

Generator set data sheet



Model: C250 D5e
Frequency: 50 Hz
Fuel type: Diesel

Fuel consumption	Standby				Prime			
	kVA (kWe)				kVA (kWe)			
Ratings	250 (200)				230 (184)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	4.8	8.5	12.1	15.6	4.5	7.9	11.1	14.5
L/hr	18	32	46	59	17	30	42	55

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	QSL9-G7	
Configuration	4 cycle; in-line; 6 cylinder diesel	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm	300	271
BMEP at set rated load, kPa	2710	2448
Bore, mm	114	
Stroke, mm	145	
Rated speed, rpm	1500	
Piston speed, m/s	7.2	
Compression ratio	16.1:1	
Lube oil capacity, L	26.5	
Overspeed limit, rpm	1800 ± 50	
Regenerative power, kW	26	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	159
Maximum fuel inlet restriction, mm Hg	254
Maximum fuel inlet temperature, °C	71

Air	Standby rating	Prime rating
Combustion air, m ³ /min	20.67	20.47
Maximum air cleaner restriction, kPa	6.2	

Exhaust

Exhaust gas flow at set rated load, m ³ /min	54.1	52.69
Exhaust gas temperature, °C	522	509
Maximum exhaust back pressure, kPa	10	

Standard set-mounted radiator cooling

Ambient design, °C	45	
Fan load, kW _m	10	
Coolant capacity (with radiator), L	40	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	7.93	
Total heat rejection, Btu/min	12936	12155
Maximum cooling air flow static restriction, mm H ₂ O	19.1	

Weights*

	Open	Enclosed
Unit dry weight, kgs	2129	4125
Unit wet weight, kgs	2181	4177

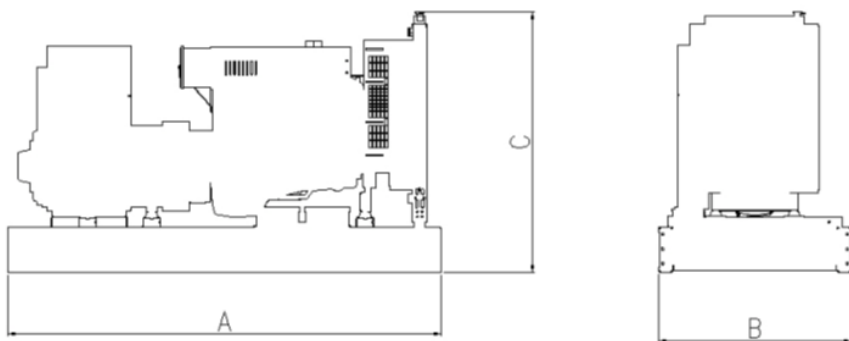
* Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions

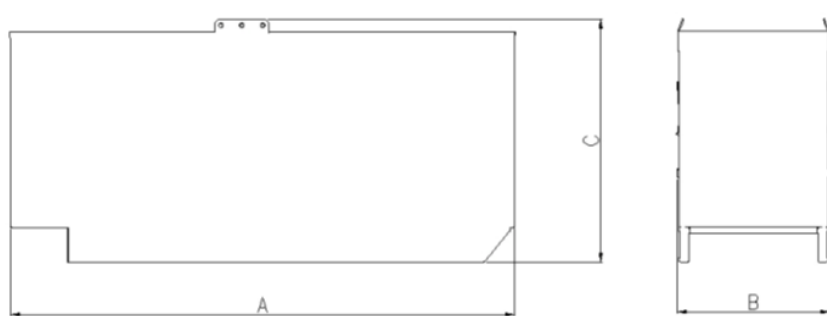
	Length	Width	Height
Standard open set dimensions, mm	3135	1100	2018
Enclosed set standard dimensions, mm	4259	1424	2349

Genset outline

Open set



Enclosed set



Alternator data

Connection	Temp rise °C	Duty	Alternator	Voltage
Wye, 3-phase	163/125	S/P	UCD274K	190-208 and 380-416 V
Wye, 3-phase	125/105	S/P	HC4D	190-208 and 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, 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

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