HIPOWER®

# RENTAL DIESEL GENERATOR SET

MODEL

# HRJW-325 T4F

60Hz RENTAL/PRIME/STANDBY POWER

260kW/60Hz/Rental/1800RPM


| VOLTAGE VAC | 120/240V | | 120/208V | | 139/240V | | 277/480V | | 347/600V** | |
|---|---|---|---|---|---|---|---|---|---|---|
| RATING | Prime | Standby | Prime | Standby | Prime | Standby | Prime | Standby | Prime | Standby |
| PHASE | 1 | | 3 | | 3 | | 3 | | 3 | |
| PF | 1.0 | | 0.8 | | 0.8 | | 0.8 | | 0.8 | |
| HZ | 60 | | 60 | | 60 | | 60 | | 60 | |
| KW | 185 | | 260 | 286 | 260 | 286 | 260 | 286 | 260 | 286 |
| KVA | 185 | | 325 | 357.5 | 325 | 357.5 | 325 | 357.5 | 325 | 357.5 |
| AMPS | 848 | | 902 | 992 | 783 | 861 | 391 | 430 | 312 | 344 |
| SKVA@30% VOLTAGE DIP | 578 | | 1050 | | 1050 | | 1050 | | N/A | |

## Description

HIPOWER® rental generators are an efficient, reliable and versatile source of mobile electrical power. Designed to operate in the most extreme working conditions. All HIPOWER® Rental Generators combine an innovative design and the use of high quality materials that provide the user with the most dependable power that you can rely on for non-stop power with easy to operate controls.

Powered by a radiator-cooled, industrial JOHN DEERE Diesel engine, which meets current Environmental Protection Agency (EPA) TIER 4 Final non-road exhaust emission regulations, driving a single bearing, four-pole, three-phase alternator, with IP23 protection. The Prime Power kVA rating for generator set is given with a 105 degree °C alternator winding temperature rise.

## HIPOWER® Features and Benefits

JOHN DEERE 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 permanent magnetic generator (EBS), with Class F insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

Certification: ISO 8528-5.

## HIPOWER® Features and Benefits

Fuel Tank: Environmentally friendly steel base welded sub-base fuel tank with internal filling system and 110% containment capability for any diesel fuel, coolant or engine oil spills. Easy access for maintenance activities.

Enclosure: Fully sound attenuated enclosure, fabricated in 11-gauge steel, powder coated with finish that exceeds 1000-hr salt spray test, curved edges, minimum outside fasteners and single point lift. Ample layer of durable Rockwool sound insulating material placed all around the inside of the container, doors and ducting with metal retaining frames. It can be cleaned with high-pressure water and is oil and fire resistant. Vertical air discharge for quiet operation. Wide steel lockable access doors with rubber seals, easy access for maintenance and service activities, lift off stainless steel hinges, corrosion resistant hardware and fasteners.

Exhaust: Low noise, steel residential-type exhaust silencer with rain cap.

Fuel Filtration: Standard and secondary water separator with visible level on fuel filters

Voltage Selector Switch: Three-position, manual voltage selector switch. Lockable in three positions for switching set between 120/240V single phase and 120/208 and 277/480V 3-phase.

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. Load Connections: Covered distribution panel for easy access to cable power outlets, receptacles, lugs and Camloks.

