HIPOWER®
your partner for power

GASEOUS Generator Set
Model: HGM 150 T6U

PSI UL 2200 Series

Specification & Application Data

Photo depicts a typical model but may include optional accessories.

60Hz Standby Power Ratings kW & kVA

Voltage	Ph	PF	LPG		NG		LPG		NG	
			Standby Power Rating				Prime Power Rating			
			kW	kVA	kW	kVA	kW	kVA	kW	kVA
120/240	1	1.0	N.A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
120/208	3	0.8	130	163	150	188	117	147	135	169
120/240 Delta	3	0.8	130	163	150	188	117	147	135	169
277/480	3	0.8	130	163	150	188	117	147	135	169
347/600**	3	0.8	130	163	150	188	117	147	135	169

Rating Definitions: *(N/A = Not available for model designated)*
Standby - All Industrial Sets are Standby Rated, applicable for a varying emergency load for the duration of a utility power outage with no overload capability. Alternator winding temperature rise is 120˚C. (105˚C prime power)
Prime - Prime rating is applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. (Max. load factor = 80%) A 10% overload capacity is available for 1 out of every 12 hours.
***600 Volt configuration not available as UL2200 certified generator set.*
***Prime power ratings are provided for reference only.*

Overview of the HIPOWER® PSI Vortec UL series of Gaseous Fueled Generator Sets:

HIPOWER® Industrial generators are factory-built in facilities that utilize the latest technology in sheet metal fabrication, mechanical and electrical component assembly, production and testing.

Each model is the result of computer aided design and modeling backed up by exhaustive prototype-testing. Our development technology results in a unique range of inovative designs for highly reliable generator sets backed-up by a limited warranty covering all components.

Standard Configuration of Industrial Sets:

- **PSI Vortec Gaseous-fueled Engine:** Long-life, heavy-duty, 4-cycle, EPA certified, spark-ignited, gaseous engine from a world renowned manufacturer for maximum reliability and durability. Set capable of full load acceptance in one step. All sets are prototype built and torsionally tested.
- **Cooling:** Radiator with belt driven pusher fan.
- **Filtration:** Heavy duty replaceable element air-cleaner
- **Alternator:** Single bearing, 4-pole, rotating field, self-excited, self-ventilated, 60Hz brushless, Class H insulation. AVR for close voltage regulation. Winding temperature rise of 120°C at standby rating.
- **Certification:** Generator set is UL2200 and meets ISO 8528-5.
- **Arrangement:** Open skid with engine and alternator units closed coupled together and with resilent anti-vibration isolators mounted between the assembly and a heavy-duty steel base. The sturdy base frame has openings allowing for winching, slinging and forklift pockets for ease of handling
- **Auto Start Control Panel:** Digital auto-start microprocessor based control panel with remote start capability.
- **Starting System:** 12 volt starter motor, battery cables, battery and belt driven charging alternator.

Standard Features of Industrial Sets:

- HIPOWER® is a single source for all the generator system
- Generators are produced in a facility dedicated to generator set manufacture
- The generator set can accept rated load in one step
- 2 years or 1000 hours limited warranty given as standard. Extended warranties offered as options to the standard
- Base set meets NFPA 110, when accessorized with the required equipment and installed per NFPA standards
- Test certificates available for the fully factory tested industrial generator sets
- HIPOWER® generator sets are designed to fit a full range of options for complying with many diverse applications
- Full range of safety features to ensure full protection of the generator system. (See back-page for details).

Packaged in the US

HIPOWER®

Application & Specification Data

LPG/NG Generator Set
Model: HGM 150 T6U
PSI Series

Gaseous Generator Set Specification:

Governor regulation class	ISO 8528 Part 1 Class G3
Voltage regulation, no load to full load	± 0.5%
Frequency regulation no load to full load	± 0.5%
Main Line Circuit breaker – amps capacity	600A (208V); 400A (480V); 250A (600V)
Peak Motor Starting Capacity - 1 phase 240 V 30% voltage drop	N.A.
Peak Motor Starting Capacity - 3 phase 480 V 30% voltage drop	320 skVA

