

MOBILE DIESEL GENERATOR SET

MODEL

HRFW-225 T4F









60Hz MOBILE/PRIME/STANDBY POWER





VOLTAGE VAC	120/240V		120/208V		120/240V		277/480V		347/600V**	
RATING	Prime	Stand- by	Prime	Standby	Prime	Standby	Prime	Standby	Prime	Stand- by
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	180	198	180	198	180	198	N/A	N/A
KVA	150	165	225	247	225	247	225	247	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 mobile generators are an efficient, reliable and versatile source of mobile electrical power. Designed to operate in the most extreme working conditions. All HIPOWER 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 FPT 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° C alternator winding temperature rise.

HIPOWER® Features and Benefits

FPT 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 reconnectable, 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.

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	
	EPT .
Manufacturer	
Model	N67ENTZW69.00
EPA certified	Tier 4 FINAL
Crankshaft speed	1,800 rpm
Type	Diesel, 4-stroke Direct
Injection	
Aspiration	Turbocharged 6
Number of Cylinders Cylinder arrangement	In-line
Displacement CID (liters)	408 (6.7)
Bore and Stroke ins (mm)	4.09 x 5.19 (104 x 132)
Nominal power	299 hp
Cooling	Liquid
Governor	Electronic
Governor Regulation Class	ISO 8528 Part 1 Class G3
Frequency Regulation	Isochronous
	12 volt
Starting motor & alternator	17:1
Compression ratio	
Air cleaner type	Heavy duty - single cartridge 932 (26.4)
Exhaust gas flow cu. ft./minute (cu.m. /minute)	
Max. Exhaust temp at full load degrees °F (°C)	932 (500)
Max. permissible back pressure - in H2O (kPA)	80 (19)
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)	11.5 (43.5)
Max. Operating Temperature ° F (° C)	122 (50)
LUBRICATION SYSTEM	
Oil pan capacity - US gallons (liters)	3.88 (14.7)
Oil pan capacity with filter - US gallons (liters)	4.8 (18.2
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)	50 (350)
ENGINE ELECTRICAL SYSTEM	
Starting motor voltage	12 volt
Cold Cranking Amps - minimum	102 Amp
Battery charging Alternantor	110 Amp
Battery capacity	1050 Amps











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 and DEF COMPSUMTION	FUEL (Prime Power Rating)	DEF (% of fuel consumption)
100% load – US gallons/hour (L/hr)	12.3 (46.6)	9 %
75% load - US gallons/hour (L/hr)	9.3 (35.2)	TBA
50% load - US gallons/hour (L/hr)	6.3 (23.8)	TBA
25% load - US gallons/hour (L/hr)	3.4 (12.9)	TBA
ALTERNATOR SPECIFICATION		
Manufacturer	STAMFORD	
Model	UCDI 274 J	
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 an	d commercial applications
Line harmonics	5% maximum	
STANDARD ACCESSORIES		
Air Filter Restriction Indicator	Buck Transformer for Auxiliary 120VAC C	Outlets
Leakage Detection Sensor	Coolant 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.	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 3 - 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









CONTROL SYSTEMS STANDARD FEATURES - Generator Digital Control Panel

HIPOWER® COMAP IG500 Control Panel: The IntelliGen 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

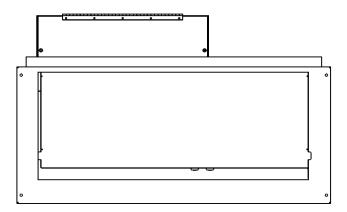
gen-sets operating in standby or parallel modes. Compact construction is optimized for these purposes and various modifications allow customers to select the optimum type for a particular application. A built-in synchronizer and digital isochronous load sharer allow a total integrated solution for gensets 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.

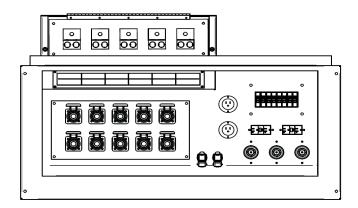
Engine alarms included: High coolant temperature, low oil pressure, low coolant level, unexpected shutdown, low fuel level, stop failure, low battery voltage, battery charging alternator failure, over-speed, under-speed, start failure and emergency stop. Support of engines with ECU (J1939, Modbus and 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.

DISTRIBUTION PANEL VIEW





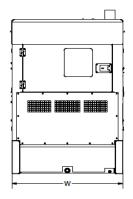


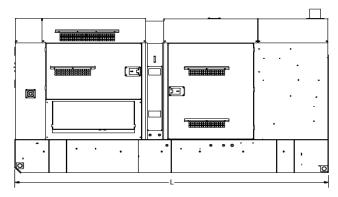


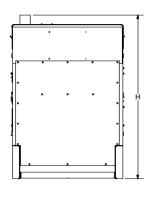


DIMENSIONS, WEIGHTS & SOUND LEVELS

ENCLOSED SET

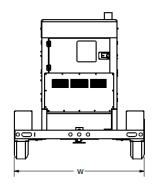


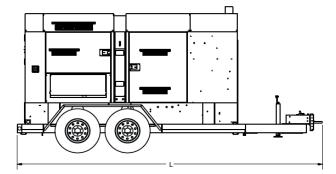


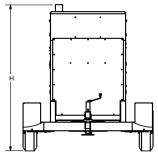


CONFIGURATION	Fuel Tank Data (base option)			Generator Data *				
	Run Time Hours	Capacity (Gals) DEF	Capacity (Gals)	L = Length	W = Width	H = Height	Weight Ibs	dBA
Enclosed Set with Standard Fuel Tank	10.6	11.4	130	145"	54"	84.4"	8,500	TBD
Enclosed Set with Extended Fuel Tank	24	11.4	335	145"	54"	90.4"	9,130	TBD

ENCLOSED SET WITH TRAILER







CONFIGURATION	Fuel Tank Data (base option)			Generator Data *				
	Run Time Hours	Capacity (Gals) DEF	Capacity (Gals)	L = Length	W = Width	H = Height	Weight lbs	dBA
Enclosed Set with Standard Fuel Tank	10.6	11.4	130	225"	88.2"	103"	10,060	TBD
Enclosed Set with Extended Fuel Tank	24	11.4	335	225"	88.2"	109"	10,690	TBD

^{*} 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.

REV1









