

# **MOBILE DIESEL GENERATOR SET**

MODEL

# **HRJW-240 T4F**

60Hz | MOBILE/PRIME/STANDBY POWER

192 kW | 1800RPM



VOLTAGE VAC	120/240V		120/208V		120/240V		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	150	165	192	211	192	211	192	211	N/A	N/A
KVA	150	165	240	264	240	264	240	264	N/A	N/A
AMPS	625	687	666	733	582	640	289	318	N/A	N/A
SKVA@30% VOLTAGE DIP	610		630		630		840		N/A	

#### **DESCRIPTION**

HIPOWER<sup>®</sup> Mobile generators are an efficient, reliable and versatile source of mobile electrical power. Designed to operate in the most extreme working conditions. All HIPOWER<sup>®</sup> Mobile 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 (PMG), with Class F insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

Certification: ISO 8528-5.

**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		LUBRICATION SYSTEM	
Manufacturer	John Deere	Oil pan capacity - Gal. (L)	9.03 (34)
Model	6068HFG06	Oil pan capacity with filter - Gal. (L)	9.53 (35.8)
EPA Certified	Tier 4 FINAL	Oil cooler	Liquid
Crankshaft Speed	1,800 rpm	Recommended lubricating oil grade	SAE 10W-40 conventional DH4 (refer to owners manual)
Туре	Diesel, 4-stroke	Oil consumption at full load	< 0.1% of fuel consumption
Injection	Direct	Oil pressure – psi (kPA)	46 (320)
Aspiration	Turbocharged	<b>ENGINE ELECTRICAL SYSTEM</b>	
Number of Cylinders	6	Starting Motor Voltage	12 volt
Cylinder Arrangement	In-line	Cold Cranking Amps - minimum	102 Amp
Displacement CID (liters)	414.96 (6.8)	Battery Charging Alternator	110 Amp
Bore & Stroke Ins (mm)	4.17 x 5.0 (106 x 127)	Battery Capacity	1050 Amps
Nominal Power	295 hp		
Cooling	Liquid		
Governor	Electronic		
Governor Regulation Class	ISO 8528 Part 1 Class G3		
Frequency Regulation	Isochronous		
Starting Motor & Alternator	12 volt		
Compression Ratio	17.2:1		
Air Cleaner Type	Heavy duty - single cartridge		
Exhaust Gas Flow cu. ft./minute (cu.m. /minute)	932 (26.4)		
Max. Exhaust Temp at Full Load Degrees °F (°C)	756 (402)		
Max. Permissible Back Pressure ins H20 (kPA )	53.2 (13.3)		
ALTERNATOR SPECIFICATION			
Manufacturer	STAMFORD		
Model	UCI274J with PMG		
Voltages	120/208V   277/480V   120/2	40V	
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		industrial and commercial applications	
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## **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% Efficience	У		
DEF Tank Capacity - Gal.	11.9			
FUEL CONSUMPTION	PRIME POWER RATING	DEF (% of fuel consumption)		
100% load – US gallons/hour	13.8 (52.2)	3.3%		
75% load - US gallons/hour	10.4 (39.3)	TBD		
50% load - US gallons/hour	7.2 (27.2)	TBD		
25% load - US gallons/hour (liters)	4.4 (16.6)	TBD		
COOLING SYSTEM				
Engine cooling air flow - cu. ft./min (cu. m/min)	565 (16)			
Alternator cooling flow - cu. ft./min (cu. m/min)	1463 (41.1)			
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)			
STANDARD ACCESSORIES				
Air Filter Restriction Indicator	Buck Transformer for Auxiliary 120V	AC Outlets		
Leakage Detection Sensor	Coolant heater			
Battery Switch	Shunt Trip on MLCB			
Crankcase Ventilation Filter	3 Position Voltage Selector Switch			
Oil/Coolant Drain Extension	PMG Excitation on Alternator			
Distribution Panel 800A	Leakage Detector Sensor			
MLCB Auxiliary Contacts	• Leak Proof Tray			
Extended Maintenance Interval up to 500 Hrs.	Low Coolant Level Sensor			

• 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 3Ph - 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	Oil Pan Heater
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	

Codes and Standards Compliances used where applicable











## CONTROL SYSTEMS STANDARD FEATURES - Generator Digital Control Panel

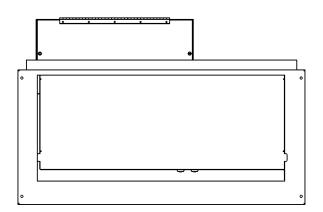
HIPOWER® COMAP IG500 Control Panel: The InteliGen 500 digital control panel is back-lit with icon LCD text display, and is PC configurable. InteliGen 500 is a comprehensive controller for both single and multiple

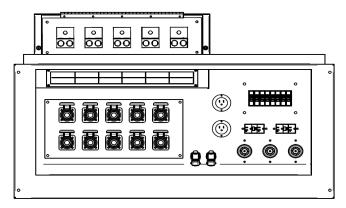
gen-sets operating in standby or parallel modes. Compact construction is optimized for these purposes and various modifications allow customers to select the optimum type for a particular application. A built-in synchronizer and digital isochronous load sharer allow a total integrated solution for gen-sets in standby, island parallel or mains parallel. Native cooperation of up to 32 gen-sets is a standard feature. InteliGen 500 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.







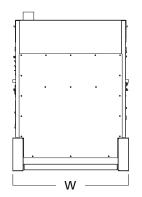


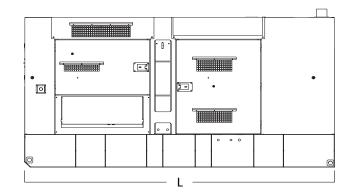
Codes and Standards Compliances used where applicable

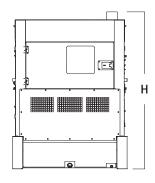






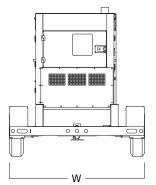


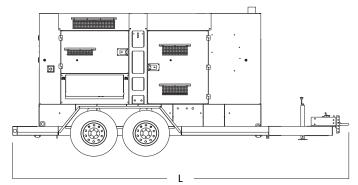


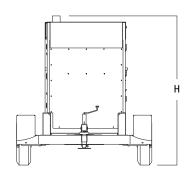


CONFIGURATION	FUEL TANK DATA (BASE OPTION)			GENERATOR DATA *					
	RUN TIME Hours	CAPACITY (Gals) DEF	CAPACITY (Gals) DIESEL	L = LENGTH	W = WIDTH	H = HEIGHT	WEIGHT LBS	DBA	
Enclosed Set with Standard Fuel Tank	9	11.9	130	145"	54"	84.4"	8,560	72	
Enclosed Set with Extended Fuel Tank	24	11.9	335	145"	54"	90.4"	9,190	72	

## **ENCLOSED SET WITH TRAILER**







	FUEL TANK DATA (BASE OPTION)			GENERATOR DATA *					
CONFIGURATION	RUN TIME Hours	CAPACITY (Gals) DEF	CAPACITY (Gals) DIESEL	L = LENGTH	W = WIDTH	H = HEIGHT	WEIGHT LBS	DBA	
Enclosed Set with Standard Fuel Tank & Trailer	9	11.9	130	225"	88.2"	103"	10,120	72	
Enclosed Set with Extended Fuel Tank & Trailer	24	11.9	335	225"	88.2"	109"	10,750	72	

<sup>\*</sup> 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.



Certified to CSA STD C22.2#100 Certified to CSA STD C22.2#14

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