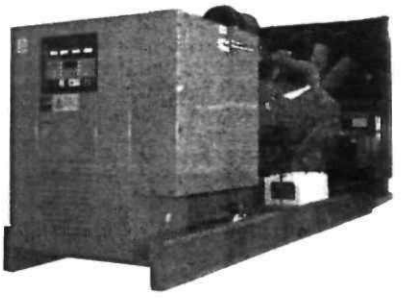
Diesel Generator set
KTA38 series engine



> Specification sheet
750kVA - 1132kVA 50Hz
1046kW - 1276kW 60Hz

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Description

This Cummins® Power Generation commercial generator set is a fully integrated power generation system, providing optimum performance, reliability, and versatility for stationary standby, prime power, and continuous duty applications.

CE	This generator set is available with CE certification.
2000/14/EC	All enclosed products are designed to meet or exceed EU noise legislation 2000/14/EC step 2006.
ISO8528	This generator set has been designed to comply with ISO8528 regulation.
ISO 9001	This generator set is designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.

Features

Cummins® Heavy-Duty Engine - Rugged 4-cycle industrial diesel delivers reliable power, low emissions and fast response to load changes.

Permanent Magnet Generator (PMG) - Offers enhanced motor starting and fault clearing short circuit capability.

Alternator - Several alternator sizes offer selectable motor starting capability with low reactance 2/3 pitch windings; low waveform distortion with non-linear loads, fault clearing short-circuits capability, and class H insulation.

Control System - Standard PowerCommand® electronic control provides total system integration including remote start/stop, precise frequency and voltage regulation, alarm and status message display, AmpSentry protection, output metering, auto-shutdown.

Cooling System - Standard integral set-mounted radiator system, designed and tested for rated ambient temperatures, simplifies facility design requirements for rejected heat.

Enclosures - Optional weather-protective and sound-attenuated enclosures are available.

Warranty and Service - Backed by a comprehensive warranty and worldwide distributor network.

	Standby Rating		Prime Rating		Emissions Compliance	Datasheet	
Model	**50Hz kVA (kW)**	**60Hz kW (kVA)**	**50Hz kVA (kW)**	**60Hz kW (kVA)**	**TA Luft - EU Stage**	**60Hz**	**50Hz**
C825 D5e	825 (660)	N/A	750 (600)	N/A	2g TA Luft	DS37-CPGK	N/A
C900 D5	900 (720)	N/A	820 (656)	N/A	2g TA Luft	DS38-CPGK	N/A
C1000 D5e	1000 (800)	N/A	910 (728)	N/A	2g TA Luft	DS39-CPGK	N/A
832 DFJC	1040 (832)	N/A	936 (748)	N/A	N/A	DS40-CPGK	N/A
906 DFJD	1132 (906)	N/A	1029 (823)	N/A	N/A	DS41-CPGK	N/A
921 DFJC	N/A	921 (1151)	N/A	837 (1046)	N/A	N/A	DS81-CPGK
1020 DFJD	N/A	1020 (1276)	N/A	928 (1160)	N/A	N/A	DS83-CPGK

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Generator Set Specifications

Governor Regulation Class	ISO8528 G2
Voltage Regulation, No Load to Full Load	± 1%
Random Voltage Variation	± 1%
Frequency Regulation	Isochronous
Random Frequency Variation	±0.25%
EMC Compatibility	BS EN 61000-6-4 / BS EN 61000-6-2

Engine Specifications

Design	4 cycle, in line, turbo Charged and after-cooled
Bore	159mm (6.25in.)
Stroke	159mm (6.25in.)
Displacement	38 liter (2300in.3)
Cylinder Block	Twelve-cylinder vee formation, direct injection, four-cycle diesel engine
Battery Capacity	890 amps at ambient temperature 32°F (0°C)
Battery Charging Alternator	55 amps
Starting Voltage	24-volt, negative ground
Fuel System	Direct injection
Fuel Filter	Dual spin on paper element fuel filters with standard water separator.
Air Cleaner Type	Dry replaceable element
Lube Oil Filter Type(s)	Spin-on paper element full flow and bypass lube oil filters.
Standard Cooling System	122°F (50°C) ambient radiator

Alternator Specifications

Design	Brushless, 4 pole, drip proof revolving field
Stator	*2/3 pitch*
Rotor	Direct coupled by flexible disc
Insulation System	Class H
Standard Temperature Rise	150°C Standby
Exciter Type	PMG (Permanent Magnet Generator)
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<3%

Available Voltages

50Hz Line – Neutral / Line – Line		**60Hz Line – Neutral / Line – Line**		
• 110/190	• 220/380	• 110/190	• 139/240	• 255/440
• 115/200	• 230/400	• 115/200	• 220/380	• 277/480
• 120/208	• 240/416	• 120/208	• 230/380	• 347/600
• 127/220	• 255/440	• 127/220	• 240/416	

Generator Set Options

Engine
- Heavy Duty air filter
- Water jacket heater 220/240 v

Cooling
- Antifreeze 50/50 (Ethylene glycol)

Enclosure
- High-Cube 40ft Container

Alternator
- Alternator heater

Control Panel
- 3 pole Main Circuit Breaker
- 4 pole Main Circuit Breaker

Warranty
- 5 years for Standby application
- 2 years for Prime application

Silencer
- 9 dB attenuation critical silencer
- 25 dB residential - delivered loose

*Note: Some options may not be available on all models – consult factory for availability.

