

# **Heavy Duty Industrial DIESEL GENERATOR**

# MODEL HDI-230F



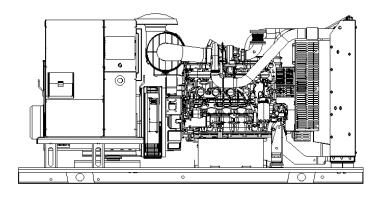






#### 60Hz STANDBY POWER RATINGS

230kW/60Hz//1800RPM



VOLTAGE VAC	120/240V	120/208V	139/240V	277/480V	347/600V
RATING	Standby	Standby	Standby	Standby	Standby
PHASE	N/A	3	3	3	3
PF	N/A	0.8	0.8	0.8	8.0
HZ	N/A	60	60	60	60
KW	N/A	230	230	230	230
KVA	N/A	287.5	287.5	287.5	287.5
AMPS	N/A	798	692	346	277

#### **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 FPT Diesel engine that meets current Environmental Protection Agency (EPA) TIER 3 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

**FTP** Diesel Engine: Long-life, heavy-duty, 4-cycle, direct injection 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 reconnectable, 60Hz brushless alternator and Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation and skVA starting capability for electric motor loads.

**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: 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 and tamper proof engine hour recorder.

**Certification:** Generator set is UL 2200 Listed and CSA certified and meets ISO 8528-5. IBC seismic certified to the maximum force level requirements according to ICC-ES AC-156.

