

MODEL  
**HRNG-900 T6**



60Hz PRIME POWER RATINGS

720kW/60Hz//1800RPM



VOLTAGE VAC	120/240V		120/208V		139/240V		277/480V		347/600V**	
RATING	NG	LP	NG	LP	NG	LP	NG	LP	NG	LP
PHASE	1	1	3	3	3	3	3	3	3	3
PF	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
HZ	60	60	60	60	60	60	60	60	60	60
KW	N/A	N/A	720	459	720	459	720	459	720	460
KVA	N/A	N/A	900	573	900	573	900	573	900	573
AMPS	N/A	N/A	2498	1593	2165	1382	1083	691	866	553

**Description**

HIPOWER<sup>®</sup> Natural Gas RENTAL generators are an efficient, reliable and versatile source of electrical power that have been designed to operate in the most extreme working conditions. All HIPOWER<sup>®</sup> combines an innovative design and the use of high quality materials that provide the user with the most dependable power that can be relied on for non-stop power with easy to operate controls.

Powered by a radiator-cooled, industrial PSI Spark Ignited engine that meets current Environmental Protection Agency (EPA) exhaust emission regulations, driving a single bearing, four-pole, three-phase alternator, with IP23 protection. The Emergency Power kVA rating is given with a 125 degree °C alternator winding temperature rise.

**HIPOWER<sup>®</sup> Features and Benefits**

**PSI-HD Engine:** Spark-Ignited Engine: Long-life, heavy-duty, 4-cycle, direct injection engine for economy of operation and maximum reliability and durability. Capable of full rated load acceptance in one step.

**Cooling:** Radiator with belt driven pusher fan.

**Air Filter:** Heavy-duty replaceable element air-cleaner.

**Alternator:** Single bearing, rotating field, self-excited, self-ventilated, 12-wire re-connectable, 60Hz brushless alternator with Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

**HIPOWER<sup>®</sup> Features and Benefits**

**Enclosure:** Fully sound attenuated enclosure, manufactured using 7-gauge steel and thicker for the base; 12-gauge and 14-gauge for the enclosure, Interpon A4700 primer, in combination with Interpon 600 series coatings, are designed for exterior exposure and offers excellent light and weather resistance exceeding 1400-hr salt spray test. A 1" thick layer of durable sound insulating, oil and fire resistant foam material is installed all around the inside of the enclosure to allow high-pressure water cleaning. Vertical air discharge for quiet operation. Wide steel lockable access doors with rubber seals, easy access for maintenance and service activities, lift off Die Cast Zinc hinges textured black powder coat and corrosion resistant hardware and fasteners.

**Exhaust:** Effective low noise, steel catalytic converter with rain cap.

**Controls:** Digital control panel with manual and automatic start and stop features. Many programmable automatic functions for local and remote controls with LED lights, tamper proof engine hour recorder.

**Certification:** Generator set is UL 2200 Listed and CSA certified and meets ISO 8528-5.



## APPLICATION DATA

ENGINE SPECIFICATION		LUBRICATION SYSTEM	
Manufacturer	PSI Heavy Duty	Oil pan capacity - qts (L)	N/A
Model	40L	Oil pan capacity with filter - qts (L)	154 (146)
EPA certified	Yes	Oil cooler	Liquid
Crankshaft speed	1,800 rpm	Recommended lubricating oil grade	SAE 15W-40 Low Ash Gas engine oil (.25-.5% by wt), API CD/CF or higher
Type	LPG/NG fueled, 4-stroke	Oil consumption at full load	n/a
Ignition	Spark Plug	Oil pressure – psi (kPa)	47 (324)
Aspiration	Charged Cooled Forced Induction	ENGINE ELECTRICAL SYSTEM	
Number of Cylinders	12	Starting motor voltage	24 volt
Cylinder arrangement	V-Type	Cold Cranking Amps - minimum	N/A
Displacement CID (liters)	2392 (39.2)	Battery charging Alternator	55 Amp
Bore and Stroke ins (mm)	5.906x5.906 (150x150)	Battery capacity	1400CCA 1720CA 430RC GROUP SIZE 8D
Nominal power	1110 hp		
Cooling	Liquid		
Governor	Electronic		
Governor Regulation Class	ISO 8528 Part 1 Class G3		
Frequency Regulation	Isochronous		
Starting motor & alternator	24 Volt		
Compression ratio	10.5:1		
Air cleaner type	Dry, replaceable cartridge		
ALTERNATOR SPECIFICATION			
Manufacturer	STAMFORD		
Model 120/208V Three phase	S6L1D-D		
Model 277/480V Three phase	S6L1D-C		
Model 347/600V Three phase	S6L1D-C		
Alternator Type	Four pole, rotating field		
Excitation System	Brushless. PMG-excited		
Power factor	0.8		
Number of leads	12 leads, reconnectable		
Stator Pitch	2/3		
Insulation	Class H		
Windings – Temperature Rise	Class H (125/40° C)		
Enclosure (IEC-34-S)	IP23		
Bearing	Single, sealed		
Coupling	Flexible disc		
Amortisseur windings	Full		
Voltage regulation – no load to full load with MX341 AVR	± 1%		
TIF	<50		
Radio Frequency Emissions compliance	Meets requirements of most industrial and commercial applications		
Line harmonics	5% maximum		

