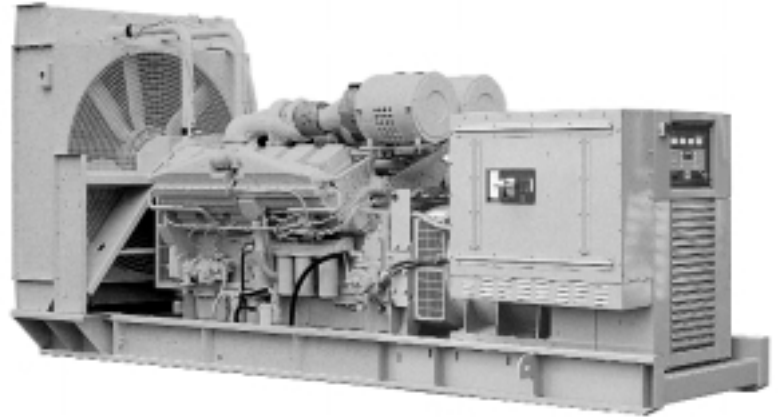


Diesel Powered Generating Sets 928 kW - 1020 kW 60 Hz KTA38 Series Engines



Model 928 DFJD shown with optional circuit breaker

Standard Genset Features

Single Source Responsibility

- Design, manufacture and test of all components and accessories are made by Cummins Power Generation and Cummins companies

International Integrity

- Assurance and strength of a worldwide, world class corporation

Global Backing

- 24 hour spares and service support – in 72 countries

Single Source Warranty

- Complete genset covered by Cummins Power Generation comprehensive warranty

Packaged Self-Contained Units

- Units with built in antivibration systems with provision for base fuel tank and other accessories

Cummins Engine

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

Cooling System

- 50°C cooling package

Ready Filled

Every set comes filled with lube oil and anti-freeze

Alternator

- Brushless Group made machine
- Close voltage regulation
- Rotor and exciter impregnated with oil and acid resisting resin
- Exceptional short circuit capability
- Low waveform distortion with non linear loads
- Permanent magnet exciter and MX321 AVR as standard

Ratings

All kW Power ratings based on a 40°C ambient temperature reference.

Chassis

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

Integrated Control System

- Totally integrated design
- Full AC instrumentation
- Safety shutdowns
- Local or Remote starting
- Emergency stop button (optional)
- CE and non CE options

Optional PCC PowerCommand Control System

- Microprocessor control
- Integrates governor and voltage regulation systems
- Superior alternator and genset protection system
- Accurate battery monitoring system
- Totally reliable and proven system




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

60 Hz Ratings				
Model Prime	Prime kW (kVA)	Model Standby	Standby kW (kVA)	Engine Model
928 DFJD	928 (1160)	1020 DFJD	1020 (1276)	KTA38G4

A Single Source for *all* Power System Solutions

Specifications

Generator Set Performance

Voltage Regulation

Maintains voltage output to within $\pm 0.5\%$.
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.

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 BS4999 Part 40 better than 2%.

Alternator Temperature Rise

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

Radio Interference

In compliance with BS800 and VDE levels G and N.

Engine

Cummins KTA38G4, twelve-cylinder vee formation, direct injection diesel engines.

Type

Water cooled, turbocharged and aftercooled.

Construction

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

Starting

24 volt negative earth, battery charging 35 amp alternator. Fitted battery tray, battery leads and connecting lugs. Cranking current 1280 amps at 0°C.

Fuel System

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

Filters

Dry element air filters with restriction indicator and spin-on paper element full flow and by pass lube oil filters and corrosion resistor filter.

Cooling

50°C radiator as standard. Oil cooler.

Alternator

Type

Brushless, single bearing, revolving field, 4-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 BS5625 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.

Sealed solid state automatic voltage regulator – self-exciting, self-regulating.

Output windings with 2/3 pitch for improved harmonics and parallelling ability.

Close coupled engine/alternator for perfect alignment.

Permanent magnet exciter with MX321 AVR fitted as standard.

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

Optional sub-base fuel tank with eight hour capacity, dual flexible fuel lines, dial type fuel gauge and drain bung

Earthing cables. Lifting points

Earthing cables. Lifting points

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 cleaners
- 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

- Remote radiator cooling (built to order)
- Oil temperature indication

Alternator

- Anti-Condensation heater
- Thermistors
- 105°C rise alternators

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

- Refer to Control Panel literature for details of options
- 3 or 4 pole circuit breaker
- Battery charger 5 amp or 10 amp
- CE Compliance
- Cable entrance box
- Switch disconnecter 3P or 4P