Codes and Standards Compliances used where applicable

## APPLICATION DATA

| ENGINE SPECIFICATION | |
|---|---|
| Manufacturer | JOHN DEERE |
| Model | 6090HFG06 |
| EPA certified | Tier 4 FINAL |
| Crankshaft speed | 1,800 rpm |
| Type | Diesel, 4-stroke |
| Injection | Direct |
| Aspiration | Turbocharged |
| Number of Cylinders | 4 |
| Cylinder arrangement | In-line |
| Displacement CID (liters) | 549 (9.0) |
| Bore and Stroke ins (mm) | 4.7 x 5.4 (118.4 x 13) |
| Nominal power | 373 HP |
| Cooling | Liquid |
| Governor | Electronic |
| Governor Regulation Class | ISO 8528 Part 1 Class G3 |
| Frequency Regulation | Isochronous |
| Starting motor & alternator | 12 volt |
| Compression ratio | 16.0:1 |
| Air cleaner type | Heavy duty - single cartridge |
| Exhaust gas flow cu. ft./minute (cu.m. /minute) | 1448 (41) |
| Max. Exhaust temp at full load degrees °F (°C) | 831 (444) |
| Max. permissible back pressure - ins H2O (kPA ) | 116 (29) |
| **COOLING SYSTEM** | |
| Engine cooling air flow - cu. ft./min (cu. m/min) | TBD |
| Alternator cooling flow - cu. ft./min (cu. m/min) | 2100 (59) |
| Total cooling air flow (engine + alternator + combustion) - cu. ft./min (cu. m/min) | TBD |
| Total cooling capacity - US gallons (liters) | TBD |
| Max. Operating Temperature °F (°C) | 122 (50) |
| **LUBRICATION SYSTEM** | |
| Oil pan capacity - US gallons (liters) | 9.60 (36.1) |
| Oil pan capacity with filter - US gallons (liters) | 10.2 (38.4) |
| Ol cooler | Liquid |
| Recommended lubricating oil grade | SAE 10W-40 conventional DH4 (refer to owners manual) |
| Oil consumption at full load | < 0.1% of fuel consumption |
| Oil pressure – psi (kPA) | 46 (320) |
| **ENGINE ELECTRICAL SYSTEM** | |
| Starting motor voltage | 24 volt |
| Cold Cranking Amps - minimum | 650 Amp X 2 |
| Battery charging Alternantor | 65 Amp |
| Battery capacity | 450 Amps X 2 |

Codes and Standards Compliances used where applicable

# APPLICATION DATA

| FUEL SYSTEM | | |
|---|---|---|
| Recommended fuel | # 2 - ULSD | |
| Fuel supply line, min. ID mm(in.) | - | |
| Fuel return line,min. ID, mm (in.) | - | |
| Max. lift, fuel pump, type, m (ft) | TBD | |
| Fuel filter | Secondary 8 Microns @ 98% Efficiency | |
| FUEL COMPSUNTION | Standby Power Rating | Prime Power Rating |
| 100% load – US gallons/hour | TBD | 18.6 (70.4) |
| 75% load - US gallons/hour | TBD | 13.6 (51.6) |
| 50% load - US gallons/hour | TBD | 9.3 (35.2) |
| 25% load - US gallons/hour (liters) | TBD | 5.6 (21.1) |

| ALTERNATOR SPECIFICATION | |
|---|---|
| Manufacturer | STAMFORD |
| Model | S4L1S-E4 with PMG |
| Voltages | 120/208v.; 277/480v.; 120/240V |
| Alternator Type | Four pole, rotating field |
| Excitation System | Brushless. PMG-excited |
| Power factor | 0.8 / 1.0 |
| Number of leads | 12 leads, reconnectable |
| Stator Pitch | 2/3 |
| Insulation | Class H |
| Windings – Temperature Rise | Class F (105/40° 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 |

| STANDARD ACCESSORIES | |
|---|---|
| • Air Filter Restriction Indicator | • Buck Transformer for Auxiliary 120VAC Outlets |
| • Leakage Detection Sensor | • Water Jacket Heater |
| • Battery Switch | • Shunt Trip on MLCB |
| • Crankcase Ventilation Filter | • 3 Position Voltage Selector Switch |
| • Oil/Coolant Drain Extention | • PMG Excitation on Alternator |
| • Distribution Panel 800A | • Leakage Detector Sensor |
| • MLCB Auxiliary Contacts | • Leak Proof Tray |
| • Extended Maintenance Interval up to 500 Hrs. | |

