HIPOWER®

RENTAL DIESEL GENERATOR SET

MODEL

HRIW-125 T4F

60Hz RENTAL/PRIME/STANDBY POWER

100kW/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	72.2	79.4	100.0	110.0	100.0	110.0	100.0	110.0	N/A	N/A
KVA	72.2	79.4	125.0	137.7	125.0	137.7	125.0	137.7	N/A	N/A
AMPS	301	331	347	381	301	331	150	165	N/A	N/A
SKVA@30% VOLTAGE DIP	304		530		530		530		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 ISUZU 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

ISUZU 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.

HIMOINSA POWER SYSTEMS, INC.
16002 West 110th Street, Lenexa, KS 66219-1312
Tel: 913 495 5557 | Fax: 913 495 5575 **www. hipowersystems.com**

Codes and Standards Compliances used where applicable

APPLICATION DATA

ENGINE SPECIFICATION	
Manufacturer	ISUZU
Model	4HK1X
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)	317.3 (5.2)
Bore and Stroke ins (mm)	3.74 x 4.12 (95.4 x 104.9)
Nominal power	169 hp
Cooling	Liquid
Governor	Electronic
Governor Regulation Class	ISO 8528 Part 1 Class G3
Frequency Regulation	Isochronous
Starting motor & alternator	12 volt
Compression ratio	16.5:1
Air cleaner type	Heavy duty - single cartridge
Exhaust gas flow cu. ft./minute (cu.m. /minute)	169 (4.8)
Max. Exhaust temp at full load degrees °F (°C)	470 (243)
Max. permissible back pressure - ins H2O (kPA)	53.2 (13.3)
COOLING SYSTEM	
Engine cooling air flow - cu. ft./min (cu. m/min)	2944 (83.0)
Alternator cooling flow - cu. ft./min (cu. m/min)	1308 (36.7)
Total cooling air flow (engine + alternator + combustion) - cu. ft./min (cu. m/min)	4549 (126.7)
Total cooling capacity - US gallons (liters)	19.7 (5.2)
Max. Operating Temperature °F (°C)	122 (50)
LUBRICATION SYSTEM	
Oil pan capacity - US gallons (liters)	5.8 (21.8)
Oil pan capacity with filter - US gallons (liters)	6.33 (23.78)
OI 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)	65 (450)
ENGINE ELECTRICAL SYSTEM	
Starting motor voltage	12 volt
Cold Cranking Amps - minimum	150 Amp
Battery charging Alternantor	110 Amp
Battery capacity	950 Amps

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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	8.4(31.6)
75% load - US gallons/hour	TBD	6.4 (24.0)
50% load - US gallons/hour	TBD	4.4 (16.5)
25% load - US gallons/hour (liters)	TBD	2.5 (9.4)
ALTERNATOR SPECIFICATION		
Manufacturer	STAMFORD	
Model	UCI 274 E 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		
• Radiator with pusher fan	• Standard and secondary water separator with visible level on fuel filters	
• Medium - duty, two-stage dry element	• All rotating components (i.e. fan) protected with metal guards	
• Heavy-duty engine start batteries in rack with cables	• All hot components (i.e. exhaust) protected with metal guards	
• External Emergency stop switch	• Ground connection prepared for ground spike (not supplied)	
• Battery disconnect switch	• Main line ABB UL listed circuit breaker for overload protection	

•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; 1 set 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 250MCM cable

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

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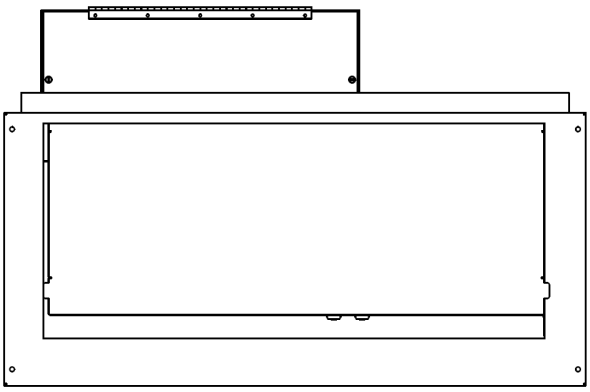
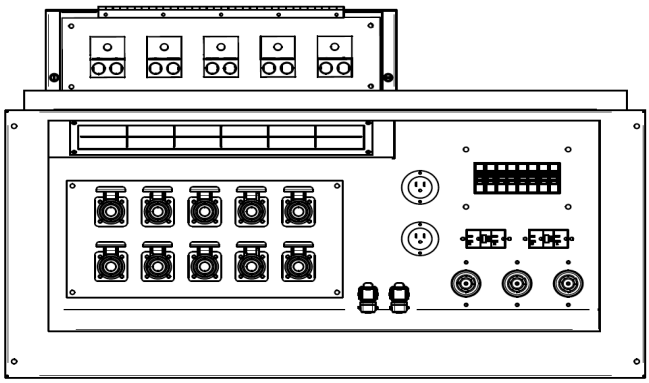
CONTROL SYSTEMS STANDARD FEATURES - Generator Digital Control Panel

