

## DEPARTEMENT OUTILLAGE

GROUPE ELECTROGENE 63KVA DIESEL TRIPHASE  
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Cummins 4BTA3.9-G2	Firman FG224E	Generator Model:	<b>SDG60C</b>
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50HZ	3-Phase	Power Factor Cosφ=0.8
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RATINGS	PRIME POWER (PRP)		STANDBY POWER(ESP)		
	SDG60C				
Voltage	kVA	kWe	kVA	kWe	Amps
380/220	60	48	65	50	99
Noise level @7m	78db				

## DEFINITION OF RATINGS &amp; REFERENCE CONDITIONS

**Standby Power ratings** apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 8528, ISO 3046 and BS 5514. Average load factor: ≤ 80%. Operating hours/year: max. 500.

**Prime Power ratings** apply to installations where utility power is unavailable or unreliable. At varying loads, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO 8528, ISO 3046 and BS 5514. Average load factor: ≤ 70%. Operating hours/year: unlimited.

**Continuous Power ratings** apply to installations where the generator set serves as utility. At constant load, the number of generator set operating hours is unlimited. No overload capability for this rating. Ratings are in accordance with ISO 8528, ISO 3046 and BS 5514. Average load factor: ≤ 100%. Operating hours/year: unlimited.

**Firman generator sets** are sized suitably for conditions of up to >25/≤40°C ambient temperature and >100m/≤1000m above sea level. Power ratings are subjected to changes should operating conditions vary.



## Key Features:

- Efficient water cooled diesel engine.
- Radiator with pressure cap and drain point
- Fully guarded engine-driven fan
- Fully welded steel baseframe with lifting / jacking points
- Various fuel system options
- Heavy duty rubber anti-vibration mountings
- 24V starter batteries and connecting cables
- Separate engine-driven battery charging alternator
- Spin on oil and fuel filters and dry type air filter element
- Auto Start control with digital instrumentation
- Factory Test Certificate
- Operation & Maintenance Manual
- Wide range of optional extra features available

## Overall Dimensions

Length (L2) = 2550mm  
Width (W2) = 1070mm  
Height (H2) = 1820mm  
Weight=1500kg

# SDG60C

ENGINE&COOLING SYSTEM			Cummins 4BTA3.9-G2	
General Data	Engine Speed		r/min	1500
	Gross Power		kWm	64
	Compression Ratio			17.3:1
	Cylinders/ Types			4 cyl/ In line
	Aspiration			Turbocharger and air charge cooled
	Cooling Mode			Closed Circulation Water Cooling
	Governor Type			Electronic
	Bore/ Stroke		mm	102/120
	Displacement		litres	3.9
	Lubrication System			Pressure Splashed
	Lube Oil Capacity (L)		litres	9
	Lube Oil type			Above CF grade or SAE10W-30,15W-40
	Fuel consumption	100% Load	L/hr	15
		75% Load	L/hr	11
		50% Load	L/hr	8
	Air Intake System			Turbocharged, Air/Air Cooling
	Intake Air Flow		L/sec	59
	Oil Consumption		g/kwh	< =4
	Exhaust Gas Flow		L/sec	165
	Exhaust Temperature		°C	560
	Max Back Pressure		kPa	10
	Max Intake Restriction		kPa	6
	Total Coolant Capacity		litres	10.9
Thermostat		°C	82-95	
Max Water Temperature		°C	104	
Starting System		V	24V Electric	
Battery Capacity(V-Ah)		V	2x100AH	

ALTERNATOR			Firman FG224E
General Data	Model (may vary with voltage)		FG224E
	Operating Temperature	°C	40
	Coupling / No. of Bearings		Direct / Single Bearing
	Phase / Poles		3-Phase / 4-Pole
	Winding Pitch		"Y" Type connecting
	Power Factor		Cos Φ = 0.8
	Excitation		Brushless
	Insulation System		Class H
	Telephone interference		THF < 2 %
	Total Harmonic Distortion (No Load)		<1.5%
	Voltage Regulation		±1%
	Protection Grade		IP23

\*Specifications and designs are subjected to change without prior notice

**DEESEA DSE7320 AUTO MAINS FAILURE CONTROLLER**

The DSE7320 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications. Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen and illuminated LEDs. The modules include USB, RS232 and RS485 ports.

**KEY FEATURES:**

- kW & kVAr protection
- Reverse power (kW & kVAr) protection
- LED and LCD alarm indication
- Power monitoring (kWh, kVAr, kVAh, kVArh)
- Automatic load transfer (DSE7320)
- Engine exerciser
- Unbalanced load protection
- Independent earth fault trip
- Balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
- Configuration Suite PC software

**DSE8610 SYNCHRONIZING CONTROLLER**

The DSE8610 MKII is an easy to use Synchronising Auto Start Control Module suitable for use in a multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines. The DSE8610 MKII monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

**KEY FEATURES:**

- Sequential set start
- Manual voltage/frequency adjustment
- R.O.C.O.F. and vector shift protection
- Generator load demand
- Automatic hours run balancing
- Dead bus sensing
- Bus failure detection
- Direct governor and AVR control
- Volts and frequency matching
- kW and kvar load sharing
- Dead bus synchronising

**GENERATING SET OPTIONS****Engine:****Alternator:****Controller:**