

Model: C220 D5  
 Frequency: 50Hz  
 Fuel Type: Diesel

## » Generator set data sheet

### 220 kVA Standby



Spec sheet:	SS7-CPGK
Noise data sheet (Open/enclosed):	ND50-OS550 / ND50-CS550
Airflow data sheet:	AF50-550
Derate data sheet (Open/enclosed):	DD50-OS550 / DD50-CS550
Transient data sheet:	TD50-550

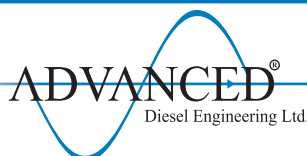
Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	220 (176)				200 (160)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	2.9	5.3	8.1	11.0	2.6	5.1	7.5	9.9
L/hr	13	24	37	50	12	23	34	45

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	6CTAA8.3G1	
Configuration	4 Cycle; In-line; 6 Cylinder Diesel	
Aspiration	Turbo Charged and Charge Air Cooled	
Gross engine power output, kWm	237	213
BMEP at set rated load, kPa	1966	1768
Bore, mm	114	
Stroke, mm	135	
Rated speed, rpm	1500	
Piston speed, m/s	6.8	
Compression ratio	16.8:1	
Lube oil capacity, L	18.9	
Overspeed limit, rpm	1800 ±50	
Regenerative power, kW	17	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	208
Maximum fuel inlet restriction, mm Hg	102
Maximum fuel inlet temperature (°C)	60

Air	
Combustion air, m <sup>3</sup> /min	13.2
Maximum air cleaner restriction, kPa	6.2

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<b>Exhaust</b>	<b>Standby rating</b>	<b>Prime rating</b>
Exhaust gas flow at set rated load, m <sup>3</sup> /min	35.6	31.9
Exhaust gas temperature, °C	571	553
Maximum exhaust back pressure, kPa	10.2	

<b>Standard set-mounted radiator cooling</b>		
Ambient design, °C	50	
Fan load, KW <sub>m</sub>	9	
Coolant capacity (with radiator), L	12	
Cooling system air flow, m <sup>3</sup> /min @ 12.7mmH <sub>2</sub> O	5.85	
Total heat rejection, BTU/min	6005	5380
Maximum cooling air flow static restriction mmH <sub>2</sub> O	19.1	

## Open set derating factors kVA (kW)

Note: Standard open genset options running at 400V, 150m above sea level. For enclosed product derates, please refer to datasheet - DD50-CS550.

	<b>27°C</b>	<b>40°C</b>	<b>45°C</b>	<b>50°C</b>	<b>55°C</b>
<b>Standby</b>	220 (176)	208.3 (166.6)	190.6 (152.5)	173 (138.4)	155.3 (124.2)
<b>Prime</b>	200 (160)	186.9 (149.5)	170.6 (136.5)	154.4 (123.5)	138.3 (110.6)

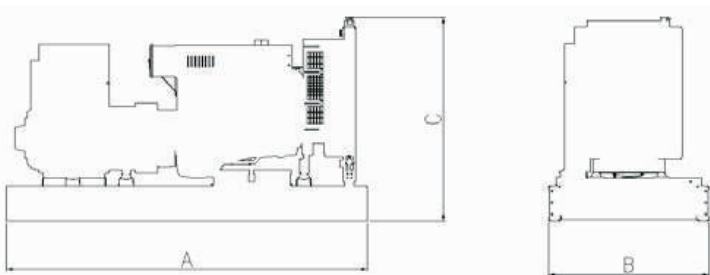
<b>Weights*</b>	<b>Open</b>	<b>Enclosed</b>
Unit dry weight kgs	1840	2540
Unit wet weight kgs	1900	3494

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

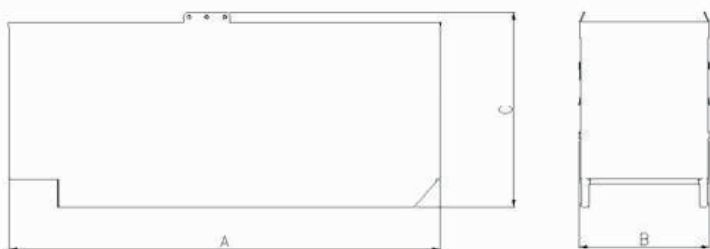
<b>Dimensions</b>	<b>Length</b>	<b>Width</b>	<b>Height</b>
Standard open set dimensions	2686	1300	1547
Enclosed set standard dimensions	3581	1360	2170

## 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.

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## Alternator data

Feature code	Connection <sup>1</sup>	Temp rise degrees C	Duty <sup>2</sup>	Alternator	Voltage
B681	Wye, 3 Phase	163/125	S/P	UC274H	380-415V

## Ratings definitions

Emergency Standby Power (ESP)	Limited-Time running Power	Prime Power (PRP):	Base Load (Continuous) Power
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) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

## Formulas for calculating full load currents:

Three phase output

Single phase output

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

$$\frac{\text{kW} \times \text{SingleP} \text{ haseFactor} \times 1000}{\text{Voltage}}$$

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