•Distribution power panel *See image RH back-page -
NEMA 3R/IP67 0.09" aluminum panel, black powder coated, weather proof rated; individual Square-D QOU branch breakers; 2 x 20A 125V NEMA5-20 GFCI duplex receptacles; 3 x 50A 125/250V CS6369 twist-lock receptacles & Lexan covers; 2 x15A 125V NEMA 5-15P Shore line connector; 2 sets 400A single pin Camlocks rated 400A with snap covers; color coded Camlocks 3Φ - 5W black, red blue, white & green; pad lockable 1/4 turn door access with cable trap; auxiliary bus bars with mechanical lugs; 1 single barrel lug per phase; mechanical lugs up to 2 x 600MCM cable

| OPTIONAL ACCESSORIES | |
|---|---|
| • Battery Blanket | • Low cooland level Sensor |
| • Hydronic heater (5 kw) | • Engineered Options available upon request |
| • 3-Way Fuel valve | • Control Panel Heater |
| • 6 Amp - 10 Amp battery charger, 12/24V, UL Listed | • Oil Pan Heater • Low Coolant Level Sensor |

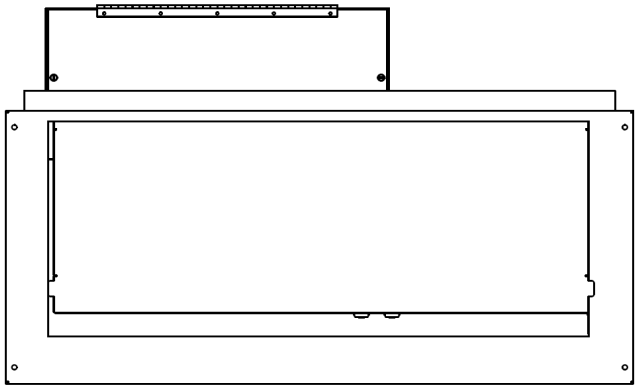
Codes and Standards Compliances used where applicable

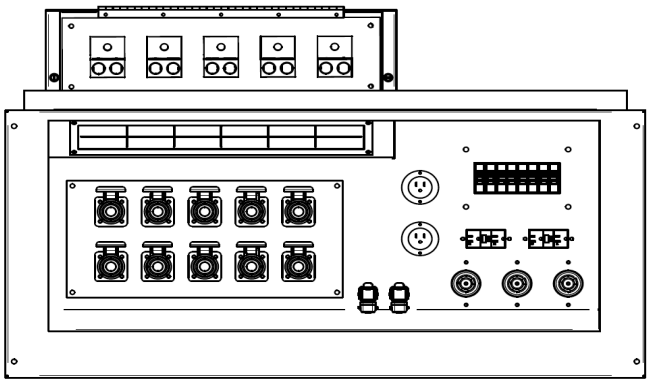
# CONTROL SYSTEMS STANDARD FEATURES - Generator Digital Control Panel

HIPOWER® COMAP IntelliGen NT Control Panel: The IntelliGen NT digital control panel is back-lit with icon LCD text display, and is PC configurable. IInteliGen NT is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes. Compact construction is optimized for these purposes and various modifications allow customers to select the optimum type for a particular application. A built-in synchronizer and digital isochronous load sharer allow a total integrated solution for gen-sets in standby, island parallel or mains parallel. Native cooperation of up to 32 gen-sets is a standard feature. InteliGen NT supports many standard ECU types and is specially designed to easily integrate new ones.

Engine alarms included: High coolant temperature, low oil pressure, low coolant level, unexpected shutdown, low fuel level, stop failure, low battery voltage, battery charging alternator failure, over-speed, under-speed, start failure and emergency stop. Support of engines with ECU (J1939, Modbus and other proprietary interfaces); alarm codes displayed in text form.

Alternator alarms included: Overload, unbalanced voltage, over voltage, under voltage, over frequency, under frequency, short circuit, reverse power, and incorrect phase sequence.

