

HD Industrial SPARK-IGNITED GENERATOR

HNI-125



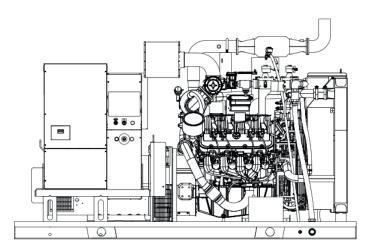




125kW/60Hz/1800RPM







VOLTAGE VAC	120/240 V	120/208V	139/240V	277/480V	347/600V**
RATING	Standby	Standby	Standby	Standby	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	125	125	125	125	125
KVA	125	156	156	156	156
AMPS	521	434	376	188	151

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 reconnectable, 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.

Codes and Standards Compliances used where applicable











APPLICATION DATA

ENGINE SPECIFICATION		LUBRICATION SYSTEM	
Manufacturer	PSI Heavy Duty	Oil pan capacity - qts (L)	8 (7.57)
Model	8.8LT	Oil pan capacity with filter - qts (L)	8 (7.57)
EPA certified	Yes	Oil cooler	Liquid
Crankshaft speed	1,800 rpm	Recommended lubricating oil grade	SAE 5W-30 API RATING OF SM OR NEWER
Туре	NG fueled, 4-stroke	Oil consumption at full load	n/a
Igniton	Spark Plug	Oil pressure – psi (kPA)	56 (386)
Aspiration	Turbocharged	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)	535 (8.8)	Battery charging Alternator	60 Amp
Bore and Stroke ins (mm)	4.35 x 4.5 (110.5 x 114.3)	Battery capacity	650CCA 850CA 115RC GROUP SIZE 24F
Nominal power	197.32 hp		
Cooling	Liquid		
Governor	Electronic		
Governor Regulation Class	ISO 8528 Part 1 Class G1		
Frequency Regulation	Isochronous		
Starting motor & alternator	12 Volt		
Compression ratio	10.1:1		
Air cleaner type	Dry, replacable cartridge		
ALTERNATOR SPECIFICATION			
Manufacturer	STAMFORD		
Model 120/240V Single phase	UCI274F		
Model 120/208V Three phase	UCI274F		
Model 277/480V Three phase	UCI274E		
Model 347/600V Three phase	UCI274E		
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 indu	strial and commercial applications	













STANDARD FEATURES

ENCLOSURE	ENGINE SYSTEM	ELECTRICAL SYSTEM		
Rust-Proof Fastener with rubber qashers 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

- Charge alternator failure alarm
- 4-Line back-lit LCD text display
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- 11 configurable inputs
- 8 configurable outputs
- Flexible sensor inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)

- "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

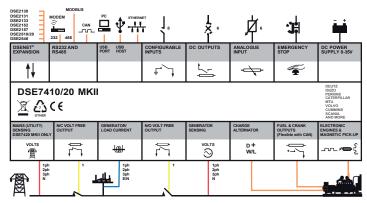
finding

• PLC editor allows user configurable

funcions to meet specific application

requirements

- License-free PC software
- Multiple date and time scheduler
- DSENet® expansion compatible





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 Epansion 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

CIRCUIT BREAKER OPTIONS	ALTERNATOR SYSTEM			
3rd Breaker System	Bearing RTD's on Alternator			
Shunt Trip on 3rd Breaker	Main Stator RTD's on Alternator (2 per Phase)			
Auxiliary Contact on 3rd Breaker	Tropical Coating			
ELECTRICAL SYSTEM	Alternator Up-Sizing			
240V Twist Lock Receptacle				
	3rd Breaker System Shunt Trip on 3rd Breaker Auxiliary Contact on 3rd Breaker ELECTRICAL SYSTEM			













OPERATING DATA

FUEL SYSTEM	
Fuel type	Natural Gas
Fuel supply line - inlet	1-1/4" NPTF (NG)
Natural gas fuel supply pressure	NG (7-11" WC)

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	43.1	1520	1,520,000
75% load	32.3	1140	1,140,000
50% load	21.5	760	760,000
25% load	10.8	380	380,000
FUEL CONSUMPTION - LPG (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)	m3/h	ft3/h	BTU/h

100% load

75% load

50% load

25% load

COOLING SYSTEM		
Engine cooling air flow	cfm (m³/min)	13,000 (369)
Alternator cooling flow	cfm (m³/min)	1,308 (37)
Combustion air flow	cfm (m³/min)	316 (9)
Total cooling air flow (engine+alternator+combustion)	cfm (m³/min)	14,624 (415)
Total cooling capacity	US gallons (liters)	3.63 (13.7)
Max, Ambient Operating Temperature	°F (°C)	120(50)

EXHAUST		
Maximum allowable back pressure	inH20(kPa)	3(10.2)
Exhaust Volumetric Flow Rated @ Rated Power 1350° F	cfm (m³/min)	1017.9 (28.82)

Starting Capabilities (sKVA)

			240 V					480 V					208/240\	/				600V		
	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%
Standard	85	135	190	250	325	115	180	260	345	440	105	165	230	310	400	120	185	260	350	450
Upsized	100	165	230	305	390	135	215	305	405	520	170	260	380	500	640	125	200	285	380	485

Circuit Breaker

	120/240V	120/208V	120/240V	277/480V	347/600V
Make and model	ABB XT- 5NU360BB- FF000XXX	ABB XT5NU350BB- FF000XXX	ABB XT5NU340AB- FF000XXX	ABB XT3NU3200A- FF000XXX	ABB XT4NU3200A- FF000XXX
Amps	600 A	500 A	400 A	200A	200 A

Codes and Standards Compliances used where applicable

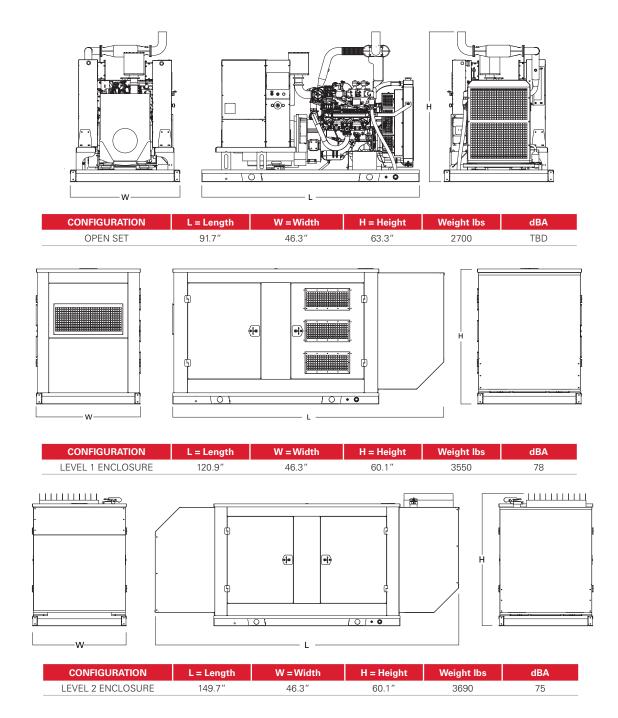












^{*} All measurements are approximate and for estimation purposes only. Weights are without fuel tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.



Intertek

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

HIMOINSA POWER SYSTEMS, INC.

16600 South Theden Street, Olathe, KS $\,$ 66062 Tel: 913 495 5557 $\,$ | Fax: 913 495 5575 | www.hipowersystems.com















