Generator set data sheet

Model: C220 D5e
Frequency: 50 Hz
Fuel type: Diesel

Fuel consumption

	Standby				Prime			
	kVA (kWe)				kVA (kWe)			
Ratings	220 (176)				200 (160)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	3.6	6.4	8.7	10.7	3.3	6.0	8.1	10.0
L/hr	16.4	29.3	39.4	48.8	15.2	27.5	36.8	45.6

Engine

	Standby rating	Prime rating
Engine manufacturer	Tata Cummins Limited (JV)	
Engine model	QSB7-G5	
Configuration	4 cycle; in-line; 6 cylinder diesel	
Aspiration	Turbocharged and change air-cooled	
Gross engine power output, kWm	213	182
BMEP at set rated load, kPa	2537	2172
Bore, mm	107	
Stroke, mm	124	
Rated speed, rpm	1500	
Piston speed, m/s	6.2	
Compression ratio	17.2:1	
Lube oil capacity, L	19	
Overspeed limit, rpm	1800 ± 50	
Regenerative power, kW	14	
Governor type	Electronic	
Starting voltage	12 Volts DC	

Fuel flow

Maximum fuel flow, L/hr	106
Maximum fuel inlet restriction, mm Hg	254
Maximum fuel inlet temperature, °C	71

Air	Standby rating	Prime rating
Combustion air, m^3/min	12.72	12.30
Maximum air cleaner restriction, kPa	6.2	

Exhaust

Exhaust gas flow at set rated load, m^3/min	35.8	34.1
Exhaust gas temperature, °C	561	544
Maximum exhaust back pressure, kPa	10.2	

Standard set-mounted radiator cooling

Ambient design, °C – Open Genset @ 12.7 mm H2O	50	
Fan load, kW_m	6.8	
Coolant capacity (with radiator), L	30.2	
Cooling system air flow, m^3/sec @ 12.7 mm H_2O	5.91	
Total heat rejection, Btu/min	6516	5825
Maximum cooling air flow static restriction, mm H_2O	8.12	

Weights*	Open	Enclosed
Unit dry weight, kgs	2070	2984 / 2734**
Unit wet weight, kgs	2117	3031 / 2781**

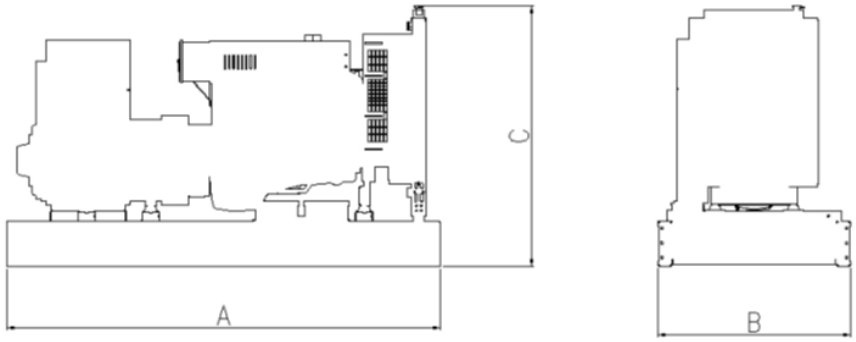
* Note: Weights represent a set with standard features. See outline drawing for weights of other configurations.
**Note: Weights are for Chassis lifting arrangement option

Dimensions	Length	Width	Height
Standard open set dimensions, mm	2656	1130	1822
Enclosed set standard dimensions, mm	4209 / 3690**	1130 / 1130**	2227 / 2100**

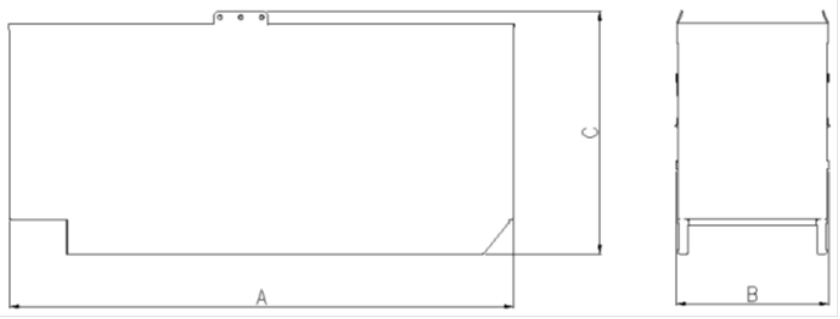
**Note: Dimensions are for Chassis lifting arrangement option

Genset outline

Open set



Enclosed set



Outlines are for illustrative purposes only. Please refer to the genset outline drawing for an exact representation of this model.

Alternator data

Connection	Temp rise ºC	Duty	Alternator	Voltage
Wye, 3-phase	163/125	S/P	UCI274H	380-415 V
Wye, 3-phase	125/105	S/P	UCI274J	380-440 V

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time running Power (LTP):	Prime Power (PRP):	Base load (Continuous) Power (COP):
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 and DIN 6271.	Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.	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 and DIN 6271.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789 and DIN 6271.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

For more information contact your local Cummins distributor or visit power.cummins.com

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DS331-CPGK (09/20)