HIPOWER® COMAP IntelliLite NT Control Panel: The IntelliLite NT digital control panel is back-lit with icon LCD text display, and is PC configurable. IntelliLite NT is a comprehensive controller for single gen-sets operating in Standby or Prime modes. Compact construction is optimized for these purposes and various modifications allow customers to select the optimum operation mode for a particular application.

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.





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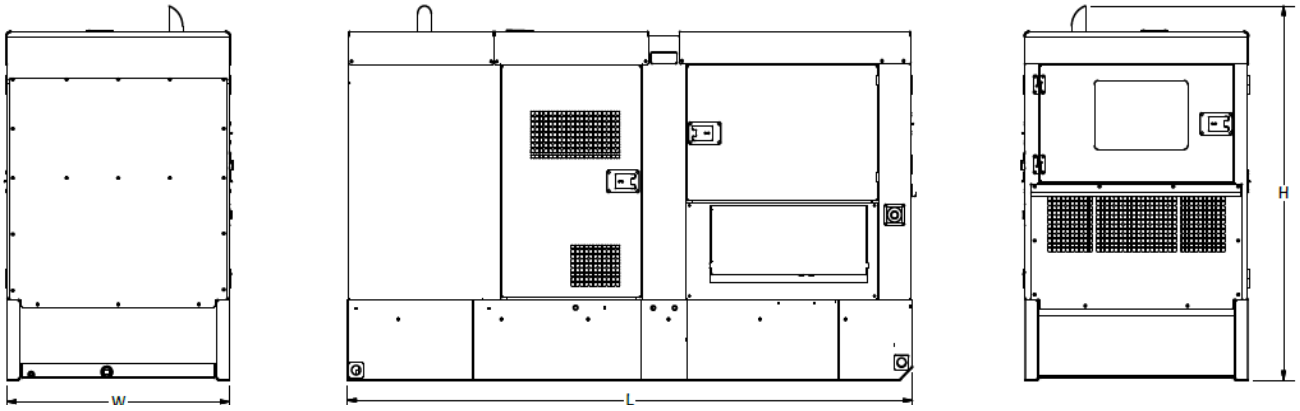
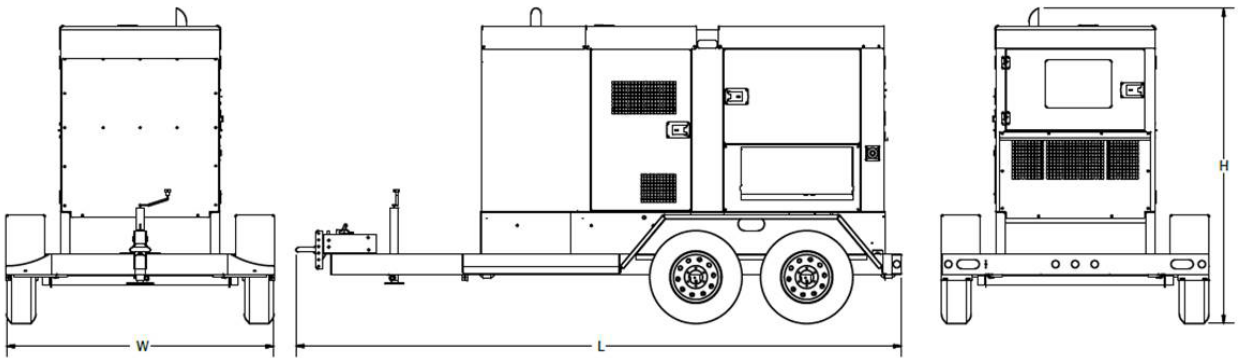
DIMENSIONS, WEIGHTS & SOUND LEVELS

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	19.7	167.4	123.4″	48.8″	73.7″	TBD	TBD

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	19.7	167.4	189.7″	84.0″	94″	TBD	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.

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