Parallel Operation Capability
- Oil Alert*
- Electronic Ignition
- Simultaneous AC/DC use
- Electronic Circuit Breakers
- Fuel Meter
- Inverter (Computer Friendly)
- USDA-Qualified Spark Arrestor/Muffler
- Fully Enclosed for Quieter Operation
- EcoThrottle™ (load dependent operation)
- Battery Standard

Honda EU3000is Generator Specifications

Engine	Honda 6.5 HP, Single Cylinder, Overhead Valve, Air Cooled
Displacement	196 cc
AC Output	120V 3000W max.(25A) 2800W rated (23.3A)
Receptacles	20A 125V Duplex NEMA Plug Number: 5-20P 30A 125V Locking Plug NEMA Plug Number: L5-30P
DC Output	12V, 144W (12A) (Optional D.C. Charge Cable required)
Starting System	Recoil and Electric Start
Fuel Tank Capacity	3.4 gallons
Run Time on One Tankful	7.2 hrs. @ rated load 20 hrs. @ 1/4 load
Dimensions (L x W x H)	25.8" x 18.9" x 22.4"
Noise Level	58 dB @ rated load 49 dB @ 1/4 load (Noise level varies depending on load)
Dry Weight	134 lbs.