

**MODEL**  
**HRNG-1250 T6**



60Hz PRIME POWER RATINGS

940kW/60Hz//1800RPM



| VOLTAGE VAC | 120/240V    | 120/208V    | 139/240V    | 277/480V    | 347/600V**  |
|-------------|-------------|-------------|-------------|-------------|-------------|
| RATING      | Prime Power | Prime Power | Prime Power | Prime Power | Prime Power |
| PHASE       | 1           | 3           | 3           | 3           | 3           |
| PF          | 1.0         | 0.8         | 0.8         | 0.8         | 0.8         |
| HZ          | 60          | 60          | 60          | 60          | 60          |
| KW          | N/A         | N/A         | N/A         | 940         | 941         |
| KVA         | N/A         | N/A         | N/A         | 1175        | 1177        |
| AMPS        | N/A         | N/A         | N/A         | 1414        | 1132        |

**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:** Diesel 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.

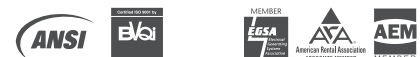
**Alternator:** Single bearing, rotating field, self-excited, self-ventilated, 12-wire re-connectable, 60Hz brushless alternator with Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

**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.



## APPLICATION DATA

| ENGINE SPECIFICATION                                     |   | LUBRICATION SYSTEM                     |  |
|--|---|--|--|
| Manufacturer   | PSI Heavy Duty  | Oil pan capacity - qts (L)             | N/A  |
| Model  | 53L   | Oil pan capacity with filter - qts (L) | 180 (171)  |
| 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  |
| Injection  | Spark Plug  | Oil pressure – psi (kPA)               | 47 (324)   |
| Aspiration   | Charged Cooled Forced Induction                                   | ENGINE ELECTRICAL SYSTEM               |  |
| Number of Cylinders                                      | 16  | Starting motor voltage                 | 24 volt  |
| Cylinder arrangement                                     | V-Type  | Cold Cranking Amps - minimum           | N/A  |
| Displacement CID (liters)                                | 3192 (52.3)   | Battery charging Alternator            | 55 Amp   |
| Bore and Stroke ins (mm)                                 | 5.906x7.283 (150x185)   | Battery capacity                       | 1400CCA 1720CA 430RC GROUP SIZE 8D                                     |
| Nominal power  | 1431 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                               | N/A   |  |  |
| Model 277/480V Three phase                               | S6L1D-E   |  |  |
| Model 347/600V Three phase                               | S6L1D-E   |  |  |
| 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



### DSE 7410

- 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
- “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
- License-free PC software
- Multiple date and time scheduler
- DSENet® expansion compatible

## CONFIGURABLE OPTIONS

| ENCLOSURE                | ENGINE SYSTEM                                     | ELECTRICAL SYSTEM                                |
|--------------------------|---|--|
| Open Skid                | Oil heater  | Battery Warmer                                   |
| Level 1 Sound attenuated | Oil Level Makeup                                  | 10A Battery Charger                              |
|                          |   | 5A Battery Charger                               |
|                          |   | 10 Positions Load Center (100Amps)               |
|                          |   | Remote ESTOP with N3R break glass                |
| ALTERNATOR SYSTEM        | CIRCUIT BREAKER OPTIONS                           | 120V GFCI receptacle                             |
| Tropical coating         | Thermal-Magnetic trip 80% and 100% rated          | 10A Relay common alarm                           |
| Anti-condensation heater | LS/I Electronic trip 80% and 100% rated           | 10A Run Relay                                    |
| Alternator upsizing      | LSI Electronic trip 80% and 100% rated            | 8 LED Remote Annunciator on Surface mounted Box  |
| Rheostat                 | LSIG Electronic trip 80% and 100% rated           | 16 LED Remote Annunciator on Surface mounted Box |
| MX321 AVR                | Second Main Line Circuit Breaker                  | 24 LED Remote Annunciator on Surface mounted Box |
|                          | Auxiliary Contacts for Main and Secondary Breaker | Parallel controller with motorized breaker       |
|                          | Mechanical Lugs                                   | GENERATOR SET                                    |
|                          | Shunt Trip  | Extended Factory Load Testing                    |
|                          |   | Extended Warranty                                |

