HIPOWER®
A YANMAR COMPANY

Heavy Duty Industrial | HNI
STANDBY SPARK-IGNITED GENERATOR

MODEL
HNI-300

60Hz | STANDBY POWER

300kW | 1800RPM

VOLTAGE VAC	120/208V		120/240V		277/480V		347/600V	
RATING	Natural Gas	LP	Natural Gas	LP	Natural Gas	LP	Natural Gas	LP
PHASE	3		3		3		3	
PF	0.8		1.0		0.8		0.8	
HZ	60		60		60		60	
KW	300	145	300	145	300	145	300	145
KVA	375	181	375	181	375	181	375	181
AMPS	1040	503	902	436	451	218	360	174

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: Long-life, heavy-duty, 4-cycle, spark-ignited engine for economy of operation and maximum reliability and durability.

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.

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

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.

HIMOINSA POWER SYSTEMS, INC.
16600 S. Theden Street, Olathe, KS 66062
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Codes and Standards Compliances used where applicable

APPLICATION DATA

ENGINE SPECIFICATION		LUBRICATION SYSTEM	
Manufacturer	PSI Heavy Duty	Oil pan capacity - US quarts (L)	29 (27)
Model	13L HO	Oil pan capacity w/ filter - US Quarts (L)	32 (30)
EPA certified	Yes	Oil cooler	Liquid
Crankshaft speed	1,800 rpm	Recommended lubricating oil grade	SAE 15W-40 LOW ASH OIL API RATING OF CP/CF OR HIGHER
Type	LPG/NG fueled, 4-stroke	Oil consumption at full load	N/A
Ignition	Spark Plug	Oil pressure – psi (kPA)	75 (520)
Aspiration	Charged Cooled Forced Induction	**ENGINE ELECTRICAL SYSTEM**	
Number of Cylinders	6	Starting motor voltage	24 volt
Cylinder arrangement	Inline	Cold Cranking Amps - minimum	N/A
Displacement CID (liters)	765 (12.54)	Battery charging Alternator	70 Amp
Bore and Stroke ins (mm)	5 x 6.5 (127x 165)	Battery capacity	2100CCA GROUP SIZE 8D
Nominal power	469 hp		
Cooling	Liquid		
Governor	Electronic		
Governor Regulation Class	ISO 8528 Part 1 Class G1		
Frequency Regulation	Isochronous		
Starting motor & alternator	24 Volt		
Compression ratio	10.5:1		
Air cleaner type	Dry, replaceable cartridge		
ALTERNATOR SPECIFICATION			
Manufacturer	STAMFORD		
Model 120/208V Three phase	S4L1D-E		
Model 277/480V Three phase	S4L1D-D		
Model 347/600V Three phase	S4L1S-D4		
Alternator Type	Four pole, rotating field		
Excitation System	Brushless. PMG-excited		
Power Factor	0.8		
Number of Leads	12 leads, reconnectable		
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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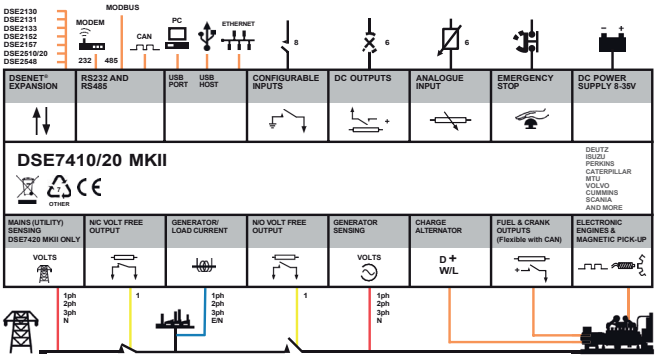
STANDARD FEATURES

ENCLOSURE (If selected)	ENGINE SYSTEM	GENERATOR SET
Rust-Proof Fastener with Rubber Washers Protect Finish	Oil Drain Extension w/ Valve	Internal Genset Vibration Isolation
High Performance Sound-Absorbing Material	Air Cleaner	Separation of Circuits – High / Low Voltage
Gasketed Doors	Fan Guard	Wrapped Exhaust Piping
Air Discharge Hoods for Radiators- Upwards Pointing	Factory Filled Oil	Standard Factory Testing
Lift Off Door Hinges	Battery Charging Alternator	2 Year/2000 Hours Limited Warranty
Stainless Steel Lockable Handles	**ALTERNATOR SYSTEMS**	Emergency Stop
Textured Polyester Powder Coat + Primer	12 Leads	**ELECTRICAL SYSTEMS**
COOLING SYSTEM	Class H Insulation Material	Battery
Factory-Installed Radiator	Vented Rotor 2/3 Pitch	Battery Cables
Radiator Drain Extension w/ Valve	Full Load Capacity Alternator	Battery Tray
50/50 Ethylene Glycol Antifreeze	Protective Thermal Switch	DSE 7410 Controller
	PMG w/ MX341 AVR	

