

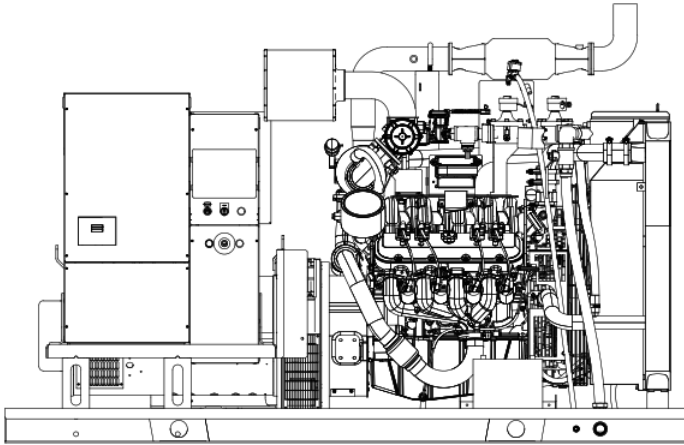
MODEL

HNI-100



60Hz STANDBY POWER RATINGS

100kW/60Hz/1800RPM



VOLTAGE VAC	120/240V		120/208V		139/240V		277/480V		347/600V**	
RATING	Natural Gas	LP	Natural Gas	LP	Natural Gas	LP	Natural Gas	LP	Natural Gas	LP
PHASE	1		3		3		3		3	
PF	1.0		0.8		0.8		0.8		0.8	
HZ	60		60		60		60		60	
KW	96.4	83	98.3	88.2	98.3	89.1	99.4	89.1	99.2	91
KVA	96.4	83	122.9	110.3	122.9	111.4	124.3	111.4	124	113.4
AMPS	401.8	345.8	341	306	295	267.8	149.4	133.9	119.3	109.5

Description

HIPOWER® Heavy Duty Industrial generators are an efficient, reliable and versatile source of back-up electrical power that have been designed to operate in the most extreme working conditions. All HIPOWER® Heavy Duty Industrial generators combine an innovative design and the use of high quality materials that provide the user with the most dependable power that can be relied on for non-stop power with easy to operate controls.

Powered by a radiator-cooled, industrial PSI Spark Ignited engine that meets current Environmental Protection Agency (EPA) exhaust emission regulations, driving a single bearing, four-pole, three-phase alternator, with IP23 protection. The Emergency Power kVA rating is given with a 125 degree °C alternator winding temperature rise.

HIPOWER® Features and Benefits

PSI Engine: Spark Ignited 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 Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

HIPOWER® Features and Benefits

Enclosure: Fully sound attenuated enclosure, manufactured using 7-gauge steel and thicker for the base; 12-gauge and 14-gauge for the enclosure, Interpon A4700 primer, in combination with Interpon 600 series coatings, are designed for exterior exposure and offers excellent light and weather resistance exceeding 1400-hr salt spray test. A 1" thick layer of durable sound insulating, oil and fire resistant foam material is installed all around the inside of the enclosure to allow high-pressure water cleaning. Vertical air discharge for quiet operation. Wide steel lockable access doors with rubber seals, easy access for maintenance and service activities, lift off Die Cast Zinc hinges textured black powder coat and corrosion resistant hardware and fasteners.

Exhaust: Effective low noise, steel catalytic converter with rain cap.

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.

Certification: Generator set is UL 2200 Listed and CSA certified and meets ISO 8528-5.

HIMOINSA POWER SYSTEMS, INC.