Codes and Standards Compliances used where applicable











# APPLICATION DATA

Model   C87F1D	ENGINE SPECIFICATION		LUBRICATION SYSTEM	
PAX certified Tier 3 Oil cooler Liquid  Transhaft speed 1,800 rpm Recommended lubricating oil grade SEA 1998/30 / ACEA 50/15  Frequency Direct Oil consumption at full load < 0.11% of fuel consumption prejection Direct Oil consumption at full load < 0.11% of fuel consumption prejection Direct Oil consumption at full load < 0.11% of fuel consumption prejection Turbocharged aftercooled air/sir  Replacement Olylinders 6 Stating meter vortage 24 volt  Summar of Olylinders 5 Stating meter vortage 24 volt  Source and Stroke ins (mm) 4.6 x 5.2 (117 x 135) Battery clarging Afternator 90 Amp  Sore and Stroke ins (mm) 4.6 x 5.2 (117 x 135) Battery capacity Stating meter vortage 30 Amp  Sore and Stroke ins (mm) 4.6 x 5.2 (117 x 135) Battery capacity Stating Amount of St	Manufacturer	FPT - Iveco	Oil pan capacity - gal (L)	6 (23)
1,800 pm   Recommended lubricating oil grade   SAE TOW/SD / ACEA EVES (refer to coment manual)   Feder to coment manual)	Model	C87TE1D	Oil pan capacity with filter - gal (L)	7.4 (28)
Valints Speed   Peccamine Recommended by Creater Speed   Valints Speed   Val	EPA certified	Tier 3	Oil cooler	Liquid
Injection Direct Oil pressure – pai (APA) 72.6 (500) Aspiration Turbocharged aftercooled air/lair Aspiration Turbocharged aftercooled air/lair Mumber of Cylinders 6 Starting motor voltage 24 volt Cylinder arrangement In-fine Cold Cranking Amps – minimum 650 Amp Displacement CID (liters) 530.8 (8.7) Battery charging Alternator 90 Amp Sone and Stroke ins (mm) 46 x 5.3 (117 x 135) Battery capacity 650CCA 650CA 515RC GROUP SIZE 24F Voluninal power 375 hp Cylinder arrangement Electronic Sovernor Regulation Class ISO 8528 Part I Class G3 Frequency Regulation Isochronous Screteguency Regulation Isochronous Screteguency Regulation Heavy duty – single cartridge Autrenator type Heavy duty – single cartridge Autrenator Ry Autrenator Voluninal power Voluninal power STAMFORD World 120/240V Single phase N/A World 120/250V Three phase UCD1274K World 120/250V Three phase UCD1274K World 120/250V Three phase UCD1274B World 237/760V Three phase UCD1274B World 247/760V Three phase UCD1274B Restrator Type Four pole, rotating field Scrittor Type Four Starter Poles Purchase Structure State Poles State Pitch 273 Insulation Class H Windings – Temperature Rise Class H (126/00°C) Electronic Class H Windings – Temperature Rise Class H (126/00°C) Electronic Class H World State Pitch Sta	Crankshaft speed	1,800 rpm	Recommended lubricating oil grade	
Aurober of Cylinders 6 Starting motor voltage 24 volt Cylinders arrangement In-line Cold Cranking Amps - minimum 650 Amp Displacement CID (liters) 530.8 (8.7) Battery capacity 650.CA 15GRC GROUP SIZE 24F Cold Cranking Amps - minimum 650 Amp Displacement CID (liters) 530.8 (8.7) Battery capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Liquid 500.000 Colding Capacity 650.CCA 15GRC GROUP SIZE 24F Colding Capacity 650.CCA 15GRC GROUP SIZE	Туре	Diesel, 4-stroke	Oil consumption at full load	< 0.1% of fuel consumption
Number of Cylinders 6 Starting motor voltage 24 volt    Cold Cranking Amps - minimum 650 Amp	Injection	Direct	Oil pressure – psi (kPA)	72.6 (500)
In-line	Aspiration	Turbocharged aftercooled air/air	ENGINE ELECTRICAL SYSTEM	
Solution	Number of Cylinders	6	Starting motor voltage	24 volt
A6 x 5.3 (117 x 135)   Battery capacity   Battery capacity   Battery capacity   CROCA 850CA 115RC CROCA 850CA 850CA 115RC CROCA 850CA 85	Cylinder arrangement	In-line	Cold Cranking Amps - minimum	650 Amp
According Norwins   Stroke in strimt    Stroke in strimt    Stroke in strimt  Stroke in strimt  Stroke in strimt  Stroke in string motor & 150 8528 Part 1 Class G3	Displacement CID (liters)	530.8 (8.7)	Battery charging Alternator	90 Amp
Cooling         Liquid           Governor         Electronic           Sovernor Regulation Class         ISO 8528 Part 1 Class G3           Frequency Regulation         Isochronous           Starting motor & alternator         24 Volt           Compression ratio         16.5:1           Air cleaner type         Heavy duty - single cartridge           ALTERNATOR SPECIFICATION           Winded 120/240V Single phase           Model 120/240V Single phase         N/A           Model 120/250V Three phase         UCDI274K           Model 277/480V Three phase         UCDI274J           Model 347/60V Three phase         UCDI274J           Model 347/60V Three phase         UCDI274J           Alternator Type         Four pole, rotating field           Excitation System         Brushless           Number of leads         12 leads, reconnectable           Stator Pitch         2/3           Insulation         Class H           Mindings—Temperature Rise         Class H           Mindings—Temperature Rise         Class H           Mindings—Temperature Rise         Class H           Model System         Single, sealed           Coupling         Flexible disc           Amortis	Bore and Stroke ins (mm)	4.6 x 5.3 (117 x 135)	Battery capacity	
