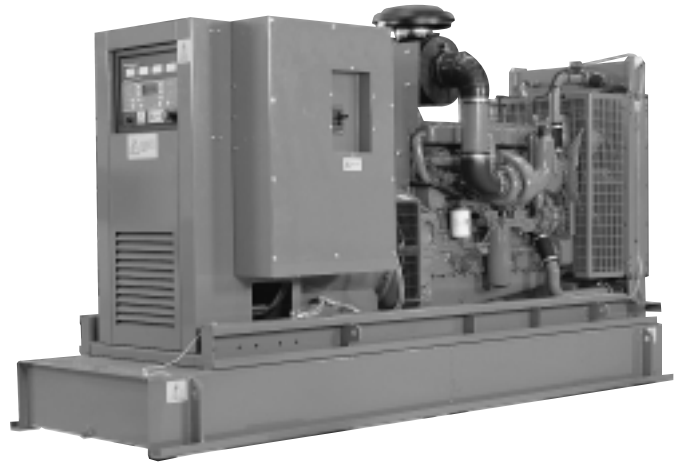


Diesel Powered Generating Sets 186 kW - 223 kW 50 Hz LTA10 Series Engines



Typical model with options fitted

Standard Genset Features

Single Source Responsibility

Design, manufacture and testing of engine, alternator, control system and complete generating set are all produced by companies within the Cummins Group

International Integrity

Assurance and strength of a worldwide major corporation backing the product

Global Backing

24 hour spares and service availability in 72 countries

Single Source Warranty

Total product guaranteed by Cummins Power Generation

Packaged Self-Contained Units

Integrated unit with built-in anti-vibration system, control panel, starting system and provision for base fuel tank and other accessories

Cummins Engine

- Heavy duty 4 cycle water cooled engine
- Electronic governor control

Cooling System

- 40°C cooling package (50°C option)

Alternator

- Brushless Group made machine
- Close voltage regulation
- Rotor and exciter impregnated with oil and acid resisting resin
- 12 lead reconnectable
- Exceptional short circuit capability
- Low waveform distortion with non linear loads

Ratings

All kW Power ratings based on a 40°C ambient temperature reference. No derating necessary up to 40°C ambient

Chassis

Built-in anti-vibration system
Bonded rubber units fitted as standard eliminates need for rubber mats or spring mountings

Ready Filled

Every set comes filled with lube oil and anti-freeze

Alternative PCL 'Power Control' System

- CE compliant
- Full AC instrumentation
- Emergency stop button
- Safety shutdowns
- Key or Remote starting




Quality Assurance
Registered Firm Certificate Number FM509 in accordance with:
BS EN ISO 9001
Quality Assurance Schedule 3420/1



Cummins Power Generation, Cummins Engines and Newage Alternators are all part of the same group

50 Hz Ratings				
Model Prime	Prime kW (kVA)	Model Standby	Standby kW (kVA)	Engine Model
186 DFAB	186 (233)	207 DFAB	207 (259)	LTA10G2
202 DFAC	202 (252)	223 DFAC	223 (279)	LTA10G3

Specifications

Generator Set Performance

Voltage Regulation

Maintains voltage output to within $\pm 1.0\%$.
At any power factor between 0.8 lagging and unity.
At any variations from No load to Full load.
At any variations from Cold to Hot.
At speed droop variations up to 4.5%.

Frequency Regulation

Isochronous under varying loads from no load to 100% full load when electronic governor is fitted.

Random Frequency Variation

Will not exceed $\pm 0.25\%$ of its mean value for constant loads – no load to full load.

Waveform

Total harmonic distortion open circuit voltage waveform in the order of 1.5%. Three-phase balanced load in the order of 5.0%.

Telephone Influence Factor (TIF)

TIF better than 50.
THF to BS 4999 Part 40 better than 2%.

Alternator Temperature Rise

Class H insulation. Temperature rise up to 125°C permitted.

Radio Interference

In compliance with BS 800 and VDE levels G and N.

Engine

Cummins LTA10G2 and G3 in-line direct injection 6-cylinder diesel engines.

Type

Water cooled, four cycle, turbo charged after cooled.

Construction

Four valves per cylinder, forged steel crankshaft and connecting rods, cast iron block, replaceable wet liners.