16600 South Theden Street, Olathe, KS 66062

Tel: 913 495 5557 | Fax: 913 495 5575 | www.hipowersystems.com

Codes and Standards Compliances used where applicable



APPLICATION DATA

ENGINE SPECIFICATION		LUBRICATION SYSTEM	
Manufacturer	PSI Heavy Duty	Oil pan capacity - qts (L)	5 (4.7)
Model	5.7LTCAC	Oil pan capacity with filter - qts (L)	5 (5.7)
EPA certified	Yes	Oil cooler	Liquid
Crankshaft speed	1,800 rpm	Recommended lubricating oil grade	SAE 5W-30 API RATING OF SM OR NEWER
Type	LPG/NG fueled, 4-stroke	Oil consumption at full load	n/a
Igniton	Spark Plug	Oil pressure – psi (kPA)	56 (386)
Aspiration	Charged Cooled Forced Induction	ENGINE ELECTRICAL SYSTEM	
Number of Cylinders	8	Starting motor voltage	12 volt
Cylinder arrangement	V-Type	Cold Cranking Amps - minimum	N/A
Displacement CID (liters)	350 (5.7)	Battery charging Alternator	60 Amp
Bore and Stroke ins (mm)	4 x 3.48 (101.6 x 88.4)	Battery capacity	650CCA 850CA 115RC GROUP SIZE 24F
Nominal power	163.54 hp		
Cooling	Liquid		
Governor	Electronic		
Governor Regulation Class	ISO 8528 Part 1 Class G1		
Frequency Regulation	Isochronous		
Starting motor & alternator	12 Volt		
Compression ratio	9.4:1		
Air cleaner type	Dry, replacable cartridge		
ALTERNATOR SPECIFICATION			
Manufacturer	STAMFORD		
Model 120/240V Single phase	UCI274D		
Model 120/208V Three phase	UCI274D		
Model 277/480V Three phase	UCI274C		
Model 347/600V Three phase	UCI274D		
Alternator Type	Four pole, rotating field		
Excitation System	Brushless. PMG-excited		
Power factor	1.0/0.8		
Number of leads	4-Lead Dedicated (Single Phase) 12 leads, reconnectable 12- lead dedicated (600V)		
Stator Pitch	2/3		
Insulation	Class H		
Windings – Temperature Rise	Class H (125/40° 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		

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STANDARD FEATURES

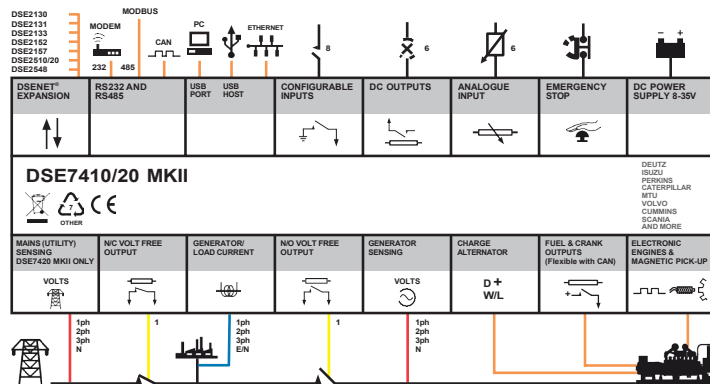
ENCLOSURE	ENGINE SYSTEM	ELECTRICAL SYSTEM
Rust-Proof Fastener with rubber washers to protect finish	Oil Drain Extension w/Valve	Battery
High Performance Sound-Absorbing Material	Air Cleaner	Battery Cables
Gasketed Doors	Fan Guard	Battery Tray
Air Discharge Hoods for Radiators (Upwards/ Downward Pointing)	Factory Filled Oil	GENERATOR SET
Lift Off Door Hinges	ALTERNATOR SYSTEM	Internal Genset Vibration Isolation
Stainless Steel Lockable Handles	12 Leads	Separation of Circuits – High / Low Voltage
Textured Polyester Powder Coat + Primer	Class H Insulation Material	Wrapped Exhaust Piping
COOLING SYSTEM	Vented Rotor 2/3 Pitch	Standard Factory Testing
Factory-Installed Radiator	Full Load Capacity Alternator	2 Year/ 2000 hours Limited Warranty
Radiator Drain Extension w/ Valve	Protective Thermal Switch	Silencer Mounted in the Discharged Hood (Enclosed Models Only)
50/50 Ethylene Glycol Antifreeze	Skewed Stator	

CONTROL SYSTEM



DSE7410 MKII

- “Protections disabled” feature
- kW protection
- Reverse power (kW) protection
- LED and LCD alarm indication
- Power monitoring (kWh, kVAr, kVAh, kVArh)
- Load switching (load shedding and dummy load outputs)
- Independent Earth Fault trip
- Fuel usage monitor and low fuel alarms
- Configurable display languages
- User selectable simultaneous RS232, RS485 & Ethernet communications
- MODBUS RTU & TCP support
- Configurable MODBUS pages
- Fully configurable via DSE Configuration Suite PC software
- Data logging to assist with fault finding
- PLC editor allows user configurable functions to meet specific application requirements
- License-free PC software
- Multiple date and time scheduler
- DSENet® expansion compatible