Electronic   Electronic	Nominal power	375 hp		
Sovernor Regulation Class   SO 8528 Part 1 Class G3	Cooling	Liquid		
Scarting motor & alternator	Governor	Electronic		
Starting motor & alternator  24 Volt  Compression ratio  16.5:1  Air cleaner type Heavy duty - single cartridge  ALTERNATOR SPECIFICATION  Manufacturer STAMFORD  Model 120/240V Single phase N/A  Model 120/240V Three phase UCD1274K  Model 277/480V Three phase UCD1274J  Model 347/600V Three phase UCD1274J  Alternator Type Four pole, rotating field Excitation System Brushless Power factor 0.8  Number of leads 12 leads, reconnectable Stator Pitch 2/3  nsulation Class H  Windings – Temperature Rise Coupling Flexible disc  Amortisseur windings  Full  Voltage regulation – no load to full load with 85440 AV/R  TIF  Action Amortisseur windings  Meets requirements of most industrial and commercial applications	Governor Regulation Class	ISO 8528 Part 1 Class G3		
Compression ratio  16,5:1 Air cleaner type Heavy duty - single cartridge  ALTERNATOR SPECIFICATION  Wanufacturer STAMFORD  Wodel 120/240V Single phase N/A  Wodel 120/208V Three phase UCD1274K  Model 277/480V Three phase UCD1274J  Model 347/600V Three phase UCD1274J  Alternator Type Four pole, rotating field Excitation System Brushless Power factor 0.8  Naturator 1 leads 11 leads, reconnectable Stator Pitch 2/3 nsulation Class H  Windings – Temperature Rise Class H (125/40° C) Enclosure (IEC-34-S) Bearing Single, sealed Coupling Flexible disc Amortisseur windings  Voltage regulation – no load to full load with 45/440 AVR  Meets requirements of most industrial and commercial applications	Frequency Regulation	Isochronous		
Air cleaner type         Heavy duty - single cartridge           ALTERNATOR SPECIFICATION           Wanufacturer         STAMFORD           Model 120/240V Single phase         N/A           Model 120/208V Three phase         UCDI274K           Model 277/480V Three phase         UCDI274J           Vincture of Type         Four pole, rotating field           Excitation System         Brushless           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         Fiexible disc           Amortisseur windings         Full           Voltage regulation – no load to full load with AS440 AVR         ± 1%           Violage regulation – scompliance         Meets requirements of most industrial and commercial applications	Starting motor & alternator	24 Volt		
Manufacturer STAMFORD  Model 120/240V Single phase N/A  Model 120/208V Three phase UCD1274K  Model 120/208V Three phase UCD1274J  Model 347/600V Three phase UCD1274J  Alternator Type Four pole, rotating field  Excitation System Brushless  Power factor 0.8  Number of leads 12 leads, reconnectable Stator Pitch 2/3  nsulation Class H  Mindings – Temperature Rise Class H (125/40° C)  Enclosure (IEC-34-S) IP23  Searing Single, sealed  Coupling Flexible disc  Amortisseur windings  Meets requirements of most industrial and commercial applications  Meets requirements of most industrial and commercial applications	Compression ratio	16.5:1		
Manufacturer         STAMFORD           Model 120/240V Single phase         N/A           Model 120/208V Three phase         UCDI274K           Model 277/480V Three phase         UCDI274J           Model 347/600V Three phase         UCDI274J           Alternator Type         Four pole, rotating field           Excitation System         Brushless           Power factor         0.8           Number of leads         12 leads, reconnectable           Stator Pitch         2/3           nsulation         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 4S440 AVR         ± 1%           Value of Frequency Emissions compliance         Meets requirements of most industrial and commercial applications	Air cleaner type	Heavy duty - single cartridge		
Model 120/240V Single phase N/A  Model 120/208V Three phase UCD1274K  Model 277/480V Three phase UCD1274J  Model 347/600V Three phase UCD1274J  Alternator Type Four pole, rotating field Excitation System Brushless Power factor 0.8  Number of leads 12 leads, reconnectable Stator Pitch 2/3  nsulation Class H  Windings – Temperature Rise Class H (125/40° C) Enclosure (IEC-34-S) IP23  Bearing Single, sealed Coupling Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with 4s440 AVR  TIF   Meets requirements of most industrial and commercial applications	ALTERNATOR SPECIFICATION			
Wodel 120/208V Three phase         UCDI274J           Wodel 277/480V Three phase         UCDI274J           Wodel 347/600V Three phase         UCDI274J           Alternator Type         Four pole, rotating field           Excitation System         Brushless           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 aS440 AVR         ± 1%           TIF         <50           Meets requirements of most industrial and commercial applications	Manufacturer	STAMFORD		