ENGINE

Manufacturer	PSI
Model	8.8LT CAC
EPA certified	Yes
Crankshaft speed	1,800rpm
Type	LPG/ NG fueled, 4-stroke
Ignition	Spark Plug
Aspiration	Turbocharged & Charge Air Cooled
Number of Cylinders	8
Cylinder arrangement	vee
Displacement CID (liters)	537 (8.8)
Bore and Stroke ins (mm)	4.35 X 4.50 (11.5 x 11.4)
Nominal power	LPG 185 NG 206 hp
Cooling	Liquid
Governor	Electronic
Starting motor & alternator	12 volt
Compression ratio	10.1:1
Air cleaner type	Dry, replacable cartridge
Exhaust gas flow at full output cu. ft./min (cu. m/min.)	1063 (30.1)
Exhaust temperature at full load - dry exhaust °F (°C)	1300 (704)
Maximum permitted back pressure - in. H_2O (kPa)	3.0 (10.2)

Cooling System:

Radiator- cooled cooling air flow - cu. ft./min. (cu. m/min.)	12000 (340)
Alternator - Btu/min. (kW)	1280 (35.8)
Combustion air - cu. ft./min. (cu. m/min.)	314 (8.9)
Total cooling air flow (engine + alternator + combustion)	13594 (384.7)
Radiator system capacity, including engine - gallons (L)	9.2 (39.2)

Lubrication system:

Oil pan capacity - quarts (L)	8.5 (8.0)
Oil pan capacity with filter - quarts (L)	9.0 (8.5)
Oil filter - quantity and type	1, Replaceable Spin-On
Recommended lubricating oil grade - above 0 ° F (below 0 ° F)	SAE 10W-30 (SAE 5W-30)
Oil consumption at full load	-
Oil pressure – psi (kPA)	46.0 (320.0)

Engine Electrical System:

Starting motor voltage	12 volt
Battery - number & type	1, size BC I# 27F
Maximum battery charge alternator output - amps	70
Cold Cranking Amps - minimum	700

Fuel System:

Fuel type	LPG or Natural Gas, vapor withdrawal
Fuel supply line - inlet	1.5-inch NPTF
Natural gas and LPG fuel supply pressure - in. H_2O (kPa)	7 to 11 ins. (1.74-2.74)

Fuel Consumption:

	Standby Power Rating	Prime Power Rating
LPG - cu. ft./hour (cu. m/hour) at 100% standby rating	713 (20.2)	540 (15.2)
Natural Gas - cu. ft./hour (cu. m/hour) at 100% standby rating	1965 (55.7)	1540 (47)
LPG - cu. ft./hour (cu. m/hour) at 75% standby rating	547 (15.5)	432 (12.3)
Natural Gas - cu. ft./hour (cu. m/hour) at 75% standby rating	1529 (43.3)	1260 (35.5)
LPG - cu. ft./hour (cu. m/hour) at 50% standby rating	399 (11.3)	330 (9.5)
Natural Gas - cu. ft./hour (cu. m/hour) at 50% standby rating	1102 (31.2)	920 (26)

Alternator Specification:

Alternator make		Marathon Electric
Alternator model, winding & AVR model	120/208 volts; 277/480 volts	431PSL6202 - SE350
	600 volts	431PSL6240 - SE350
Alternator type		4-pole, rotating field
Exciter type		Brushless, shunt excited
No. leads		12-lead re-connectable
Power factor		0.8
Insulation - meets standards		NEMA MG1
Insulation class		H
Bearing - quantity and type		Single, sealed
Coupling		Flexible disc
Amortisseur windings		Full
Voltage regulation % - no load to full load		0.5
One-step load acceptance		100% of rating
Unbalanced load capability		100% of standby rating
Frequency regulation % - steady state		0.25
TIF		<50
Line harmonics		3.5% maximum

Standard Features: *(see back-page for control panel details)*

• Radiator with pusher fan	• Stainless steel hardware and hinges
• Dry air cleaner	• All rotating components (i.e. fan) protected with metal guards
• Heavy-duty engine start batteries in rack with cables	• All hot components (i.e. exhaust) protected with metal guards
• Level 2 sound attenuated enclosure with single point lifting eye	• Ground connection prepared for ground spike (not supplied)
• Control Panel DSE7310 (See over for details)	• Main line wired ABB UL listed circuit breaker for overload protection
• Two dry contacts for auto-start	• Operation and installation literature
• Steel base for mounting on firm surface such as concrete	• Limited Warranty

