

Model: C500 D5
 Frequency: 50
 Fuel Type: Diesel

» Generator set data sheet
 500 kVA Standby



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Spec sheet:	SS10-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	500 (400)				450 (360)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	6.5	11.7	17.9	24.4	6.0	10.9	15.7	20.6
L/hr	30	53	81	111	28	50	72	94

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	QSX15 G8	
Configuration	4 Cycle; In-Line; 6 Cylinder Diesel	
Aspiration	Turbo Charged and Charge Air Cooled	
Gross engine power output, kW/m	500	444
BMEP at set rated load, kPa	2675	2371
Bore, mm	137	
Stroke, mm	169	
Rated speed, rpm	1500	
Piston speed, m/s	8.4	
Compression ratio	17:1	
Lube oil capacity, L	91	
Overspeed limit, rpm	1800 ±50	
Regenerative power, kW	37	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	424
Maximum fuel inlet restriction, mm Hg	127
Maximum fuel inlet temperature (°C)	71

Air		
Combustion air, m³/min	36.27	32.5
Maximum air cleaner restriction, kPa	6.2	



Exhaust	Standby rating	Prime rating
Exhaust gas flow at set rated load, m ³ /min	82.2	75.4
Exhaust gas temperature, °C	515	418
Maximum exhaust back pressure, kPa	10.2	

Standard set-mounted radiator cooling		
Ambient design, °C	50	
Fan load, KW _m	16	
Coolant capacity (with radiator), L	42	
Cooling system air flow, m ³ /min @ 12.7mmH ₂ O	11.3	
Total heat rejection, BTU/min	16700	13700
Maximum cooling air flow static restriction mmH ₂ 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.

	27°C	40°C	45°C	50°C	55°C
Standby	500 (400)	500 (400)	496.6 (397.3)	481.3 (385)	465.9 (372.7)
Prime	450 (360)	450 (360)	450 (360)	437.5 (350)	423.6 (338.9)

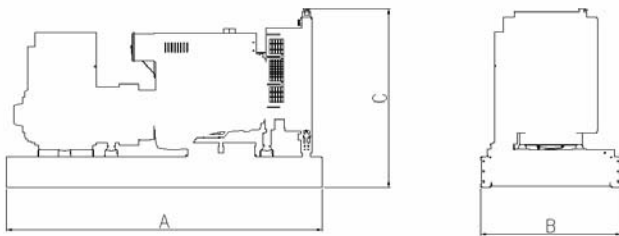
Weights*	Open	Enclosed
Unit dry weight kgs	4117	5577
Unit wet weight kgs	4022	6406

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

Dimensions	Length	Width	Height
Standard open set dimensions	3433	1500	2065
Enclosed set standard dimensions	5110	1563	2447

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

Feature code	Connection ¹	Temp rise degrees C	Duty ²	Alternator	Voltage
B324	Wye, 3 Phase	125/105C	S/P	HC5D	380-440V
B740	Wye, 3 Phase	150/125C	S/P		400V

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

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

Single phase output

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

See your distributor for more information.

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