Model 277/480V Three phase UCDI274J  Model 347/600V Three phase UCDI274J  Alternator Type Four pole, rotating field  Excitation System Brushless  Power factor 0.8  Number of leads 12 leads, reconnectable  Stator Pitch 2/3  nsulation Class H  Windings – Temperature Rise Class H (125/40° C)  Enclosure (IEC-34-S) IP23  Bearing Single, sealed  Coupling Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with 484440 AVR  TIF < 50  Meets requirements of most industrial and commercial applications	Model 120/240V Single phase	N/A		
Model 347/600V Three phase         UCDI274J           Alternator Type         Four pole, rotating field           Excitation System         Brushless           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 43440 AVR         ± 1%           Asta40 AVR         Meets requirements of most industrial and commercial applications	Model 120/208V Three phase	UCDI274K		
Alternator Type Excitation System Brushless  O.8  Number of leads 12 leads, reconnectable Stator Pitch 2/3  nsulation Class H  Windings -Temperature Rise Enclosure (IEC-34-S) Bearing Coupling Amortisseur windings  Voltage regulation – no load to full load with AS440 AVR  PIF Radio Frequency Emissions compliance  Four pole, rotating field  Brushless Brush	Model 277/480V Three phase	UCDI274J		
Brushless  Power factor  0.8  Number of leads  12 leads, reconnectable  Stator Pitch  2/3  nsulation  Class H  Windings – Temperature Rise  Enclosure (IEC-34-S)  IP23  Bearing  Single, sealed  Coupling  Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with AS440 AVR  TIF  Radio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Model 347/600V Three phase	UCDI274J		
Power factor  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  Voltage regulation – no load to full load with AS440 AVR  FIF  AS440 AVR  Redio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Alternator Type	Four pole, rotating field		
Number of leads  12 leads, reconnectable  2/3  nsulation  Class H  Nindings – Temperature Rise  Class H (125/40° C)  Enclosure (IEC-34-S)  Bearing  Single, sealed  Coupling  Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with aSA40 AVR  TIF  < 50  Meets requirements of most industrial and commercial applications	Excitation System	Brushless		
Stator Pitch  psulation  Class H  Windings – Temperature Rise  Class H (125/40° C)  Enclosure (IEC-34-S)  Bearing  Single, sealed  Coupling  Flexible disc  Amortisseur windings  Full  Voltage regulation – no load to full load with ASA40 AVR  FIF  Asadio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Power factor	0.8		
Class H Windings – Temperature Rise Class H (125/40° C) Enclosure (IEC-34-S) IP23 Bearing Single, sealed Coupling Flexible disc Amortisseur windings Voltage regulation – no load to full load with AS440 AVR IFF Seadio Frequency Emissions compliance Meets requirements of most industrial and commercial applications	Number of leads	12 leads, reconnectable		
Windings – Temperature Rise  Class H (125/40° C)  Enclosure (IEC-34-S)  Bearing  Single, sealed  Coupling  Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with #AS440 AVR  FIF  Asadio Frequency Emissions compliance  Class H (125/40° C)  IP23  Single, sealed  Full  Full  4 1%  Asadio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Stator Pitch	2/3		
Enclosure (IEC-34-S)  Bearing  Single, sealed  Coupling  Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with 4AS440 AVR  FIF  < 50  Radio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Insulation	Class H		
Single, sealed Coupling Flexible disc  Amortisseur windings  Voltage regulation – no load to full load with AS440 AVR  TIF < 50  Radio Frequency Emissions compliance Meets requirements of most industrial and commercial applications	Windings - Temperature Rise	Class H (125/40° C)		
Coupling Flexible disc  Amortisseur windings Full  Voltage regulation – no load to full load with ± 1%  AS440 AVR  TIF <50  Radio Frequency Emissions compliance Meets requirements of most industrial and commercial applications	Enclosure (IEC-34-S)	IP23		
Amortisseur windings  Full  Voltage regulation – no load to full load with ± 1%  AS440 AVR  TIF  <50  Radio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Bearing	Single, sealed		
Voltage regulation – no load to full load with ± 1% AS440 AVR  TIF <50  Radio Frequency Emissions compliance Meets requirements of most industrial and commercial applications	Coupling	Flexible disc		
AS440 AVR  TIF < 50  Radio Frequency Emissions compliance Meets requirements of most industrial and commercial applications	Amortisseur windings	Full		
Radio Frequency Emissions compliance  Meets requirements of most industrial and commercial applications	Voltage regulation – no load to full load with AS440 AVR	± 1%		
	TIF	<50		
Line harmonics 5% maximum	Radio Frequency Emissions compliance	Meets requirements of most ind	ustrial and commercial applications	
	Line harmonics	5% maximum		