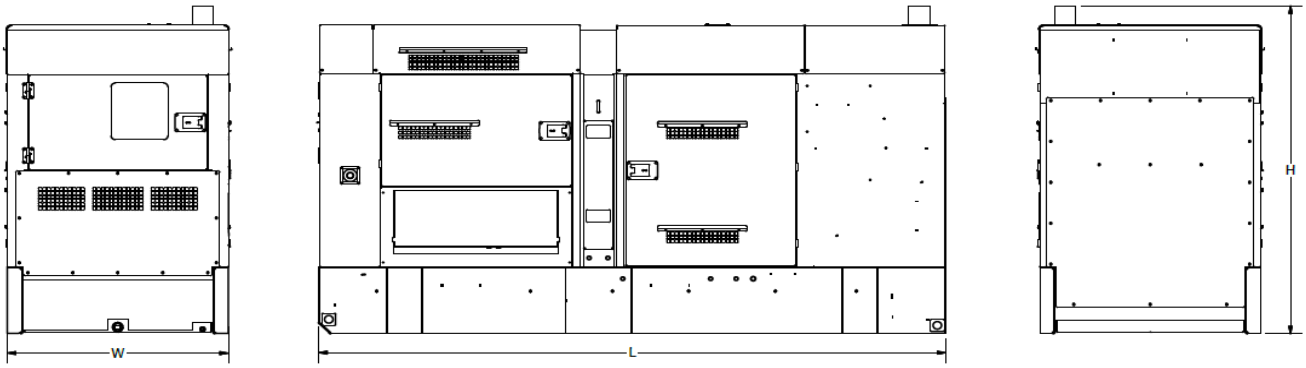




Codes and Standards Compliances used where applicable

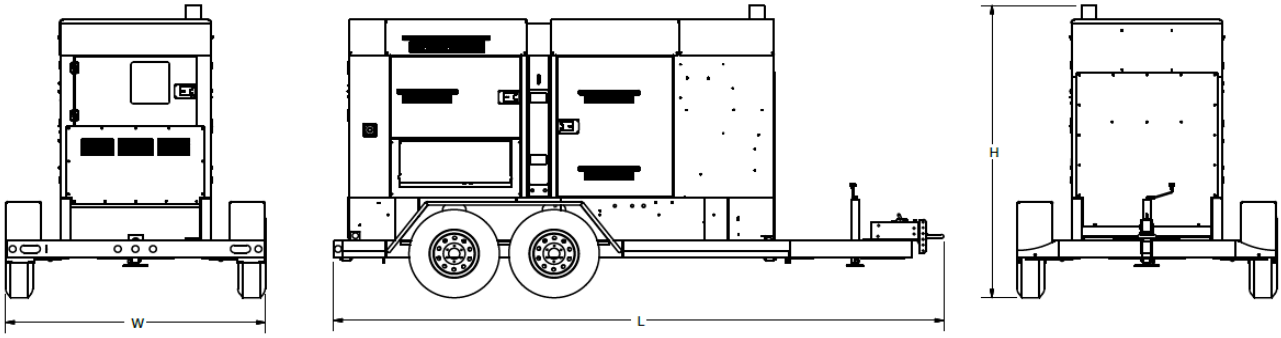
# DIMENSIONS, WEIGHTS & SOUND LEVELS

## ENCLOSED SET




| CONFIGURATION | Fuel Tank Data (base option) | | Generator Data * | | | | |
|---|---|---|---|---|---|---|---|
| | Run Time Hours | Capacity (Gals) | L = Length | W = Width | H = Height | Weight lbs | dBA |
| Enclosed Set | 22 | 449 | 161.4″ | 63.4″ | 99″ | 14400 | 74 |

## ENCLOSED SET WITH TRAILER




| CONFIGURATION | Fuel Tank Data (base option) | | Generator Data * | | | | |
|---|---|---|---|---|---|---|---|
| | Run Time Hours | Capacity (Gals) | L = Length | W = Width | H = Height | Weight lbs | dBA |
| Enclosed Set with Trailer | 22 | 449 | 255″ | 102″ | 123″ | 16640 | 74 |

* 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.

Codes and Standards Compliances used where applicable