## ENGINEERED OPTIONS

| ENCLOSURE                                  | ENGINE SYSTEM  | ELECTRICAL SYSTEM                       |
|--|--|---|
| Air Outlet Gravity dampers                 | Fluid Containment Pan  | AC/DC Enclosure Lighting Kit with Timer |
| Air Inlet motorized dampers (only with L2) |  | Enclosure Heater                        |
|  |  | 240V Twist lock receptacle              |
| CIRCUIT BREAKER OPTIONS                    | CONTROL SYSTEM   | GENERATOR SET                           |
| 3rd Breaker system                         | Spare inputs (x4) / output (x4)                                    | Special Testing                         |
| Shunt Trip on 3rd Breaker                  | DSE8610 - Parallel controller with motorized CB                    |   |
| Auxiliary contact on 3rd Breaker           | DSE2130 - DSENet Input Expansion Module                            |   |
|  | DSE2157 - DSENet Output Expansion Module                           |   |
|  | DSE855 - DSENet USB to Ethernet ModBus TCP/IP Communication Module |   |
|  | DSE892 - DSENet USB to Ethernet ModBus TCP/IP - SNMP Comm. Module  |   |
|  | DSE2520 - Remote Display Module                                    |   |

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## OPERATING DATA

| FUEL SYSTEM  |   |
|--|---|
| Fuel type  | Natural Gas, vapor withdrawal                           |
| Fuel supply line - inlet   | 2" NPTF   |
| *Natural gas and LPG fuel supply pressure - in. column H2O (kPa) | NG (30PSI) - LPG 7" to 11" column H2O - (1.7 - 2.7 kPa) |

| FUEL CONSUMPTION (PRIME RATING) - NATURAL GAS<br>(Measured at genset fuel inlet, downstream of any dry fuel or filter accessories) | m3/h | ft3/h  | BTU/h      |
|--|------|--------|------------|
| 100% load  | 324  | 11,453 | 11,453,000 |
| 75% load   | 251  | 8,879  | 8,879,000  |
| 50% load   | 182  | 6,413  | 6,413,000  |
| 25% load   | 115  | 4,413  | 4,413,000  |

| FUEL CONSUMPTION (PRIME RATING) - LPG<br>(Measured at genset fuel inlet, downstream of any dry fuel or filter accessories) | m3/h | ft3/h | BTU/h |
|--|------|-------|-------|
| 100% load  | 445  | 104   |       |
| 75% load   | 337  | 79    |       |
| 50% load   | 241  | 57    |       |
| 25% load   | 158  | 37    |       |

| COOLING SYSTEM  |                     |                |
|---|---------------------|----------------|
| Engine cooling air flow                               | cfm (m³/min)        | 67,300 (1,906) |
| Alternator cooling flow                               | cfm (m³/min)        | 3,581 (102)    |
| Combustion air flow                                   | cfm (m³/min)        | 1,999 (57)     |
| Total cooling air flow (engine+alternator+combustion) | cfm (m³/min)        | 72,880 (2,065) |
| Total cooling capacity                                | US gallons (liters) | 66 (248)       |
| Max. Operating Temperature                            | °F (°C)             | 122 (50)       |

| EXHAUST                                |               |              |
|--|---------------|--------------|
| Exhaust gas flow                       | cfm (m³/min)  | 3899 (110.4) |
| Max. Exhaust temp at full load degrees | °F (°C)       | 876 (469)    |
| Max. permissible back pressure         | in H2O (kPA ) | 40.1 (10)    |

