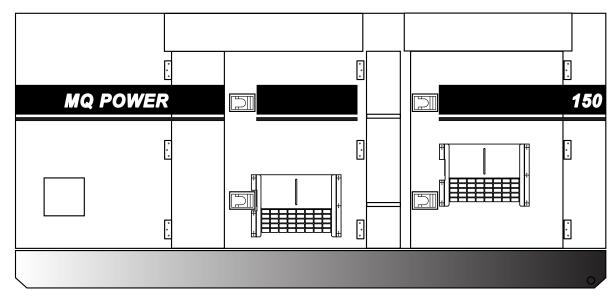
# WhisperWatt™ 150

Prime Rating — 120 kW (150 kVA) Standby Rating — 132 kW (165 kVA)

3-Phase, 60 Hertz, 0.8 PF



#### STANDARD FEATURES

- Heavy duty, in-line 4-cycle, turbocharged, charged after-cooled, natural gas engine provides maximum reliability.
  - · replaceable wet liners
  - · water-cooled exhaust
- Engine ECU integrates critical functions including:
  - · engine speed governor
  - variable ignition timing
  - · air/fuel ratio control
  - knock suppression
  - · engine protection
- 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.
  - Electronic governor system maintains frequency to ±0.25%.
  - Full load acceptance of standby nameplate rating in one step (NFPA 110, para 5-13.2.6).
- Multi-stage, water-coalescing filter, to remove solids and liquids from the gas supply, providing enhanced operation with reduced operating and maintenance costs.

- Sound attenuated, weather resistant, steel housing provides operation at 69 dB(A) at 23 feet. Fully lockable enclosure allows safe unattended operation.
- E-coat primer and powder coat paint provides durability and weather protection.
- Basler DGC2020 microprocessor-based digital generator controller with integrated genset-to-genset (isolated bus) paralleling.
  - Onboard Synchronization and kW/kVAR load sharing. Dual Ethernet ports for Inter-Genset communication.
  - · High visibility backlit LCD display.
  - Operational temperature range of -40° to 70° C (-40° to 158° F).
  - Remote 2-wire start/stop control.
  - Metered power output parameters include:
    - Voltage
- Amperage
- Kilowatts

- Kilovolt ampsPower Factor
- Hertz
- Modbus interface for gauge panel and expansion options.
- Engine monitoring data over J1939. Modbus over RS485 for SCADA Interface.
- 12 Contact Outputs for flexible customer alarm configurations.
- EPA emission certified.
- MasterTrak<sup>™</sup> 1-year telematics service.
  - · Reports critical data on generator and engine.

## **SPECIFICATIONS**

Generator Specifications				
Design	Revolving field, self-ventilated Drip-proof, single bearing			
Armature Connection	Star with Neutral Zig Zag			
Phase	3 Single			
Standby Output	132 KW (165 KVA)	95 KW		
Prime Output	120 KW (150 KVA)	87 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	69			

Engine Specifications		
Make / Model	PSI HD / NGE 8.1 CAC	
Emissions	EPA Certified	
Starting System	24 VDC Electric Starter Motor	
Design	4-cycle, water cooled, turbocharged, charged air cooled	
Displacement	492 in <sup>3</sup> (8.1 liters)	
No. cylinders	6	
Bore x Stroke	4.37 x 5.47 in. (111 x 139 mm)	
Gross Engine Power Standby	Rating (Flywheel)	
Natural Gas	239 hp (178 kW)	
LP Gas	164 hp (122 kW)	
Gross Engine Power Prime F	lating (Flywheel)	
Natural Gas	200 hp (149 kW)	
LP Gas	164 hp (122 kW)	
BMEP Prime Power Rating (Natural Gas)	178 psi (12kPA)	
Piston Speed	1641 Ft/min (8.34 m/s)	
Compression Ratio	10.5:1	
Engine Speed	1800 rpm	
Overspeed Limit	2070 rpm	
Oil Capacity (w/ filter)	7.1 gallons (27 liters)	
Battery Voltage	24VDC/Group 27 x 800CCA x 2	
Battery Charging Alternator	45 Amps	

Fuel System		
Recommended Fuel	Low-pressure, dry-processed natural gas; approved oilfield well-head natural gas	
Minimum Nat-Gas Supply Pipe Size	1 1/4 in NPT	
Maximum Operating Pressure to EPR	11 in/H <sub>2</sub> O (2.7 kPA)	
Minimum Operating Pressure to EPR	7 in/H <sub>2</sub> O (1.7 kPA)	
NG Inlet Pressure	15 - 40 PSI	
Fuel Consumption (Natural Gas)	ft³/hr m³/h	
At full load	1169	33.1
At 3/4 load	969	27.4
At 1/2 load	607	17.2
At 1/4 load	430	12.2

Cooling System	
Fan Load	8.0 hp (5.9 kW)
Coolant Capacity (with radiator)	17.5 gallons (80 liters)
Coolant Flow Rate (per minute)	63 gallons (240 liters)
Heat Rejection to Coolant (per minute)	9357 Btu/min (39.3 Kcal/sec)
Ambient Temperature Rating	104°F (40°C)