CONTROL SYSTEM

- Charge alternator failure alarm
- 4-Line back-lit LCD text display
- Front panel editing with PIN protection
- Customizable 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)
- Configurable MODBUS pages
- Fully configurable via DSE Configuration Suite PC Software
- Data logging to assist with fault finding
- "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
- License-free PC software
- Multiple date and time scheduler
- DSENet® expansion compatible
- PLC editor allows user configurable functions to meet specific applications requirements.



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CONFIGURABLE OPTIONS

ENCLOSURE	ENGINE SYSTEM	CIRCUIT BREAKER OPTIONS
Open Skid	Water Jacket Heater (w/ Isolation Valves)	LSI Electronic Trip 80% and 100% Rated
Level 1 Sound Attenuation	**ELECTRICAL SYSTEM**	LS/I Electronic Trip 80% and 100% Rated
Level 2 Sound Attenuation	Battery Warmer	LSIG Electronic Trip 80% and 100% Rated
Level 1 Sound Attenuation (Aluminum Enclosure)	Battery Charger	Thermo-Magnetic Trip 80% and 100% Rated
Level 2 Sound Attenuation (Aluminum Enclosure)	10 Positions Load Center (100 Amps)	Second Main Line Circuit Breaker
ALTERNATOR SYSTEM	Remote ESTOP with N3R Break Glass	Shunt Trip
Anti-Condensation Heater	120V GFCI Receptacle	Auxiliary Contacts for MLCB
PMG w/ MX321 AVR or DSE A109	10A Relay Common Alarm	Auxiliary Contacts for Secondary Breaker
Rheostat	10A Run Relay	Mechanical Lugs
CONTROL SYSTEM	Control Panel Heater	**GENERATOR SET**
Spare Inputs (4x) / Output (4x)	8, 16, & 24 LEDs Remote Annunciator on Surface Mounted Box	Extended Testing
DSE2130 - DSENet Input Expansion Module	DSE8610 Parallel Controller + Motorized Breakers	Extended Warranty
DSE2157 - DSENet Output Expansion Module	AC/DC Enclosure Lighting Kit + Timer	Custom Testing
Remote Display Module	Enclosure Heater	NFPA110 Kit
		Fuel System Options (Natural Gas, LP/LPV, Dual Fuel)

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 with L2)	Shunt Trip on 3rd Breaker	Main Stator RTD's on Alternator (2 per Phase)
ENGINE SYSTEM	Auxiliary Contact on 3rd Breaker	Tropical Coating
Fluid Containment Pan	**ELECTRICAL SYSTEM**	Alternator Up-Sizing
	240V Twist Lock Receptacle	

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OPERATING DATA

FUEL SYSTEM (Measured at engine inlet at operating load)				
Fuel Type	Natural Gas, LP Vapor withdrawal, LP			
NG & LPV Fuel Supply Line - Inlet	2" NPTF			
LP Fuel Supply Line - Inlet	3/8" NPTF			
Natural Gas & LPV Fuel Supply Pressure	7-11" of WC			
LP Fuel Supply Pressure	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		113	3,979	4,098,370
75% load		88	3,111	3,204,330
50% load		59	2,079	2,141,370
25% load		34	1,183	1,218,490
FUEL CONSUMPTION - LPG (Measured at genset fuel inlet, downstream of any dry fuel or filter accessories)		**m3/h**	**ft3/h**	**BTU/h**
100% load		27	985	2,400,264
75% load		22	803	1,954,932
50% load		14	511	1,242,904
25% load		8	292	712,028
COOLING SYSTEM				
Engine Cooling Air Flow	cfm (m^3/min)	25,639 (726)		
Alternator Cooling Flow	cfm (m^3/min)	2034 (57)		
Combustion Air Flow	cfm (m^3/min)	661 (19)		
Total Cooling Air Flow (Engine+Alternator+Combustion)	cfm (m^3/min)	28,334 (802)		
Total Cooling Capacity	US gallons (liters)	22 (84)		
Max. Operating temperature	°F (°C)	114(46)		
EXHAUST				
Maximum Allowable Back Pressure	H^2O (kPa)	40 (10)		
Exhaust Volumetric Flow Rated @ Rated Power 1350°F	cfm (m^3/min)	3899 (110.4)		
Max. Exhaust Temp @ Full Load Degrees	°F (°C)	876 (469)		

STARTING CAPABILITIES (SKVA)

