



SCANIA POWER GENERATION ENGINE: FUEL OPTIMIZED

13-LITRE ENGINE



Engine description DC13 093A. 528-580 kW (600-662 kVA)

Engine speed	1,800 rpm		
Emission compliance	Fuel optimized		
Rating	PRP/ESP		
No of cylinders	6 in-line		
Working principle	4-stroke		
Displacement	12.7 litres		
Weight	1,050 kg (excluding oil and coolant)		
Oil capacity	30-36 litres (standard oil sump)		
Electrical system	1-pole 24 V DC		

The power generation engines from Scania are based on a robust design with a strength optimized cylinder block containing wet cylinder liners, which can easily be exchanged. Individual cylinder heads with 4 valves per cylinder promotes reparability and fuel economy.

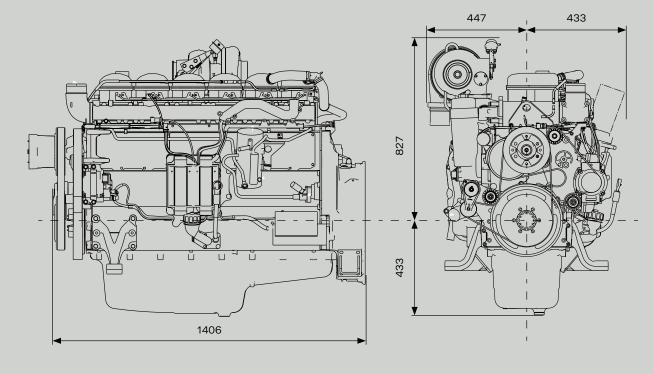
The engine is equipped with a Scania developed Engine Management System, EMS, to ensure control of all aspects related to engine performance.

The injection system is based on electronically controlled unit injectors, which provide good fuel economy and a high torque. The engine can be fitted with many options such as air cleaners, PTOs and cooling package, to suit a variety of installations. It is developed for 60 Hz applications.

Standard equipment

- Scania Engine Management System, EMS
- Unit injectors, PDE
- Turbocharger
- Saver ring in cylinder liner
- Fuel filter and extra pre-filter
- with water separator
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in cylinder block
- Oil filler, in valve cover
- Deep front oil sump
- Oil dipstick, in cylinder block
- Magnetic drain plug for oil draining
- Starter motor, 1-pole 7.0 kW
- Alternator, 1-pole 100 A
- Flywheel, SAE 14
- Silumin flywheel housing, SAE 1 flange
- Front-mounted engine suspension
- Open crankcase ventilation

Dimensions



Technical data

	1800 rpm (60 Hz)		
	PRP	ESP	Unit
Gross power	528	580	kW
	600	662	kVA
Gross torque	2,801	3,077	Nm
Fuel consumption at full load	197	201	g/kWh
Heat rejection			
to coolant	142	163	kW
to exhaust gas	411	461	kW
to charge air	113	135	kW
to surrounding air	50	56	kW
Air consumption	41	44	kg/min
Air temperature			
upstream of charge air cooler	209	232	°C
downstream of charge air cooler	46	51	°C
Pressure in intake manifold	2.5	28	bar
Pressure drop in charge air cooler	0.10	0.10	bar
Exhaust flow	43	46	kg/min
Exhaust temperature	550	566	°C
Step load performance (according to class G2)	63	58	%
	335	335	kW

PRP - Prime power: For continuous operation at varying load. Max. mean load factor of 70% of rated power over 24 h of operation. 1 hour/12 hour period above 100% load. Max. 25 h accumulated service time above 100% load per year. **ESP - Stand-by power:** For operation under normal varying load during a power outage. Not overloadable. Max mean load factor of 70% of rated power

over 24 hours of operation. Not for applications intended for more than 200 hours/year.