



DCA20SPX

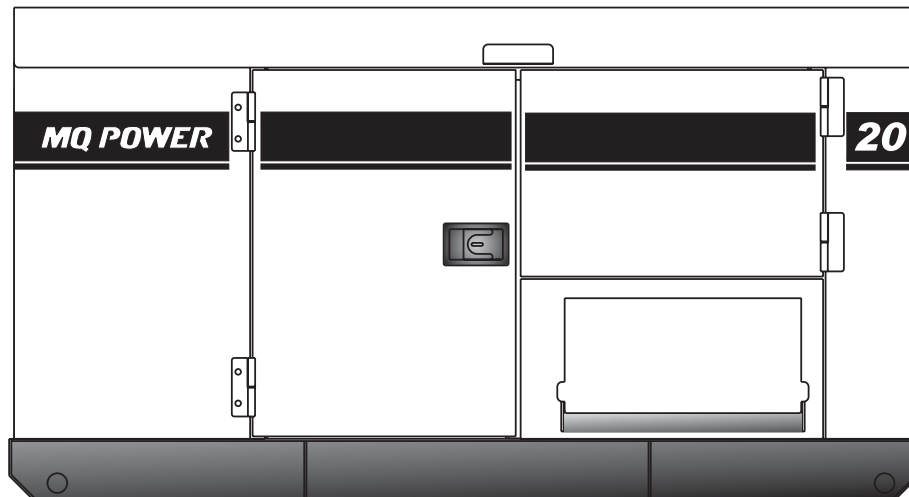
WhisperWatt™ Generator

WhisperWatt™ 20kW

Prime Rating: 20 kW (20kVA)

Standby Rating: 22 kW (22kVA)

60 Hertz



Standard Features

- **Heavy duty, 4-cycle, diesel engine** provides maximum reliability.
- **Brushless alternator** reduces service and maintenance requirements and meets temperature rise standards for Class F insulation systems.
- **Open delta alternator design** provides virtually unlimited excitation for maximum motor starting capability.
- **Automatic voltage regulator (AVR)** provides precise regulation.
- **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 63 dB(A) at 23 feet. Fully lockable enclosure allows safe unattended operation.
- **Internal fuel tank** with direct reading fuel gauges are standard.
- **Seven-stage powder coat paint** provides durability and weather protection.
- **Fuel/water separator** removes condensation from fuel for extended engine life. Panel mounted alarm light included.
- **Complete engine analog instrumentation** includes DC ammeter, oil pressure gauge, water temp. gauge, fuel level gauge, tachometer/hour meter and emergency shutdown monitors.
- **Complete generator analog instrumentation** includes voltage regulator control, ammeter 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.
- **Automatic start/stop control** automatically starts the generator set during a commercial power failure when used in conjunction with a transfer switch.
- **Complete power panel.** Fully covered; single 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.
- **EPA emissions certified**-Interim Tier 4 emissions compliant.



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WhisperWatt™ Generator

Specifications

Generator Specifications

| | |
|---|---|
| Design | Revolving field, Self-ventilated Drip-proof, Single bearing |
| No. of Poles | 4-pole |
| Excitation | Brushless with AVR |
| Standby Output | 22 kW (27.5 kVA) |
| Prime Output | 20 kW (25 kVA) |
| Generator RPM | 1800 |
| Voltage — 1Ø | 120/240 |
| Armature Connection | Series |
| Voltage Regulation (No load to full load) | ±0.5% |
| Power Factor | 1.0 |
| Frequency | 60 Hz |
| Frequency Regulation: No Load to Full Load | 3-5% under varying loads from no load to 100% rated Load |
| Frequency Regulation: Steady State | ±0.5% of mean value for constant loads from no load to full load |
| Insulation | Class H |
| Sound Level dB(A) full load at 23 ft | 63 |

Engine Specifications

| | |
|---------------------------|--|
| Make / Model | Isuzu / BV-4LE2 |
| Emissions | EPA Interim Tier 4 Certified |
| Starting System | Electric |
| Design | 4-cycle, Water cooled, Direct injection |
| Displacement | 133.0 in ³ (2179 cc) |
| No. cylinders | 4 |
| Bore x Stroke (mm) | 85 x 96 |
| Gross Engine Power Output | 34.3 bhp (25.5 kW) |
| BMEP | 100 psi (691 kPa) |
| Piston Speed | 1134 ft./min. (5.76 m/s) |
| Compression Ratio | 18 : 1 |
| Engine Speed | 1800 rpm |
| Overspeed Limit | 2100 rpm |
| Oil Capacity | 2.25 gallons (8.5 liters) |
| Battery | 12V 53Ah x 1 |