	208/240V					277/480V					347/600V				
ALTERNATOR	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%
STANDARD	230	350	500	650	850	250	400	580	780	960	195	300	430	580	700
UP-SIZED	260	420	600	790	1010	300	480	680	900	1150	250	300	550	730	930

CIRCUIT BREAKER

	120/208V	120/240V	277/480V	347/600V
MAKE & MODEL	ABB XT7SU312EEFF000XXX	ABB XT7SU310DEFF000XXX	ABB XT5NU360BBFF000XXX	ABB XT5NU340ABFF000XXX
AMPS	1200A	1000A	600A	400A

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

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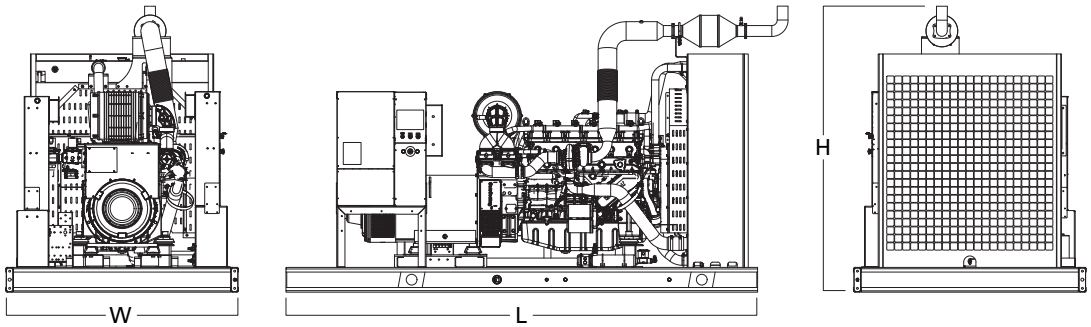
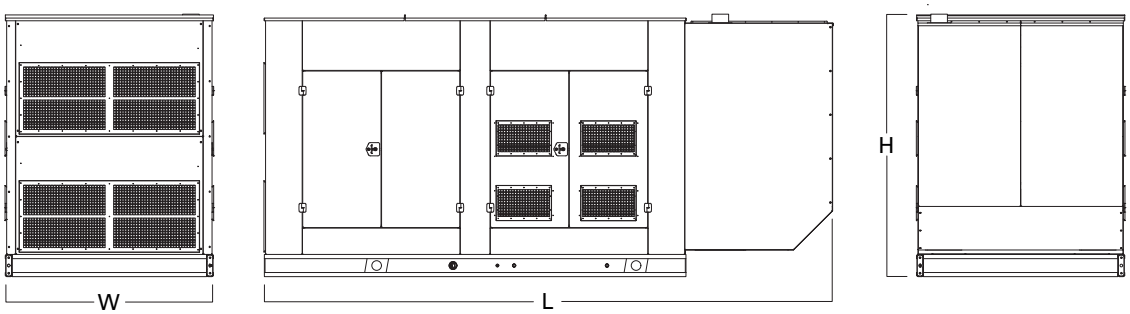
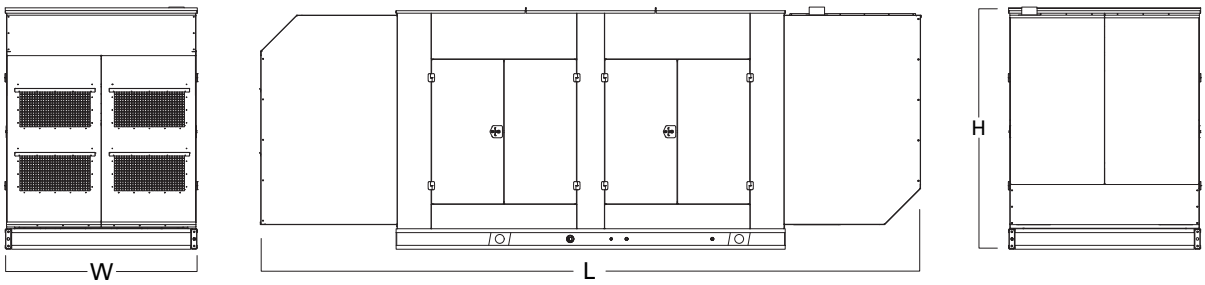
DIMENSIONS, WEIGHTS, & SOUND LEVELS



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
OPEN SET	152"	75"	77"	7,300	TBD



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 1 ENCLOSURE	205	75"	95"	9,750	81



CONFIGURATION	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 2 ENCLOSURE	258	75"	95"	10,200	78

* All measurements are approximate and for estimation purposes only. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

REV 06-2025

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Certified to CSA STD C22.2#100
Certified to CSA STD C22.2#14

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