



## Generator set data sheet

**Model:** C450D5  
**Frequency:** 50 Hz  
**Fuel type:** Diesel

<b>Spec sheet:</b>	SS11-CPGK
<b>Noise data sheet (open):</b>	ND50-OS550/ND50-CS550
<b>Airflow data sheet:</b>	AF50-550
<b>Derate data sheet (open):</b>	DD50-OS550/DD50-CS550
<b>Transient data sheet:</b>	TD50-550

<b>Fuel consumption</b>	<b>Standby</b>				<b>Prime</b>			
	<b>kVA (kW)</b>				<b>kVA (kW)</b>			
<b>Ratings</b>	450(360)				410(328)			
<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>US gph</b>	6.3	11.9	17.7	24.2	5.7	10.8	15.9	21.5
<b>L/hr</b>	23.8	45	66.9	92	22	41	60	82

<b>Engine</b>	<b>Standby rating</b>	<b>Prime rating</b>
Engine manufacturer	Cummins	
Engine model	QSG12-G2	
Configuration	Cast iron, 6 cylinder	
Aspiration	Turbocharged and after cooled	
Gross engine power output, kWm	409	371
BMEP at set rated load, kPa	2772	2517
Bore, mm	132	
Stroke, mm	144	
Rated speed, rpm	1500	
Piston speed, m/s	7.2	
Compression ratio	17:1	
Lube oil capacity, L	34.1	
Overspeed limit, rpm	1725	
Regenerative power, kW	56	
Governor type	Electronic	
Starting voltage	24V Volts DC	

<b>Fuel flow</b>	
Maximum fuel flow, L/hr	182
Maximum fuel inlet restriction, mm Hg (clean filter)	304.8
Maximum fuel inlet temperature, °C	71

<b>Air</b>	<b>Standby rating</b>	<b>Prime rating</b>
Combustion air, L/sec	424	387
Maximum air cleaner restriction, kPa	6.2 (Dirty HD AC)	

<b>Exhaust</b>		
Exhaust gas flow at set rated load, L/sec	1029	936
Exhaust gas temperature, °C	524	507
Maximum exhaust back pressure, kPa	10.2	

## Standard set-mounted radiator cooling

Ambient design, °C	50	
Fan load, kWm	14.08	
Coolant capacity (with radiator), L	48	
Cooling system air flow, m3/sec @ 12.7 mmH2O	7.15	
Total heat rejection, kW	214	191
Maximum cooling air flow static restriction kPa	0.125	

### Weights\*

	Open	Enclosed
Unit dry weight kgs	3116	4436
Unit wet weight kgs	3799	5166

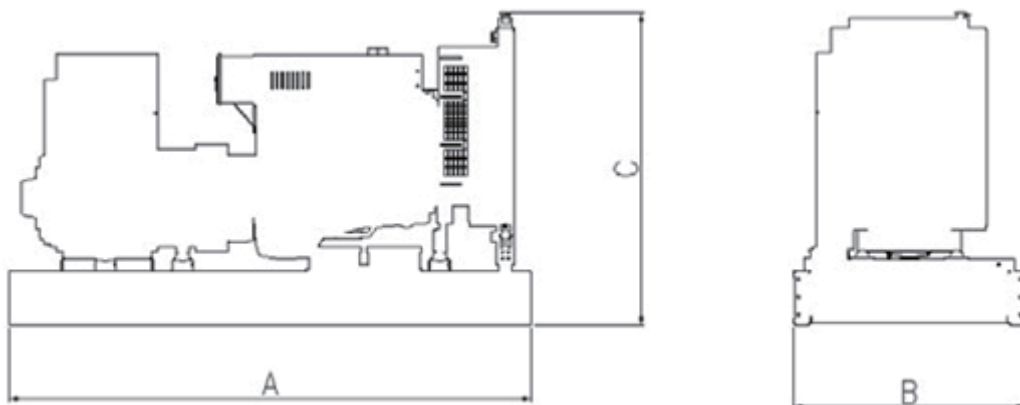
\* Weights represent a set with standard features. See outline drawing for weights of other configurations.

### Dimensions

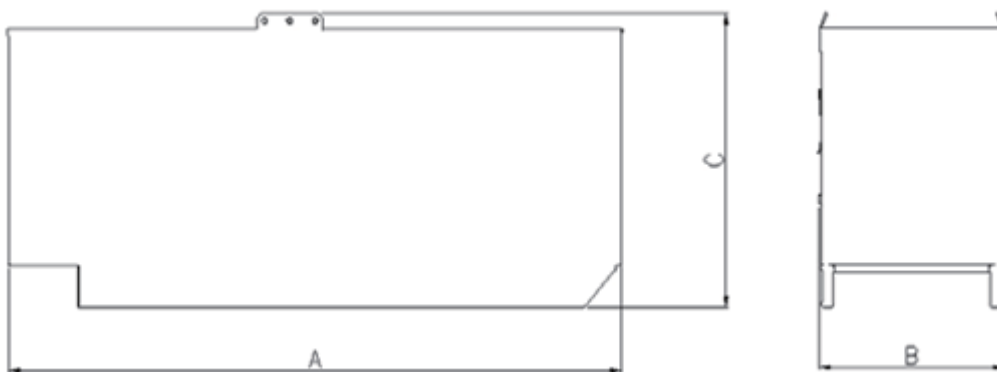
	Length	Width	Height
Standard open set dimensions mm	3686	1100	2180
Enclosed set standard dimensions mm	5093	1564	2375

## 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 °C	Duty	Alternator	Voltage
Wye, 3-phase	150/125 C	S/P	S4G	190-220V and 380-440V

## 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

$$\frac{\text{kW} \times \text{Single Phase Factor} \times 1000}{\text{Voltage}}$$

### See your distributor for more information.

Cummins Power Generation China

No. 118, South Quanli Road

Wuhan Economic & Technological Development Zone,

Hubei, China (430058)

Tel: 86(27) 8421 4800

Fax: 86(27) 8421 4804

Email: EastAsia.cumminsPower@cummins.com

Web: power.cummins.com

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