Fuel System

| | | |
|--------------------------------|----------------------------|------------|
| Maximum Fuel Flow (per hour) | 3.7 gallons (14.0 liters) | |
| Maximum Inlet Restriction (Hg) | 8.66 in. (220 mm) | |
| Fuel Tank Capacity | 17.0 gallons (65.0 liters) | |
| Fuel Consumption | gph | lph |
| At full load | 1.66 | 6.3 |
| At 3/4 load | 1.21 | 4.6 |
| At 1/2 load | 0.85 | 3.2 |
| At 1/4 load | 0.58 | 2.2 |

Cooling System

| | |
|--|----------------------------|
| Fan Load | 0.4 HP (0.3 kW) |
| Coolant Capacity (with radiator) | 1.74 gallons (6.6 liters) |
| Coolant Flow Rate (per minute) | 15.6 gallons (59.0 liters) |
| Heat Rejection to Coolant (per minute) | 862 Btu (0.91 MJ) |
| Maximum Coolant Friction Head | 3.1 psi (21.6 kPa) |
| Maximum Coolant Static Head | 21 feet (6.4 meters) |
| Ambient Temperature Rating | 104°F (40°C) |

Air

| | |
|---------------------------------|--------------------------------------|
| Combustion Air | 56 cfm (1.6 m ³ /min) |
| Maximum Air Cleaner Restriction | 24.9 in. H ₂ O (6.2 kPa) |
| Alternator Cooling Air | 388.0 cfm (11.0 m ³ /min) |
| Radiator Cooling Air | 1271 cfm (36.0 m ³ /min) |

Exhaust System

| | |
|-----------------------|-------------------------------------|
| Gas Flow (full load) | 152 cfm (4.3 m ³ /min) |
| Gas Temperature | 1004°F (540°C) |
| Maximum Back Pressure | 28.0 in. H ₂ O (7.0 kPa) |

Amperage

| Rated Voltage | Maximum Amps |
|----------------------------------|--------------|
| 1Ø 120 Volt | 83 x 2 |
| 1Ø 240 Volt | 83 |
| Main Line Circuit Breaker Rating | 90 Amps |

Warranty*

Isuzu Engine

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

Generator

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

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

Trailer

12 months excluding normal wear items.

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 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 DECIBEL LEVELS

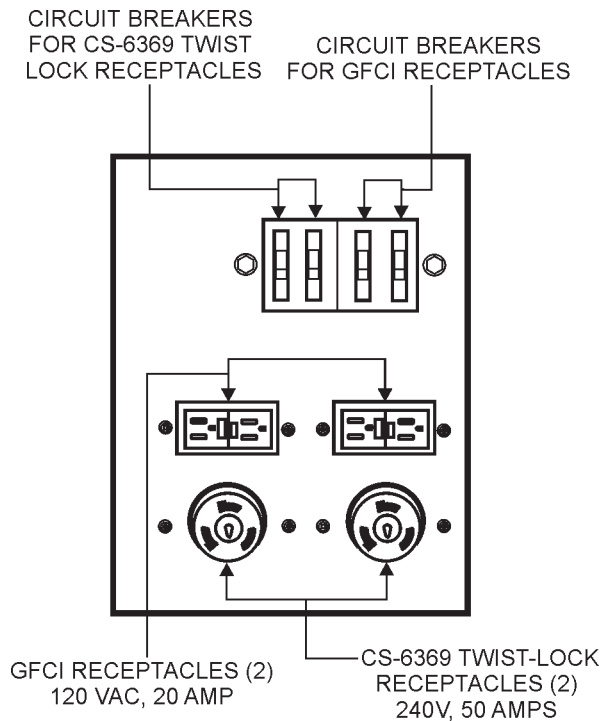


Our soundproof housing allows substantially lower operating noise levels than competitive designs. WhisperWatts are at home on construction sites, in residential neighborhoods, and at hospitals — just about anywhere.

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



Generator Output Panel



Optional Generator Features

- Electronic Governor Control (Crystal Sync)** — maintains frequency to within $\pm 0.25\%$ from no load to full load.
- Battery Charger** — provides fully automatic and self-adjusting charging to the generator's battery system.
- 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.
- Jacket Water Heater** — for easy starting in cold weather climates.
- Spring Isolators** — provides extra vibration protection for standby applications.
- Trailer Mounted Package** — highway legal trailer with electric or surge brakes with single axle or tandem axle configuration.

Optional Control Features

- Emergency Stop Switch.**
- Audible Alarm** — alerts operator of abnormal conditions.

Optional Fuel Cell Features

- Trailer fuel tank** — a second fuel cell located in the trailer allows for extended run time.
- Sub-base fuel cells (single wall)** — Additional fuel cell for extended runtime operation.
 - 12 hours of minimum run time.
 - 24 hours of minimum run time.
- Sub-base fuel cells (double wall)** — Additional fuel cell for extended runtime operation. Contains a leak sensor, low fuel level switch, and a secondary containment tank. UL142 listed.
 - 12 hours of minimum run time.
 - 24 hours of minimum run time.