### HIMOinsa POWER SYSTEMS, INC.

16600 South Theden Street, Olathe, KS 66062

Tel: 913 495 5557 | Fax: 913 495 5575 [www.hipowersystems.com](http://www.hipowersystems.com)

Codes and Standards Compliances used where applicable



## STANDARD FEATURES

Enclosure (If selected)	Engine System	Controller
Rust-Proof Fastener with Nylon Washers Protect Finish	Oil Drain Extension	DSE8610 with motorized breaker
High Performance Sound-Absorbing Material (L1)	Air Cleaner	
Gasketed Doors	Fan Guard	<b>Generator set</b>
Air Discharge Hoods for Radiators -Upwards Pointing	Factory Filled Oil	2 Year/3000 hours Limited Warranty
Lift Off Door Hinges	Battery Charging Alternator	Separation of Circuits – Multiple Breakers (load center)
Stainless Steel Lockable Handles	<b>Alternator Systems</b>	Separation of Circuits – High / Low Voltage
Textured Polyester Powder Coat	12 Leads (3-Phase, Non 600V)	Internal Genset Vibration Isolation
<b>Cooling System</b>	Class H Insulation Material	Wrapped Exhaust Piping
Factory-Installed Radiator	Vented Rotor	Standard Factory Testing
Radiator Drain Extension	2/3 Pitch	Emergency Stop
50/50 Ethylene Glycol Antifreeze	Full Load Capacity Alternator	<b>ENGINE SYSTEM</b>
<b>Electrical Systems</b>	Protective Thermal Switch	120V-1ph Water Jacket Heater (with Isolation Valves)
Battery Cables and Battery Tray	Permanent Magnet Excitation	
Batteries	Skewed Stator	
	PMG with MX341	

## CONTROL SYSTEM



### DSE8610 MKII

- “Protections disabled” feature
- kW protection
- Reverse power (kW) protection
- LED and LCD alarm indication
- Power monitoring (kWh, kVAR, kVAh, kVARh)
- Load switching (load shedding and dummy load outputs)
- Independent Earth Fault trip
- Fuel usage monitor and low fuel alarms
- Configurable display languages
- User selectable simultaneous RS232, RS485 & Ethernet communications
- MODBUS RTU & TCP support
- Multiple date and time scheduler
- Configurable event log (250)
- Configurable MODBUS pages
- Fully configurable via DSE Configuration Suite PC software
- Data logging to assist with fault finding
- PLC editor allows user configurable functions to meet specific application requirements
- Licence-free PC software
- Multiple date and time scheduler
- DSENet® expansion compatible

- Charge alternator failure alarm
- 4-Line back-lit LCD text display
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- 11 configurable inputs
- 8 configurable outputs
- Flexible sensor inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms



## OPERATING DATA

FUEL SYSTEM	
Fuel type	Natural Gas, LP Vapor withdrawal, LP
NG and LPV Fuel supply line - inlet	2" NPTF
LP Fuel supply line - inlet	TBD
Natural gas and LPV fuel supply pressure	15-30 PSI*
LP fuel supply pressure	312 PSI (Max)**

FUEL CONSUMPTION (PRIME RATING) - NATURAL GAS (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)	m3/h	ft3/h	BTU/h
100% load	231	8,169	8,397,653
75% load	178	6,285	6,461,352
50% load	131	4,607	4,735,518
25% load	85	2,989	3,072,825

FUEL CONSUMPTION (PRIME RATING) - LPG (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)	m3/h	ft3/h	BTU/h
100% load	71	2,496	6,279,585
75% load	53	1,860	4,675,454
50% load	38	1,338	3,364,762
25% load	25	865	2,249,696

