

## Generator set data sheet



**Model:** C220 D5  
**Frequency:** 50  
**Fuel type:** Diesel

<b>Spec sheet:</b>	
<b>Noise data sheet (Open/enclosed):</b>	
<b>Airflow data sheet:</b>	
<b>Derate data sheet (Open/enclosed):</b>	
<b>Transient data sheet:</b>	

<b>Fuel consumption</b>	<b>Standby kVA (kW)</b>				<b>Prime kVA (kW)</b>			
	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>
<b>Ratings</b>	220 (176)				200 (160)			
<b>Load</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>
<b>g/kW h</b>	N/A	N/A	N/A	203	229	206	202	203
<b>L/hr</b>	N/A	N/A	N/A	50	13	23	34	45

<b>Engine</b>	<b>Standby Rating</b>	<b>Prime Rating</b>
Engine manufacturer	Cummins	
Engine model	6CTAA8.3-G7	
Configuration	4 cycle; in-line 6 cylinder diesel	
Aspiration	Turbocharged and charge air cooled	
Gross engine power output, kWm	203	183
BMEP at set rated load, kPa	2225.5	N/A
Bore, mm	114	
Stroke, mm	135	
Rated speed, rpm	1500	
Piston speed, m/s	6.8	
Compression ratio	16.7:1	
Lube oil capacity, L	24	
Overspeed limit, rpm	1725	
Regenerative power, kW	17	
Governor type	Electronic	
Starting voltage	24 Volts DC	

<b>Fuel flow</b>	
Maximum fuel flow, L/hr	208
Maximum fuel inlet restriction, mm Hg	122
Maximum fuel inlet temperature (°C)	70

<b>Air</b>	<b>Standby Rating</b>	<b>Prime Rating</b>
Combustion air, m <sup>3</sup> /min	12.5	11.6
Maximum air cleaner restriction, kPa	3.7	

## Exhaust

Exhaust gas flow at set rated load, m <sup>3</sup> /min	32.2	29.3
Exhaust gas temperature, °C	493	480
Maximum exhaust back pressure, kPa	6.7	

## Standard set-mounted radiator cooling

Ambient design, °C	50	
Fan load, kW <sub>m</sub>	9	
Coolant capacity (with radiator), L	12.3	
Cooling system air flow, m <sup>3</sup> /sec @ 12.7 mmH <sub>2</sub> O	4.27	
Total heat rejection, Btu/min	6084	N/A
Maximum cooling air flow static restriction mm H <sub>2</sub> O	18.3	

## Weights\*

	<b>Open</b>	<b>Enclosed</b>
Unit dry weight kgs	2500	4200
Unit wet weight kgs	2907	4607

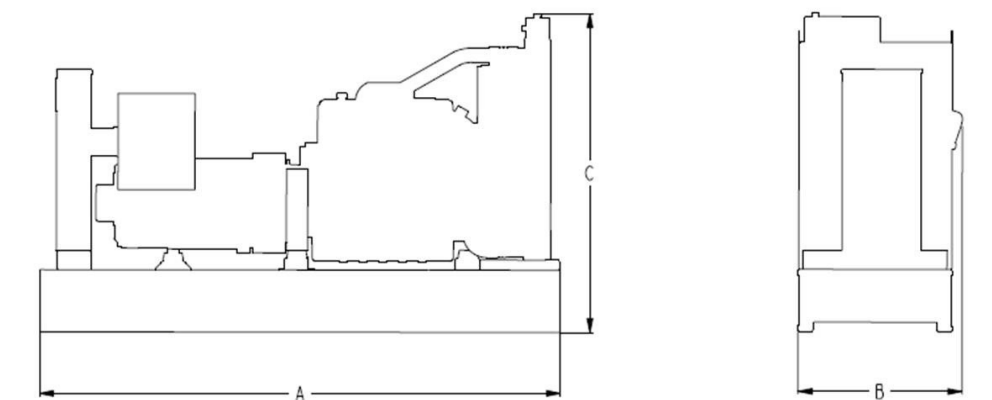
\* Weights represent a set with standard features. See outline drawing for weights of other configurations.

## Dimensions

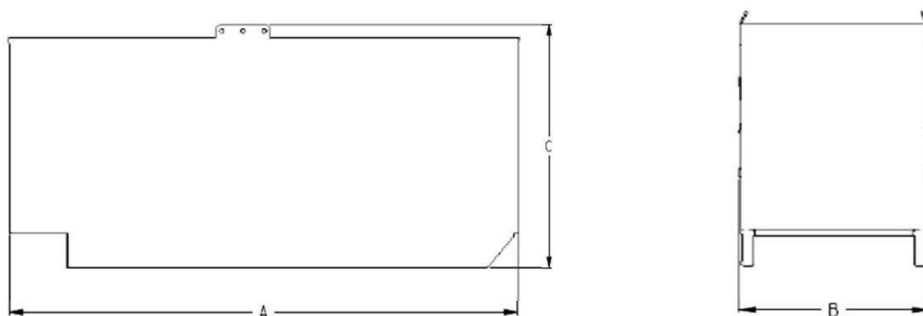
	<b>Length (A)</b>	<b>Width (B)</b>	<b>Height (C)</b>
Standard open set dimensions mm	2746	1100	1646
Enclosed set standard dimensions mm	3670	1100	2045

## 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 <sup>1</sup>	Temp rise °C	Duty <sup>2</sup>	Alternator	Voltage
Wye, 3-phase	150/40	S/P	UC274H	380-415V

## 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, DIN 6271 and BS 5514.	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, DIN 6271 and BS 5514.	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, DIN 6271 and BS 5514.

## 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

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

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