#### Heavy Duty Industrial



#### STANDARD FEATURES

Enclosure (If selected)	Engine System	Fuel System	
Rust-Proof Fastener with Nylon Washers Protect Finish	Oil Drain Extension	Primary Fuel Filter	
High Performance Sound-Absorbing Material (L1)	Air Cleaner	Flexible fuel lines	
Gasketed Doors	Fan Guard	Generator set	
Air Discharge Hoods for Radiators -Upwards Pointing	Factory Filled Oil	2 Year/2000 hours Limited Warranty	
Lift Off Door Hinges	Battery Charging Alternator	Separation of Circuits – Multiple Breakers (load center)	
Stainless Steel Lockable Handles	Alternator Systems	Separation of Circuits – High / Low Voltage	
Textured Polyester Powder Coat	12 Leads (3-Phase, Non 600V)	Internal Genset Vibration Isolation	
Cooling System	Class H Insulation Material	Wrapped Exhaust Piping	
Factory-Installed Radiator	Vented Rotor	Standard Factory Testing	
Radiator Drain Extension	2/3 Pitch	Emergency Stop	
50/50 Ethylene Glycol Antifreeze	Full Load Capacity Alternator	Silencer Mounted in the Discharged Hood (Enclosed Only)	
Electrical Systems	Protective Thermal Switch		
Battery Cables and Battery Tray	Permanent Magnet Excitation		
Batteries	Skewed Stator		

#### 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)

- "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

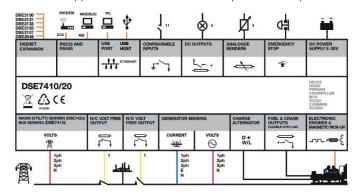
- Configurable MODBUS pages
- Fully configurable via DSE

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







# **CONFIGURABLE OPTIONS**

ENCLOSURE	ENGINE SYSTEM	ELECTRICAL SYSTEM		
Open Skid	Oil heater	Battery Warmer		
Weather Enclosure	120V-1ph Water Jacket Heater (with Isolation Valves)	10A Battery Charger		
Level 1 Sound attenuated	208V-3ph Water Jacket Heater (with Isolation Valves)	6A Battery Charger		
Level 2 Sound attenuated	CIRCUIT BREAKER OPTIONS	10 Positions Load Center (100Amps)		
ALTERNATOR SYSTEM	Thermal-Magnetic trip 80% and 100% rated	Remote ESTOP with N3R break glass		
Anti-condensation heater	LS/I Electronic trip 80% and 100% rated	120V GFCI receptacle		
Alternator upsizing	LSI Electronic trip 80% and 100% rated	10A Relay common alarm		
Rheostat	LSIG Electronic trip 80% and 100% rated	10A Run Relay		
MX321 AVR	Shunt trip	8 Led Remote Annunciator on Surface mounted Box		
	Auxiliary Contacts for Main and Secondary Breaker	16 Led Remote Annunciator on Surface mounted Box		
	Second Main Line Circuit Breaker	24 Led Remote Annunciator on Surface mounted Box		
	Mechanical Lugs			
		GENERATOR SET		
		Extended Factory Load Testing		
		Extended Warranty		
		Seismic Mounts		

# **ENGINEERED OPTIONS**

ENCLOSURE	ENGINE SYSTEM	ELECTRICAL SYSTEM
Snow Hood (only with L2)	Fluid Containment Pan	AC/DC Enclosure Lighting Kit with Timer
Air Outlet Gravity dampers		Enclosure Heater
Air Inlet motorized dampers (only with L2)		240V Twist lock receptacle
CIRCUIT BREAKER OPTIONS	CONTROL SYSTEM	GEENRATOR SET
3rd Breaker system	Spare inputs (x4) / output (x4)	Special Testing
Shunt Trip on 3rd Breaker	DSE8610 - Parallel controller with motorized CB	ALTERNATOR SYSTEM
Auxiliary contact on 3rd Breaker	DSE2130 - DSENet Input Expansion Module	Tropical coating
FUELTANK	DSE2157 - DSENet Output Expansion Module	
Custom Size – 72hr and 96hr	DSE855 - DSENet USB to Ethernet ModBus TCP/IP Communication Module	_
Custom type to meet State spec.	DSE892 - DSENet USB to Ethernet ModBus TCP/IP - SNMP Comm. Module	
Vent Extensions	DSE2520 - Remote Display Module	_
Overfill Protection Valve		_

Codes and Standards Compliances used where applicable











# **OPERATING DATA**

FUEL SYSTEM	
Recommended fuel	# 2 - ULSD - EN590
Fuel supply line, min. ID mm (in.)	9.5 - (3/8")
Fuel return line, min. ID, mm (in.)	9.5 - (3/8")
Max. lift, fuel pump, type, m (ft)	1 (3)
Fuel filter	Secondary 5 Microns @ 98% Efficiency