COOLING SYSTEM		
Engine cooling air flow	cfm (m³/min)	52,000 (1,472)
Alternator cooling flow	cfm (m³/min)	3,638 (103)
Combustion air flow	cfm (m³/min)	1,063 (30)
Total cooling air flow (engine+alternator+combustion)	cfm (m³/min)	56,701 (1,605)
Total cooling capacity	US gallons (liters)	45.4 (172)
Max. Operating Temperature	°F (°C)	122 (50)

## Starting Capabilities (sKVA)

	480V					208/240V					600V				
	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%
Standard	650	875	1250	1650	2150	600	950	1350	1800	2300	675	925	1300	1750	2250
Upsized	800	1250	1800	2400	3100	550	850	1225	1650	2100	800	1250	1800	2400	3100

## Circuit Breaker

	277/480V	120/208V	120/240V	347/600V
Make and model	ABB T7SB1DB000000XX	ABB T8VBE3HC00000XX	ABB T8VBE3HC00000XX	ABB T7SB1DB000000XX
Amps	1200 A	2500 A	2500 A	1000 A

\* During commissioning, supplied internal gas regulator with genset will need to be adjusted in order to have more than 7" inH2O at 100% Load.

\*\* Pressure listed is the max working pressure of vaporizer. No minimum pressure listed but must be high enough to keep propane liquified

### HIMOINSA POWER SYSTEMS, INC.

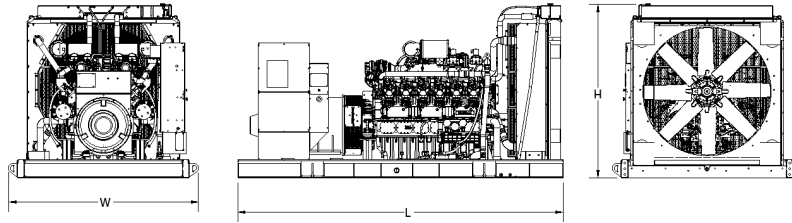
16600 South Theden Street, Olathe, KS 66062

Tel: 913 495 5557 | Fax: 913 495 5575 [www.hipowersystems.com](http://www.hipowersystems.com)

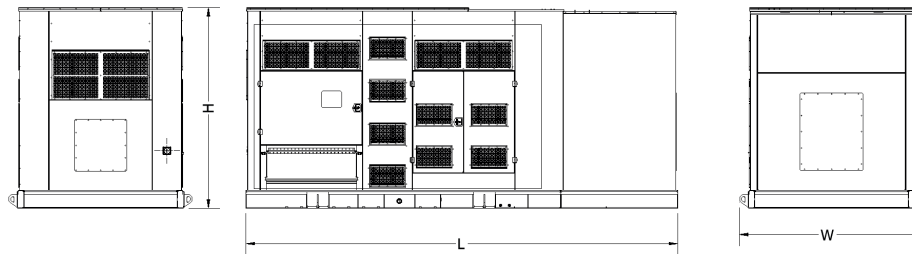
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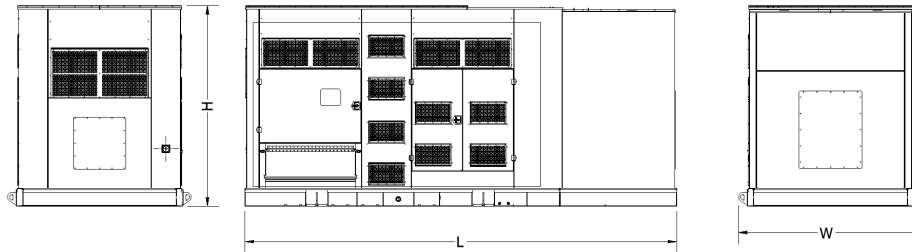
**DIMENSIONS, WEIGHTS & SOUND LEVELS**



CONFIGURATION	RUN TIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
OPEN SET	N/A	N/A	175"	102"	113.5"	18,800	TBD



CONFIGURATION	RUN TIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 1 ENCLOSURE	N/A	N/A	240"	102"	112"	22,500	86



CONFIGURATION	RUN TIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 2 ENCLOSURE	N/A	N/A	240"	102"	112"	22,500	83.8

\* All measurements are approximate and for estimation purposes only. Weights are without fuel tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.



**Intertek**

Conforms to UL STD 2200  
Certified to CSA STD C22.2#100  
Certified to CSA STD C22.2#14

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