

Diesel Powered Generating Sets C33 D5



Standard Genset Features

Cummins water cooled Diesel engine,
Oil and fuel filter fitted, water separator,,
Lube-oil drain valve fitted
Electric starter & Charge alternator 12 v D.C.
Electronic governor
Normal duty air filter
Single bearing alternator, class H/H , IP23
Standard voltage 400/230 volts 50 Hz
Exciter/Voltage reg - Torque Match as std
PCC1300 with display unit
4 pole MCB
Welded steel base frame with A/V mounting,
Fork lift pockets in baseframe
Single skin metal fuel tank
Tank capacity of min 12 hours operation at
70% standby load
Loose 9 dB(A) silencer
Set mounted starting battery
Engine & Alternator Munsell Jade Green
Radiator and Guarding black
Packing under shrunk plastic film
Operation & Maintenance manual
Standard set of labels

Generator Set Performance

Voltage Regulation
Maintains voltage output to within $\pm 1.0\%$.
At any power factor between 0.8 and 1.0
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 1.8%. 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.

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

Generator Set Options

Mechanical Options
Compliance - CE Certification (Guarding)

Fuel sytem options
Low Fuel Level Shutdown

Exhaust Options
Exhaust Silencer - Industrial (9 dB), In-Line
Exhaust Silencer - Residential (25 dB), In-Line
Flexible and fixing kit for Industrial silencer
Flexible and fixing kit for Residential silencer

Warranty
Warranty - 5 Year Extended Standby Appln
Warranty - 2 Year Extended Prime Appln

Voltage Connections

277/480V, 3 Phase
254/440V, 3 Phase
240/416V, 3 Phase
230/400V, 3 Phase
220/380V, 3 Phase
115/200V, 3 Phase
110/190V, 3 Phase
220-240V, 1 Phase

Miscellaneous Options

Coolant heater -240/120V
Battery Charger 110-277V, 3A
Electronic Governing
Automatic Transfer Switches
Packing - Export Box

Compliance Standards

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

Engine Specification

Cummins 4B3.3G1
In-line direct injection
4-cylinder diesel engine.
Type
Water cooled, four cycle, naturally aspirated

Construction
Two valves per cylinder, forged steel
crankshaft and connecting rods, cast iron
block.

Starting
12 volt negative earth. Battery charging
alternator 45 amp on engine. Cranking
current 550 amps at 0°C.

Fuel System
12 volt fail safe actuator. Spin-on paper
element fuel filters with Stanadyne fuel
pump injection system with integral
mechanical governor. Dual flexible fuel lines
and connectors. Standard fuel water
separator.

Filters
Air cleaner with dry element and restriction
indicator. Spin-on full flow lube oil filter.

Cooling
50°C radiator as std
Oil cooler. Drain Tap

Alternator Specification

Type
Brushless single bearing, revolving field,
pole, drip proof, screen protected.
Class H Insulation, IP23 Protection
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
BS 5625 grade 2.5.
Sealed for life bearings.
Layer wound mechanically wedged rotor.

Exciter
Triple dipped in moisture, oil and acid
resisting polyester varnish and coated with
anti-tracking varnish.

Output windings with 2/3 pitch for improved
harmonics and paralleling ability.
Close coupled engine/alternator for perfect
alignment.

Model name	kVA		kWe	
	ESP	PRP	ESP	PRP
C33 D5	33	30	26.4	24