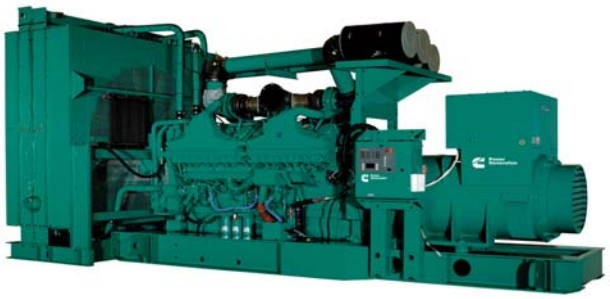
Diesel Powered Generating Sets C2250 D5



Standard Genset Features

Cummins water cooled Diesel engine,
Oil and fuel filter fitted, water separator
Lube-oil drain valve fitted
Electric starter & Charge alternator 24 v D.C.
Electronic governor
Normal duty air filter
Single bearing alternator, class H/H
Standard voltage 400/230 volts 50 Hz
Exciter/Voltage reg - Torque Match as standard
PCC3201 with Bargraph as standard
Steel base frame with A/V mounting,
Engine, Alternator, Chassis & Control Box
Munsell Jade Green
Radiator
Packing under shrunk plastic film
Operation & Maintenance manual
Standard set of labels

Generator Set Performance

Voltage Regulation
Maintains voltage output to within ±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 ±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

Fuel options
Fuel Tank

Exhaust Options
Exhaust Silencer - Industrial In-Line
Exhaust Bellows
Exhaust Silencer - Residential , In-Line
Installation Kit - Industrial Silencer
Installation Kit - Residential Silencer

Voltage Connections
240/416V, 230/400V, 220/380V,
127/220V, 115/200V, 110/190V

Miscellaneous Options
3 pole or 4 pole Circuit Breaker
Optional Set mounted starting batteries
Coolant Heater 240V
Battery Charger 240V, 5A or 10A
Automatic Transfer Switches
Packing - Export Box

Engine Specification

QSK60G4
60° Vee
16-cylinder diesel engine.
Type
Water cooled, four cycle, turbocharged and low temperature aftercoolec
Construction
Two valves per cylinder, forged stee crankshaft and connecting rods, cast iron block.
Starting
24 volt negative earth. Battery charging alternator 35 amp on engine. Cranking current 1800 amps at 0°C.
Fuel System
24 volt fail safe actuator. Spin-on paper element fuel filters with fuel pump injection system with integral electronic governor. Dual flexible fuel lines and connectors. Standard fuel water separator.
Filters
Air cleaner with dry element.
Spin-on full flow lube oil filter.
Cooling
40°C ambient temperature standard
Stone guard. Drain Tap

Alternator Specification

Type
Brushless single bearing, revolving field, pole, drip proof, screen protected.
Class H Insulation, IP23 Protection
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 roto 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 perfec alignment.

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

Model name	kVA		kWe	
	Standby	Prime	Standby	Prime
C2250 D5	2250	2000	1800	1600

Technical Data

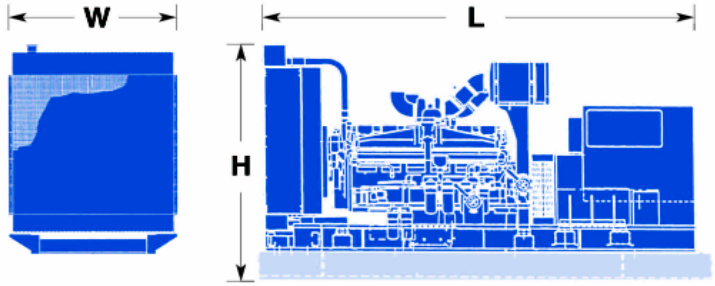
Model	C2250 D5	**Speed**	1500rpm
Set output	380-440 V 50 Hz	**Alternator voltage regulation**	±1.0%
Prime Rating	1600 kWe 2000 kVA	**Alternator insulation class**	H
Standby Rating	1800 kWe 2250 kVA	**Fuel consumption (Prime)**	394 l/hr
Engine Make	Cummins	**Fuel consumption (Standby)**	427 l/hr
Engine Model	QSK60G4	**Lubrication system oil capacity**	280 Litres
Cylinders	Sixteen	**Base fuel tank capacity – open set**	NA
Engine build	60° Vee	**Coolant capacity**	621 Litres
Standard Governor/Class	Electronic	**Exhaust temp – prime**	430°C
Aspiration and cooling	Turbocharged and Low Temperature Aftercooled	**Exhaust gas flow – prime**	5190 l/s
Bore and stroke	159 mm x 190 mm	**Exhaust gas back pressure max**	51 mm Hg
Compression Ratio	14.5:1	**Air flow – radiator***	27.0 m³/s
Cubic capacity	60.2 Litres	**Air intake – engine (Prime)**	2264 Litres/s
Starting/Min °C	10°C	**Minimum air opening to room**	8.9 m³
Battery capacity	254 A/hr	**Minimum discharge opening**	5.9 m³
Gross Engine output – Prime	1730 kWm	**Pusher fan head (duct allowance)***	13 mm Wg
Gross Engine output – Standby	1915 kWm	**Heat radiated by eng (Prime)**	160 kWm

PRIME POWER

Prime Power is available continuously during the period of power outage in a variable load application. Variable load should not exceed a 70% average of the prime power rating during any 24 hour period.
A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation.

STANDBY POWER

The Standby Power is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.
In installations served by unreliable utility sources (where outages last longer or occur more frequently), where operation is likely to exceed 200 hours per year, the prime power rating should be applied.
The Standby Power rating is only applicable for emergency and standby applications where the generator set serves as the back up to the normal utility source.
All ratings are based on the following reference conditions:
- Ambient temperature : 27°C - Altitude above sea level : 150 metres - Relative humidity : 60%



Dimensions and Weights

Open Version

Model	Engine	Length (mm)	Width (mm)	Height (mm)	Dry weight without tank (Kg)	Wet weight without tank (Kg)
C2250 D5	**QSK60G4**	**5891**	**2270**	**2550**	**15245**	**16000**

Specifications may change without notice

See your distributor for more information.

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