

## Generator set data sheet



**Model:** C1250 D2R  
**Fuel type:** Diesel  
**Document No.:** EMERD-5882-EN

<b>Fuel consumption 50 Hz</b>	<b>Standby</b>				<b>Prime</b>			
	<b>kVA (kW)</b>				<b>kVA (kW)</b>			
<b>Ratings</b>	1400 (1120)				1258 (1006)			
<b>Load</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>
<b>L/hr</b>	83	153	221	293	76	139	199	261

<b>Fuel consumption 60 Hz</b>	<b>Standby</b>				<b>Prime</b>			
	<b>kVA (kW)</b>				<b>kVA (kW)</b>			
<b>Ratings</b>	1588 (1270)				1400 (1120)			
<b>Load</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>
<b>L/hr</b>	104	173	248	330	89	157	222	291

<b>Engine</b>	<b>Standby rating</b>	<b>Prime rating</b>
Gross engine power output 50 Hz/60 Hz, kWm	1227 / 1380	1097 / 1220
BMEP at set rated load 50 Hz/60 Hz, kPa	1951 / 1827	1744 / 1620
Engine manufacturer	Cummins	
Engine model	KTA50 G3	
Configuration	4 cycle, 60 ° vee, 16 cylinder	
Aspiration	Turbo-charged and after-cooled	
Bore, mm	159	
Stroke, mm	159	
Rated speed 50 Hz/60 Hz, rpm	1500 / 1800	
Piston speed 50 Hz/60 Hz, m/s	7.9 / 9.5	
Compression ratio	13.9:1	
Lube oil capacity, L	178	
Overspeed limit 50 Hz/60Hz, rpm	1725 / 2070 ± 50	
Regenerative power 50 Hz/60 Hz, kW	116 / 168	
Governor type	Elec.	

<b>Fuel flow</b>	
Maximum fuel flow, L/hr	625
Maximum fuel inlet restriction, mm Hg	203
Maximum fuel inlet temperature, °C	70

<b>Air</b>		
Combustion air 50 Hz/60 Hz, m <sup>3</sup> /min	104.8 / 110.4	96.3 / 104.8
Maximum air cleaner restriction, kPa	6.2	

<b>Exhaust</b>		
Exhaust gas flow at set rated load 50 Hz/60 Hz, m <sup>3</sup> /min	240.7 / 257.7	223.7 / 237.8
Exhaust gas temperature 50 Hz/60 Hz, °C	525 / 475	520 / 460
Maximum exhaust back pressure, kPa	6.7	

<b>Standard set-mounted radiator cooling</b>	<b>Standby rating</b>	<b>Prime rating</b>
Ambient design, °C	50	
Fan load, kWm 1500 rpm/1800 rpm	17.6 / 30.3	
Coolant capacity (with radiator), L	470	
Cooling system air flow, m³/sec 1500 rpm/1800 rpm	16.45 / 20.84	
Total heat rejection, Btu/min 1500 rpm/1800 rpm	51000 / 44000	44000 / 38500

### Weights\*

Unit dry weight kgs	16879
Unit wet weight kgs	18132

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

### Dimensions

	<b>Length</b>	<b>Width</b>	<b>Height</b>
Enclosed set standard dimensions, m	6.058	2.438	2.591

### Alternator data

<b>Alternator</b>	<b>Connection</b>	<b>Temp rise °C</b>	<b>Duty</b>	<b>Voltage 50 Hz, L-L</b>	<b>Voltage 60 Hz, L-L</b>
P7B	Series Star, 3Ph	150/40 / 125/40	Standby/Prime	380, 400, 415, 440	416, 440, 480

### Transient performance class

50 Hz: G3; 60 Hz: G2

Details of voltage and frequency performance data available upon request

### Noise data 50Hz

Enclosed set sound power level, LwA	113 dB(A)
Enclosed set sound pressure level, dB(A) @ 75% prime, 7m	83 dB(A)
Enclosed set sound pressure level, dB(A) @ 75% prime, 1m	92 dB(A)

### Ratings definitions

<b>Emergency standby power (ESP):</b>	<b>Limited-time running power (LTP):</b>	<b>Prime power (PRP):</b>	<b>Base load (continuous) power (COP):</b>
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) is 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

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

#### See your distributor for more information.

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