Codes and Standards Compliances used where applicable

CONFIGURABLE OPTIONS

ENCLOSURE	ELECTRICAL SYSTEM	CONTROL SYSTEM
Open Skid	Battery Warmer	Spare Inputs (4x) / Output (4x)
Level 1 Sound Attenuation	Battery Charger	DSE2130 - DSENet Input Expansion Module
Level 2 Sound Attenuation	10 Positions Load Center (100Amps)	DSE2157 - DSENet Output Expansion Module
Level 1 Sound Attenuation (Aluminum Enclosure)	Remote ESTOP w/ N3R break glass	DSE855 - DSENet USB to Ethernet ModBus TCP/IP Comm. Module
Level 2 Sound Attenuation (Aluminum Enclosure)	120V GFCI receptacle	DSE892 - DSENet USB to Ethernet ModBus TCP/IP-SNMP Comm. Module
Snow Hood (Only w/ Level 2)	10A Relay Common Alarm	CIRCUIT BREAKER OPTIONS
ENGINE SYSTEM	10A Run Relay	LSI Electronic trip 80% and 100% rated
Oil Heater	Control Panel Heater	LSIG Electronic trip 80% and 100% rated
120V-1ph Water Jacket Heater (w/ Isolation Valves)	8, 16, & 24 Leds Remote Annunciator on Surface Mounted Box	Second Main Line Circuit Breaker
ALTERNATOR SYSTEM	AC/ DC Enclosure Lighting Kit w/Timer	Shunt Trip
Anti-Condensation Heater	Enclosure Heater	Auxiliary Contacts for MLCB
Rheostat	GENERATOR SET	Auxiliary Contacts for Secondary Breaker
PMG w/ MX341 AVR or MX321 AVR	Extended Test	Mechanical Lugs
	Extended Warranty	
	Custom Testing	

ENGINEERED OPTIONS

ENCLOSURE	CIRCUIT BREAKER OPTIONS	ALTERNATOR SYSTEM
Air Outlet Gravity Dampers	3rd Breaker System	Bearing RTD's on Alternator
Air Inlet Motorized Dampers (Only w/ L2)	Shunt Trip on 3rd Breaker	Main Stator RTD's on Alternator (2 per Phase)
GENERATOR SET	Auxiliary Contact on 3rd Breaker	Tropical Coating
Seismic Mounts	ELECTRICAL SYSTEM	Alternator Up-Sizing
	240V Twist Lock Receptacle	

OPERATING DATA

FUEL SYSTEM				
Fuel type	Natural Gas, LP Vapor withdrawal, LP			
NG and LPV Fuel supply line - inlet	1-1/4" NPTF (NG/LPV)			
LP Fuel supply line - inlet	3/8" (LP)			
Natural gas and LPV fuel supply pressure	7" to 11" column H2O			
LP fuel supply pressure	LP - 312 PSI (Max)*			
FUEL CONSUMPTION - NATURAL GAS (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)		m3/h	ft3/h	BTU/h
100% load		35	1,247	1,281,747
75% load		26	935	961,310
50% load		18	623	640,874
25% load		9	328	336,748
FUEL CONSUMPTION - LPG (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)		m3/h	ft3/h	BTU/h
100% load		14	490	1,232,442
75% load		10	368	924,331
50% load		8	275	690,167
25% load		4	147	369,733
COOLING SYSTEM				
Engine cooling air flow	cfm (m ³ /min) 13,000 (369)			
Alternator cooling flow	cfm (m ³ /min) 1,308 (37)			
Combustion air flow	cfm (m ³ /min) 262 (8)			
Total cooling air flow (engine+alternator+combustion)	cfm (m ³ /min) 14,570 (414)			
Total cooling capacity	US gallons (liters) 1.95 (7.8)			
Max, Ambient Operating Temperature	°F (°C) 120(50)			
EXHAUST				
Maximum allowable back pressure	inH2O(kPa) 3(10.2)			
Exhaust Volumetric Flow Rated @ Rated Power 1350° F	cfm (m ³ /min) 845.9 (23.95)			

Starting Capabilities (sKVA)

	240V					208/240V					480V					600V				
	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%
Standard	75	120	170	225	290	85	135	185	250	320	90	140	200	265	340	110	175	250	335	430
Upsized	70	110	155	210	270	90	140	200	270	340	110	175	250	330	420	115	185	260	350	450

