THE POWER SOURCE YOU CAN RELY ON

ELECON SYSTEMS LTD.

Elecon Diesel Generator EDG-250

Specification and Application Data

Rating Range - 60 Hz Operation

Standby:	kW	220-224
	kVA	213-258
Prime:	kW	190-203
	kVA	205-234

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	274	342	949	246	308	855
120/240	3	60	274	342	823	246	308	741
277/480	3	60	275	344	413	247	309	372
347/600	3	60	275	344	331	247	309	298

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		6090HF484
EPA Certification		Tier 3
Rated	RMP	1800
Nominal Power (PRIME)	kW - HP	284 380
Nominal Power (STANDBY)	kW - HP	315 422
Engine Type		Diesel 4 Stroke
Injection Type		HPCR
Aspiration Type		Turbocharged
Cylinder Arrangement		6 - L
Bore and Stroke	(mm) - in	(118.4 x 136.0) 4.661 x 5.354
Displacement	L - in^3	9.0 549
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	110 - 4.334	
Max. Temperature at Full Load	°C	638	634
	°F	1180	1180
Exhaust Gas Flow	kg/h - lb/h	1474.2 - 3250.05	1486.8 - 3277.82
	(m^3/min) - ft^3/min	(58.5) - 2066	(59.0) - 2084
Max. Allowed Back Pressure	(mm/H_2O) - in/H_2O	762 - 30	

COOLING SYSTEM		
Engine Cooling Air Flow	m^3/s - ft^3/s	9.9 - 350.2
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	1360.0 - 48,027.9
Sound Attenuated Version	m^3/min - ft^3/min	1768.0 - 62,436.3
Total Cooling Capacity	L - gal	46.0 - 12.1
Antifreeze Recommended	L - gal	23.0 - 6.1

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LUBRICATION SYSTEM		
Oil Filter Quantity + Type		1 x Cartridge
Oil Pan Capacity	L - gal	34 - 8.976
Oil Pan Capacity with Filter	L - gal	29 - 7.656
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	38 - 260

VENTILATION REQUIREMENTS		
Air Requirement for Combustion (at 100% load/rated speed)	m^3/h - ft^3/h	1530 - 54,060
Heat Rejected to Ambient		
From Engine	kW - btu/min	104 - 5920
From Alternator	kW - btu/min	3.8 - 216.26

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	1100	1100

FUEL SYSTEMS		
Recommended Fuel		#2 Diesel
Fuel Supply Line min. ID	mm - in	11 - 0.44
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	69.8	18.4	74.4	19.6
75% Load	60.2	15.9	64.2	17.0
50% Load	42.7	11.3	45.5	12.0
25% Load	22.1	5.8	23.8	6.2

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Alternator Specifications

GENERAL DATA	
Manufacturer	Stamford
Model (480 V)	UCI 444 D
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

		Length x Width x Height		
Standard Size (with extended capacity, tank)	mm	4100 x 1600 x 2200		
	in	161.4 x 63.0 x 86.6		
Dry Weight (with standard accessories)	kg lb	4010 8840		
Fuel Tank Capacity	L gal	590 155.8		
Run Time (hr)	100%	75%	50%	25%
Prime Power	30.5	9.8	13.8	26.7
Standby Power	27.9	9.2	13.0	25.0
Noise Level	7 m	76 dBA		

OPEN SKID MODEL

		Length x Width x Height
Overall Size	mm	2794 x 1219 x 1575
	in	110 x 48 x 62
Dry Weight (with standard accessories)	kg lb	2945 6490
Fuel Tank Capacity	Optional	

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