

Specification and Application Data

Rating Range - 60 Hz Operation

Standby: kW 388-405
 kVA 485-506

Prime: kW 364-370
 kVA 455-461

Elecon industrial generators are efficient and reliable, providing a versatile source of power for standby or prime power applications. All generator sets and components are factory built and productions tested. The genset features a John Deere 4-cycle diesel engine certified by the EPA to Tier 3 non-road emission regulations, and an AC high capability alternator regulated by an automatic voltage regulator. The set is unified by a heavy-duty chassis, and is protected by a best-in-class sound attenuated enclosure.

Features

- Engine generator set tested to ISO 8528-5.
- Genset engine certified by the Environmental Protection Agency (EPA) to Tier 3 non-road emission regulations.
- The brushless, 12-wire, single bearing, generator has 4 poles, an automatic voltage regulator, and permits broad range reconnect ability.
- Genset is CSA certified.
- Vibration isolation rubbers eliminate the need of vibration spring isolators.
- Global product support.
- Operations and maintenance manuals.
- One-Year Warranty with extended warranties available.
- Heavy-duty construction, designed for use in prime or standby applications.
- Assembled in Canada.

Genset Ratings

Voltage N-L L-L	Ph	Hz	150°C Rise STANDBY Rating			125°C Rise PRIME Rating		
			kW	kVA	Amps	kW	kVA	Amps
120/208	3	60	388	485	1346	364	455	1263
120/240	3	60	388	485	1167	364	455	1095
277/480	3	60	405	506	609	369	461	555
347/600	3	60	405	506	487	369	461	444

Ratings: Standby ratings are continuous for the duration of any power outage. No overload capacity is specified at this rating. Prime ratings are continuous per BS5514, DIN 6271, IDO-3046, and IEC34-1, with 10% overload capacity one in twelve hours. Larger alternators may be used to meet special application requirements. Elecon reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

General Guidelines for Deration:

ALTITUDE: Derate 1.5% per 1000 ft (305 m) elevation above 3300 ft (1003 m).

TEMPERATURE: Derate 0.5% per 10°F (5.5°C) temperature above 77°F (25°C).

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Engine Specifications

GENERAL DATA			
Manufacturer	John Deere		
Engine Model	6135HF485		
EPA Certification	Tier 3		
Rated	RMP	1800	
Nominal Power (PRIME)	kW - HP	419	561
Nominal Power (STANDBY)	kW - HP	460	617
Engine Type	Diesel 4 Stroke		
Injection Type	Unit Injection		
Aspiration Type	Turbocharged		
Cylinder Arrangement	6 - L		
Bore and Stroke	(mm) - in	(132 x 165)	5.20 x 6.50
Displacement	L - in ³	13.5	824
Cooling System	Liquid (Cool-Guard II)		
Governor Type	Electronic		
Air Cleaner Type	Medium duty w/ double cartridge		
Compression Ratio	16.0 : 1		

Application Data

EXHAUST SYSTEM		PRIME	STANDBY
Manifold Type		Dry	Dry
Outlet Diameter	mm - in	160 - 6.304	
Max. Temperature at Full Load	°C	427	471
	°F	801	880
Exhaust Gas Flow	kg/h - lb/h	1839.9 - 4056.28	2041.2 - 4500.07
	(m ³ /min) - ft ³ /min	(73) - 2578	(81) - 2860
Max. Allowed Back Pressure	(mm/H ₂ O) - in/H ₂ O	1016 - 40	

COOLING SYSTEM			
Engine Cooling Air Flow		m ³ /s - ft ³ /s	13.7 - 483.6
Generator Cooling Air Flow		m ³ /min - ft ³ /min	59.4 - 2097.7
Total Cooling Air Flow (engine + generator + combustion)			
Open Skid Version		m ³ /min - ft ³ /min	1831.0 - 64,661.2
Sound Attenuated Version		m ³ /min - ft ³ /min	2380.0 - 84,048.9
Total Cooling Capacity		L - gal	65.0 - 17.2
Antifreeze Recommended		L - gal	32.5 - 8.6

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LUBRICATION SYSTEM		
Oil Filter Quantity + Type		1 x Cartridge
Oil Pan Capacity	L - gal	50 - 13.2
Oil Pan Capacity with Filter	L - gal	40 - 10.56
Oil Cooler		Water Cooled
Recommended Oil		15W-40 or API CI-4 PLUS or CI-4
Specific Oil Consumption Full Load	% fuel	<0.1%
Oil Press	(psi) - kPa	42 - 287

VENTILATION REQUIREMENTS		
Air Requirement for Combustion (at 100% load/rated speed)	m ³ /h - ft ³ /h	2040 - 72,060
Heat Rejected to Ambient		
From Engine	kW - btu/min	231 - 13,148
From Alternator	kW - btu/min	5 - 284.55

ELECTRICAL SYSTEMS		12 V	24 V
Ground (negative/positive)		Negative	Negative
Volts (DC)	V	12	24
Ampere Rating	Amp	90	65
Starter Motor Rated Voltage (DC)	V	12	24
Starter Motor Rated	kW / HP	2.03 / 2.76	2.03 / 2.76
Min. Cold Cranking Amps	Amp	1900	1900

FUEL SYSTEMS		
Recommended Fuel		#2 Diesel
Fuel Supply Line min. ID	mm - in	13 - 0.5
Fuel Return Line min. ID	mm - in	10 - 0.38
Fuel Pump Type		Engine Driven
Secondary Filter		2 µm
Secondary Water Separator		Included

FUEL CONSUMPTION	PRIME Rating		STANDBY Rating	
	L/h	gal/h	L/h	gal/h
100% Load	100.9	26.6	115.3	30.5
75% Load	74.8	19.7	83.5	22.0
50% Load	51.9	13.7	57.6	15.2
25% Load	29.5	7.8	31.8	8.4

Alternator Specifications

GENERAL DATA	
Manufacturer	Stamford
Model (480 V)	HCI 444 F
Alternator Type	4 poles, rotating field
Exciter Type	Brushless, self-excited PMG (optional)
Leads Quantity + Type	12, reconnectable
Stator Pitch	2/3
Material	Class H
Temperature Rise	150 °C Standby 125 °C Prime
Bearing Quantity + Type	Single bearing sealed
Coupling	Flexible disc
STD Regulator	SX440
PMG Regulator or EBS	Opt MX341, Opt MX321
STD Regulator Load Acceptance	+/- 1.5%
PMG Regulator Load Acceptance	+/- 1%, +/- 0.5%

SOUND ATTENUATED MODEL

Standard Size (with extended capacity, tank)	Length x Width x Height			
	mm	4500 x 1800 x 2342		
	in	177.2 x 70.9 x 92.2		
Dry Weight (with standard accessories)	kg lb	5500 12,125		
Fuel Tank Capacity	L gal	740 195.4		
Run Time (hr)	100%	75%	50%	25%
Prime Power	30.5	9.9	14.3	25.1
Standby Power	27.9	8.9	12.8	23.3
Noise Level	7 m	79 dBA		

OPEN SKID MODEL

Overall Size	Length x Width x Height		
	mm	3175 x 1575 x 2185	
	in	125 x 62 x 86	
Dry Weight (with standard accessories)	kg lb	3550 7825	
Fuel Tank Capacity	Optional		