## Starting Capabilities (skVA)

|          | 480V |      |      |      |      | 208/240V |     |     |     |     | 600V |      |      |      |      |
|----------|------|------|------|------|------|----------|-----|-----|-----|-----|------|------|------|------|------|
|          | 10%  | 15%  | 20%  | 25%  | 30%  | 10%      | 15% | 20% | 25% | 30% | 10%  | 15%  | 20%  | 25%  | 30%  |
| Standard | 750  | 1150 | 1650 | 2150 | 2800 | N/A      | N/A | N/A | N/A | N/A | 900  | 1450 | 2000 | 2700 | 3450 |
| Upsized  | 900  | 1450 | 2050 | 2750 | 3550 | N/A      | N/A | N/A | N/A | N/A | 950  | 1550 | 2150 | 2900 | 3750 |

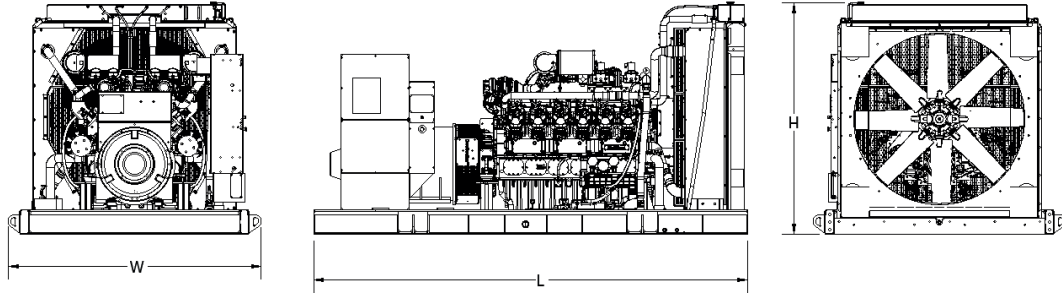
## Circuit Breaker

|                | 277/480V           | 120/208V | 120/240V | 347/600V           |
|----------------|--------------------|----------|----------|--------------------|
| Make and model | ABBT8VBD3GC00000XX | N/A      | N/A      | ABBT7SB1DB000000XX |
| Amps           | 1600 A             | N/A      | N/A      | 1200 A             |

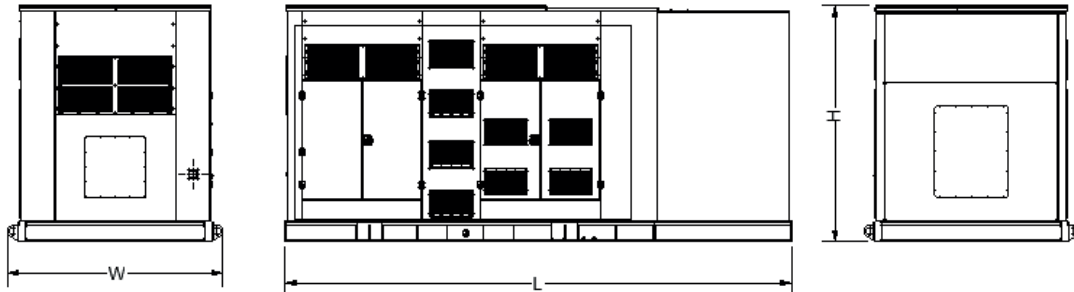




**DIMENSIONS, WEIGHTS & SOUND LEVELS**



| CONFIGURATION | RUN TIME (HOURS) | USABLE CAPACITY (Gal.) | L = Length | W = Width | H = Height | Weight lbs | dBA |
|---------------|------------------|------------------------|------------|-----------|------------|------------|-----|
| OPEN SET      | N/A              | N/A                    | 230"       | 93.4"     | 112.3"     | 25,000     | TBD |



| CONFIGURATION     | RUN TIME (HOURS) | USABLE CAPACITY (Gal.) | L = Length | W = Width | H = Height | Weight lbs | dBA |
|-------------------|------------------|------------------------|------------|-----------|------------|------------|-----|
| LEVEL 1 ENCLOSURE | N/A              | N/A                    | 295"       | 93.4"     | 114.3"     | 30,200     | 79  |

\* 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.

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