

MOBILE DIESEL GENERATOR SET

*For sale in Canada only

HRIW-125 T4F



60Hz MOBILE/PRIME/STANDBY POWER RATINGS kW (kVA)

100kW/600V/60Hz/MOBILE/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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	110
KVA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	125	137
AMPS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	132
SKVA@30% VOLTAGE DIP	N/A		N/A		N/A		N/A		545	

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 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, 60Hz brushless alternator with permenant 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.

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 lugs and camloks.

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
Туре	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)
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
,	65 (450)
Oil pressure – psi (kPA)	
ENGINE ELECTRICAL SYSTEM	12
Starting motor voltage	12 volt
Cold Cranking Amps - minimum	150 Amp
Battery charging Alternantor	110 Amp
Battery capacity	950 Amps

HIMOINSA POWER SYSTEMS, INC.

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
DEF Tank capacity - US Gal.	7.4
FUEL and DEF COMPSUMTION	FUEL (Prime Power Rating) DEF (% of fuel consumpti
100% load – US gallons/hour (L/hr)	8.4(31.6) 3 %
75% load - US gallons/hour (L/hr)	6.4 (24.0) TBD
50% load - US gallons/hour (L/hr)	4.4 (16.5) TBD
25% load - US gallons/hour (L/hr)	2.5 (9.4) TBD
ALTERNATOR SPECIFICATION	
Manufacturer	STAMFORD
Model	UCI 274D with PMG
Voltages	347/600V
Alternator Type	Four pole, rotating field
Excitation System	Brushless. PMG-excited
Power factor	0.8
Number of leads	12 leads
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	Rheostat- Potenciometer on the front panel
Leakage Detection Sensor	Water Jacket Heater
Battery Switch	Shunt Trip on MLCB
Crankcase Ventilation Filter	• Extended Maintenance Interval up to 500 Hrs.
Coolant Drain Extention	PMG Excitation on Alternator
Low Coolant Level Sensor	Leakage Detector Sensor
Low Coolant Switch	Leak Proof Tray

•Distribution power panel *See image RH back-page -2x15A 125V NEMA 5-15P Shore line connector; 1 set 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 2x600MCM cable

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

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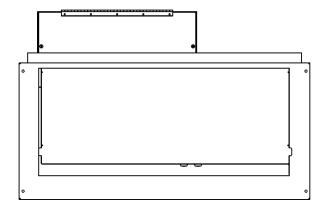
CONTROL SYSTEMS STANDARD FEATURES - Generator Digital Control Panel

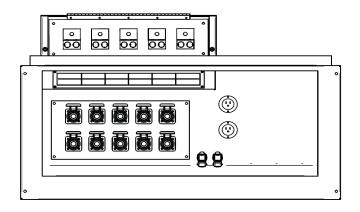
HIPOWER® COMAP IntelliGen NT Control Panel: The IntelliGen NT digital control panel is back-lit with icon LCD text display, and is PC configurable. IInteliGen NT is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes. Compact construction is optimized 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 gensets 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.





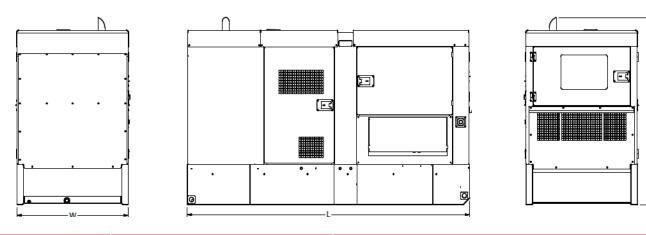
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ANSI

AEM

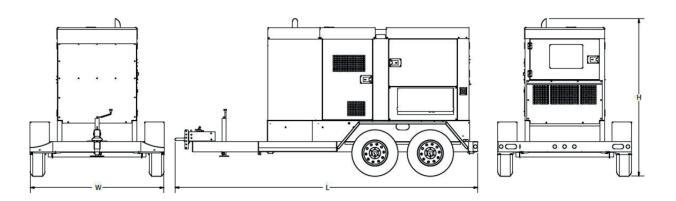
DIMENSIONS, WEIGHTS & SOUND LEVELS

ENCLOSED SET



CONFIGURATION	Fuel Tank Data (base option)			Generator Data *				
	Run Time Hours	Capacity (Gals) DEF	Capacity (Gals) DIESEL	L = Length	W = Width	H = Height	Weight Ibs	dBA
Enclosed Set with Trailer	20	7.4	150	124″	51.6″	72.8″	6,610	72

ENCLOSED SET WITH TRAILER



CONFIGURATION	Fuel Tank Data (base option)			Generator Data *				
	Run Time Hours	Capacity (Gals) DEF	Capacity (Gals) DIESEL	L = Length	W = Width	H = Height	Weight Ibs	dBA
Enclosed Set with Trailer	20	7.4	150	183″	80.0″	92.8″	9,110	72

* 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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