

Model: C90 D5
 Frequency: 50
 Fuel Type: Diesel

» Generator set data sheet

90 kVA Standby



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Fuel consumption	Standby				Prime			
	kW (kVA)				kW (kVA)			
Ratings	72 (90)				64 (80)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	1.6	3.2	4.8	6.3	1.6	2.9	4.2	5.8
L/hr	6	12	18	24	6	11	16	22

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	4BTA3.9G4	
Configuration	4 Cycle; In-line; 4 Cylinder Diesel	
Aspiration	Turbo Charged and Aftercooled	
Gross engine power output, kWm	97	87
BMEP at set rated load, kPa	1652	1485
Bore, mm	102	
Stroke, mm	120	
Rated speed, rpm	1500	
Piston speed, m/s	6	
Compression ratio	16.5:1	
Lube oil capacity, L	9.5	
Overspeed limit, rpm	1800±50	
Regenerative power, kWm	8.2	
Governor type	Electronic	
Starting voltage	12 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	30
Maximum fuel inlet restriction, mm Hg	102
Maximum fuel inlet temperature (°C)	60

Air	
Combustion air, m ³ /min	6
Maximum air cleaner restriction, mm H ₂ O	635

Exhaust	Standby rating	Prime rating
Exhaust gas flow at set rated load, m ³ /min	16.4	14.8
Exhaust gas temperature, °C	585	565
Maximum exhaust back pressure, mmHg	76	

Standard set-mounted radiator cooling		
Ambient design, °C	40	
Fan load, KW _m	2	
Coolant capacity (with radiator), L	21	
Cooling system air flow, m ³ /min @ 12.7mmH ₂ O	120	
Total heat rejection, BTU/min	2735	2360
Maximum cooling air flow static restriction mmH ₂ O	12.7	

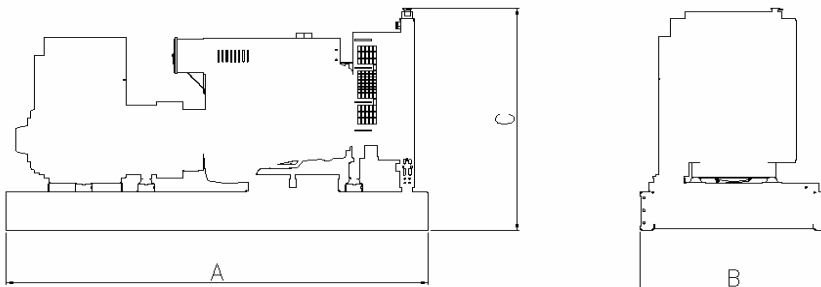
Weights*	Open	Enclosed
Unit dry weight kgs	1165	1770
Unit wet weight kgs	1380	1985

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

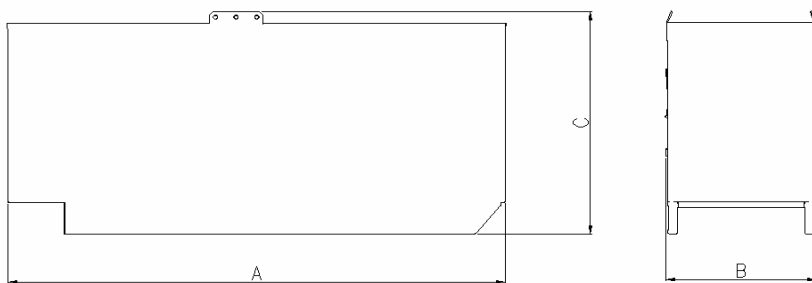
Dimensions	Length "A"	Width "B"	Height "C"
Standard open set dimensions, mm	1920	1050	1438
Enclosed set standard dimensions, mm	2710	1060	1853

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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APSB-1154-07 (9/07)



Alternator data

Feature code	Connection ¹	Temp rise degrees C	Duty ²	Alternator	Voltage
-	Wye, 3 Phase	163/125C	S/P	UC224G	380-415V

Ratings definitions

Standby:	Limited Time Running:	Prime (unlimited running time):	Base Load (Continuous):
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 is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power 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 in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

Notes:

- Limited single phase capability is available from some three phase rated configurations. To obtain single phase rating, multiply the three phase kW rating by the single phase factor. All single phase ratings are at unity power factor.
- Standby (S) and Prime (P) ratings.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.732 \times 0.8}$$

Single phase output

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

See your distributor for more information.

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