Starting

24 volt negative earth. Battery charging alternator 35 amp on L series engines.
Cranking current 640 amps at 0°C.

Fuel System

24 volt fail safe actuator. Dual spin-on paper element fuel filters with Cummins PT fuel injection system with integral electronic governor. Dual flexible fuel lines and connectors.

Filters

Air cleaner with dry element and restriction indicator. Spin-on full flow lube oil filters and by-pass paper element type. Spin on corrosion resistor filter.

Cooling

40°C radiator as standard with 50°C ambient as option. Oil cooler.

Alternator

Type

Brushless single bearing, revolving field, pole, drip proof, screen protected.
Class H Insulation.
Enclosed to IP22 (NEMA 1) standard.
IC 01 cooling system.
Fully interconnected damper winding.
AC exciter and rotating rectifier unit.
Epoxy coated stator winding.
Rotor and exciter impregnated with tropical grade insulating oil and acid resisting polyester resin. Dynamically balanced rotor to BS 5625 grade 2.5.
Sealed for life bearings.
Layer wound mechanically wedged rotor.

Compliance Standards

To BS4999/5000 pt 99,
VDE 0530, UTE5100,
NEMA MG1-22, CEMA,
IEC 34, CSA A22.2,
AS1359, BS 5514,
ISO 3046 and ISO 8528

Chassis

Fabricated and welded steel chassis
Built-in anti-vibration mountings
Integral lifting points
Optional sub-base fuel tank with eight hour capacity, dual flexible fuel lines, dial type fuel gauge and drain bung

Finish

Etch undercoated and finished in high gloss durable green

General

Complete set of operating and instruction manuals

Generator Set Options

Engine

- Heavy duty air cleaner
- Coolant heater and thermostat
- Fuel water separator
- Lead acid batteries, cable and fitted tray
- NiCad batteries
- Sump drain pump
- Oil and water drain taps
- CE Compliance (guarding)
- Exhaust temperature monitoring (PCC only)
- Tool kit
- Compliance to TA Luft

Cooling

- 50°C ambient radiator
- Remote radiator cooling (built to order)
- Oil temperature indication

Alternator

- Anti-Condensation heater
- Thermistors
- PMG Exciter and MX321 AVR
- 105°C rise alternator

Exhaust System

- Industrial type silencer
- Residential type silencer
- Length of flexible exhaust and bellows

Fuel System

- Sub-base tanks
- Hand fuel transfer pump
- Automatic fuel transfer pump
- Free-standing 450, 900 and 1350 litre fuel tanks with stand
- Fuel tank level switch
- High fuel level warning
- Low fuel level warning
- Low fuel level shutdown

Generator Set

- Weather protective enclosures
- Silenced enclosures

Control Panel

- See separate list on Control Panel pages
- 3 or 4 pole circuit breaker
- Battery charger 5 amp or 10 amp
- CE Compliance PCL
- Cable entrance box

Technical Data

Generating Sets - 50 Hz

Set output	380-415 V 50 Hz	380-415 V 50 Hz
Prime at 40°C ambient	186 kWe 233 kVA	202 kWe 253 kVA
Model (Prime)	186 DFAB	202 DFAC
Standby at 40°C ambient	207 kWe 259 kVA	223 kWe 279 kVA
Model (Standby)	207 DFAB	223 DFAC
Engine Make	Cummins	Cummins
Model	LTA10G2	LTA10G3
Cylinders	Six	Six
Engine build	In-line	In-line
Governor/Class	Electronic/A1	Electronic/A1
Aspiration and cooling	Turbo Aftercooled	Turbo Aftercooled
Bore and stroke	125 mm x 136 mm	125 mm x 136 mm
Compression ratio	16.0:1	16.0:1
Cubic capacity	10 Litres	10 Litres
Starting/Min °C	Unaided/-1°C	Unaided/-1°C
Battery capacity	127 A/hr	127 A/hr
Engine output – Prime	203 kWm	218 kWm
Nett at flywheel – Standby	225 kWm	240 kWm
Maximum load acceptance – single step	120 kWe	120 kWe
Speed	1500 rpm	1500 rpm
Alternator voltage regulation	±1.0%	±1.0%
Alternator insulation class	H	H
Single load step to NFPAll0	100%	100%
Fuel consumption (Prime) 100% load	48.4 l/hr	51.1 l/hr
Fuel consumption (Standby) 100% load	53.4 l/hr	55.6 l/hr
Lubrication oil capacity	36 Litres	36 Litres
Base fuel tank capacity – open set	675 Litres	675 Litres
Coolant capacity – radiator and engine	53 Litres	53 Litres
Exhaust temp – full load prime	502°C	510°C
Exhaust gas flow – full load prime	2192 m ³ /hr	2329.2 m ³ /hr
Exhaust gas back pressure max	76 mm Hg	76 mm Hg
Air flow – radiator (40°C) ambient*	5.6 m ³ /s	4.5 m ³ /s
Pusher fan head (duct allowance) 40°C*	13 mm Wg	13 mm Wg
Air intake – engine	817 m ³ /hr	848 m ³ /hr
Air flow – radiator (50°C)*	5.0 m ³ /s	3.8 m ³ /s
Pusher fan head (duct allowance) 40°C and 50°C*	13 mm Wg	13 mm Wg
Total heat radiated to ambient	41 kW	46 kW
Derate factors	RTF	RTF