• Critical grade silencer

Available Options:

☐ Natural Gas or Propane	☐ Hospital grade silencer in lieu of critical.	
☐ Battery Charger	☐ Control panel heater	
☐ Engine block heater	☐ Battery blanket	
☐ PMG alternator for single & 3-phase models	☐ Wintarization package	
☐ Remote annunicator		
Auto Transfer Switch (ATS) Options:	☐ Open transition ATS	☐ Closed transition ATS
	☐ Delayed transition ATS	☐ Service entrance ATS

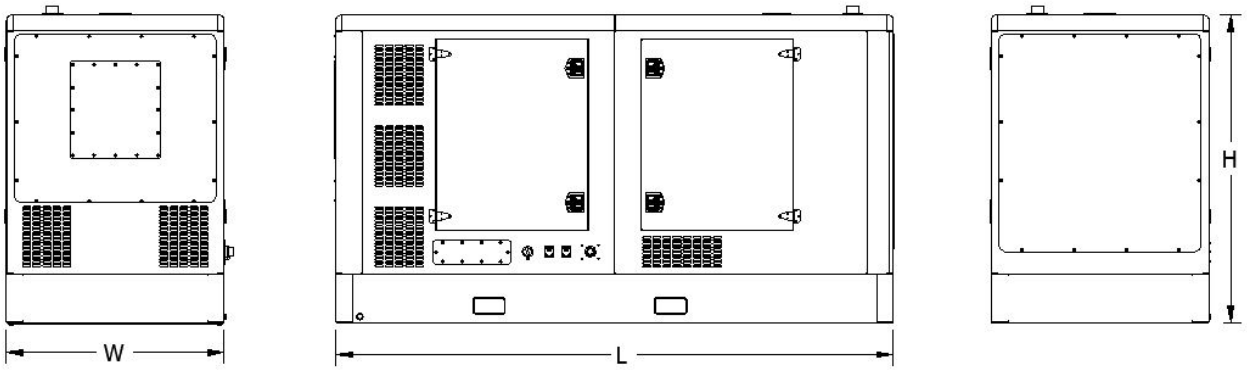
Generator Digital Control Panel - *for manual, automatic and remote control* — Model DSE 7310

HIPOWER Control Panel: Hipower use the Deep Sea Electronics auto-start control panel DSE 7310 with remote start capability. It monitors a large number of engine parameters and display warnings, shutdowns and engine status information, with back-lit LED screen and illuminated LED's. The module can easily be configured using the DSE Configuration Suite PC software. Selected front panel editing is also available. Includes 6 digital inputs, 3 analog inputs, 6 outputs, configurable timers and alarms, event log (10), remote start input, battery voltage monitoring, engine pre-heat (if required), tamper-proof hour recorder . Indicators for low oil pressure, high engine temperature, engine over and under speed, failure to start, and battery charge failure.

CONTROLLER :
The DSE 7310 digital microprocessor control module continuously monitors the status of the engine and generator and allows programming in the field. It includes Stop-Manual-Auto modes with LED indicators and test buttons for stop/ reset, manual,auto and start modes. Two dry contacts are included for additional auto start function. A tamper-proof hour meter is also supplied.

Pictures of Control Module LH and Control Panel RH may include optional equipment and/or accessories

Model HGM 150 T6U Weather Protected canopy option — key dimensions and sound levels



Generator Data (L, W & H dimensions in inches)					
Configuration	L =Length	W = Width	H = Height	Net Weight lbs	dBA
Open	138.0"	54.0"	65.0"	5810	TBA
Enclosed	138.0"	54.0"	76.0"	6703	77

* All measurements are approximate and for estimation purposes only. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

Codes and Standards Compliances used where applicable

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NFPA 99
NFPA 110
ISO 8528-5
ISO 1708A.5
ISO 3046
NEMA ICS 1
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IEE C62.41 TESTING

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