FUEL CONSUMPTION		(Standby Power Rating)
100% load	US Gal/hr (L/hr)	16.7 (63.2)
75% load	US Gal/hr (L/hr)	12.5 (47.3)
50% load	US Gal/hr (L/hr)	8.3 (31.6)
25% load	US Gal/hr (L/hr)	4.1 (15.7)

COOLING SYSTEM		
Engine cooling air flow	cfm (m³/min)	13,772 (390)
Alternator cooling flow	cfm (m³/min)	1,463 (41.4)
Combustion air flow	cfm (m³/min)	830 (23.5)
Total cooling air flow (engine+alternator+combustion)	cfm (m³/min)	16,065 (455)
Total cooling capacity	US gal (liters)	12.6 (48)
Max. Operating Temperature	°F (°C)	122 (50)

EXHAUST		
Exhaust gas flow	cfm (m³/min)	863 (22.7)
Max. Exhaust temp at full load degrees	°F (°C)	1040 (560)
Max. permissible back pressure	in H2O (kPA )	40 (10)

# Starting Capabilities (sKVA)

	120/240V (1PH)				277/480V			208/240V				347/600V								
	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%	10%	15%	20%	25%	30%
Standard	n/a	n/a	n/a	n/a	n/a	175	280	400	525	680	150	240	330	440	560	220	360	520	680	880
Upsized	n/a	n/a	n/a	n/a	n/a	200	315	440	595	760	195	300	430	550	750	200	310	440	580	750

# Circuit Breaker

	120/240V (1PH)	277/480V	120/208V	120/240V	347/600V
Make and model	n/a	ABB T5N400TW	ABB T6N800TW	ABB T6N800TW	ABB T5N300TW
Amps	n/a	400 A	800 A	800 A	300 A

Codes and Standards Compliances used where applicable





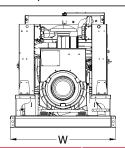


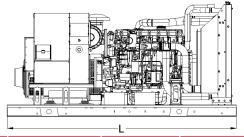


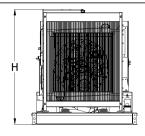


HIMOINSA POWER SYSTEMS, INC.

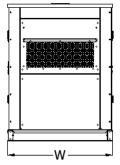
# DIMENSIONS, WEIGHTS & SOUND LEVELS

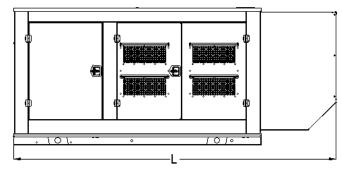


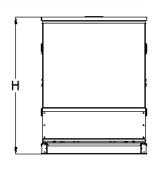




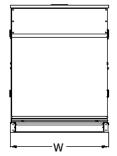
CONFIGURATION	RUNTIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
	No Tank	-	120"	55"	66"	4,630	
OPEN SET	27	450	184"	55"	13"	2,100	N/A
	54	900	184"	55"	30"	2,800	

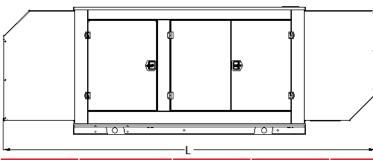


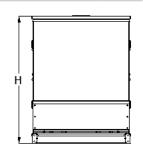




CONFIGURATION	RUNTIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
WEATHER ENCLOSURE / LEVEL 1 ENCLOSURE	No Tank	-	160"	55"	68.1"	6,410	77
	27	450	184"	55"	13"	2,100	
	54	900	184"	55"	30"	2,800	
WEATHER ENCLOSURE / LEVEL 1 ENCLOSURE	No Tank	-	160"	55"	68.1"	6,440	- - 74
	27	450	184"	55"	13"	2,100	
	54	900	184"	55"	30"	2,800	







CONFIGURATION	RUNTIME (HOURS)	USABLE CAPACITY (Gal.)	L = Length	W = Width	H = Height	Weight lbs	dBA
LEVEL 2 ENCLOSURE	No Tank	-	200"	55"	68.1"	6,540	72
	27	450	224"	55"	13"	2,100	
	54	900	224"	55"	30"	2,800	

<sup>\*</sup> 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.



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

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REV-04

Codes and Standards Compliances used where applicable