Technical Data

Generating Sets – 60 Hz

Set output	220-480 V 60 Hz
Prime at 40°C ambient	928 kW 1160 kVA
Model (Prime)	928 DFJD
Standby at 40°C ambient	1020 kW 1276 kVA
Model (Standby)	1020 DFJD
Engine Make	Cummins
Model	KTA38G4
Cylinders	Twelve
Engine build	Vee
Governor / Class	Electronic / A1
Aspiration and cooling	Turbo Aftercooled
Bore and stroke	159 mm x 159 mm
Compression ratio	13.9:1
Cubic capacity	37.8 Litres
Starting / Min °C	Unaided / 7°C
Battery capacity	254 Ah
Nett Engine output – Prime	973 kWm
Nett at flywheel – Standby	1078 kWm
Speed	1800 rpm
Alternator voltage regulation	±0.5%
Alternator insulation class	H
Single load step to NFPAll0 para 5.13.2.6	100%
Fuel consumption (Prime) 100% load	245 l/hr
Fuel consumption (Standby) 100% load	271 l/hr
Lubrication oil capacity	135 Litres
Base fuel tank capacity – open set	1700 Litres
Coolant capacity – radiator and engine	307 Litres
Exhaust temp – full load prime	499°C
Exhaust gas flow – full load prime	13107 m ³ /hr
Exhaust gas back pressure max	76 mm Hg
Air intake – engine (Prime)	4892 m ³ /hr
Air flow – radiator (50°C ambient)*	28.5 m ³ /s
Pusher fan head (duct allowance) 50°C*	13 mm Wg
Total heat radiated to ambient	197 kW
Engine derating – altitude	4% per 300 m above 1525 m
Engine derating – temperature	2% per 11°C above 40°C

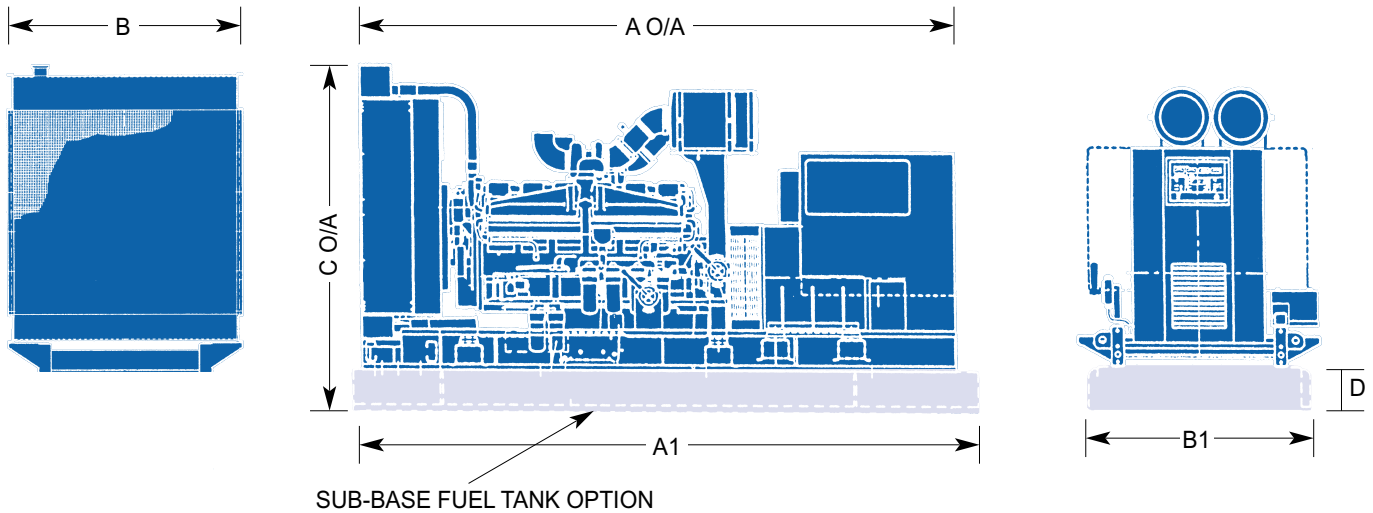
In accordance with ISO 8528, BS5514.

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.

*Subject to factory verification.

Dimensions and Weights – 60 Hz



Model	Engine	Dimensions and Weights (mm/kg)						Set Weight kg Dry	Set Weight kg Wet	Tank Weight kg (dry)	Tank Weight kg (wet)
		A	A1	B	B1	C	D				
DFJD	KTA38G4	4470	4600	1785	1640	2229	300	8527	8600	850	2210

Floor mounted circuit breaker and load terminal cubicle (for use above 1250 amps)			
Capacity amps	Width mm	Depth mm	Height mm
1600	1000	1050	1500
2000	1000	1050	1500
2500	1000	1050	1500
3200	1000	1050	1500

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.



See your distributor for more information.

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