



» Generator set data sheet

Model: C2500 D5A
Frequency: 50
Fuel Type: Diesel

Spec sheet:	SS17-CPGK
Noise data sheet (Open/enclosed):	ND50-OSHHP/ND50-CSHHP
Airflow data sheet:	AF50-HHP
Derate data sheet (Open/enclosed):	DD50-OSHHP/DD50-CSHHP
Transient data sheet:	RTF

Fuel consumption	Standby				Data Center Continuous			
	kVA (kW)				kVA (kW)			
Ratings	2500 (2000)				2250 (1800)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	30.8	55.4	80.9	109.9	29.2	51.0	73.8	98.0
L/hr	140.00	252.00	368.00	500.00	133.00	232.00	336.00	446.00

Engine	Standby rating	Data Center Continuous
Engine manufacturer	Cummins	
Engine model	QSK60-G8	
Configuration	Cast Iron, 60° V16 Cylinder	
Aspiration	Turbo Charged and Low Temperature After-Cooled	
Gross engine power output, kWm	2145	1942
BMEP at set rated load, kPa	2848	2575
Bore, mm	159	
Stroke, mm	190	
Rated speed, rpm	1500	
Piston speed, m/s	9.5	
Compression ratio	14.5:1	
Lube oil capacity, L	176	
Overspeed limit, rpm	1850 ±50	
Regenerative power, kW	146	
Governor type	Electronic	
Starting voltage	24V Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	1515
Maximum fuel inlet restriction, mm Hg	203
Maximum fuel inlet temperature (°C)	70

Air	Standby rating	Data Center Continuous
Combustion air, m ³ /min	156.00	145.20
Maximum air cleaner restriction, kPa	6.2	

Exhaust		
Exhaust gas flow at set rated load, m ³ /min	379	344.1
Exhaust gas temperature, °C	485	460
Maximum exhaust back pressure, kPa	6.7	

Standard set-mounted radiator cooling		
Ambient design, °C	40	
Fan load, KW _m	38	
Coolant capacity (with radiator), L	492	
Cooling system air flow, m ³ /sec @ 12.7mmH ₂ O	31	
Total heat rejection, BTU/min	66000	56100
Maximum cooling air flow static restriction mmH ₂ O	0.12	

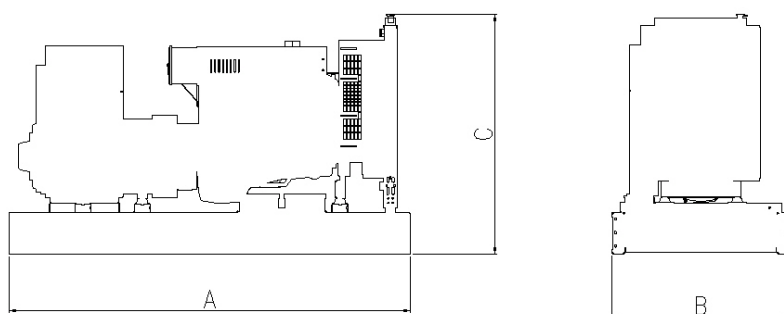
Weights*	Open	Enclosed
Unit dry weight kgs	16690	N/A
Unit wet weight kgs	17217	N/A

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

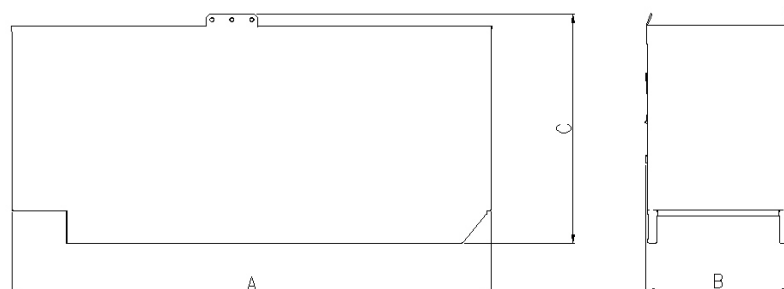
Dimensions	Length	Width	Height
Standard open set dimensions	6175.1	2494	3115.7
Enclosed set standard dimensions	N/A	N/A	N/A

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 ¹	Temp rise °C	Duty ²	Alternator	Voltage
Wye, 3 Phase	120/105C	S/P	HVSI804S1	11000V
Wye, 3 Phase	150/105C	S/P/C	LVSI804S1	380-440V
Wye, 3 Phase	150/105C	S/P/C	MVSI804R1	1905/3300V
Wye, 3 Phase	125/80C	S/P/C	HVSI804S1	3810/6600V

Ratings definitions

Emergency Standby Power (ESP)	Limited-Time running Power (LTP):	Prime Power (PRP)	Data Center 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 back-up power for data center applications evaluated at specific site conditions. This rating is based on load profiles and performance requirements consistent with the data center industry. This rating is site specific and changes in application type or location would require further consideration.

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.

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