Air	
Combustion Air	355 cfm (10 m³/min)
Maximum Air Cleaner Restriction	15 in. H <sub>2</sub> O (3.74 kPa)
Alternator Cooling Air	1352 cfm (38.3 m³/min)
Radiator Cooling Air	3853 cfm (109.1 m³/min)

Exhaust System	
Gas Flow (full load)	1129 cfm (31.96 m³/min)
Maximum Turbine Inlet Temperature	1382°F (750°C)
Maximum Allowable Back Pressure	40.8 in. H <sub>2</sub> O (10.2 kPa)

Amperage	
Rated Voltage	Maximum Amps
1Ø 120 Volt	333.3 Amps (4 wire) 361 Amps x 2 (Zigzag)
1Ø 240 Volt	166.7 Amps (4 wire) 361 Amps (Zigzag)
3Ø 240 Volt	361 Amps
3Ø 480 Volt	180 Amps
Main Line Circuit Breaker Rating	400 Amps
Over Current Relay Trip Set Point 480V Mode Only	180 Amps

# WARRANTY\* PSI HD Engines

12 months from date of purchase with unlimited hours.

#### Generator

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

### Trailer

12 months excluding normal wear items.

<sup>\*</sup>Refer to the express written, one-year limited warranty sheet for additional information.

#### **NOTICE**

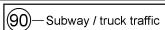
Generator is not intended for use in enclosed areas or where free flow of air is restricted.

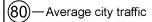
Backfeed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device.

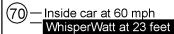
Specifications are subject to change without notice.

#### **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.







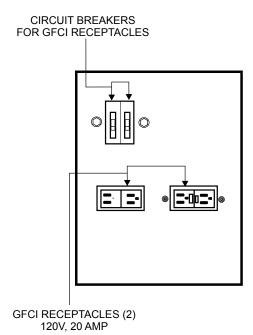
60 — Air conditioner at 20 feet

(50) — Normal conversation



**(1)** 

#### **GENERATOR OUTPUT PANEL**



#### **OPTIONAL GENERATOR FEATURES**

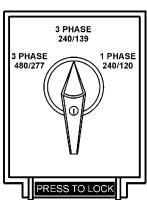
- Battery charger provides fully automatic and selfadjusting charging to the generator's battery system.
- **Special batteries** long life batteries provide extra engine cranking power.
- Trailer mounted package highway legal trailer with electronic or surge brakes on all axles.
- Audible alarm alerts operator of abnormal conditions.
- Emergency stop switch when manually activated, shuts down generator in the event of an emergency.

#### **OPTIONAL OUTPUT CONNECTIONS**

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

#### **VOLTAGE SELECTOR SWITCH**

The voltage selector switch is located above the output terminal panel's Hard Wire Hook-Up Panel. It is provided for ease of voltage selection.



Voltages Available						
UVWO Output Terminal Lugs	Voltage Selector Switch 3-Phase 240/139V Position			Selector S 480/270V P		
3Ø Line-Line	208V	220V	240V	416V	440V	480V
1Ø Line-Neutral	120V	127V	139V	240V	254V	277V
Voltage Selector Switch Single-Phase 240/120V Position						
1Ø Line-Neutral/ Line-Line	120V Line-Neutral	N/A	N/A	240V Line-Line	N/A	N/A



#### **DIMENSIONS**

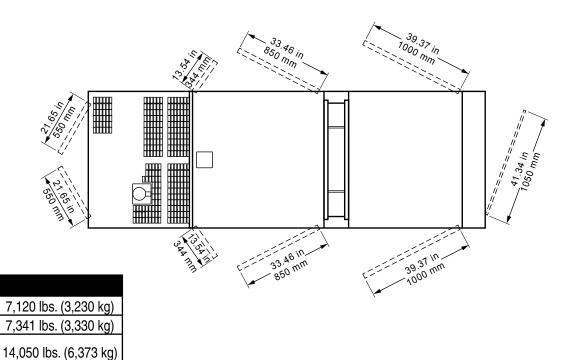
Weight

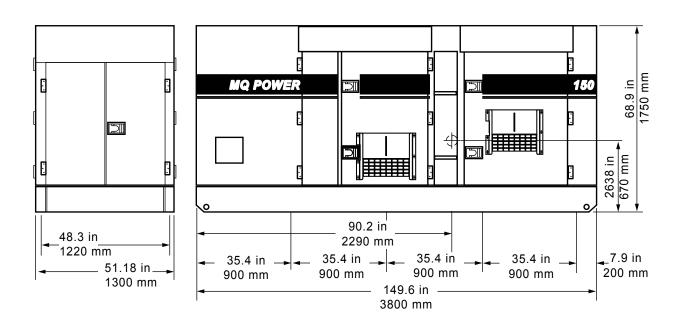
Dry Weight

Wet Weight

Max. Lifting

**Point Capacity** 







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