

Generator set data sheet



Model: C2500D5A-PB
Frequency: 50Hz
Fuel type: Diesel

Spec sheet:	EA_T_CC_21_EN
Sound data sheet	MSP-4112
Cooling data sheet:	MCP-2133
Prototype test summary data sheet	PTS-705

Fuel consumption*	Standby				Prime			
	kVA(kWe)				kVA(kWe)			
Ratings	2500(2000)				2250(1800)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	36.9	66.6	97.0	131.8	35.1	61.3	88.8	117.8
L/h	140	252	367	499	133	232	336	446

* Fuel consumption exclude accessory Genset.

Engine	Standby	Prime
Engine manufacturer	Cummins	
Engine model	QSK60-G8	
Configuration	4-Cycle; 60° Vee; 16-Cylinder	
Aspiration	Turbocharged and Low TemperatureAftercooled	
Fuel system	Cummins HPI-PT	
Gross engine power output, kWm (bhp)	2145(2875)	1943(2604)
BMEP at set rated load, kPa (psi)	2848(413)	2579(374)
Bore, mm (in.)	159(6.25)	
Stroke, mm (in.)	190(7.48)	
Displacement, litre (in ³)	60.2(3672)	
Rated speed, rpm	1500	
Piston speed, m/s (ft/min)	9.5(1869)	
Compression ratio	14.5:1	
Lube oil capacity, L (US gal)	280(74)	
Overspeed limit, rpm	1725	
Regenerative power, kWm(HP)	146(196)	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr (US gph)	1514(400)
Maximum fuel inlet restriction, mmHg (in Hg))	203(8)
Maximum fuel inlet temperature, °C (°F)	71(160)
Maximum Allowable Head on Injector Return Line, kPa (in Hg)	30.5(9)

Air	Standby	Prime
Combustion air, CFM (m ³ /min)	5510(156)	5156(146)
Maximum air cleaner restriction, kPa (in H ₂ O)	3.7-6.2(15-25)	

Exhaust system

Exhaust flow at set rated load, CFM (m ³ /min)	13863(392.58)	12695(359.52)
Exhaust temperature, °C (°F)	500(932)	477.78(892)
Heat to Exhaust, Btu/min (kWm)	95368 (1677)	84802 (1492)
Maximum back pressure, kPa (in H ₂ O)	6.8(27.31)	

Cooling system

Ambient design, °C (°F)	50(122)
Fan load ¹ , kWe (HP)	18(24)
Coolant capacity (with radiator), L (US gal)	615(162)
Cooling system air flow, m ³ /s (scfm)	28(59964)
Cooling System heat rejection ² , MJ/min (Btu/min)	68.61(65031)

¹The max electrical power consumed by the fan

²Cooling system heat rejection includes jacket water circuit, aftercooler circuit and fule circuit

Ventilation system

Fan load ¹ , kWe (HP)	8(11)
Total heat radiated ² , MJ/min (Btu/min)	17.73(16800)
Ventilation Air Flow, m ³ /s	12.4

¹The electrical power consumed by the fan

²Total heat radiated includes engine radiated heat to ambient and alternator radiated heat to ambient,exclude exhaust radiated heat to ambient

Weights

Unit dry weight, kgs	31612
Unit wet weight, kgs	32046

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

Dimensions

Dimensions	Length(A)	Width(B)	Height(C)
Containerized Genset dimensions,mm	12192	2438	2896

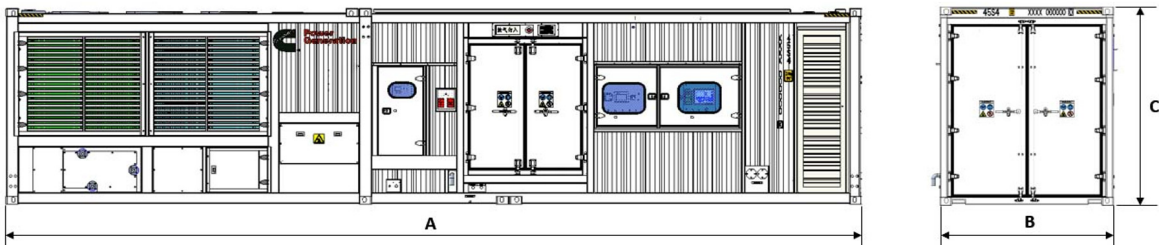
Sound data*

Containerized set sound power level , dB(A) @ 100% Standby	106.4
Containerized set sound pressure level , dB(A) @ 100% Standby, 1m	83.3

*With VFD fan 40Hz.

Genset outline

Containerized Genset



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*	Winding No.	Alternator	Voltage
Wye, 3Phase	150/125	S/P	983	S9H1D-D41	10500V, 11000V
Wye, 3Phase	150/125	S/P	83	S9H1D-C41	10500V, 11000V
Wye, 3Phase	150/125	S/P	312	S7L1D-J41	380-415V

* Standby (S), Prime (P).

Ratings definitions

Emergency Standby Power (ESP):	Prime Power (PRP):
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 3046-1, obtained and corrected in accordance with ISO 15550.	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 ISO8528,ISO 3046-1 and corrected in accordance with ISO15550.

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

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

For more information contact your local Cummins distributor