Optional Distribution Devices

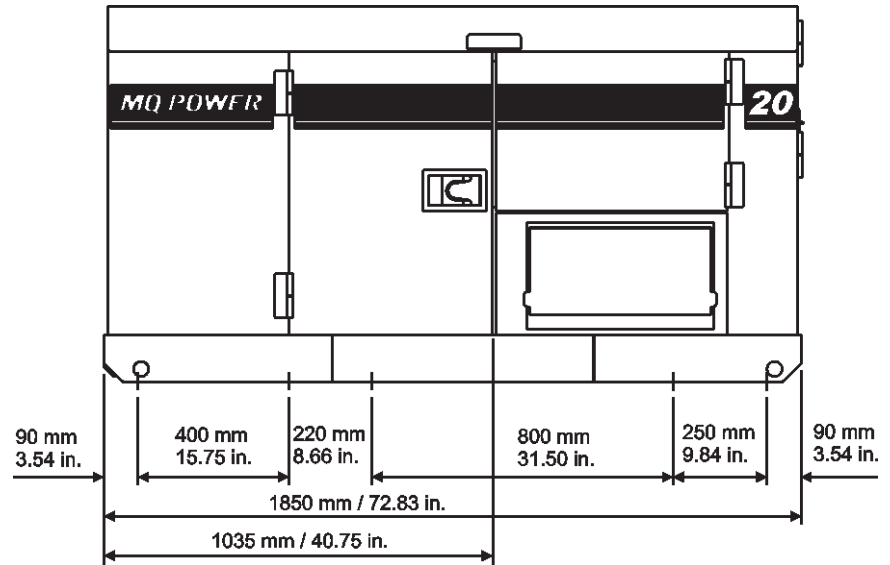
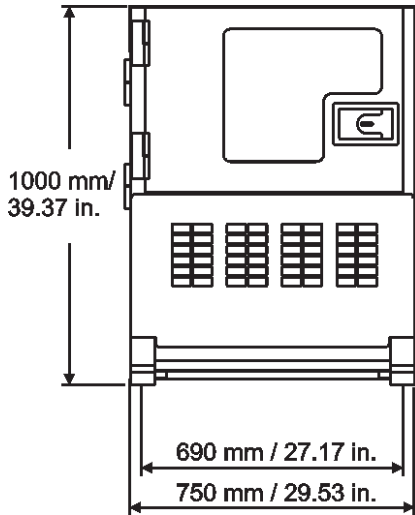
- Pin & Sleeve Connectors.**
- AC Output Cable.**



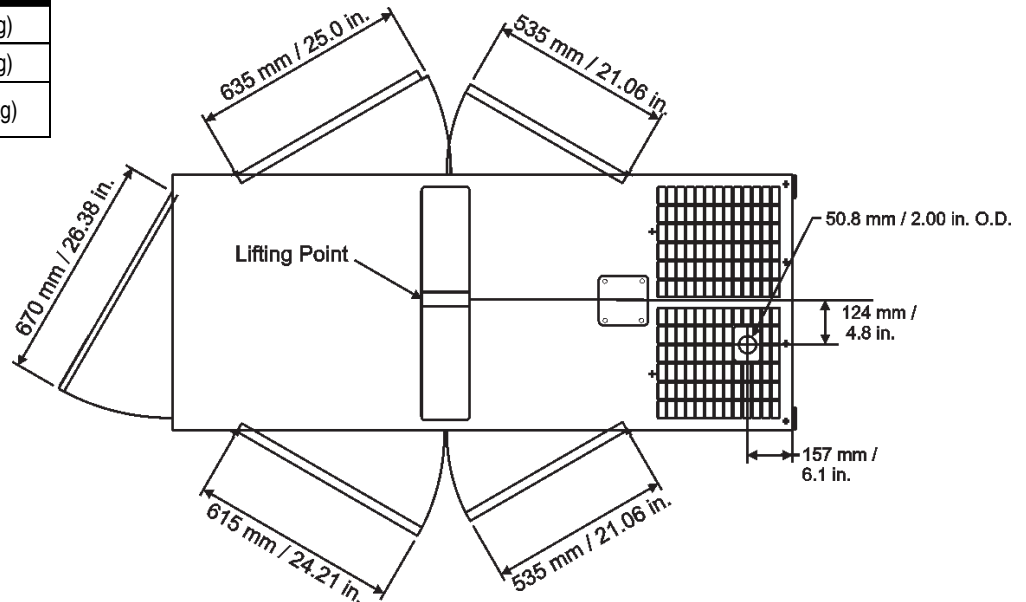
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WhisperWatt™ Generator

Dimensions



| Weight | |
|-----------------------------|---------------------|
| Dry Weight | 1412 lbs. (640 kg) |
| Wet Weight | 1563 lbs. (709 kg) |
| Max. Lifting Point Capacity | 3240 lbs. (1470 kg) |



Units manufactured by Denyo Corp.

Your MQ Power dealer is:



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 CARSON, CA 90749
 310-537-3700 • 800-883-2551
 FAX: 310-632-2656
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