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Control System - PCC3100

The PowerCommand® 3100 Control is a microprocessor-based generator set monitoring, and control system. The control provides an operator interface to the genset, digital voltage regulation, digital governing and generator set protective functions.

The PowerCommand® 3100 generator set control is suitable for use on a wide range of generator sets in nonparalleling and paralleling applications.

The PowerCommand® Control can be configured for any frequency, voltage and power connection configuration from 120 to13,800 VAC for for 50Hz or 60Hz operation.

Power for the control is derived from the generator set starting batteries. The control functions over a voltage range from 8VDC to 35VDC.

Major Features

- Digital Governing and Voltage Regulation, including digital overcurrent fault regulation.
- Digital Voltage Regulation with 3-phase sensing.
- AmpSentry™ Protection for true alternator overcurrent protection.
- Analog and Digital AC Output Metering.
- Battery Monitoring System to sense and warn against a weak battery condition.
- Digital Alarm and Status Message Display.
- Generator set Monitoring: Displays status of all critical engine and alternator generator set functions.
- Smart Starting Control System: Integrated fuel ramping to limit black smoke and frequency overshoot.
- Advanced Serviceability using InPower™, a PC-based software service tool.

Control System

Includes all functions to locally or remotely start and stop, and protect the generator set.

Control Switch - RUN/OFF/AUTO

OFF Mode - the generator set is shut down and cannot be started

RUN mode the generator set will execute its start sequence

AUTO mode, the generator set can be started with a start signal from a remote device

LED Indicating Lamps – includes LED indicating lamps for the following functions:

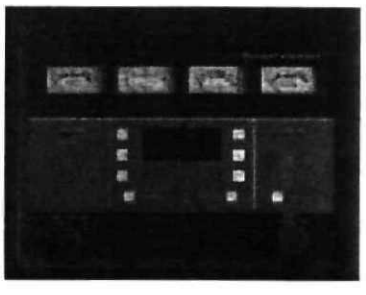
Not-in-auto mode
Common wiring
Shutdown
Phase and scale indication
Fault reset switch. Allows the opperator to reset the control after warning or shutdown
Emergency stop switch - imediately shuts down the generator set operation

Base Engine Protection

Overspeed shutdown
Low Oil Pressure Warning / Shutdown
High Engine Temperature Warning / Shutdown
Underspeed / Sensor Fail Shutdown
Fail to Start / Fail to Crank
Low / high battery voltage

Options

Integrated PowerCommand Digital Paralleling Controls
Key Type Mode Selector Switch
Exhaust Temperature Monitoring
PowerCommand Network
Refer to the PowerCommand Controls Technical Bulletin (S1025C-Non-Paralleling / S1005c-Paralleling)



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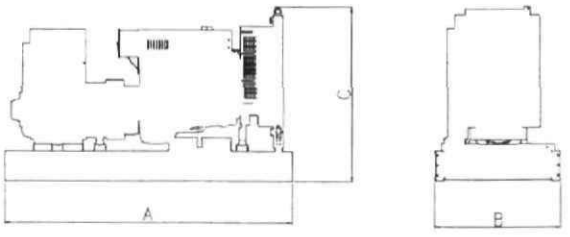
Ratings Definitions

Emergency Standby Power (ESP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Limited-Time running Power (LTP):
Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.

Prime Power (PRP):
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Base Load (Continuous) Power (COP):
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.



This outline drawing is to provide representative configuration details for Model series only.

See respective model data sheet for specific model outline drawing number.

Do not use for installation design.

Model	Dim "A" mm	Dim "B" mm	Dim "C" mm	Set weight* dry kg	Set weight* wet kg
C825 D5e	4375	2033	2856	7362	7752
C900 D5	4375	2033	2856	7512	7902
C1000 D5e	4375	2033	2856	7512	7902
832 DFJC	4375	1785	2229	7667	8054
906 DFJD	4470	1785	2229	7960	8350
921 DFJC	4470	1785	2229	7667	8057
1020 DFJD	4470	1785	2229	7960	8350

*Note: Weights represent a set with standard features. See outline drawings for weights of other configurations.

Cummins Power Generation

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