

## Generator set data sheet



**Model:** C2250D5E  
**Frequency:** 50Hz  
**Fuel type:** Diesel  
**kVA Rating:** 2250kVA Standby  
 2000kVA Prime  
**Emissions level:** U.S.EPA T2/China NRMM III

Spec sheet:	EA_T_CC_27_EN
Emission data sheet:	EDS-3115
Emission compliance sheet:	EPA-2083
Sound data sheet	MSP-4174
Cooling data sheet:	MCP-2233
Prototype test summary data sheet	PTS-758

Fuel consumption	Standby				Prime			
	kVA(kW)				kVA(kW)			
Ratings	2250(1800)				2000(1600)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	38.0	64.5	91.1	118.4	35.4	59.2	83.2	107.3
L/h	144	244	345	448	134	224	315	406

Engine	Standby	Prime
Engine manufacturer	Cummins	
Engine model	QSK50-G17	
Configuration	4-Cycle; Vee; 16-Cylinder	
Aspiration	Turbocharged and Charge Air Cooled	
Fuel system	Cummins XPI YZ	
Gross engine power output, kWm (bhp)	1972(2645)	1783(2392)
BMEP at set rated load, kPa (psi)	3137(455)	2837(411)
Bore, mm (in.)	159(6.26)	
Stroke, mm (in.)	159(6.26)	
Displacement, litre (in <sup>3</sup> )	50.3(3069)	
Rated speed, rpm	1500	
Piston speed, m/s (ft/min)	7.95(1565)	
Compression ratio	14.2	
Lube oil capacity, L (US gal)	181(48)	
Overspeed limit, rpm	1725	
Regenerative power, kWm(HP)	115(155)	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr (US gph)	863(228)
Maximum fuel inlet restriction <sup>1</sup> , kPa (in Hg)	26(7.7)
Maximum fuel inlet temperature, °C (°F)	70(158)
Maximum Allowable Head on Injector Return Line, kPa (in Hg)	34(10)

<sup>1</sup>Maximum fuel inlet restriction with clean filter

<b>Air</b>	<b>Standby</b>	<b>Prime</b>
Combustion air, scfm (m <sup>3</sup> /min)	4809(136)	4738(134)
Maximum air cleaner restriction, kPa (in H <sub>2</sub> O)	3.7-6.2(15-25)	

<b>Exhaust</b>		
Exhaust flow at set rated load, CFM (m <sup>3</sup> /min)	12514(354)	12140(343)
Exhaust temperature, °C (°F)	504(939)	492(917)
Maximum back pressure, kPa (in H <sub>2</sub> O)	10.1(40.6)	

### Enhanced High Ambient Air Temperature Radiator Cooling System

Ambient design, °C ( °F)	50(122)	
Fan load, kWm (HP)	42(56.3)	
Coolant capacity (with radiator), L (US gal)	337.6(89.2)	
Cooling system air flow, m <sup>3</sup> /s (scfm)	26.7(56568)	
Total heat radiated to room <sup>2</sup> , MJ/min (Btu/min)	16.84(15957)	
Total heat rejection <sup>3</sup> , MJ/min (Btu/min)	80.9(76694)	74.8(70927)
Maximum cooling air flow static restriction, in H <sub>2</sub> O	0.5	

<sup>2</sup> Total heat radiated to room includes engine radiated heat to ambient and alternator radiated heat to ambient,not include exhaust radiated heat to ambient

<sup>3</sup> Total heat rejection includes jacket water circuit, aftercooler circuit,fuel circuit and radiated heat to ambient(Engine ,alternator),not include exhaust radiated heat to ambient.

<b>Weights<sup>4</sup></b>	
Unit dry weight, kgs	12970
Unit wet weight, kgs	13432

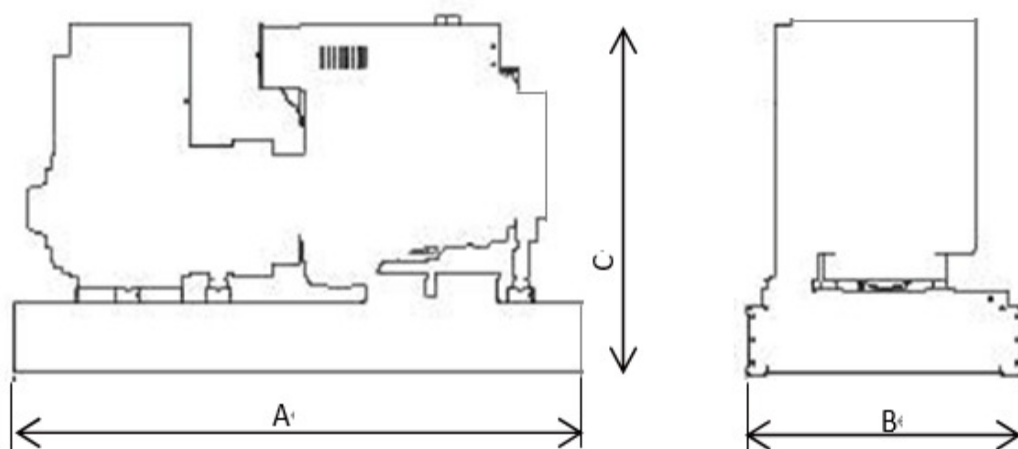
<sup>4</sup>Weights represent a set with HV standard features. See outline drawing for weights of other configurations.

<b>Dimensions<sup>5</sup></b>	<b>Length(A)</b>	<b>Width(B)</b>	<b>Height(C)</b>
Open set dimensions(Enhanced High Ambient Air Temperature Cooling System) mm	5839	2235	2576

<sup>5</sup>Dimensions didn't including isolator. See outline drawing for detail.

### Genset outline

Open 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 <sup>6</sup>	Winding No.	Alternator	Voltage
Wye, 3-phase	125/105	S/P	312	S7L1D-H41	380-440V
Wye, 3-phase	125/105	S/P	83	S9H1D-B41	10500-11000V

<sup>6</sup> Standby (S) and 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

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

### Single phase output

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

**For more information contact your local Cummins distributor**

