

Specification and Application Data

Rating Range - 60 Hz Operation

Standby: kW 110-129
kVA 138-161

Prime: kW 105-117
kVA 131-147

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	128	160	444	115	144	400
120/240	3	60	128	160	384	117	146	350
277/480	3	60	129	161	194	117	147	177
347/600	3	60	129	161	155	117	147	141

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	4045HF285-147
EPA Certification	Tier 3
Rated	RMP 1800
Nominal Power (PRIME)	kW - HP 134 179
Nominal Power (STANDBY)	kW - HP 147 197
Engine Type	Diesel 4 Stroke
Injection Type	Unit Injection
Aspiration Type	Turbocharged
Cylinder Arrangement	4 - L
Bore and Stroke	(mm) - in (106 x 127) 4.19 x 5.00
Displacement	L - in ³ 4.5 275
Cooling System	Liquid (Cool-Guard II)
Governor Type	Electronic
Air Cleaner Type	Medium duty w/ double cartridge
Compression Ratio	19.0 : 1

Application Data

EXHAUST SYSTEM	PRIME	STANDBY
Manifold Type	Dry	Dry
Outlet Diameter	mm - in 80 - 3.152	
Max. Temperature at Full Load	°C 572	580
	°F 1062	1076
Exhaust Gas Flow	kg/h - lb/h 619.92 - 1366.68	680.4 - 1500.23
	(m ³ /min) - ft ³ /min (24.6) - 869	(27.0) - 953
Max. Allowed Back Pressure	(mm/H ₂ O) - in/H ₂ O 762 - 30	

COOLING SYSTEM	
Engine Cooling Air Flow	m ³ /s - ft ³ /s 4.7 - 166.8
Generator Cooling Air Flow	m ³ /min - ft ³ /min 37.0 - 1307.3
Total Cooling Air Flow (engine + generator + combustion)	
Open Skid Version	m ³ /min - ft ³ /min 661.0 - 23,343.0
Sound Attenuated Version	m ³ /min - ft ³ /min 859.0 - 30,335.3
Total Cooling Capacity	L - gal 26.7 - 7.0
Antifreeze Recommended	L - gal 13.4 - 3.5

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LUBRICATION SYSTEM		
Oil Filter Quantity + Type		1 x Cartridge
Oil Pan Capacity	L - gal	15 - 3.96
Oil Pan Capacity with Filter	L - gal	12 - 3.17
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	46 - 320

VENTILATION REQUIREMENTS		
Air Requirement for Combustion (at 100% load/rated speed)	m ³ /h - ft ³ /h	579 - 20,460
Heat Rejected to Ambient		
From Engine	kW - btu/min	72 - 4098
From Alternator	kW - btu/min	2.24 - 127.48

ELECTRICAL SYSTEMS		12 V
Ground (negative/positive)		Negative
Volts (DC)	V	12
Ampere Rating	Amp	75
Starter Motor Rated Voltage (DC)	V	12
Starter Motor Rated	kW / HP	2.03 / 2.76
Min. Cold Cranking Amps	Amp	800

FUEL SYSTEMS		
Recommended Fuel		#2 Diesel
Fuel Supply Line min. ID	mm - in	11 - 0.44
Fuel Return Line min. ID	mm - in	6 - 0.24
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	34.7	9.2	37.5	9.9
75% Load	26.8	7.1	28.9	7.6
50% Load	19.4	5.1	21.1	5.6
25% Load	10.6	2.8	11.4	3.0

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Alternator Specifications

GENERAL DATA	
Manufacturer	Stamford
Model (480 V)	UCI 274 E
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	SX460
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	3300 x 1200 x 2275		
	in	129.9 x 47.2 x 89.6		
Dry Weight (with standard accessories)	kg lb	2473 5450		
Fuel Tank Capacity	L gal	750 198.0		
Run Time (hr)	100%	75%	50%	25%
Prime Power	30.5	27.9	38.6	71
Standby Power	27.9	25.9	35.6	65.7
Noise Level	7 m	71 dBA		

OPEN SKID MODEL

Overall Size	Length x Width x Height		
	mm	2083 x 914 x 1350	
	in	82 x 36 x 53	
Dry Weight (with standard accessories)	kg lb	1690 3725	
Fuel Tank Capacity	Optional		