Circuit Breaker

	120/240V	120/208V	120/240V	277/480V	347/600V
Make and model	ABB XT-5NU340AB-FF000XXX	ABB XT5NU340AB-FF000XXX	ABB XT5NU340AB-FF000XXX	ABB XT3NU3150AFF000XXX	ABB XT4NU3150AFF000XXX
Amps	400 A	400 A	300 A	150 A	150 A

*Pressure listed is the max working pressure of vaporizer. No minimum pressure listed but must be high enough to keep propane liquified

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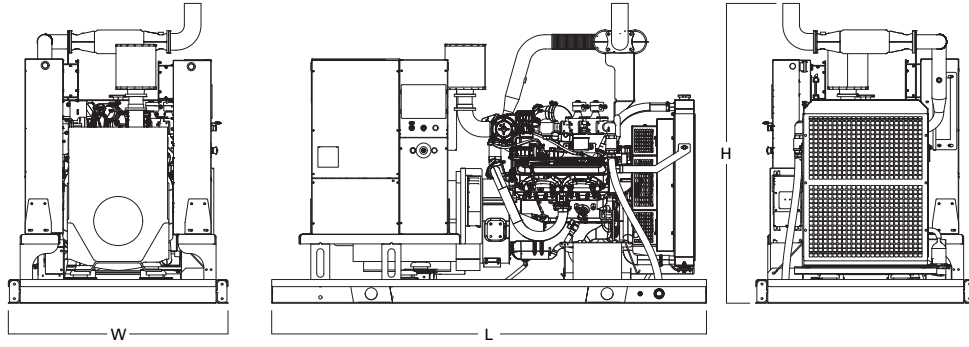
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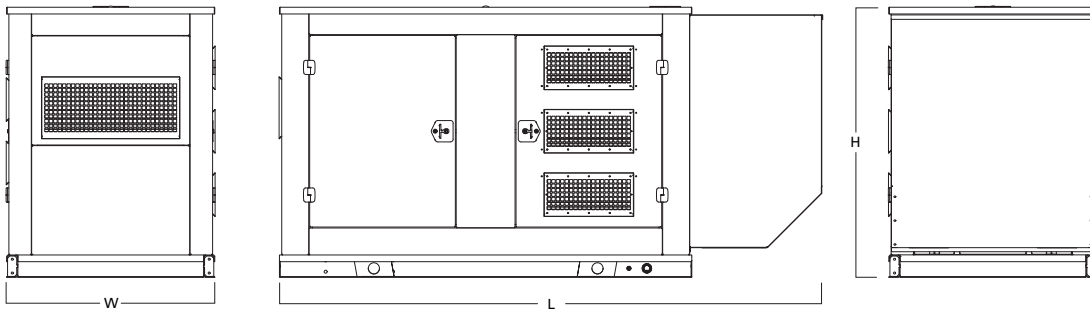
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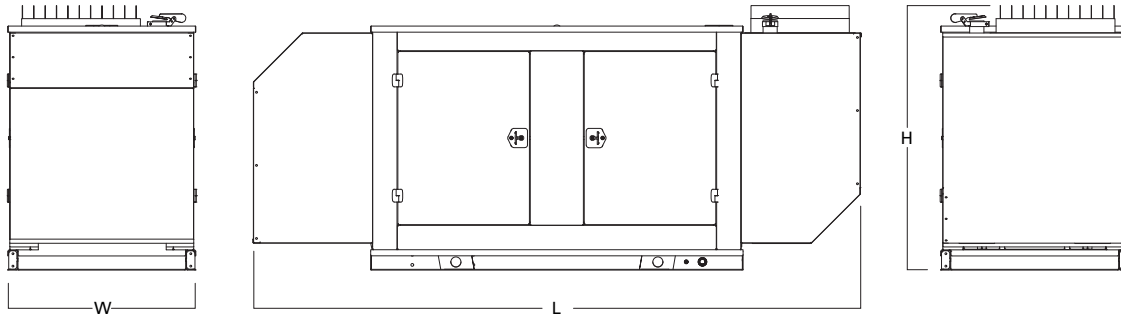
DIMENSIONS, WEIGHTS & SOUND LEVELS



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
OPEN SET	100.7"	50.3"	64.7"	3430	TBD



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 1 ENCLOSURE	133.8"	50.3"	60.1"	4350	78



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 2 ENCLOSURE	166.8"	50.3"	60.1"	4490	75

* 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.



Intertek

Conforms to UL STD 2200
Certified to CSA STD C22.2#100
Certified to CSA STD C22.2#14

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REV-08



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