In accordance with ISO 8528, BS5514.

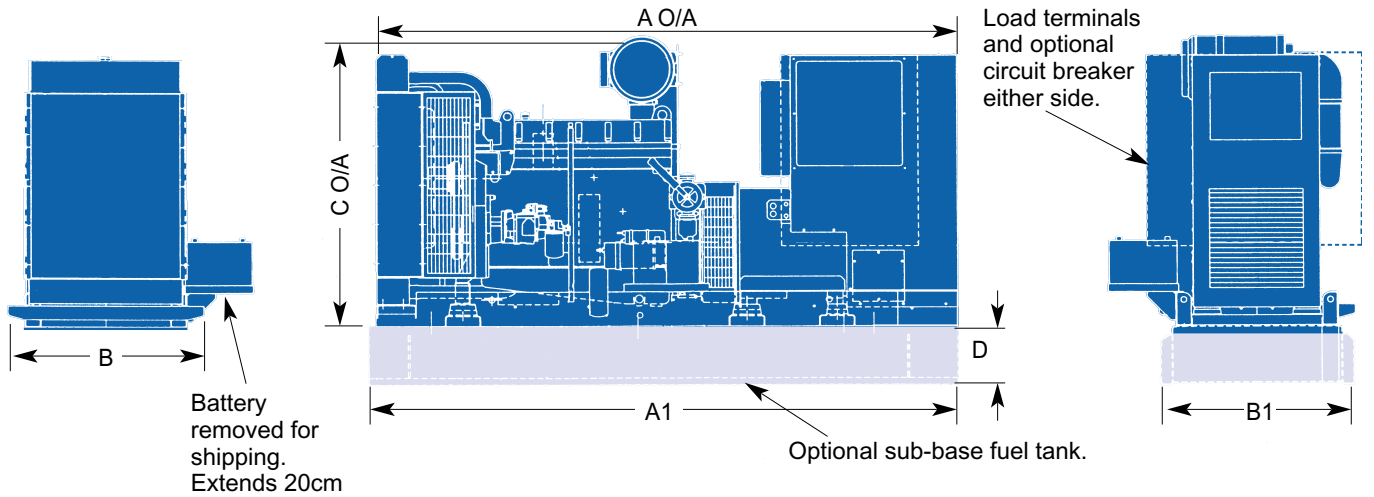
Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

Standby: Continuous running at variable load for duration of an emergency.

Prime and standby ratings are outputs at 40°C (104°F) reference.

RTF = Refer to factory.

Dimensions and Weights – 50 Hz



Model	Engine	Dimensions and Weights (mm/kg)						Set Weight kg Dry	Set Weight kg Wet	Tank (dry) Weight kg	Tank (wet) Weight kg
		A	A1	B	B1	C	D				
DFAB	LTA10G2	2980	3338	1048	1050	1644	300	2230	2300	445	1085
DFAC	LTA10G3	2980	3338	1048	1050	1644	300	2230	2300	445	1085

Set weights are **without** sub-base tank.

Dimensions and weights are for **guidance** only. Do not use for installation design. Ask for certified drawings on your specific application. Specifications may change without notice.



Your local distributor: